

Assessing the Implementation of Republic Act 9184 in the Procurement Stages of Fishery Post-Harvest Infrastructure Facilities in the Philippines

John Ray G. Dante*, Guillermo O. Bernabe

Institute of Open and Distance Education, Polytechnic University of the Philippines - Open University System,
Manila, Philippines

*Corresponding Author Email: jrdante.gs@gmail.com

Date received: August 26, 2024

Date revised: September 12, 2024

Date accepted: September 21, 2024

Originality: 95%

Grammarly Score: 99%

Similarity: 5%

Recommended citation:

Dante, J. R., & Bernabe, G. (2024). Assessing the implementation of Republic Act 9184 in the procurement stages of fishery post-harvest infrastructure facilities in the Philippines. *Journal of Interdisciplinary Perspectives*, 2(10), 299-313. <https://doi.org/10.69569/jip.2024.0442>

Abstract. In line with the Philippine government's thrust to reduce post-harvest fish losses, properly implementing Republic Act (RA) 9184 is important for ensuring timely and systematic procurement of government fishery post-harvest infrastructure facilities. This quantitative, descriptive-comparative study analyzes the current implementation of RA 9184 in the procurement of said facilities, focusing on procurement stages: pre-procurement (procurement planning), actual procurement, and post-procurement (procurement monitoring). It also examines differences in the respondents' assessment of procurement stages when grouped according to demographic and professional profiles. The respondents from this study included 70 procurement personnel from fishery-related government agencies, selected through purposive sampling. Survey questionnaires, validated by experts, were administered and collected online via Google Forms and analyzed using descriptive and nonparametric statistical tools. Respondents rated the actual procurement stage as "Fully Implemented," while the pre-procurement (procurement planning) and post-procurement (procurement monitoring) stages were rated as "Moderately Implemented." Differences in perceptions were found based on age and agency affiliation for the pre-procurement (procurement planning) and actual procurement stages and on age, agency affiliation, and roles for the post-procurement (procurement monitoring) stage. The findings recommend creating an action plan focused on establishing a uniform procurement policy, adopting technological improvements, strengthening procurement monitoring, and professionalizing and evaluating procurement personnel to ensure procurement efficiency.

Keywords: Fishery post-harvest infrastructure facilities; Procurement personnel; Procurement stages; Public procurement; Republic Act 9184.

1.0 Introduction

The Philippine fisheries sector plays a vital role in the livelihood of millions of Filipinos. According to the Bureau of Fisheries and Aquatic Resources (BFAR, 2023), the Philippine Statistics Authority (PSA) reported a fish production of approximately 4.34 million metric tons (MT) in 2022. This figure represents a 2.16% increase from 2021 and exceeds the Department of Agriculture's (DA) target by 0.16%. Nearly 2 million Filipino fisherfolks depend on the fisheries industry for their livelihood and foreign exchange earnings, making it a vital contributor to the Philippine economy (Tahiluddin & Terzi, 2021).

In response to the sector's importance, the Philippine Development Plan 2023–2028 by the National Economic and Development Authority (NEDA) outlined the government's investment in agri-fisheries infrastructure to increase productivity and lessen its adverse environmental effects. Other infrastructures, such as roads, bridges, ports, and airports, are also critical for national economic growth by connecting markets and enabling efficient distribution of goods and services (Gonzales, 2023). For Fiscal Year (FY) 2024, the government has allocated PhP1.510 trillion for public infrastructure, aiming to maintain an annual infrastructure investment at 5–6% of Gross Domestic Product (GDP) from 2023–2028 (Piatos, 2024). Establishing post-harvest infrastructure facilities is essential for supporting the fisheries sector. The BFAR's Comprehensive National Fisheries Industry Development Plan (CNFIDP) 2021–2025 notes that the Philippines has various fish capture facilities, including regional fish port complexes managed by the Philippine Fisheries Development Authority (PFDA), private entities, and local government units (LGUs). However, inadequate fisheries infrastructure has led to 25–40% of fish spoilage, resulting in significant income losses (BFAR, 2023).

To address these issues, President Ferdinand R. Marcos, Jr. prioritized constructing new fish ports across 11 coastal provinces, establishing cold storage facilities, and rehabilitating 20 municipal fish ports. While the international advocacy group Oceana has praised this initiative, they have also pointed out that the policy needs to address the realities faced by artisanal fishermen, who have had to adapt due to the lack of post-harvest services in their communities (Baclig, 2023). To prevent or mitigate lost opportunities brought by post-harvest fish losses, timely and systematic procurement of these infrastructure facilities is needed. The Republic Act (RA) 9184, known as the "Government Procurement Reform Act (GPPRA) of 2003," and its Revised Implementing Rules and Regulations (RIRR) govern the procurement process for government projects. The statute aims to provide rules necessary to modernize, standardize, and oversee the Philippine government's procurement procedures (Government Procurement Policy Board-Technical Support Office [GPPB-TSO], 2022). Accordingly, this will ensure fair and efficient public procurement to support the fishery sector's growth and sustainability.

Thus, the study aims to analyze the current implementation of RA 9184 in procuring government fishery post-harvest infrastructure facilities in the Philippines. The analysis will focus on the procurement stages: pre-procurement (procurement planning), actual procurement, and post-procurement (procurement monitoring), and compare the respondents' assessment of the procurement stages when grouped according to demographic and professional profiles. Finally, based on the findings that may be derived, a proposed action plan will be crafted to address deficiencies and enhance the effectiveness of the procurement process.

2.0 Methodology

2.1 Research Design

The study employed a quantitative research design incorporating descriptive and comparative approaches. It aims to statistically assess the current implementation of RA 9184 in the procurement stages of government fishery post-harvest infrastructure facilities in the Philippines and profile procurement personnel using descriptive statistical tools such as mean, frequency, and percentage. In addition, a comparative approach was employed using the Kruskal-Wallis H test, a nonparametric statistical tool, to analyze the statistically significant differences between the implementation of RA 9184 and the procurement personnel profile. A survey, a data collection technique, was used to investigate.

2.2 Research Locale

The research was conducted in the Philippines, focusing on fishery-related agencies involved in procuring government fishery post-harvest infrastructure projects. It will analyze the current implementation of RA 9184 within this context. The study covered the PFDA Central Office (CO), the BFAR CO, and its 15 Regional Fisheries Offices (RFOs), totaling 17 agencies.

2.3 Research Participants

The study employs a purposive sampling technique. Nikolopoulou (2023) described purposive sampling as a non-probability sampling method where respondents are selected following the criteria needed for the sample. The researcher established these specific criteria: (1) these personnel must be current employees of the subject agencies, (2) these employees were incumbent procurement personnel at the time of the survey, and (3) these procurement personnel were tasked to procure government fishery post-harvest infrastructure facilities. There were 70

respondents, comprising the Chairperson, Vice-Chairperson, Members and/or Provisional Members, along with Heads and Members of the Technical Working Group (TWG) for infrastructure projects and the Secretariat, constituting the agencies' Bids and Awards Committee (BAC).

2.4 Research Instrument

The study used a self-made structured survey questionnaire created using Google Forms as the primary research instrument. The questionnaire was designed under the provisions of RA 9184 and its RIRR and GPPB's Agency Procurement Compliance and Performance Indicators (APCPI) tool. It comprised two sections: (1) collecting respondents' profiles—including age, sex, procurement-related training, experience and roles, actual unit assignment, and agency affiliation; and (2) assessing the implementation of RA 9184 in the procurement stages of government fishery post-harvest infrastructure facilities. The extent of implementation was measured using a 5-point Likert Scale. Five procurement experts, composed of procurement personnel from other agencies and GPPB-recognized trainers, validated the questionnaire, and its reliability was confirmed through a Cronbach's Alpha test, which yielded a value of 0.95, indicating excellent internal consistency.

