

Implementation and employee adaptability to Philippine Government Electronic Procurement System (PHILGEPS) in selected municipalities of the fourth district of Laguna

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Abstract

This study explores how the PHILGEPS system was used by municipal employees and its impact on the Fourth District of Laguna. Because the government relies more on technology to ensure transparency and accountability in their procurement activities, it's now essential to examine and explore local government unit (LGU) efforts to do the same. The data was collected by conducting surveys and interviews with officers, staff and relevant employees in the organization. According to the findings, different cities have achieved more or less success with implementing the program, depending on training, available technology, assistance from higher administration and employees' readiness. Although PHILGEPS is commonly in use, the study leads us to believe there is limited knowledge, a lack of enthusiasm for updates and network interference to be aware of. The outcome is that applying PHILGEPS is largely possible as long as capacity is built continually, digital infrastructure is supported and respected institutions are involved. Training programs are prepared, systems are often updated and the local government encourages its workers to think digitally.

Keywords: PhilGEPS; electronic procurement; employee adaptability; local government; public administration.

1. Introduction

The Philippine Government Electronic Procurement System (PhilGEPS) was introduced under Republic Act No. 9184 in year 2000, also known as the Government Procurement Reform Act. The Philippine government has prioritized improving the efficiency, transparency, and accountability of its procurement systems. One significant initiative is the establishment of the PHILGEPS, which aims to streamline procurement processes across national and local government agencies. PhilGEPS aims to streamline procurement processes by enabling electronic transactions, thereby minimizing delays, reducing opportunities for corruption, and increasing overall efficiency in public procurement.

This study focuses on assessing the implementation of the Philippine Government Electronic Procurement System (PhilGEPS) in selected municipalities within the fourth district of Laguna. It aims to evaluate the extent of PhilGEPS implementation in terms of system accessibility and usability, user training and competency, technical support, compliance with procurement guidelines, and stakeholder involvement. Furthermore, the study investigates employee adaptability in relation to PhilGEPS, focusing on learning flexibility, technological competency, flexibility in role adjustment, resistance to change, engagement and motivation. The study will also analyze the relationship between the implementation of PhilGEPS and the adaptability of employees, with the goal of proposing a purchasing enhancement program based on the findings. The respondents will consist of procurement-related personnel from the selected local government units (LGUs), including those involved in general services, administrative support, and procurement activities. The demographic profile of the respondents, including age, gender, income class, years in service, and municipality, will also be considered to contextualize the findings.

1.1. Background of the Study

For local government units (LGUs), specifically in selected Municipalities in the fourth district of Laguna, the successful implementation of PHILGEPS is crucial not only for compliance with national policies but also for ensuring that public funds are used effectively. However, the shift to an electronic procurement system involves not only technical adaptations but also the need for employees to adapt to new methods, processes, and technologies. The adoption of PHILGEPS represents a significant change in how procurement is managed. This transformation requires understanding the challenges of employees facing and evaluating how well they have adapted to the system.

This study aims to explore the implementation process of PHILGEPS in the Municipality of Kalayaan, with a particular focus on assessing employee adaptability to the new system. By examining the challenges, barriers, and strategies that facilitated or hindered successful adoption, this research seeks to provide a comprehensive understanding of the dynamics between technology adoption and employee readiness in a local government setting. Furthermore, this study will offer recommendations to enhance the implementation of PHILGEPS in Kalayaan and other similar municipalities, ensuring that the system not only improves procurement efficiency but also fosters a culture of adaptability and continuous improvement within government agencies.

In the Municipality of Kalayaan, RA 12009 (2022), Section 34 has been implemented, introducing the use of Small Value Procurement in place of the traditional “shopping” method. Under this regulation, purchases ranging from Php 50,000 to Php 200,000 are no longer required to be posted on PhilGEPS. However, the Municipal General Services Office ensures that all suppliers are registered with PhilGEPS.

The internet has become a necessity for majority of the population but there has been a major issue in terms of connectivity and accessibility especially those located in isolated areas. Because of such, the government proposes that there is a need for a development for the universal access when it comes to the internet. The main three significant factors to be considered for this to happen are affordability, accessibility, and the service quality (Lallana and Soriano, 2010). These features should be included in the development plans.

Having improved technological part in the municipality would also pave way for faster and more efficient procurements and transactions which would benefit not only the local government unit, but also the agencies or clients in relation to their respective demands. Sooner or later, online and digital transactions would be a bound and this will lead to an efficient and convenient operations, which would pave way for the municipalities to fully embrace technological innovations.

1.2. Theoretical Framework

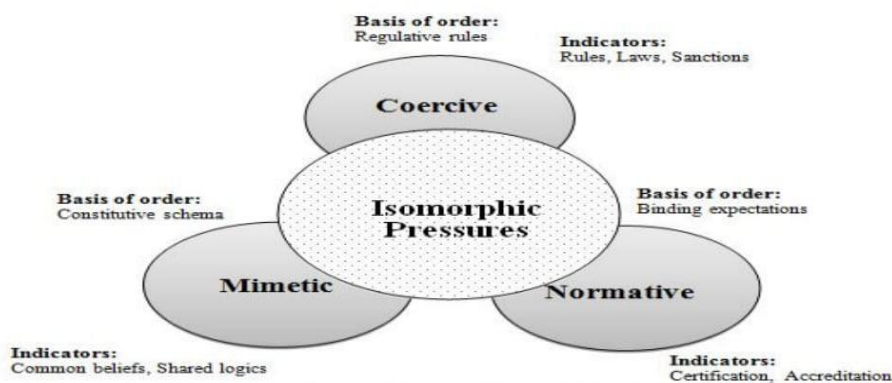


Figure1: Attributes of institutional isomorphism. Adapted from DiMaggio and Powell [2] and Scott [12]

This study is anchored on Institutional Theory, particularly the concept of isomorphic pressures as described by DiMaggio and Powell (1983), to explain the organizational behaviors associated with the implementation of the Philippine Government Electronic Procurement System (PhilGEPS) in selected municipalities in the fourth district of Laguna. In this context, coercive pressures arise from national mandates such as Republic Act No. 9184 (Government Procurement Reform Act) and its Implementing Rules and Regulations (IRR), which require all government units to transition to electronic procurement systems. Mimetic pressures encourage LGUs to emulate best practices from more advanced or compliant municipalities, while normative pressures are imposed by professional standards, training bodies, and oversight agencies such as GPPB, DBM, and COA.

To assess how these external forces influence local procurement processes, this study evaluates the extent of PhilGEPS implementation in terms of system accessibility and usability, user training and competency, technical support, compliance with procurement guidelines, and stakeholder involvement. However, organizational change does not occur in isolation from the individuals who operate within it. Hence, the study also draws on the Eight Dimensions of Adaptive Performance by Pulakos et al. (2000) to measure employee adaptability with regard to learning flexibility, technological competency, flexibility in role adjustment, resistance to change, and engagement and motivation.

Combining Institutional Theory with adaptive performance dimensions, shall enable a holistic analysis of how regulatory and institutional pressures drive system implementation, and how these, in turn, are shaped by employee readiness and adaptability. Furthermore, this framework supports the investigation of whether a significant relationship exists between system implementation and employee adaptability, and guides the development of a purchasing enhancement program that addresses both institutional compliance and individual capacity building.

1.3. Conceptual Framework

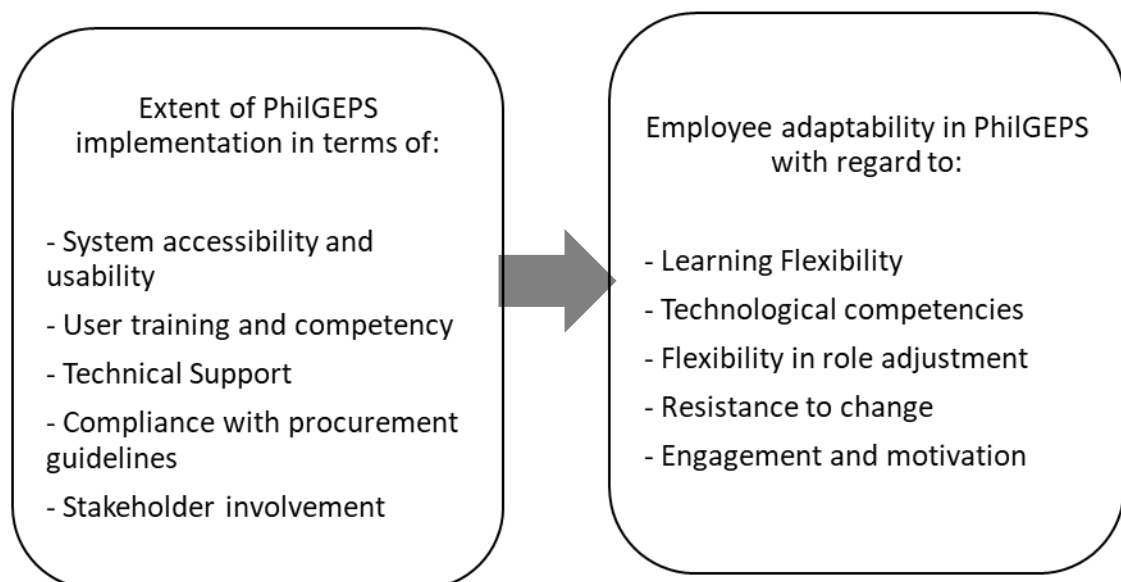


Figure No. 2 Conceptual Framework of the Study

This study is guided by a conceptual framework that links the extent of PhilGEPS implementation with the level of employee adaptability in selected municipalities in the fourth district of Laguna. The framework assumes that successful implementation of PhilGEPS which is measured in terms of system accessibility and usability, user training and competency, technical support, compliance with procurement guidelines, and stakeholder involvement can influence how employees adapt to the digital procurement system.