2.5 Data Gathering Procedure

The researcher sought and obtained permission and endorsement from the heads of the PFDA and BFAR agencies by submitting formal request letters that included a survey link and detailed instructions. These requests were initially directed to their respective Records Offices. Upon approval by the heads of agencies, the BAC of BFAR CO forwarded the request to the BFAR RFOs. To ensure the success of data collection, the researcher conducted follow-ups using official contact numbers and email addresses, reinforcing the importance of timely and accurate responses. Google Forms was utilized as the survey platform, ensuring participants answered all required questions before submission. Following data collection, the researcher will systematically organize and summarize all responses. The collected data will then be subjected to accurate statistical analysis and a thorough evaluation within the designated time frame.

2.6 Ethical Considerations

The study strictly adhered to ethical guidelines, ensuring respect for respondents' rights, time, and privacy. The response data from the respondents was handled with utmost confidentiality and in full compliance with RA 10173 or the "Data Privacy Act of 2012." The survey was administered using Google Forms, allowing respondents to complete it conveniently. Participation was voluntary, and respondents were informed that they may decline to answer questions or withdraw from the survey at any time. All collected data were securely stored to safeguard participants' privacy. Furthermore, the researcher maintained recognizing and citing relevant research literature, upholding academic integrity, and acknowledging the contributions of existing studies.

3.0 Results and Discussion

3.1 Profile of the Respondents

Table 1 consolidates the frequency and percentage distribution of various aspects of the respondents' profiles. Out of 70 respondents, in terms of age, 15 respondents (21.43%) are aged 30 years and below, 23 (32.86%) are aged 31 to 40 years, 19 (27.14%) are aged 41 to 50 years, 8 (11.43%) are aged 51 to 60 years, and 5 (7.14%) are aged 61 years and above. This distribution shows that most respondents fall within the 31 to 40 age group. Regarding sex, 45 respondents (64.29%) are female, 24 (34.29%) are male, and 1 (1.45%) prefers not to disclose their gender, indicating a predominance of females among the respondents.

In terms of procurement-related seminars or training, 7 respondents (10.00%) attended none, 46 (65.71%) attended between 1 and 5, 12 (17.14%) attended between 6 and 10, and 5 (7.14%) attended 11 or more, suggesting that most respondents have attended between 1 and 5 seminars or training courses. Concerning years of experience in procurement, 44 respondents (62.86%) have 5 years or less of experience, 15 (21.43%) have 6 to 10 years, and 11 (15.71%) have over 11 years, indicating that a significant portion of respondents have limited experience in procurement. Regarding procurement roles, 33 respondents (47.14%) are in the Secretariat, 9 (12.86%) are in the TWG for Infrastructure projects, 17 (24.29%) are BAC Members/Provisional Members, 3 (4.29%) are BAC Vice Chairpersons, and 8 (11.43%) are BAC Chairpersons. This distribution shows that most respondents are from the Secretariat group.

Table 1. Frequency and percentage distribution of respondents' profile (n=70)

Respondents' Profile	Frequency	Percentage (%)
Age		
61 years old and above	5	7.14
51 to 60 years old	8	11.43
41 to 50 years old	19	27.14
31 to 40 years old	23	32.86
30 years old and below	15	21.43
Sex		
Male	24	34.29
Female	45	64.29
Prefer not to say	1	1.43
Number of seminars or trainings attended related to Procurement Law		
11 and above	5	7.14
6 to 10	12	17.14
1 to 5	46	65.71
0	7	10.00
Years of Experience in Procurement		
11 and above	11	15.71
6 to 10	15	21.43
5 and below	44	62.86
Procurement Roles		
BAC Chairperson	8	11.43
BAC Vice Chairperson	3	4.29
BAC Member/Provisional Member	17	24.29
TWG for Infrastructure projects	9	12.86
Secretariat	33	47.14
Actual Unit Assignment		
Finance Unit	8	11.43
Procurement Unit	15	21.43
IT Unit	1	1.43
Human Resource/Administrative Unit	4	5.71
Engineering Unit	1	1.43
General Services Unit	4	5.71
Legal Unit	1	1.43
Planning Unit	2	2.86
Other Units (Operations, Regulatory, Technical and other Offices)	34	48.57
Agency Affiliation		
PFDA CO	11	15.71
BFAR CO	6	8.57
BFAR Ilocos RFO	6	8.57
BFAR Cagayan Valley RFO	5	7.14
BFAR Central Luzon RFO	1	1.43
BFAR Calabarzon RFO	2	2.86
BFAR Mimaropa RFO	1	1.43
BFAR Bicol RFO	7	10.00
BFAR Western Visayas RFO	6	8.57
BFAR Central Visayas RFO	5	7.14
BFAR Eastern Visayas RFO	1	1.43
BFAR Zamboanga Peninsula RFO	2	2.86
BFAR Northern Mindanao RFO	5	7.14
BFAR Davao RFO	3	4.29
BFAR Soccsksargen RFO	1	1.43
BFAR Caraga RFO	3	4.29
BFAR Cordillera Administrative RFO	5	7.14

As for actual unit assignment, 34 respondents (48.57%) are assigned to Other Units (Operations, Regulatory, Technical, and other Offices), 15 (21.43%) to the Procurement Unit, 8 (11.43%) to the Finance Unit, 4 (5.71%) each to the Human Resource/Administrative and General Services Units, 2 (2.90%) to the Planning Unit and 1 (1.43%) each to the IT, Engineering, and Legal Units. The result indicates that most respondents are assigned to Other Units. Finally, concerning agency affiliation, the PFDA CO has 11 respondents (15.71%). The BFAR CO, Ilocos RFO, and Western Visayas RFO have 6 respondents (8.57%) each. The BFAR Cagayan Valley, Central Visayas, Northern Mindanao, and Cordillera Administrative RFOs have 5 respondents (7.14%) each, while the BFAR Bicol RFO has 7 respondents (10.00%). The remaining affiliations include the BFAR RFOs of Central Luzon, Mimaropa,

Eastern Visayas, and Soccsksargen with 1 respondent (1.43%) each, the BFAR RFOs of Calabarzon and Zamboanga Peninsula with 2 respondents (2.86%) each, and the BFAR RFOs of Davao and Caraga with 3 respondents (4.29%) each, showing that most respondents are affiliated with the PFDA CO.

3.2 Assessment on the Implementation of RA 9184 in the Procurement Stages of Government Fishery Post-Harvest Infrastructure Facilities in the Philippines

In terms of the Pre-Procurement Stage (Procurement Planning)

Table 2. Descriptives of the assessment on the implementation of RA 9184 in terms of the pre-procurement stage (procurement planning)

Indicators	Mean	Interpretation
1. The BAC Secretariat consolidates the Implementing Units' (IUs) Project Procurement Management Plan (PPMP), evaluated by the Budget Office, as per schedule.	4.33	Fully Implemented
2. The Procuring Entity implements the Early Procurement Activities (EPA) Policy.	4.03	Moderately Implemented
3. The BAC has enough TWG and full-time Secretariat members to support procurement activities.	3.89	Moderately Implemented
4. The BAC and/or IUs have guidelines ensuring that infrastructure projects to be procured are not underestimated or overestimated.	4.16	Moderately Implemented
5. The BAC and/or IUs guarantee that the Terms of Reference (TOR) and/or technical specifications of infrastructure projects to be bid out are clear and in order.	4.40	Fully Implemented
6. The BAC ensures that feasibility studies, surveys, designs, and government clearances, including the right-of-way acquisition, if any, are all secured prior to bidding and award of contract.	4.20	Fully Implemented
Grand Mean	4.17	Moderately Implemented
Legend: "Fully Implemented (4.20 – 5.00)", "Moderately Implemented (3.40 – 4.19)", "Somewhat Implemented (2.60 – 3.39)", "Slightly Implemented (1.80 – 2.59)", "Not Implemented (1.00 – 1.79)"		

Table 2 shows the respondents' assessment of RA 9184's implementation in procuring government fishery post-harvest infrastructure facilities during the pre-procurement stage. The consolidation of PPMPs by the BAC Secretariat (Indicator 1), the clarity of TOR and technical specifications (Indicator 5), and the completion of pre-bidding requirements (Indicator 6), have mean scores between 4.20 and 4.40, interpreted as "Fully Implemented." Other indicators have mean scores ranging from 3.89 to 4.16, indicating "Moderately Implemented." These include the implementation of the EPA Policy (Indicator 2), the adequacy of TWG and Secretariat support (Indicator 3), and the existence of guidelines for accurate cost estimates (Indicator 4).

The grand mean is 4.17, with the overall verbal interpretation of "Moderately Implemented." This suggests that while RA 9184 is generally well-implemented at the pre-procurement stage, improvements are needed in consistently applying the EPA Policy, ensuring enough staff to support procurement activities, and minimizing potential inaccuracies in project cost estimates.

These findings align with the recommendations from similar studies. The Department of Budget and Management (DBM) highlights that it is imperative to strengthen procurement processes across the bureaucracy, especially in government entities with high procurement volumes. It recommended that these Procuring Entities assign full-time staff to support BAC operations and other procurement activities. Furthermore, the DBM stresses that adopting the EPA Policy will expedite the procurement process and address issues such as underspending and low agency performance. On the other hand, the study by Iyog (2024) further recommends that the BAC regularly review previous procurement activities to identify areas for improvement and make continuous enhancements to the procurement process.

In terms of Actual Procurement Stage

Table 3 illustrates the respondents' assessment of RA 9184's implementation in procuring government fishery post-harvest infrastructure facilities during the actual procurement stage. The results show that most indicators are "Fully Implemented," with mean scores ranging from 4.26 to 4.77. These include adherence to the Approved Procurement Plan (APP) (Indicator 7), proper posting of the Invitation to Bid (ITB) (Indicator 8), the involvement of observers (Indicator 9), diligent verification of the winning bidder's past performance (Indicator 10), and the adoption of technological advancements (Indicator 12). However, among the indicators, the existence of a procurement complaints system and compliance with procedural requirements (Indicator 11) has a lower mean score of 3.99, interpreted as "Moderately Implemented."

Table 3. Descriptives of the assessment on the implementation of RA 9184 in terms of the actual procurement stage

Indicators	Mean	Interpretation
7. The BAC procures infrastructure projects based on the approved APP.	4.67	Fully Implemented
8. The BAC posts an ITB on the Procuring Entity's official website, PhilGEPS website, and any conspicuous places within the latter's premises.	4.77	Fully Implemented
9. The BAC invites observers like the Commission on Audit (COA), recognized professional groups, and accredited non-government organizations (NGOs) to attend procurement stages, as outlined in the RIRR.	4.54	Fully Implemented
10. The BAC TWG diligently verifies the winning bidder's past performance through its previous and existing clients or customers.	4.36	Fully Implemented
11. The Procuring Entity has an existing procurement complaints system and can comply with procedural requirements.	3.99	Moderately Implemented
12. The BAC adapts technological advancements, such as video conferencing and digital signatures, as appropriate.	4.26	Fully Implemented
Grand Mean	4.43	Fully Implemented

The grand mean is 4.43, with the overall verbal interpretation of "Fully Implemented." This result reflects a high level of compliance with RA 9184 during the actual procurement stage, with most processes being executed thoroughly. However, the findings suggest there is still potential for improvement, especially in the procurement complaints system and compliance with procedural requirements to guarantee that the law is followed consistently and comprehensively throughout all aspects of actual procurement.

The moderately implemented procurement complaints system and adherence to procedural requirements indicate that, despite the existence of mechanisms, there are difficulties in ensuring their utilization. This is consistent with the findings of Castañeda et al. (2023), whose study emphasizes that while legal provisions exist to prosecute collusion in procurement, establishing such cases often requires evidence beyond circumstantial claims. Furthermore, in the context of public infrastructure, a study by Gutierrez et al. (2019) identifies navigating the regulatory landscape as one of the biggest challenges procurement professionals face. They discover that the sudden implementation of new policies and requirements frequently impacts the bidding process.

In terms of the Post-Procurement Stage (Procurement Monitoring)

Table 4. Descriptives of the assessment on the implementation of RA 9184 in terms of the post-procurement stage (procurement monitoring)

Indicators	Mean	Interpretation
13. The Procuring Entity has a system for regularly evaluating the performance of procurement personnel.	3.73	Moderately Implemented
14. The BAC Secretariat has a system for keeping and maintaining procurement records.	4.30	Fully Implemented
15. The Agency has an established Internal Audit Unit (IAU) performing specialized procurement audits.	3.80	Moderately Implemented
16. An approved Procurement Monitoring Report (PMR), submitted to the GPPB on a semestral basis, is posted on the official website and within the premises of the Procuring Entity.	4.14	Moderately Implemented
17. An ad hoc Committee is created for the assessment of APCPI.	3.31	Somewhat Implemented
18. The Procuring Entity has a mechanism to streamline the approval and review of the procurement process.	3.97	Moderately Implemented
Grand Mean	3.88	Moderately Implemented

Table 4 presents the respondents' assessment of RA 9184's implementation in procuring government fishery post-harvest infrastructure facilities during the post-procurement stage. The BAC Secretariat's system for keeping and maintaining procurement records (Indicator 14) stands out with the highest mean score of 4.30, verbally interpreted as "Fully Implemented." Other indicators, such as the evaluation of procurement personnel performance (Indicator 13), the establishment of an IAU for specialized procurement audits (Indicator 15), the proper posting of an approved PMR (Indicator 16), and the mechanism to streamline the approval and review of the procurement process (Indicator 18), show mean scores ranging from 3.73 to 4.14, which are interpreted as "Moderately Implemented." Notably, the creation of an ad hoc Committee for APCPI assessment (Indicator 17) has the lowest mean score of 3.31, categorized as "Somewhat Implemented."

The grand mean is 3.88, with the overall verbal interpretation of "Moderately Implemented." The findings suggest that the evaluated agencies effectively manage their record-keeping practices. However, there is potential for

additional refinement and efficiency improvements, such as evaluating procurement personnel performance, establishing IAU for specialized procurement audits, posting an approved PMR, and streamlining the approval and review of the procurement process – moreover, the creation of an ad hoc Committee for purposes of APCPI assessment.

These findings are consistent and further support previous studies. Roy et al. (2023) explore bibliometric analysis to provide valuable perceptions into personnel performance management in the public sector. Their study underscores the importance of performance management systems in improving organizational outcomes through accountability and continuous improvement. Their study further reveals that performance management practices are crucial in shaping organizational performance as they help systematically assess and enhance employee performance. Moreover, Samuels et al. (2024) investigate the impact of internal auditing on public sector procurement. Their findings demonstrate that internal audits ensure legal compliance, prevent corruption and identify inefficiencies. They further stress that regular audits improve procurement performance by fostering transparency, accountability, and better internal controls.