Employee adaptability is assessed using five key dimensions derived from Pulakos et al.'s (2000) Eight Dimensions of Adaptive Performance, specifically: learning flexibility, technological competency, flexibility in role adjustment, resistance to change, and engagement and motivation.

The framework also recognizes the influence of demographic variables (age, gender, income class, years in service, and municipality) as possible factors affecting both implementation and adaptability.

Furthermore, the relationship between implementation and adaptability will serve as the basis for proposing a purchasing enhancement program, aimed at improving system usage, strengthening employee readiness, and ensuring more effective procurement practices.

1.4. Statement of the Problem

The study aims to assess the Implementation of Philippine Government Electronic Procurement System (PhilGEPS) in Selected Municipalities in the fourth district of Laguna. Specifically, it seeks to answer the following questions:

1. What is the demographic profile of the respondent in terms of:
 - 1.1 Age;
 - 1.2 Gender;
 - 1.3 Income Class;
 - 1.4 Years in service;
 - 1.5 Municipality?
2. What is the extent of implementation of PhilGEPS in Municipality in terms of:
 - 2.1 System accessibility and usability;
 - 2.2 User training and competency;
 - 2.3 Technical Support;
 - 2.4 Compliance with procurement guidelines;
 - 2.5 Stakeholder involvement?
3. What is the level of employee adaptability in PhilGEPS in the Municipality with regard to:
 - 3.1 Learning flexibility;
 - 3.2 Technological competency;
 - 3.3 Flexibility in role adjustment;
 - 3.4 Resistance to change;
 - 3.5 Engagement and motivation?
4. Is there a significant relationship between the implementation and employee adaptability of PhilGEPS in selected municipalities in the fourth district of Laguna?
5. Based on the results, what purchasing enhancement program may be proposed?

1.5. Hypothesis

For this study, the following null hypothesis was formulated:

H₀: There is no significant relationship between the implementation and employee adaptability of PhilGEPS

in selected municipalities of the fourth district of Laguna.

1.6. Significance of the Study

This research will be beneficial to various stakeholders involved in the procurement process within the selected municipalities in the fourth district of Laguna. First and foremost, the employees of the local government units (LGUs) will benefit from enhanced skills, increased morale, and better adaptability to digital systems. Through exposure to PhilGEPS, their technological competency and overall efficiency are expected to improve, allowing them to perform procurement tasks more conveniently and effectively. Transitioning from manual to digital processes will also reduce paperwork and workload, resulting in more organized and streamlined operations.

The Procurement Departments of the selected municipalities will gain insights into how PhilGEPS implementation and employee adaptability influence procurement outcomes. The findings can guide improvements in support services, training programs, and system integration—leading to faster transactions, enhanced transparency, and improved revenue flow for the local government.

Clients or end-users will benefit from improved service delivery. As LGUs become more responsive and efficient through the proper implementation of PhilGEPS, the quality and speed of government transactions are likely to improve. Increased transparency and accountability will also build public trust.

Agencies and suppliers will build more trust among other partners by using PhilGEPS in procurement. As a result, companies could obtain more project work and meet the requirements of Republic Act No. 9184.

Lastly, future researchers may use this study as reference or basis for related investigations into digital procurement systems, employee adaptability, or public sector efficiency. It may help them refine the variables, expand the scope, or improve methodologies in future research.

1.7. Scope and Limitation

The research was conducted in just a few Municipalities in the fourth district of Laguna.

This study is about checking how PhilGEPS has been applied in some municipalities in the fourth district of Laguna. It aims to measure the effectiveness of PhilGEPS by reviewing accessible/easy-to-use systems, user skills, help from technical teams, following all guidelines and taking part of stakeholders. In addition, the research looks at whether each support pillar of PhilGEPS assists employees in adaptability and flexibility and checks skills in technology, willingness to learn, changing job roles, handling change and motivation.

The study will also evaluate how PhilGEPS has affected the adaptability of employees, so a purchasing enhancement program can be recommended. The LGUs' procurement teams and other service-related employees will be the respondents for this project. The researchers will also look at details such as age, gender, class of income, years in service and the city where the respondents reside.



3. Kalayaan
4. Lumban
5. Magdalena
6. Paete
7. Pakil
8. Pangil
9. Sta. Cruz

1.8. Limitation

All these insights relate only to the fourth district of Laguna and not to other districts. People provide the researchers with information in a questionnaire which might be influenced by personal opinions or misunderstood. Also, the study only covers what is happening with PhilGEPS and employee adjustment at the time of research and may not highlight what will happen in the future.

External factors such as internet connectivity, organizational policies, political will, and technological infrastructure which may affect the efficiency of PhilGEPS implementation are acknowledged but not explored in depth. Lastly, the proposed purchasing enhancement program will be based only on the data and insights gathered from the selected municipalities and may require further validation for broader application.

1.9. Review of Literature and Studies

Several papers point out that PhilGEPS is an important part of upgrading procurement in the Philippines. Dela Cruz (2018) noted that case study that PhilGEPS has trimmed the process for manual procurement and made it simpler for suppliers to conduct their work. In the same manner, these experts pointed out that systems like PhilGEPS help achieve better efficiency, transparency and accountability as they make people's roles in the process minimal.

A report from the Government Procurement Policy Board (GPPB, 2020) emphasizes that PhilGEPS is responsible for promoting fairness among suppliers and checking that all government buying is done according to standard procedures.

The author found that PhilGEPS has improved both transparency and efficiency in LGUs by making public notices, contracts and bid notices viewable by everyone.

In their 2020 report, the World Bank claims that countries using electronic procurement gain cost benefits and better ways of working. It appears from the research that PhilGEPS has improved how the government oversees and reviews all transactions.

Still, some issues continue. According to Reyes et al. (2022), while PhilGEPS makes it easier to learn about spending, inconsistent downtime and limited internet in far areas are the top causes for falling short.

PhilGEPS also experiences several difficulties in putting it into action, even though it is useful. According to Villanueva's research from last year, unexpected failures and glitches in the system disrupt the way procurement is managed. According to a report by the Commission on Audit, some government agencies and LGUs are not using PhilGEPS as much as they should, preferring traditional transactions because workers are not familiar with the system's features. The study by Cruz and Ramos (2022) shows that being computer literate and having internet access is a big barrier to rural suppliers and small businesses following PhilGEPS requirements.

Companies in other countries have put in place similar systems for electronic procurement and seen excellent results. A good illustration of this is South Korea's KONEPS which uses full digital methods and effective control to highlight the many benefits of electronic procurement (OECD, 2021).

According to Torres (2022), best practice would include required use of PhilGEPS by all companies, ongoing training for suppliers and improved cybersecurity.

PhilGEPS has made a big difference in updating the processes for buying needed resources by the government. In 2023, Dela Cruz et al. established that poorly trained users of the system made errors posting advertisements, resulting in delay and not getting offers for their produce. They advised that the problems should be solved through constant system updates and more capacity-building activities.

Also, Granzo found (2018) that PhilGEPS within the Presidential Broadcast Staff-RTVM followed all the rules well in both registration and bidding. Suppliers said they were satisfied with the system, but BAC officials believed technical problems with the system were hurting satisfaction, recommending system improvement and additional training.

PIDS pointed out that weaknesses in government procurement planning are causing disbursement delays. They urged the use of procurement specialists and improvements to PhilGEPS that allow easier access even in regions with poor internet service, as well as moving toward needed system and workplace changes.