In addition, according to the World Bank et al. (2023), the GPPB-TSO uses data from the PMR and the APCPI to create evidence-based policy recommendations to refine procurement rules and systems. Regularly submitting and publicly posting an approved PMR on a semestral basis plays an essential role in transparency. PMRs and APCPIs are also valuable for identifying inefficiencies and bottlenecks, enabling government agencies to implement corrective actions to improve procurement performance while adhering to privacy regulations to safeguard confidential data.

3.3 Difference in the Assessment of the Implementation of RA 9184 in the Procurement Stages When Grouped by Profile

In terms of the Pre-Procurement Stage (Procurement Planning)

Table 5 exhibits the differences of the respondents' assessment in the pre-procurement stage when grouped according to profile. Using the Kruskal-Wallis H test, significant differences were determined in specific indicators. For agency affiliation, indicator 2 – "The Procuring Entity implements the EPA Policy." – and for age, indicator 4 – "The BAC and/or IUs have guidelines ensuring that infrastructure projects to be procured are not underestimated or overestimated." – were significant, with p-values of 0.039 and 0.027, respectively, both below $\alpha = 0.05$, leading to the rejection of the null hypothesis. On the other hand, other indicators pertaining to age and agency affiliation were insignificant, with p-values exceeding $\alpha = 0.05$. Additionally, indicators concerning sex, procurement-related seminars or training, years of experience and roles, and actual unit assignments were also insignificant, with p-values greater than $\alpha = 0.05$, indicating failure to reject the null hypothesis.

The results indicate that most pre-procurement indicators are perceived similarly across age groups, with one notable exception, i.e., guidelines on accurate cost estimation, where significant differences emerge. Dimand et al. (2023) stress that age plays a crucial role in procurement performance and is associated with public procurement experts' capacity for creativity and efficient application of standards. Moreover, Ekung et al. (2021) identify factors such as inaccurate cost information as one of the primary contributors to cost overruns in construction projects, emphasizing the importance of meticulous planning in ensuring cost-effective project outcomes in the procurement sector. Interestingly, the study by Bijl (2020) reveals that procurement professionals generally report no gender-based differences in their roles. Likewise, Williams (2024) suggests that while gender considerations are often overlooked in procurement planning in many African countries, there is room for more gender-responsive practices, even without specific mandates.

In addition, the impact of the number of seminars or training attended on the application of procurement law knowledge was not found to have significant effects. This suggests that the practical application of procurement law is not heavily influenced by formal training, at least in the pre-procurement phase. Still, Changelima and Mdee (2022) argue that procurement skills can positively impact organizational performance, while Mebrate and Shumet (2024) highlight the importance of procurement planning and staff competency in improving outcomes. The absence of significant differences across experience levels indicates that procurement practices are applied

consistently, regardless of tenure. This contrasts with the study by Dagohoy et al. (2023), who found that more experienced personnel tend to have better awareness and understanding of procurement planning.

Table 5. Analysis of the differences in the respondents' assessment in the pre-procurement stage when grouped according to profile

Indicators	Profile	p-value	Remarks	Decision
1. The BAC Secretariat consolidates the IUs' PPMP, evaluated by the Budget Office, as per schedule.	Age	0.980	Not Significant	Failed to reject H ₀
	Sex	0.626	Not Significant	Failed to reject H ₀
	Seminars or training attended	0.674	Not Significant	Failed to reject H ₀
	Years of experience	0.552	Not Significant	Failed to reject H ₀
	Procurement roles	0.062	Not Significant	Failed to reject H ₀
	Actual unit assignment	0.666	Not Significant	Failed to reject H ₀
2. The Procuring Entity implements the EPA Policy.	Agency affiliation	0.089	Not Significant	Failed to reject H ₀
	Age	0.401	Not Significant	Failed to reject H ₀
	Sex	0.839	Not Significant	Failed to reject H ₀
	Seminars or training attended	0.317	Not Significant	Failed to reject H ₀
	Years of experience	0.167	Not Significant	Failed to reject H ₀
	Procurement roles	0.512	Not Significant	Failed to reject H ₀
3. The BAC has enough TWG and full-time Secretariat members to support procurement activities.	Actual unit assignment	0.349	Not Significant	Failed to reject H ₀
	Agency affiliation	0.039	Significant	Reject H ₀
	Age	0.116	Not Significant	Failed to reject H ₀
	Sex	0.470	Not Significant	Failed to reject H ₀
	Seminars or training attended	0.308	Not Significant	Failed to reject H ₀
	Years of experience	0.846	Not Significant	Failed to reject H ₀
4. The BAC and/or IUs have guidelines ensuring that infrastructure projects to be procured are not underestimated or overestimated.	Procurement roles	0.201	Not Significant	Failed to reject H ₀
	Actual unit assignment	0.400	Not Significant	Failed to reject H ₀
	Agency affiliation	0.201	Not Significant	Failed to reject H ₀
	Age	0.027	Significant	Reject H ₀
	Sex	0.376	Not Significant	Failed to reject H ₀
	Seminars or training attended	0.778	Not Significant	Failed to reject H ₀
5. The BAC and/or IUs guarantee that the TOR and/or technical specifications of infrastructure projects to be bid out are clear and in order.	Years of experience	0.948	Not Significant	Failed to reject H ₀
	Procurement roles	0.873	Not Significant	Failed to reject H ₀
	Actual unit assignment	0.196	Not Significant	Failed to reject H ₀
	Agency affiliation	0.596	Not Significant	Failed to reject H ₀
	Age	0.485	Not Significant	Failed to reject H ₀
	Sex	0.697	Not Significant	Failed to reject H ₀
6. The BAC ensures that feasibility studies, surveys, designs, and government clearances, including the right-of-way acquisition, if any, are all secured prior to bidding and award of contract.	Seminars or training attended	0.708	Not Significant	Failed to reject H ₀
	Years of experience	0.981	Not Significant	Failed to reject H ₀
	Procurement roles	0.279	Not Significant	Failed to reject H ₀
	Actual unit assignment	0.550	Not Significant	Failed to reject H ₀
	Agency affiliation	0.168	Not Significant	Failed to reject H ₀
	Age	0.219	Not Significant	Failed to reject H ₀
	Sex	0.874	Not Significant	Failed to reject H ₀
	Seminars or training attended	0.818	Not Significant	Failed to reject H ₀
	Years of experience	0.473	Not Significant	Failed to reject H ₀
	Procurement roles	0.740	Not Significant	Failed to reject H ₀
	Actual unit assignment	0.341	Not Significant	Failed to reject H ₀
	Agency affiliation	0.746	Not Significant	Failed to reject H ₀

Note: If the p-value is less than or equal to the level of significance ($\alpha = 0.05$), reject the null hypothesis (H₀); otherwise, fail to reject H₀.

Furthermore, this observation among procurement personnel indicates that perceptions remain consistent across different roles. According to Mchopa (2020), as cited by Jama and Mohamud (2024), to uphold and improve this consistency and attain optimal procurement performance, it is essential to guarantee the proficient and successful implementation of procurement duties while upholding good governance and ethical professionalism. Similarly, Castañeda et al. (2023) also emphasize that well-structured procurement organizations enhance process quality, further highlighting the importance of organizational structure.

Regarding perceptions of procurement responsibilities across different unit assignments, the findings reflect the standardized rules mandated by the 2016 RIRR of RA 9184. Personnel across units take their legal responsibilities seriously, indicating a high degree of uniformity in how the rules are applied. However, there are variations in how the EPA Policy is implemented, depending on agency affiliation. This is significant, as Wang et al. (2020) argue that effective procurement involves both fiscal responsibility and strategic management. When done

correctly, strategic implementation, like EPA policies, can enhance procurement efficiency by optimizing resource allocation and accelerating processes.