In 2011, the Open Government Partnership supported efforts to modernize PhilGEPS and make data, better interoperability and public participation a priority. With open contracting standards included, this effort hopes to make procurement data reliable and cut down on corruption, reaching this goal by consulting stakeholders and making improvements to the system.

In addition, Navarro (2024) studied the history of procurement changes, noting that delays, non-conformance and corruption remained unchanged even after the 2016 reforms. With PhilGEPS data applied in a logit model, the research determined there was weaker competition and suggested enhanced PhilGEPS features to meet new challenges.

Technical and design issues in PhilGEPS stand in the way of granting the public access to purchasing data, the Sunlight Foundation noted in 2013. Tight restrictions on watchdog groups prevent them from doing their jobs well and complicated data make it hard to use, so steps are needed to improve access and usability.

In this study, Querijero et al. (2023) found that some organization procedures in public R&D institutions cause project delays. The problems are that there aren't enough skilled suppliers and the market for specialized tools is small which means changing procurement rules to help with R&D is important.

The Asia-Europe Meeting (ANSA-EAP) pointed out in 2013 that millions of government documents need to be easy to access and use, beyond just placing them online. The problems with PhilGEPS mean that civil society organizations cannot keep a close eye on bidding or campaign for better controls over public procurement data.

Checking supplier data with applied network analysis, it was found that participation went up from 2009 to 2018, although some never changed suppliers for any more than a year. A tiny proportion of suppliers (2%) continued to do business over the decade, so measures are needed to increase supplier loyalty.

The research group at the University of the Philippines Los Baños (2023) found that inefficient processes in public sector research and development are caused by both certain rules in procurement and limits to who can supply goods and services. It is suggested that discussions with policymakers address the way procurement practices relate to R&D.

The PhilGEPS website is being modernized to include e-Bidding, e-Marketplace and e-Reverse Auction features. The enhancements are meant to streamline procedures, require less human help and make public procurement more efficient by using open data standards for greater transparency.

According to the paper, reforms have improved public procurement in the Philippines, although problems related to bid design and implementation have not gone away. It stresses the need to build more efficient procurement ability and tackle corruption, recommending that procurement methods are looked at beyond what the General Procurement Reform Act includes.

PhilGEPS is designed by Sunlight Foundation's research (2013) to bar all registered contractors from full access to the system. Since civil society organizations frequently access procurement data through unofficial means, it is important to make sure procurement data is easily available to all in format that the public can use.

ANSA-EAP observations have noted that, without strong right-to-information legislation, getting procurement information is not reliable. The design of PhilGEPS and the problems with its data cause problems for civil society monitoring, encouraging the call for system redesigns that will help people monitor government better.

Using network science, an analysis study (in 2019) reviewed PhilGEPS data and found recurring patterns in how businesses work with the government. Based on the findings, many suppliers interact for a short time, with few caring to stay for the long term, so experts say there should be strategies that help keep them involved.

RA 9184, the Government Procurement Reform Act, gave PhilGEPS its legal base so government procurement activities can be modernized and regulated. Using PhilGEPS is now required for all government procurement which boosts both openness and efficiency.

According to the MAPS assessment (2019), reforms have not solved key challenges in rules for those who can bid and those who can take part in procurement activities, methods for getting the best prices and questions about PhilGEPS's working efficiency. It is suggested that collaboration across contract management be improved and an independent body for reviewing procurement decisions be set up.

Replacing the older RA 9184, the signing of RA 12009 into law in 2023 marked a big change in government procurement policy. It looks to bring digitalization to procurement through PhilGEPS, uses more advanced instruments such as the eMarketplace and eReverse Auction and will make the whole procurement procedure more efficient. According to the law, transparency, a level playing field and cost effectiveness are important, allowing for new methods to review and check outcomes.

The ADB has found that digital government procurement platforms such as PhilGEPS play a major part in improving how the government works and reducing corruption. The report by ADB underlines the value of including such systems when revising wider fiscal policies for more effective effects. In addition, the researchers discovered that making more information about purchases available to the public can greatly improve how trusted the government is.

PhilGEPS was chosen by Transparency International (2021) as an important tool to help fight corruption in Southeast Asia. They believe that, in order for the system to be successful, it needs somehow for watchdog groups to engage and for the data to remain easily accessible. The report proposes to ensure that procurement data is easy to get to and to improve how the public understands what the platform can do.

In 2022, the World Bank said the Philippines benefits from using e-procurement, but not all people in each region can use internet access equally. Officials added that it is important to develop internet infrastructure as digital public procurement is started to support open access. Strengthening skills among PhilGEPS procurement staff is still vital for the proper use of all the systems set up.

The UP-NCPAG study points out the difficulties seen in government institutions when putting PhilGEPS into practice. Researchers said that enhanced transparency is brought by the system, yet many clerks and limited awareness of ICT held back full adoption. The report states that ongoing training, using good change management methods and having different agencies collaborate will improve the system. This study adopts Institutional Theory, particularly DiMaggio and Powell's concept of isomorphic pressures (coercive, mimetic, and normative), to examine how organizations adapt to institutional mandates such as the adoption of e-procurement systems like PhilGEPS. Coercive pressures are evident in government-mandated regulations, while mimetic pressures emerge as agencies emulate perceived successful peers. Normative pressures arise from professional standards and expectations.

In addition, the Eight Dimensions of Adaptive Performance (developed by Pulakos et al.) help assess how individuals and organizations adjust to technological advances, cover emergency situations, solve

problems in unusual ways and improve teamwork during reforms in procurement.

All public procurement in the Philippines takes place through the PhilGEPS online system. With the passage of Republic Acts 9184 and 12009, the primary goal is to make government transactions fairer, more competitive and efficient.

It offers e-bidding, an e-marketplace and e-reverse auctions, as well as public access to all plans for procurement, documents for bidding and contract acknowledgements. The DBM and the COA are responsible for ensuring transparency and accountability in the government.

It has not been easy for local government units to implement PhilGEPS. Reyes et al. (2022) and Villanueva (2021) suggest these are the reasons why adults do not use online tools as much as they could. Some LGUs are still using offline means to procure, as their staff don't recognize the electronic system yet.

A strategy for training and engaging people in the community helps address these challenges. They highlight that capacity-building activities can greatly help to eliminate errors and postpone hospital work. Strong enforcement and a comprehensive training program for users are highlighted by OECD as major benefits in promoting cyber security.

Adaptability refers to an employee's ability to adjust effectively to changes in work systems and processes. In the context of PhilGEPS, adaptability involves, Learning flexibility, Willingness to acquire new skills (Cruz & Ramos, 2022), Technological competence, Proficiency in using digital tools (Granzo, 2018), Resistance to change, A challenge especially among older or tenured employees (UP-NCPAG, 2023), Role adjustment, Shifting from manual to automated procurement tasks, Engagement and motivation: Influenced by training, support, and system usability. Factors such as age, tenure, digital literacy, and organizational support influence adaptability levels (Navarro, 2024; Transparency International, 2021).

Numerous Philippine-based studies have assessed PhilGEPS' effectiveness. Mendoza (2021) found improvements in transparency among LGUs. Dela Cruz (2018), Santos & Garcia (2019), and GPPB (2020) reported time savings, reduced manual processing, and improved fairness. However, reports from the Sunlight Foundation (2013) and ANSA-EAP (2013) point out usability and accessibility issues that hinder civil society oversight.

Studies like Querijero et al. (2023) and the Philippine Institute for Development Studies (PIDS) highlight procurement delays due to limited supplier markets and planning gaps. PhilGEPS data analyses show short-term supplier engagement, indicating the need for retention strategies.

LGU's have been taking part in programs helping them increase their knowledge about using the PhilGEPS. To support local governments, the DILG, Region XII, ran training on PhilGEPS for municipalities in Regions III, IV-A, IV-B and the National Capital Region to make their purchases more effective. The goal of the sessions is to help LGU staff understand how to use PhilGEPS better which increases the openness and effectiveness of local procurement.

Many people working in procurement for different agencies such as LGUs, have gained helpful skills through PS-DBM training. Subjects in these programs include looking after the supply chain, designing technical specifications and using ARMIS. The PS-DBM runs these sessions to make sure its staff learn the abilities needed to handle electronic procurement properly.

Authorities in South Cotabato are making efforts to make their procurement process both clearer and faster. For the first time, thanks to Open Contracting, information about public procurement is available online and in print to the public. Governments initiate these activities by publishing tender documents for machines and by offering the general public a feedback method. The measures are designed to ensure South Cotabato's accountability and to build greater trust among the public in its purchases.