In terms of Actual Procurement Stage

Table 6. Analysis of the differences in the respondents' assessment in the actual procurement stage when grouped according to profile

Indicators	Profile	p-value	Remarks	Decision
7. The BAC procures infrastructure projects based on the approved APP.	Age	0.338	Not Significant	Failed to reject H_0
	Sex	0.812	Not Significant	Failed to reject H_0
	Seminars or training attended	0.425	Not Significant	Failed to reject H_0
	Years of experience	0.830	Not Significant	Failed to reject H_0
	Procurement roles	0.540	Not Significant	Failed to reject H_0
	Actual unit assignment	0.339	Not Significant	Failed to reject H_0
	Agency affiliation	0.400	Not Significant	Failed to reject H_0
8. The BAC posts an ITB on the Procuring Entity's official website, PhilGEPS website and any conspicuous places within the latter's premises.	Age	0.788	Not Significant	Failed to reject H_0
	Sex	0.142	Not Significant	Failed to reject H_0
	Seminars or training attended	0.196	Not Significant	Failed to reject H_0
	Years of experience	0.302	Not Significant	Failed to reject H_0
	Procurement roles	0.613	Not Significant	Failed to reject H_0
	Actual unit assignment	0.768	Not Significant	Failed to reject H_0
	Agency affiliation	0.154	Not Significant	Failed to reject H_0
9. The BAC invites observers like the COA, recognized professional groups, and accredited NGOs to attend procurement stages, as outlined in the RIRR.	Age	0.811	Not Significant	Failed to reject H_0
	Sex	0.498	Not Significant	Failed to reject H_0
	Seminars or training attended	0.077	Not Significant	Failed to reject H_0
	Years of experience	0.066	Not Significant	Failed to reject H_0
	Procurement roles	0.327	Not Significant	Failed to reject H_0
	Actual unit assignment	0.872	Not Significant	Failed to reject H_0
	Agency affiliation	0.007	Significant	Reject H_0
10. The BAC TWG diligently verifies the winning bidder's past performance through its previous and existing clients or customers.	Age	0.711	Not Significant	Failed to reject H_0
	Sex	0.662	Not Significant	Failed to reject H_0
	Seminars or training attended	0.221	Not Significant	Failed to reject H_0
	Years of experience	0.814	Not Significant	Failed to reject H_0
	Procurement roles	0.320	Not Significant	Failed to reject H_0
	Actual unit assignment	0.698	Not Significant	Failed to reject H_0
	Agency affiliation	0.204	Not Significant	Failed to reject H_0
11. The Procuring Entity has an existing procurement complaints system and can comply with procedural requirements.	Age	0.081	Not Significant	Failed to reject H_0
	Sex	0.985	Not Significant	Failed to reject H_0
	Seminars or training attended	0.183	Not Significant	Failed to reject H_0
	Years of experience	0.262	Not Significant	Failed to reject H_0
	Procurement roles	0.737	Not Significant	Failed to reject H_0
	Actual unit assignment	0.373	Not Significant	Failed to reject H_0
	Agency affiliation	0.125	Not Significant	Failed to reject H_0
12. The BAC adapts technological advancements such as video conferencing and digital signatures, as appropriate.	Age	0.003	Significant	Reject H_0
	Sex	0.713	Not Significant	Failed to reject H_0
	Seminars or training attended	0.692	Not Significant	Failed to reject H_0
	Years of experience	0.988	Not Significant	Failed to reject H_0
	Procurement roles	0.231	Not Significant	Failed to reject H_0
	Actual unit assignment	0.408	Not Significant	Failed to reject H_0
	Agency affiliation	0.018	Significant	Reject H_0

Table 6 illustrates the differences in the respondents' assessment in the actual procurement stage when grouped according to profile. Using the Kruskal-Wallis H test, significant differences were determined in specific indicators. Regarding agency affiliation, indicator 9—"The BAC invites observers like the COA, recognized professional groups, and accredited NGOs to attend procurement stages, as outlined in the RIRR."—was significant with a p-value of 0.007. Likewise, regarding age and agency affiliation, indicator 12—"The BAC adapts technological advancements such as video conferencing and digital signatures, as appropriate."—showed significance, with p-values of 0.003 and 0.018, respectively. These p-values are below $\alpha = 0.05$, leading to the rejection of the null hypothesis. On the other hand, other indicators about age and agency affiliation were insignificant, with p-values exceeding $\alpha = 0.05$. Moreover, indicators related to sex, procurement-related seminars or training, years of experience and roles, and actual unit assignment were also insignificant, with p-values greater than $\alpha = 0.05$, indicating failure to reject the null hypothesis.

The study's findings on procurement processes show several consistencies with existing research. This finding is consistent with previous research. According to Freeman et al. (2020), older individuals may exhibit "technophobia" and struggle with technology because they adapt to it differently and at a slower pace than younger adults. This disparity in technology adoption across age groups could explain the differing perceptions of technological advancements in procurement processes. The results also suggest that there is no perceptual difference based on the respondents' sex in the actual procurement process. The findings align with Bijl's (2020) study, which indicates that any observed differences in procurement are more likely due to individual differences rather than gender.

Moreover, the results indicate that procurement personnel with varying levels of training, such as the number of seminars or training sessions attended, similarly apply their knowledge of procurement law in the actual procurement process. However, the significance of training cannot be overlooked. Adera and Senelwa (2019) emphasize that comprehensive training significantly enhances the implementation of procurement activities in public institutions in Kenya, advocating for more significant investment in employee training to improve skills, competency, and proficiency. Similarly, Dadzie et al. (2024) highlight the importance of training interventions in improving procurement procedures, ultimately enhancing the overall performance of organizations.

The absence of statistical significance suggests that procurement personnel, regardless of their experience level, follow similar practices and procedures in the actual procurement process. Likewise, Dagohoy et al. (2023) highlight that in areas such as post-qualification and contract awarding—both part of the actual procurement process—the relationship between years of service and awareness was not statistically significant. This implies that experience alone does not necessarily improve awareness or proficiency in these specific areas of procurement procedures.

Furthermore, the findings suggest a clear understanding of expectations across procurement roles and unit assignments, specifically in the procurement process. This consensus among procurement personnel indicates consistent perceptions across roles. For instance, the study by Duyan et al. (2020) found that procurement personnel in the Kalinga Provincial Government were highly aware of the provisions of RA 9184 and its RIRR. The greatest awareness was evident in areas such as the functions of the BAC. This reflects that designated procurement personnel, regardless of their unit assignment within the agency, recognize their lawful responsibilities and embody their seriousness with their "jury duty" procurement assignments.

In addition, the results indicate that while certain aspects of the actual procurement stage are consistent across agencies, significant differences exist in how agencies involve observers and implement technological adoptions. Related studies support the need for enhanced transparency and efficiency in procurement, yielding similar outcomes. Castañeda et al. (2023) and Vah (2023) recommend increasing the involvement of observers from Civil Society Groups (CSGs), NGOs, People's Organizations (POs), and watchdogs to improve transparency in the bidding process. On the other hand, Ittelson (2023) highlights that adopting video conferencing has significantly enhanced remote collaboration and operational efficiency, allowing organizations to maintain productivity and adapt to modern work environments. The Cybersecurity and Infrastructure Security Agency (CISA, 2021) also advocates for using digital signatures to enhance the security and integrity of digital transactions, which is crucial for fostering trust and efficiency in modern digital communications. Gabiana et al. (2023) further argue that Procuring Entities should adopt digital approvals to enhance security and accommodate the busy schedules of the approving officers. These studies support the findings by emphasizing the importance of increased observer involvement and technological advancements in promoting transparency and efficiency during the procurement stage.