LGUs have made progress in establishing electronic procurement systems, but employees and the whole system still encounter several obstacles. The report covered the issues it found in local government procurement in 2020, including irregular awards and less transparency in the process. Therefore, it is necessary to continually improve and support local government units to help their employees use electronic procurement systems properly.

International research supports the role of e-procurement in improving governance. The World Bank (2020, 2022) and Asian Development Bank emphasize the benefits of digital procurement in reducing corruption and improving monitoring. Comparative studies, such as the OECD's review of KONEPS, demonstrate the

According to Torres (2022), argues that following mandatory rules, improving skillsets and stronger cybersecurity should be adopted in the Philippines. They support the goals of the Open Government Partnership (2025) to make data more available and involve more people with the updates made to PhilGEPS

A survey by Augustine Ayuel Rehan Athuai (2020) focused on the problems the Ministry of Finance and Economic Planning in South Sudan experienced while adopting e-procurement. Key issues mentioned in the research included employee dedication and support from the top management. Through the use of questionnaires and data analysis in SPSS, the research revealed that those points play a significant role in making e-procurement a success. Evidence from the findings proves that a helpful work environment and leaders' support are important for allowing workers to adjust to changes and accept new systems.

For Aman and Kasimin studied (2011) looked into how the e-procurement process was carried out in the Malaysian government. According to the research, there are difficulties with bringing together different software systems, working with data and managing administrative systems. Besides, it was found that setting up IT centers in rural parts of the country and partnering with professional trainers is valuable for developing people's IT skills. Edekia's aims were to handle adaptability challenges and see that the systems were properly adopted.

Meanwhile, Henriksen and Mahnke (2004) conducted a study about the implementation of e-procurement in cities that have decentralized procurement in Indonesia. According to the research, the presence of efficient human resources helped speed up the implementation of e-procurement. It found that a country's political setup and economic reasoning influenced the outcome of introducing reforms. It appears that supporting workers' learning and keeping political and economic conditions supportive are important tricks to assist e-procurement.

Last 2020, Bright explored the influence of the UNCITRAL Model Law on changes in public procurement in the UAE. Researchers noted that conformation with international rules can help countries achieve more transparency and efficiency in buying goods. Although the research did not highlight adaptability of workers, it made it clear that having established laws helps the successful use of e-procurement.

Enhancing its rules for buying goods and services is a priority of the Asian Development Bank. As part of its policy in 2017, the ADB focused on six main areas: economy, efficiency, fairness, transparency, quality and value for money. As a result of this policy, ADB was able to manage 6,931 contracts in the fiscal year 2020, worth a total of US\$10.3 billion. A higher proportion of the budget was spent on civil engineering works, then for buying goods, providing non-consulting services and buying consulting services. Nearly 6% of all purchases made in 2020 concerned items related to COVID-19.

To support the implementation of this policy, ADB has been providing tailored training to its staff and executing agency personnel. These training programs aim to develop skills in procurement, consulting services, and project administration, ensuring compliance with ADB's procurement procedures.

In 2024, ADB introduced a new approach to innovation learning, shifting towards applied and project-focused programs. This approach is supported by a comprehensive capacity development program that blends theoretical knowledge-building with practical application within training programs. Consulting firms collaborate with ADB's Learning and Development Team, Innovation Hub, and project teams to apply innovation tools and test ideas, capturing knowledge through case studies that share innovative best practices within ADB.

Additionally, ADB has been enhancing its managerial skills curriculum to build the capacity of supervisors, managers, and leaders to support staff and teams. Programs focus on areas such as managing self, managing individuals and teams, managing across cultures, performance conversations, managing change,

and managing for the future. These programs aim to equip managers with the skills to foster innovation and creativity in changing environments.

At the project level, ADB has recognized the importance of strengthening local capacity to ensure successful implementation. For example, in the Strengthening Technical and Vocational Education and Training project in Tajikistan, ADB intensified implementation support due to challenges such as poor quality of local talent and slow procurement processes. Remedial actions included holding biweekly troubleshooting conference calls, assisting in recruiting additional staff, assigning analysts to support project teams, and increasing the frequency of missions. These efforts aimed to address capacity issues and improve project performance. Tailored Training Programs, similar to ADB's approach, Philippine government agencies can benefit from tailored training programs that focus on procurement procedures, project administration, and innovation tools to enhance employee adaptability. Capacity Building at the Project Level, strengthening local capacity through targeted support and resources can address implementation challenges and improve procurement processes at the project level. Applied Innovation Learning, adopting applied and project-focused innovation learning approaches can help Philippine agencies test and implement innovative ideas in real project contexts, fostering a culture of continuous improvement.

The World Bank's Procurement Framework, operational since July 2016, emphasizes flexibility, quality, and greater value for public spending, while enabling adaptation to country contexts. It recognizes that countries are looking to be more efficient in their public spending to invest more in basic public services such as education, health, and infrastructure, thereby enriching development outcomes. The framework promotes strengthened national procurement systems empowered to support sustainable development objectives and increases transparency in public spending by taking advantage of ICT tools in public procurement.

For World Bank clients, the framework provides benefits including shortening decision-making times by streamlining procurement projects, offering an expanded range of procurement tools to enable a better fit for projects addressing client needs and country development objectives, and offering support to countries in capacity building. It also enables the use of alternative procurement arrangements, including those of co-financiers and country agencies as appropriate.

World Bank staff and clients recognize the value of strategic procurement planning. Case studies show that strategic procurement planning helps identify procurement solutions that contribute to a project's development objective, design suitable approaches for such activities, define areas for capacity strengthening, and develop means to better engage the market, among other benefits. The Procurement Strategy for Development (PPSD), introduced with the 2016 reform, is a methodology for strategic procurement planning to help clients customize an optimum procurement approach for a given project. However, in practice, the PPCSD is often a generic document with similar content across many projects.

The World Bank increased its support for strengthening clients' procurement capacity, with a greater emphasis on global support and trust fund financing but less support in Africa and in countries that have the lowest procurement capacity. In fiscal year 2017–23, 65 percent of procurement capacity strengthening activities occurred in countries with higher procurement capacity. Country-level capacity strengthening is fragmented, not well measured, and often focuses on short-term activities rather than sustaining long-term change for scaled-up results in the country. Less than 20 percent of Country Partnership Frameworks had a significant emphasis on procurement capacity strengthening. Procurement specialists and sector specialists of other Global Practices lead the World Bank's procurement capacity strengthening efforts. Procurement specialists perform capacity strengthening at the project level through day-to-day advice, short-term training, and process reviews. By contrast, procurement specialists and other sector specialists—including, among others, governance, public financial management, and transport specialists—strengthen procurement capacity at the country level through lending or advisory services and analytics (ASA). This support may involve training client procurement specialists; assessing procurement systems; promoting legal, institutional, regulatory, and other system changes; and supporting the application of specific procurement methods.

The World Bank introduced innovative approaches such as Hands-on Extended Implementation Support (HEIS) and Bank Facilitated Procurement (BFP) to directly assist borrowers in their procurement efforts when they are faced with capacity, market, or supply obstacles. Both HEIS and BFP proved especially effective as part of the Bank's COVID-19 pandemic response. Additionally, the Bank launched the STEP (Systematic Tracking of Exchanges in Procurement) procurement information system, which has contributed to better procurement efficiency, yielding an annual compounded 7% decrease in median procurement time to complete a transaction.

Furthermore, Musa, Mirzazade and Howard conducted research to determine what influences Nigerian public sector users to start utilizing e-procurement. Based on the extended version of TAM, the research team found that perceived usefulness best explains why users want to adopt e-procurement and second is perceived security, while perceived trust also plays a role. It was discovered that ease of use is negatively associated with wanting to use e-procurement. It follows that a lack of trust in e-procurement can keep individuals from using it.

For Uthayakumar and Partheepan studied what affects stakeholders' opinions toward using e-procurement in the Eastern Provincial Council organizations in Sri Lanka. It was found in the study that for stakeholders to have positive attitudes, information and communication technology skills, being ready and support from executives is necessary. Evidence shows that organizing training and providing exceptional support for ICT will aid in the use of e-procurement.

And for Aminah and her colleagues looked at the main reasons behind users being satisfied or dissatisfied with eco-friendly procurement systems. Researchers found that the level of user satisfaction depends mainly on system, information and service quality. Taking these aspects into account improves the ease of using e-procurement systems for users.