In terms of the Post-Procurement Stage (Procurement Monitoring)

Table 7 presents the differences in the respondents' assessment in the post-procurement stage when grouped according to profile. The Kruskal-Wallis H test identified significant differences for specific indicators. For age, indicator 13—"The Procuring Entity has a system for regularly evaluating the performance of procurement personnel."—was significant, with a p-value of 0.003. Similarly, for procurement roles, indicator 17—"An ad hoc committee is created for the assessment of APCPI."—was significant, with a p-value of 0.007. Both p-values fall below $\alpha = 0.05$, leading to the rejection of the null hypothesis. Additionally, for agency affiliation, indicator 14—

"The BAC Secretariat has a system for keeping and maintaining procurement records." – and indicator 16 – "An approved PMR, submitted to the GPPB on a semestral basis, is posted on the official website and within the premises of the Procuring Entity." – were significant with p-values of 0.042 and 0.009, respectively. These findings also result in rejecting the null hypothesis.

Table 7. Analysis of the differences in the respondents' assessment in the post-procurement stage when grouped according to profile

Indicators	Profile	p-value	Remarks	Decision
13. The Procuring Entity has a system for regularly evaluating the performance of procurement personnel.	Age	0.003	Significant	Reject H_0
	Sex	0.959	Not Significant	Failed to reject H_0
	Seminars or training attended	0.703	Not Significant	Failed to reject H_0
	Years of experience	0.375	Not Significant	Failed to reject H_0
	Procurement roles	0.495	Not Significant	Failed to reject H_0
	Actual unit assignment	0.281	Not Significant	Failed to reject H_0
14. The BAC Secretariat has a system for keeping and maintaining procurement records.	Agency affiliation	0.382	Not Significant	Failed to reject H_0
	Age	0.124	Not Significant	Failed to reject H_0
	Sex	0.654	Not Significant	Failed to reject H_0
	Seminars or training attended	0.795	Not Significant	Failed to reject H_0
	Years of experience	0.689	Not Significant	Failed to reject H_0
	Procurement roles	0.052	Not Significant	Failed to reject H_0
15. The Agency has an established IAU performing specialized procurement audits.	Actual unit assignment	0.517	Not Significant	Failed to reject H_0
	Agency affiliation	0.042	Significant	Reject H_0
	Age	0.258	Not Significant	Failed to reject H_0
	Sex	0.558	Not Significant	Failed to reject H_0
	Seminars or training attended	0.744	Not Significant	Failed to reject H_0
	Years of experience	0.716	Not Significant	Failed to reject H_0
16. An approved PMR, submitted to the GPPB on a semestral basis, is posted on the official website and within the premises of the Procuring Entity.	Procurement roles	0.827	Not Significant	Failed to reject H_0
	Actual unit assignment	0.600	Not Significant	Failed to reject H_0
	Agency affiliation	0.113	Not Significant	Failed to reject H_0
	Age	0.787	Not Significant	Failed to reject H_0
	Sex	0.676	Not Significant	Failed to reject H_0
	Seminars or training attended	0.875	Not Significant	Failed to reject H_0
17. An ad hoc Committee is created for the assessment of APCPI.	Years of experience	0.578	Not Significant	Failed to reject H_0
	Procurement roles	0.130	Not Significant	Failed to reject H_0
	Actual unit assignment	0.763	Not Significant	Failed to reject H_0
	Agency affiliation	0.009	Significant	Reject H_0
	Age	0.291	Not Significant	Failed to reject H_0
	Sex	0.178	Not Significant	Failed to reject H_0
18. The Procuring Entity has a mechanism to streamline the approval and review of the procurement process.	Seminars or training attended	0.158	Not Significant	Failed to reject H_0
	Years of experience	0.160	Not Significant	Failed to reject H_0
	Procurement roles	0.007	Significant	Reject H_0
	Actual unit assignment	0.424	Not Significant	Failed to reject H_0
	Agency affiliation	0.332	Not Significant	Failed to reject H_0
	Age	0.871	Not Significant	Failed to reject H_0
	Sex	0.490	Not Significant	Failed to reject H_0
	Seminars or training attended	0.434	Not Significant	Failed to reject H_0
	Years of experience	0.224	Not Significant	Failed to reject H_0
	Procurement roles	0.125	Not Significant	Failed to reject H_0
	Actual unit assignment	0.344	Not Significant	Failed to reject H_0
	Agency affiliation	0.366	Not Significant	Failed to reject H_0

Contrastingly, indicators related to age, procurement roles, and agency affiliation showed no significant differences, with p-values exceeding $\alpha = 0.05$, indicating failure to reject the null hypothesis. This pattern extended to variables such as sex, procurement-related seminars or training, years of experience, and actual unit assignments, all of which were insignificant. These results suggest that, unlike the significant indicators, these factors do not significantly influence perceptions of the post-procurement process.

The findings reveal that particular demographic and professional profiles impact perceptions of post-procurement processes. For instance, age's impact on procurement personnel's evaluation systems aligns with Dimand et al. (2023), who found that experienced professionals contribute significantly to reliable procurement outcomes due to their nuanced understanding. Roy et al. (2023) support this finding by highlighting the role of performance management systems in enhancing organizational outcomes and accountability. Conversely, gender differences

did not affect post-procurement outcomes, which is consistent with Bijl (2020), who emphasizes that individual differences rather than gender are more influential in procurement results.

The lack of significant differences in procurement knowledge based on seminar or training attendance aligns with the studies by Adera and Senelwa (2019) and Dadzie et al. (2024), suggesting that while training is essential, it may not significantly alter procurement practices. Similarly, the insignificance of years of experience affecting perceptions of post-procurement processes supports the study of Dimand et al. (2023), indicating that experience does not always translate to different perceptions.

Significant differences in the creation of ad hoc committees for APCPI highlight varying views based on procurement roles, which is supported by Prakash and McLennan (2021), emphasizing the importance of APCPI for compliance and performance assessment. The significant differences observed in record-keeping and PMR posting reflect varying agencies' adherence to standards. This finding is supported by the studies by Obura et al. (2022) and the World Bank et al. (2023), stressing the importance of robust records management and transparency in enhancing procurement performance. These results conclude the necessity for targeted improvements in performance management systems, compliance tools, and records management to enhance procurement practices across different agencies.

3.3 Proposed Action Plan

Table 8 presents a detailed action plan to enhance the process of various procurement stages for government fishery post-harvest infrastructure facilities, addressing four main objectives. The first objective is establishing a uniform procurement policy, which involves reviewing current guidelines, sharing best practices, and developing standardized procedures to ensure consistency and transparency across all procurement activities. The second objective focuses on adopting technological improvements, such as e-procurement tools, digital signatures, and videoconferencing, to streamline processes and reduce manual errors. The third objective aims to strengthen procurement monitoring by implementing robust records management systems, forming oversight committees, and conducting continuous improvement programs to maintain compliance with procurement regulations. Lastly, the fourth objective emphasizes the professionalization and evaluation of procurement personnel through regular performance assessments and certification courses to enhance their skills and competencies.

Table 8. Proposed action plan in enhancing the procurement process of government fishery post-harvest infrastructure facilities

Objective(s)	Action Steps	Task Description	Timeline	Intervention/Output
1. Uniform Procurement Policy	Instruction Issuance	The Department of Agriculture's Office of the Undersecretary for Fisheries will issue a directive to HoPEs of fishery-related agencies inviting its BAC representatives for a collaborative intervention about uniform procurement policy.	Immediate	Issuance of Memorandum Order
	Coordination Meetings and Workshops - Task 1: Review current procurement guidelines - Task 2: Address differing perceptions - Task 3: Share best practices - Task 4: Formulate a uniform procurement policy Draft internal guidelines for procurement of government fishery post-harvest infrastructure facilities.	Ensure that all age groups among procurement personnel are well-represented Focus on EPA, technological advancements, and evaluation of procurement personnel Exchange best practices among different agencies Develop a cohesive and standardized policy Approval from the Secretary of Agriculture through the Undersecretary for Fisheries	3.5 months	Internal guidelines for procurement of government fishery post-harvest infrastructure facilities
2. Adoption of Technological Improvements	Management Support	Top management will allocate the necessary resources in coordination with the IT unit and Budget Office.	Immediate	Issuance of Memorandum Order
	Training Programs - Task 1: Provide hands-on workshops for videoconferencing tools	Familiarize procurement personnel with videoconferencing tools	1 day	Proficiency in the use of videoconferencing tools

	- Task 2: Facilitate the issuance and use of individual digital signatures	Coordinate with the Department of Information and Communications Technology (DICT) to ensure all procurement personnel have and use digital signatures	1 week	Issuance of individual digital signatures among procurement personnel
3. Strengthen Procurement Monitoring	Procurement Records and PMRs - Task 1: Designate full-time procurement personnel for BAC - Task 2: Establish a system for maintaining procurement records and timely preparation, submission, and posting of PMRs Ad-Hoc Committee - Task 1: Form an independent ad-hoc committee in each agency Continuous Improvement - Task 1: Conduct periodic reviews and updates of existing procurement procedures to align with the latest GPPB policies	The HoPE, through the BAC Chairperson, will assign personnel specifically for BAC-related tasks The BAC Secretariat, with the assistance of the IT Unit and Records Section, will develop and implement a record-keeping and reporting system The HoPEs will create their respective ad-hoc committees intended to evaluate self-assessed APCPIs Regularly update procedures to stay current with new policies	Immediate 1 month Immediate Immediate, with quarterly reviews	Issuance of Special Order Records Management System and Facility for BAC activities Issuance of Special Order Improved transparency, compliance with RA 9184, and continuous enhancement of procurement processes
4. Professionalize and Evaluate Procurement Personnel	Performance Evaluation - Task 1: Conduct a Gap Analysis to identify gaps in procurement activities - Task 2: Address identified gaps through targeted orientation and training Certification Course - Task 1: Enrollment in certification courses to professionalize procurement personnel	Create a tool to evaluate the performance of procurement personnel Provide training to address performance gaps In coordination with recognized training institutions by GPPB, provide certification courses for continued professional growth among procurement personnel	Immediate Immediate, with quarterly reviews 1 month	Established Performance Tool Enhanced performance and professional development of procurement personnel Certified Professional Public Procurement Officers

Moreover, Table 9 complements the action plan by outlining a structured framework for monitoring and evaluating its implementation. This framework includes monthly progress reports to track the advancement of each action step, allowing for timely adjustments when necessary. Quarterly review meetings are scheduled to assess the effectiveness of the implemented actions and make any needed modifications to the plan. Additionally, annual performance evaluations are conducted to gauge the overall impact of the procurement activities and update the action plan based on the findings.

Table 9. Monitoring and evaluation of the implementation of the proposed action plan

Action	Frequency	Description
Monthly Progress Reports	Monthly	Track the progress of each action step and adjust as necessary.
Quarterly Review Meetings	Quarterly	Assess the effectiveness of implemented actions and make necessary adjustments.
Annual Performance Evaluation	Annually	Evaluate the overall impact on procurement activities and update the action plan as needed.

4.0 Conclusion

Based on the study's findings, several key conclusions were drawn. The respondents were predominantly female, aged 31 to 40, had attended 1 to 5 procurement seminars or training sessions, and had 5 or fewer years of experience in procurement. Most were from the Secretariat, assigned to Other units (Operations, Regulatory, Technical, and others), and affiliated with PFDA CO. Respondents rated the implementation of RA 9184 as "Fully Implemented" during the actual procurement stage, indicating generally adequate adherence to the public procurement law, rules, and regulations. However, both the pre-procurement (procurement planning) and post-procurement (procurement monitoring) stages were rated as "Moderately Implemented," suggesting some areas needing improvement for more efficient and streamlined processes throughout the procurement cycle. Notably, differences in perceptions were observed based on age and agency affiliation for the pre-procurement

(procurement planning) and actual procurement stages, and on age, agency affiliation, and roles for the post-procurement (procurement monitoring) stage. These variations underscore the need for targeted strategies to address differing views across demographic and professional profiles.

In response to these findings, the study recommends creating an action plan focused on establishing a uniform procurement policy, adopting technological improvements, strengthening procurement monitoring, and professionalizing and evaluating procurement personnel to ensure procurement efficiency. Future research can rely on the study's findings by utilizing advanced statistical tools, such as post-hoc analysis, to further explore the differences in demographic and professional profiles. Additionally, examining procurement performance concerning demographics, capturing perceptions from other key stakeholders like contractors and end-users, and broadening the research to include procurement personnel from other government sectors handling infrastructure projects could provide deeper insights into overall public procurement practices and highlight areas for further enhancement.

5.0 Contributions of Authors

G. Bernabe - expert guidance, finalize research objectives, and conduct descriptive statistical analysis;

J.R. Dante - conceptualization, data collection, analysis, interpretation of results, and study completion.

6.0 Funding

No specific grant from any funding agency supported this research.

7.0 Conflict of Interests

The author declares that there are no conflicts of interest concerning the publication of this paper. All research and findings are presented objectively and without any influence from personal or other external interests.

8.0 Acknowledgment

The researchers sincerely thank all who supported and contributed to this study, whether through significant efforts or small gestures. Special appreciation is also given to the academic institution, course specialists, coordinators, colleagues, family, and friends for their invaluable dedication, support, and insights. Acknowledgment is also extended to the participants and participating agencies whose cooperation made this research possible. Their contributions have been significant to the success of this study. Lastly, thanks to Almighty God for providing strength and wisdom throughout this research journey.