Also, Masudin et al. (2021) looked at how adopting e-procurement influences a company's performance in the Indonesian manufacturing industry. It was seen through the study that trust as well as risk perception influenced how e-procurement was implemented. According to the results, for e-procurement to succeed, employees must have confidence in the technology and trust the whole system.

The move from Public E- Procurement 3.0 to E-Procurement 4.0 requires adopting fresh skills, roles and procedures to benefit from Industry 4.0. Automating business processes often requires the organization, as well as its employees, to make changes and get used to new duties and ways of working.

This study (Clampi et. Al, 2021) reviews how digitalization impacts the development of organizational agility. The researchers discovered that digitalization gives companies the necessary flexibility to work in unpredictable situations. It appears that employees who quickly adapt to technology and digital processes help a company become more agile.

To Bao et al. examined the effects of adopting technology and working in groups on quick responses in e-governance. It was found that being adaptable within e-government depends on individuals using technology and teamwork among employees.

According to Zhang, a combination of cloud platforms could help streamline online purchasing and make businesses more efficient. It was noted in the study that picking the best tools and training employees improves the chances of successful implementation.

For Mafini et al. (2020) examined key developments in procurement that involve adopting technologies provided by Industry 4.0. According to the study, embracing modern technologies and upgrades in skills will help achieve the positive results that digital transformation brings to procurement.

1.11. Synthesis

The literature and studies reviewed collectively affirm that the Philippine Government Electronic Procurement System (PhilGEPS) plays a crucial role in enhancing transparency, efficiency, and accountability in public procurement. Numerous local and international sources validate that digital procurement systems

like PhilGEPS, KONEPS (Korea), and those promoted by the World Bank and ADB yield significant gains in governance, cost reduction, and public trust.

Local studies, such as those by Dela Cruz (2018), Mendoza (2021), and Cruz & Ramos (2022), emphasize PhilGEPS' benefits in streamlining procurement processes and minimizing manual interventions. However, persistent issues remain—system downtimes, internet inaccessibility in rural areas, and lack of digital literacy among government personnel and suppliers are key barriers. The institutional resistance to digital transformation, particularly at the LGU level, also highlights the importance of training, leadership support, and capacity-building programs, as echoed by UP-NCPAG (2023) and Villanueva (2021).

International literature echoes similar challenges and opportunities. Henriksen and Mahnke (2004), Aman and Kasimin (2011), and the World Bank (2022) underscore the necessity of strong leadership, legal frameworks, and technical support to successfully adopt e-procurement. Adaptability—both organizational and individual—is emphasized across studies, particularly in the context of digital transformation, as highlighted by Pulakos et al.'s Eight Dimensions of Adaptive Performance.

Further, global best practices stress the importance of strategic procurement planning, public data accessibility, and stakeholder engagement, including watchdog groups and civil society. Modern reforms, such as the implementation of RA 12009 and enhancements like e-Marketplace and e-Reverse Auctions, show the Philippines' intent to modernize procurement, yet literature shows that ongoing systemic issues and user resistance must be addressed through continuous reform and inclusive innovation.

In conclusion, the synthesis reveals a balanced perspective: while PhilGEPS and similar systems offer clear advantages in modernizing procurement, their success depends on technological infrastructure, user competence, institutional support, and sustained policy and implementation reforms. The intersection of technical improvements and human adaptability is crucial in realizing the full potential of digital procurement systems in the Philippine context.

2. Methodology

2.1. Research Design

Researchers studied the use of PhilGEPS and employees' adaptation in the fourth district of Laguna by using a descriptive-correlational design.

Relying on the core features of the study, graduates' demographics and varying factors around PhilGEPS were explored such as using the system, staff training, technical support, obedience to procurement rules and participation by stakeholders and staff. A measure of the link between the level of PhilGEPS rollout and the adaptability of workers was part of this study. It allowed me to check if there was an important connection between the system's implementation and employees' response to it. Quantitative information was obtained when we handed out a survey form to people working in procurement in various local government offices. I relied on frequency, percentage, weighted mean and Pearson correlation coefficient to analyze the data.

2.2. Respondents of the Study

The research covered employees assigned to various departments of the Local Government Unit in chosen towns in the fourth district of Laguna who are responsible for or use PHILGEPS. There were two hundred workers (200) chosen for the project.

2.3. Sampling Technique

This study utilized a purposive sampling method to select participants from various Local

Government Units (LGUs) in the Fourth District of Laguna. Given the targeted nature of the study, respondents were selected based on the following criteria: (1) they are currently employed in a department directly involved in procurement processes, (2) they are active users or administrators of the Philippine Government Electronic Procurement System (PhilGEPS), and (3) they are either permanent employees or contractual staff assigned to procurement-related roles. This sampling method ensured that only individuals with direct experience in PhilGEPS implementation and usage were included. Purposive sampling was deemed appropriate as it focused on respondents with relevant knowledge and firsthand involvement, allowing for a more accurate assessment of the system's implementation and employee adaptability.

2.4. Research Instrument

The main tool used here was a survey questionnaire which helped gather data that could be measured about PhilGEPS and employees in the selected municipalities in Laguna. When designing the questionnaire, researchers looked at literature, previous research and decided on exactly what they wanted to study.

This questionnaire was divided into four sections. To begin, the researchers asked about the respondents' age, gender, income group, years working and the town they lived in. The section included support for the analysis of data by explaining the background of each group of survey respondents. In the second part, I evaluated how much PhilGEPS had been carried out in the concerned municipality. It consisted of five elements: ease of access and use for the system, proper training for users, support from experts, adherence to standard purchasing rules and the engagement of persons involved. Respondents were asked to rate each item using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The third part measured employee adaptability with respect to their transition and response to the PhilGEPS system. This section included five dimensions: learning flexibility, technological competency, flexibility in role adjustment, resistance to change (reverse scored), and engagement and motivation. Similar to the second part, this section also used a 5-point Likert scale to ensure consistency in data collection. The final section of the instrument provided an optional open-ended item to allow respondents to share additional feedback or suggestions for improving the system or its implementation.

2.5. Data-Gathering Procedure

Before collecting data, the researcher first sought approval from the Graduate School of Pamantasan ng Lungsod ng San Pablo by submitting a formal request letter detailing the purpose, scope, and objectives of the study. Upon securing approval, the researcher proceeded to coordinate with the respective municipal offices in the selected municipalities of the fourth district of Laguna. Formal letters were sent to the procurement or general services departments, requesting permission to conduct the study and distribute the research instrument, to facilitate the data collection process efficiently, the researcher utilized Google Forms to develop a digital version of the validated questionnaire. The online survey was distributed to identified respondents through email and official communication channels provided by the municipal offices. At the beginning of the Google Form, the purpose of the study was clearly explained, and participants were informed of their rights, including voluntary participation, anonymity, and confidentiality of their responses. The respondents were given a specific period within which to accomplish the form. To ensure an adequate response rate, the researcher sent courteous reminders and follow-ups. After the data collection period concluded, the researcher compiled and organized the responses in preparation for data analysis.

2.6. Ethical Considerations

This study followed established ethical standards to ensure the protection of the rights, privacy, and dignity of all participants. Prior to conducting the research, formal approval was secured from the Graduate School of Pamantasan ng Lungsod ng San Pablo. Following this, the researcher coordinated with local

government offices in the selected municipalities of the fourth district of Laguna and submitted formal letters requesting permission to administer the survey.

Participation in the study was voluntary. Each respondent was fully informed of the study's objectives, scope, and their rights as participants. Before answering the questionnaire, participants received a brief orientation, either verbally or through a printed cover letter, which emphasized that they could choose to decline participation or withdraw at any point without any consequences.

Confidentiality and anonymity were strictly observed throughout the study. The paper-based survey did not include any identifying information such as names or official positions that could trace responses to individual participants. All completed questionnaires were securely stored and handled only by the researcher. Data collected were used solely for academic purposes and were treated with the utmost confidentiality.

To minimize any potential discomfort, all questions were designed to focus on professional experiences related to PhilGEPS usage and employee adaptability. The questionnaire avoided sensitive or intrusive topics and was intended to pose no psychological, social, or physical risks to the participants. The principles of respect for persons, beneficence, and justice guided the conduct of this research. The findings aim to contribute meaningfully to the improvement of public procurement systems and employee development, without compromising the well-being or rights of those who participated.

2.7. Statistical treatment of Data

Each question was explored using data that was arranged, tabulated and analyzed with the help of useful statistics tools. To summarize the respondents' background and examine how PhilGEPS is implemented and how adaptable employees are, we used frequency, percentage, mean and standard deviation. Average ratings for each indicator were found using the mean and the standard deviation showed how closely respondents' answers matched the average.