9.0 References

- Adera, W. O., & Senelwa, A. (2019). Effects of procurement training practices on the implementation of procurement practices in public institutions. *International Journal of Social Sciences and Information Technology*, 4(12), 1-9. <https://tinyurl.com/yc3dpbz>
- Bacig, C. (2023, April 4). PH post-harvest fish losses need more than band-aid solutions, gov't told. Inquirer. Retrieved from <https://rb.gy/86ozul>
- Bijl, T. (2020). Gender differences in purchasing and supply management: A mixed method research into purchasing professionals' competencies and professional focus (Thesis). University of Twente
- Bureau of Fisheries and Aquatic Resources. (2022). Comprehensive National Fisheries Industry Development Plan (CNFIDP) 2021-2025. Retrieved from <https://rb.gy/cp4r6l>
- Bureau of Fisheries and Aquatic Resources. (2023). DA-BFAR assures enough fish supply as holy week nears. Retrieved from <https://tinyurl.com/mr68azu8>
- Castañeda, I. E., Cuntapay, M. C., Guzman, L. R., Vera, A. M., Toledo, A. R., & Leon, C. L. (2023). The government procurement law (RA 9184) and its IRR: Flaws on the compliance based on the observations in the procurement bidding process by the employees of the Philippine Center for Post-harvest and Mechanization Development (PhilMech). *International Journal of Advanced Engineering, Management and Science*, 9(5), 7-14. <https://doi.org/10.22161/ijaems.95.2>
- Changalima, I. A., & Mdee, A. E. (2022). Procurement skills and procurement performance in public organizations: The mediating role of procurement planning. *Cogent Business & Management*, 10(1), 1-14. <https://doi.org/10.1080/23311975.2022.2163562>
- Cybersecurity and Infrastructure Security Agency. (2021). Understanding digital signatures. Retrieved from <https://tinyurl.com/yc2a6wdj>
- Dadzie, E. B., Amoah, J., Egala, S., Keelson, S., & Jibril, A. (2024). The impact of procurement training on procurement process efficiency and organizational performance: A PLS-SEM analysis. *International Journal of Entrepreneurial Knowledge*, 12(1), 24-42. <https://doi.org/10.37335/ijek.v12i1.228>
- Dagohoy, A. M., Salvatierra, A. C., Constantino, M. L., Matudan, N. M., & Malang, B. P. (2023). Level of awareness and challenges in Republic Act 9184 Procurement Procedures: a basis for training and internal policy development. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(12), 4302-4319. <https://doi.org/10.11594/ijmaber.04.12.13>
- Department of Budget and Management. (n.d.). Procurement reform. Retrieved from <https://tinyurl.com/2c6ntt2e>
- Dimand, A.-M., Abutabenjeh, S., Rodriguez-Plesa, E., Alkadry, M. G., & Ali, S. B. (2023). Human capital drivers of employee intent to innovate: The case of public procurement professionals. *Review of Public Personnel Administration*, 43(4), 727-753. <https://doi.org/10.1177/0734371X221123294>
- Duyan, J. M., Venus, J. J., & Duyan, K. R. (2020). Level of awareness on the procurement law (RA 9184) and its IRR by the provincial government of Kalinga employees. *International Journal of English Literature and Social Sciences*, 5(6), 2522-2533. <https://dx.doi.org/10.22161/ijels.56.92>
- Ekung, S., Lashinde, A., & Adu, E. (2021). Critical risks to construction cost estimation. *Journal of Engineering Project and Production Management*, 11(1), 19-29. <https://doi.org/10.2478/jeppm-2021-0003>
- Freeman, S., Marston, H. R., Olynick, J., Musselwhite, C., Kulczycki, C., Genoe, R., & Xiong, B. (2020). Intergenerational effects on the impacts of technology use in later life: Insights from an international, multi-site study. *International Journal of Environmental Research and Public Health*, 17(16), 5711. <https://doi.org/10.3390/ijerph17165711>
- Gabiana, K. D., Polinar, M. A., & Baquero, G. C. (2023). The bidding process of the Cebu provincial government: A case study. *International Journal of Multidisciplinary Applied Business and Education*, 4(5), 1456-1466. <http://dx.doi.org/10.11594/ijmaber.04.05.07>
- Gonzales, A. L. (2023, May 7). Economist sees GDP growth at 6% in Q1. *Philippine News Agency*. Retrieved from <https://www.pna.gov.ph/index.php/articles/1200927>
- Government Procurement Policy Board-Technical Support Office. (2022). Handbook on Philippine Government Procurement 9th Edition. GPPB-TSO.
- Government Procurement Policy Board-Technical Support Office. (n.d.). Agency Procurement Compliance and Performance Indicator System (APCPI). GPPB-TSO.
- Gutierrez, V. E., Ramos, R. P., De Lara, R. L., & Florencondia, N. T. (2019). Implementation of R.A.9184 in DPWH Region III in the bidding of infrastructure projects. *International Journal of Engineering and Advanced Technology (IJ-EAT)*, 9(2), 166-174. <https://doi.org/10.35940/ijeat.B3158.129219>
- Ittelson, B. (2023, April 7). A story of agility and innovation: Findings from the impact of video communications during COVID-19 report. Zoom. Retrieved from <https://rb.gy/hm91s2>
- Iyog, E. B. (2024). Practices and challenges in the implementation of Republic Act 9184 in Local Government Units. *International Journal of Research in Commerce and Management Studies (IJRCMS)*, 6(2), 126-135. <https://doi.org/10.38193/IJRCMS.2024.6211>
- Jama, L. A., & Mohamud, I. H. (2024). The impact of procurement practices on organizational performance: A literature review. *Journal of Logistics, Informatics and Service Science*, 11(1), 119-135. <https://doi.org/10.33168/JLISS.2024.0108>
- Mebrate, Y., & Shumet, K. (2024). Assessing the impact of procurement practice on organizational performance. *Cogent Business & Management*, 11(1), 1-13. <https://doi.org/10.1080/23311975.2024.2315687>

- National Economic and Development Authority. (2023). Philippine Development Plan (PDP) 2023-2028. Retrieved from <https://rb.gy/x55xbd>
- Nikolopoulou, K. (2023). What is purposive sampling? | Definition & examples. Retrieved from <https://www.scribbr.com/methodology/purposive-sampling/>
- Obura, C. O., Noor, S. I., & Mukanzi, C. (2021). Influence of procurement records management on performance of procurement function in service state corporations in Kenya. *European Journal of Logistics, Purchasing and Supply Chain Management*, 9(1), 49-63. <https://tinyurl.com/mr8d96y8>
- Piatos, T. C. (2024, February 18). Gov't infrastructure spending soars to P1.02-T in 2023. *Daily Tribune*. Retrieved from <https://rb.gy/88w3fv>
- Prakash, S., & McLennan, A. (2021). Monitoring & evaluation of sustainable public procurement: Practical considerations for establishing an M&E framework. Bangkok: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- Roy, S., Bahuguna, P. C., & Rawat, N. (2023). Performance management in public sector organizations: A bibliometric analysis. *International Journal of Organizational Leadership*, 12(1), 115-141. Retrieved from <https://tinyurl.com/2usuxzn7>
- Samuels, H., Kamara, S. A., & Bangura, F. A. (2024). Assessing the role of internal audit in procurement processes and procedures: A case study of the national revenue authority in Sierra Leone. *European Journal of Economic and Financial Research*, 8(3), 1-21. <http://doi.org/10.46827/ejefr.v8i3.1692>
- Tahiluddin, A. B., & Terzi, E. (2021). An overview of fisheries and aquaculture in the Philippines. *Journal of Anatolian Environmental and Animal Sciences*, 6(4), 475-486. <https://doi.org/10.35229/jaes.944292>
- Vah, S. G. (2023). Effective public procurement policy implementation and its effect on reducing corruption in public agencies. Retrieved from <https://doi.org/10.13140/RG.2.2.31436.39043>
- Wang, Q., Zhang, R., & Liu, J. (2020). Price/time/intellectual efficiency of procurement: Uncovering the related factors in Chinese public authorities. *Journal of Purchasing and Supply Management*, 26(3), 100622. <https://doi.org/10.1016/j.pursup.2020.100622>
- Williams, S. (2024). Gender-responsive public procurement in Africa: Barriers and challenges. *Journal of African Law*, 68(2), 157-179. <http://doi.org/10.1017/S0021855324000032>
- World Bank; GPPB-TSO & ADB. (2023). Methodology for assessing procurement systems: Assessment of Philippines public procurement system, Volume I - Main report. Washington, DC: World Bank.
- World Bank; GPPB-TSO & ADB. (2023). Methodology for Assessing Procurement Systems: Assessment of Philippines Public Procurement System Volume II - Detailed Indicators Assessment Matrices. Washington, DC: World Bank.