To investigate how well PhilGEPS is implemented and how well employees adapt to change, Pearson Product-Moment Correlation Coefficient (Pearson r) was used. Using this test was appropriate since it measured the way in which the two variables are related linearly. Results of the correlation analysis showed whether there was a statistically meaningful relationship between having the system and employees' adaptability in the chosen municipalities.

Results were obtained using these two programs to safeguard their accuracy and dependability.

3. Results and Discussion

This chapter presented the results and discusses the findings on the assessment of the Implementation of Philippine Government Electronic Procurement System (PhilGEPS) in Selected Municipalities in the fourth district of Laguna.

Table 1.1

Demographic Profile in terms of Age

Age	f	%
26-35	25	13
36-45	48	24
46-55	96	48
above 55 yrs old	31	17

Note. N = 200

Table 1.1 shows how many respondents of each age responded to the interview regarding the implementation and utilization of PhilGEPS in selected municipalities from the Fourth District of Laguna. It appears from the results that 96 people aged 46 to 55 or 48% of all respondents, participated. This means that

a large number of PhilGEPS users and workers are older employees who probably used standard procurement procedures previously. Twenty-four percent of the population in this study are aged 36 to 45 (48 respondents). At this age, most employees are experienced enough to be supervisors or managers and are ready to use technology for their duties. At the same time, 17% (31 respondents) are older than 55, showing that older staff may work at or near the top of the business, may encounter unique challenges with technology because they did not grow up using it and may be less eager or able to adapt to new developments than younger staff.

The **youngest group, aged 26-35**, makes up **only 13% (25 respondents)** of the total. This relatively small percentage may imply limited entry of younger professionals into procurement-related roles in the municipalities studied, or possibly the assignment of such roles to more experienced personnel.

All things considered, the majority of workers being mature might affect the speed and success of PhilGEPS's implementation. Building your support team means that older staff would need more training, but those from the middle ranks are likely to work well with the new systems. Since younger employees make up a small part of the group, more tech-aware candidates should be encouraged to help government agencies switch to digital ways in the coming years.

In the study of Cruz and Ramos (2022) on "Bridging the digital divide: Challenges of small businesses in e-procurement," the authors highlight how differences in digital exposure and comfort with technology can create uneven adoption of e-procurement tools across age cohorts. They found that more seasoned staff often require targeted training and mentoring to build confidence in new systems, while younger, digitally native users adapt more readily but may lack procedural knowledge of procurement rules. Applying these insights to your age distribution data suggests that the large proportion of mid-to-late career employees in Laguna's Fourth District may benefit from blended capacity-building approaches—pairing their strong procurement experience with scaffolded digital skills training—whereas focused mentorship programs could help the smaller cadre of younger users share best practices in system navigation and innovation. Cruz and Ramos thereby provide a framework for tailoring training and support interventions according to generational learning styles and digital competencies, directly informing how municipalities might optimize PhilGEPS rollout among a predominantly mature workforce.

Table 1.2

Demographic Profile in terms of Gender

Gender	f	%
Female	144	72
Male	46	23
Rather not say	10	5

Note. N = 200

Table 1.2 shows the gender distribution of the 200 respondents participating in the study. A significant majority of the respondents are **female, comprising 72% (144 individuals)**. Male respondents account for **23% (46 individuals)**, while **5% (10 individuals)** preferred not to disclose their gender.

This gender distribution suggests that **government procurement-related positions in the selected municipalities are predominantly held by women**. This may reflect broader trends in local government staffing, particularly in administrative or clerical roles where female representation is often higher.

The **predominance of female employees** may have implications for the implementation and adaptability to PhilGEPS. Studies have shown that gender can play a role in technology adoption, but **adaptability is more closely tied to training, exposure, and support rather than gender alone**. Nonetheless, it is important for training programs and system rollouts to remain inclusive and sensitive to the working styles and preferences of a female-majority workforce to ensure full engagement.

The **5% of respondents who chose not to disclose their gender** indicates an emerging recognition

of gender diversity and the need for inclusivity in government systems and processes. It may also reflect evolving workplace norms where respondents are more aware of or sensitive to gender identity and privacy.

In general, it is clear from the gender profile that giving attention to female employees in PhilGEPS activities can prove effective. Most people will engage more and happily accept these strategies if they are inclusive and free of discrimination.

According to Mendoza (2021), the study of “Transparency in local government procurement: An assessment of PhilGEPS implementation,” the makeup of those involved in procurement such as gender, can strongly impact how transparent the system is viewed and how training is executed. Mendoza found that in municipalities where women predominated in administrative and clerical roles, communication strategies that leveraged collaborative learning and peer-to-peer mentoring yielded higher engagement with the e-procurement platform. Applying these insights suggests that PhilGEPS rollouts in Laguna’s Fourth District should incorporate interactive, group-based training sessions and mentorship circles that resonate with collaborative learning preferences often observed among female-majority teams. Furthermore, he highlights that everyone’s knowledge and abilities should be respected and reflected in documentation and guides. By tailoring communication styles, support mechanisms, and training delivery to the needs of a predominantly female workforce—while maintaining privacy and respect for those who choose not to disclose gender—municipalities can foster higher system adoption, sustained engagement, and equitable access to PhilGEPS’s benefits.

Table 1.3
Demographic Profile in terms of Income Class

Income Class	f	%
20,001-30,000	49	25
30,001-40,000	74	37
40,001-50,000	18	9
above 50,000	59	30

Note. N = 200

Table 1.3 illustrates the monthly income distribution of the 200 respondents. The largest proportion of respondents, **37% (74 individuals)**, belong to the **₱30,001–₱40,000** income bracket, followed by **30% (59 individuals)** who earn **above ₱50,000** per month. Meanwhile, **25% (49 individuals)** fall within the **₱20,001–₱30,000** range, and the smallest group, **9% (18 individuals)**, earn **₱40,001–₱50,000**.

This data reveals that the majority of PhilGEPS users and implementers in the selected municipalities **belong to the middle to upper-middle income classes**. This may reflect their positions as regular, possibly permanent, government employees holding administrative or supervisory roles typically associated with such salary grades.

From an implementation standpoint, employees in the **middle to higher income brackets** may **have better access to resources that support adaptability to digital systems**, such as personal devices, stable internet access at home, or exposure to technology outside of work. This could positively influence their confidence and efficiency in using PhilGEPS.

However, the presence of a **sizable number of employees (25%) earning between ₱20,001–₱30,000** suggests that a portion of the workforce may occupy lower-ranking positions or are relatively new in service. For these individuals, **adaptability may be influenced more by institutional support** such as training and mentoring—rather than personal resources.

Overall, this income profile implies that while a majority of the workforce is likely financially equipped to cope with digital transitions, **successful PhilGEPS implementation must still ensure equitable access to technical support, regardless of income level**. This also means that working to bridge any digital

divide caused by money should include all members of the community.

According to the report, the ability of users in the Philippines to use e-procurement websites depends on the available resources at their level. It is observed that having a higher income leads government employees to access more reliable internet, modern equipment and useful learning tools which help them use the system more effectively. Applying these suggests that a large segment of PhilGEPS users in Laguna's Fourth District likely possess the personal means to support their digital engagement—translating into greater confidence and fewer technical barriers. Conversely, the 25% earning between ₱20,001–₱30,000 may lack such personal buffers, making them more dependent on organizational support. In line with the World Bank's recommendations, municipalities should therefore ensure that institutional measures—such as on-site computer facilities, subsidized data allowances, and structured training sessions—are in place to level the playing field. By doing so, they can mitigate income-related disparities in digital readiness and promote equitable access to PhilGEPS's benefits across all salary grades.

Table 1.4
Demographic Profile in terms of Years in Service

Years in Service	f	%
6-10 years	15	8
11-15 years	40	20
16-20 years	70	35
20 years and above	75	38

Note. N = 200

Table 1.4 presents the respondents' length of service in the government. A significant number of employees have been in service for 20 years and above (38%, or 75 respondents), followed closely by those who have served 16–20 years (35%, or 70 respondents). This indicates that 73% of the respondents have at least 16 years of government service, reflecting a highly experienced and long-tenured workforce.

Meanwhile, 20% (40 respondents) have served for 11–15 years, and only 8% (15 respondents) have between 6–10 years of service. Notably, there are no respondents with less than six years of service, suggesting that procurement-related roles in the selected municipalities are mostly held by long-serving employees.

The data implies that the majority of those involved in the implementation and usage of PhilGEPS have spent most of their careers working within traditional, paper-based procurement systems. This may present both strengths and challenges. On one hand, their institutional knowledge and deep familiarity with procurement processes can enhance the accuracy and compliance in using PhilGEPS. On the other hand, their adaptability to digital platforms may vary, especially if their exposure to new technologies has been limited during earlier phases of their career.

A low rate of younger employees could also suggest that the company hires less and its overall staff turnover is slow. Clearly, there's a need for organizations to include mentorship in their process to help different generations learn about modern technology.

On the whole, it appears that having experience does help, but for employees with a lot of experience, training should match their unique requirements. Assisting people in adjusting to using digital tools for purchasing is key to having a working and lasting strategy.

According to Dela Cruz (2018), in his study "The impact of PhilGEPS on procurement efficiency in government agencies," those employees who had worked in procurement long before adopting an electronic system were accurate, but found the digital format challenging to learn. Consequently, valuable knowledge from the team should not stand in the way of introducing updated training practices and showing them technology step by step. He stresses that professionals know best when veteran staff are matched with peer

mentors to support and bring together previous procedures and the use of computers. That's why cities and municipalities in this area should introduce programs where long-serving employees are taught about the important PhilGEPS functions and then allow them to learn new things on the go with the help of those with more knowledge about the platform.

Table 1.5
Demographic Profile in terms of Municipality

Years in Service	f	%
Cavinti	15	8
Famy	30	15
Kalayaan	35	18
Lumban	20	10
Magdalena	20	10
Paete	20	10
Pakil	20	10
Pañgil	20	10
Sta. Cruz	20	10

Note. N = 200

Table 1.5 presents the distribution of respondents across the selected municipalities in the Fourth District of Laguna. The highest number of respondents came from Kalayaan, with 18% (35 respondents), followed by Famy with 15% (30 respondents). Cavinti had the lowest representation, with only 8% (15 respondents). The remaining municipalities—Lumban, Magdalena, Paete, Pakil, Pañgil, and Sta. Cruz—each contributed 10% (20 respondents) to the total sample.

The team tried to include information from a range of LGUs to ensure the data covers all areas in the Fourth District. It is possible that the involvement of Kalayaan and Famy is down to office size, greater compliance with the system or a readiness to join the study.

Because most towns on average have the same number of jobs, this means most localities utilize and follow PhilGEPS which is helpful for reviewing how it is applied in various places. Still, since the numbers of respondents differ, it suggests that levels of interest in e-procurement, the organization's ability to use it or familiarity might be unequal. As a result, adopting the PhilGEPS in areas where the response rate is lower could be slower as they have fewer staff and less access to automated systems.

To make sure that PhilGEPS is used the same way by all, the municipality might have to provide special training for its staff, support the upgrade of infrastructure or emphasize specific policies.

To conclude, the way people are located around the globe indicates that designers should adapt their approach to digital systems for each market. Even though most places appear to be equally represented, the variation in numbers may indicate important differences in their operations that need to be resolved so that all places meet the rules for e-procurement.

They found that the organization's strength, how well leaders support it and available infrastructure in municipalities significantly changed the way e-procurement was adopted. Results suggest that when the executive supports ICT initiatives and the necessary equipment is available, local government units had a better chance of using the system fully and to the same degree.

Applying these insights suggests that differences in procurement team size, digital infrastructure, or leadership engagement may underlie the uneven respondent representation. Reyes et al. recommend tailoring implementation strategies to each municipality's context, such as providing extra technical support and leadership workshops in lower-capacity LGUs, and fostering inter-municipal peer learning networks where

high-performing units mentor their peers. By adopting such differentiated, context-aware interventions, Laguna's Fourth District can ensure that all municipalities, regardless of size or existing resources, achieve a more balanced and effective rollout of PhilGEPS.

Table 2.1*Extent of Implementation of PhilGEPS in terms of System Accessibility and Usability*

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>	3.25	0.43	To a Great Extent
1. easily accessible to all authorized personnel in the municipality.	3.93	0.26	To a Very Great Extent
2. user-friendly and easy to navigate.	3.88	0.33	To a Very Great Extent
3. free from frequent technical issues that hinder accessibility.	3.13	0.33	To a Great Extent
4. efficient in processing procurement transactions without delays.	3.07	0.26	To a Great Extent
5. available and operational during working hours with minimal downtime.	3.45	0.19	To a Very Great Extent
Overall	3.25	0.43	To a Great Extent

Legend: 3.25-4.00 To a Very Great Extent; 2.50-3.24 To a Great Extent; 1.75-2.49; To a Low Extent; 1.00-1.74 To a Very Low Extent

Table 2.1 shows the respondents' perceptions of the extent of PhilGEPS implementation in terms of system accessibility and usability. The overall weighted mean is 3.25 with a standard deviation of 0.43, which is interpreted as "To a Great Extent." This suggests that while the PhilGEPS platform is generally functional and accessible, some areas still require improvement to enhance user experience and system reliability.

The PhilGEPS platform is very accessible to all proper users in the municipality, with a score of 3.93. The finding reflects that the electronic system is provided to employees on time, so they access it regularly when necessary. In the same way, many said that they find the platform simple and easy to operate, as the average score for this was 3.88. That the system is easy to use and well-designed may explain why employees feel engaged and confident using it. What's more, the fact that the system worked effectively during workdays and hardly ever went down, earned a favorable score of 3.45.

Alternatively, the process stability and ability to complete tasks were evaluated as the weakest aspects of the system. The aspect indicating technical problems in the system got a score of 3.13, while the rate of effective procurement came in at 3.07. Although "To a Great Extent" remains for both, the fact that these engines aren't rated as highly indicates that sometimes, users face issues that can interrupt procurement work and result in reduced productivity. Even though users find it easy to work with PhilGEPS, it is important to focus on the backend and website loading to make processing online orders faster and more convenient.

Overall, PhilGEPS seems successful in the municipalities as users can access the program and use it without any difficulties. Still, if we want to maximize its benefits and make it easier for people to adapt, we should resolve the remaining problems and improve the system's processing. For users to keep trusting the system and use it more regularly, it must perform better and have dependable technical help available.

In Villanueva's study (2021), it was discovered that while using the front-end is not confusing, repeated crashes, slow working processes and glitches in the interface hinder both system usability and user satisfaction. The author found that when municipalities experienced more frequent technical interruptions, their workers felt less secure in using the systems and, as a result, depended on manual methods sometimes. Applying these insights suggests a classic front-end/back-end disconnect. Just as Villanueva recommends

proactive infrastructure upgrades, real-time monitoring tools, and a dedicated technical support hotline, your municipalities would benefit from strengthening server capacity, instituting routine performance audits, and establishing rapid-response support teams. By addressing these back-end challenges, local government units can transform high initial usability into consistently reliable performance, thereby maximizing employee confidence and sustaining long-term engagement with PhilGEPS.

Table 2.2*Extent of Implementation of PhilGEPS in terms of User training and competency*

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. supported by regular training sessions to enhance user competency.	2.85	0.48	To a Great Extent
2. effectively introduced to newly hired employees through structured training.	2.87	0.59	To a Great Extent
3. well-understood by employees, allowing them to navigate and use it with confidence.	3.50	0.50	To a Very Great Extent
4. integrated with ongoing training programs to update users on system upgrades.	2.61	0.67	To a Great Extent
5. complemented by sufficient learning materials to support user competency.	2.88	0.92	To a Great Extent
Overall	2.94	0.50	To a Great Extent
Legend: 3.25-4.00 To a Very Great Extent; 2.50-3.24 To a Great Extent; 1.75-2.49; To a Low Extent; 1.00-1.74 To a Very Low Extent			

Table 2.2 presents the respondents' assessment of the implementation of PhilGEPS in relation to user training and competency. The overall weighted mean is 2.94 with a standard deviation of 0.50, which falls under the interpretation of "To a Great Extent." This suggests that while training initiatives are present and generally effective, there are still areas where the provision and delivery of training could be further strengthened.

Among the indicators, the highest mean score was recorded for the statement that employees understand the platform well enough to navigate and use it with confidence, which received a mean of 3.50 and was interpreted as "To a Very Great Extent." This reflects positively on the learning curve and adaptability of government employees in using the system, possibly due to prior experience or peer support within their offices. Despite this, other aspects of training did not receive equally strong ratings.

The provision of regular training sessions to enhance user competency scored 2.85, while structured training for newly hired employees received a similar rating of 2.87, both interpreted as "To a Great Extent." These results suggest that while training programs are conducted, they may not be consistent, comprehensive, or widely available across all municipalities. Furthermore, training integration for system updates received one of the lower ratings at 2.61, indicating that users may not always be informed or trained in a timely manner about changes or upgrades to the platform. The availability of learning materials also scored 2.88, again pointing to moderate sufficiency in resources that support user competency. These findings imply that while many users are confident in using PhilGEPS, their competence is likely shaped more by experience than by formal or institutionalized training. The relatively lower scores for ongoing and structured training opportunities suggest that **a more systematic and continuous learning framework is needed**. Regular, updated, and accessible training—especially when changes to the system occur—is crucial to maintain a competent and confident workforce capable of fully utilizing PhilGEPS.

In summary, the extent of PhilGEPS implementation in terms of user training and competency is

fairly strong but reveals a need for improvement in consistency, structure, and support materials. Strengthening these components would not only enhance individual proficiency but also ensure long-term sustainability and adaptability of digital procurement practices in local government units.

In the OECD (2021) report on “Best practices in e-procurement systems: Lessons from South Korea’s KONEPS,” the Organization for Economic Co-operation and Development underscores the centrality of a coordinated, continuous training framework to achieve high user competency. The report describes how Korea’s Public Procurement Service operates a dedicated training centre that provides multi-day residential courses for procurement officials and suppliers, offers region-based short courses through local offices, and maintains a help desk for real-time support. Importantly, it recommends integrating update-specific modules into a modular curriculum so that users receive timely, targeted instruction whenever new features are released. These best practices suggest several improvements. First, establishing a centralized training unit within the district that delivers standardized core courses and issue-driven “refresher” modules would raise consistency across municipalities. Second, deploying regional training “satellites” or mobile learning teams could ensure that structured sessions reach every local office. Third, embedding brief, on-demand e-learning capsules within PhilGEPS itself would guarantee that employees are promptly informed and trained on system upgrades. By adopting these OECD-recommended measures, Laguna’s Fourth District can move beyond ad hoc workshops toward a cohesive, scalable training ecosystem that reinforces user confidence, minimizes skill gaps, and sustains long-term proficiency in PhilGEPS.

Table 2.3*Extent of Implementation of PhilGEPS in terms of Technical Support*

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. supported by regular training sessions to enhance user competency.	3.18	0.55	To a Great Extent
2. effectively introduced to newly hired employees through structured training.	2.46	1.00	To a Low Extent
3. well-understood by employees, allowing them to navigate and use it with confidence.	3.06	0.75	To a Great Extent
4. integrated with ongoing training programs to update users on system upgrades.	2.95	0.63	To a Great Extent
5. complemented by sufficient learning materials to support user competency.	3.19	0.64	To a Great Extent
Overall	2.97	0.56	To a Great Extent

Legend: 3.25-4.00 To a Very Great Extent; 2.50-3.24 To a Great Extent; 1.75-2.49; To a Low Extent; 1.00-1.74 To a Very Low Extent

Table 2.3 illustrates the respondents’ assessment of the extent to which PhilGEPS is supported by adequate technical assistance across the selected municipalities. The overall weighted mean is 2.97 with a standard deviation of 0.56, interpreted as "To a Great Extent." This suggests that technical support is generally present and functional, but certain aspects remain inconsistent or insufficient from the users’ perspective.

Among the indicators, the highest rating was given to the availability of sufficient learning materials to support user competency, which received a mean of 3.19. This is followed closely by the item stating that the system is supported by regular training sessions, with a mean of 3.18. Both indicators fall under the "To a Great Extent" interpretation and highlight that materials and periodic training help in bridging technical knowledge gaps. Additionally, the statement that employees understand the platform well enough to navigate and use it confidently also scored relatively high, with a mean of 3.06, reflecting that many users are able to

manage technical aspects of the system after some level of exposure or support.

However, the lowest rating was observed in the indicator stating that PhilGEPS is effectively introduced to newly hired employees through structured training, which received a mean of only 2.46—interpreted as "To a Low Extent." This finding points to a significant weakness in onboarding processes for new staff, suggesting that many employees begin using the system without receiving adequate technical orientation or support. Updated training programs for systems still need improvement, since they appear to be inconsistent across numerous towns and cities.

From what is stated in "To a Great Extent," it is clear that there is a strong technical base for PhilGEPS, but some improvements are necessary when it comes to adding structure to onboarding and responding quickly to any necessary changes. This also means that some local government units apply technical support strategies more consistently than others.

All things considered, even using PhilGEPS requires a basic level of technical support, but the study indicates that formal training for new workers and stronger continuing support are necessary. Offering technical support regularly will help workers adjust and use the platform in the most effective way.

Villanueva (2021) finds that although end-users like using and learning from front-end and basic materials, lack of solid training and insufficient IT assistance prevents some users from becoming fully competent with PhilGEPS. Villanueva noted that municipalities that did not have a clear orientation process for new staff still needed to rely on their own efforts and old work practices, regardless of the learning materials and training provided. Applying what we learned indicates that education in America is supported by a divided network. Laguna's Fourth District is advised by Villanueva to design a strong technical assistance setup with pre-set preparatory modules, an active on-demand service and training classes that happen when updates are made to each system. Thus, municipalities allow everyone to learn and apply new information about PhilGEPS efficiently.

Table 2.4

Extent of Implementation of PhilGEPS in terms of Compliance with Procurement Guidelines

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. implemented in strict adherence to government procurement policies and regulations.	3.00	0.55	To a Great Extent
2. utilized to ensure transparency and accountability in procurement processes.	3.50	0.50	To a Very Great Extent
3. monitored to ensure compliance with procurement guidelines.	3.18	0.38	To a Great Extent
4. reviewed to address non-compliance issues effectively.	2.83	0.76	To a Great Extent
5. used by employees who are well-informed about procurement policies and regulations.	3.30	0.51	To a Great Extent
Overall	3.16	0.38	To a Great Extent

Legend: 3.25-4.00 To a Very Great Extent; 2.50-3.24 To a Great Extent; 1.75-2.49; To a Low Extent; 1.00-1.74 To a Very Low Extent

The respondents' opinions about the use of PhilGEPS are summarized in Table 2.4 in terms of compliance with procurement procedures. PhilGEPS is "To a Great Extent" aligned with government procurement policies in the sample municipalities studied in the Fourth District of Laguna.

The performance indicator with the highest score is "used to make procurement processes more transparent and accountable," showing a Very Great Extent of being used. As a result, PhilGEPS has accomplished much in terms of promoting transparency and accountability as key goals of electronic

procurement.

The platform was also found to be well used by workers who understand procurement rules, with a mean of 3.30 (SD = 0.51) and was considered "To a Great Extent." In other words, employees understand the risks well and usually act safely, so additional gradual training could help them reach their best potential.

Greater use of monitoring procedures to see if engineers follow procurement guidelines also scored very highly with a mean of 3.18 (SD = 0.38), pointing out that systems are established, but could still be improved.

For this category, the greatest deviation came in the lowest mean score. The answers received reflect that municipalities do not always respond systematically to cases of unsolicited advertising. Extra monitoring and frequent audits could help make procurement officers respond more quickly and take better corrective steps.

Lastly, the indicator referring to strict adherence to procurement policies and regulations scored 3.00 (SD = 0.55), showing that while compliance is present, it is not yet at the highest level of enforcement and may still require improvements in terms of internal controls and awareness.

All in all, at the selected municipalities, PhilGEPS is achieving satisfactory compliance with the guidelines for procurement. Still, to perform and comply better, additional support, education and supervision would be useful strategies.

In their article, published in 2019, Santos and Garcia prove that when processes and rules are part of an e-procurement system, it helps prevent corruption. According to Santos and Garcia, using the PhilGEPS platform to ensure new fields are filled in and logging all activities automatically can make the process more open and reliable, while non-compliance may be reduced by as much as 25% as a result.

Their analysis further shows that regular system-generated compliance reports create a culture of continuous oversight, reducing the need for ad hoc reviews and minimizing variability across offices.

Applying these insights suggests that while front-end enforcement is strong, back-end review mechanisms require reinforcement. Consistent with Santos and Garcia's recommendations, municipalities should leverage PhilGEPS's built-in audit-trail functions to schedule automated compliance checks and issue exception alerts. Additionally, integrating monthly dashboard reports on non-compliance incidents and instituting peer-review panels can help standardize corrective actions and reduce the observed municipal disparities. By aligning your implementation strategy with these evidence-based practices, Laguna's Fourth District can elevate compliance review from a "Great" to a "Very Great" extent, ensuring that PhilGEPS fully delivers on its mandate for transparent, accountable public procurement.

Table 2.5

Extent of Implementation of PhilGEPS in terms of Stakeholder Involvement

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. utilized by stakeholders, including suppliers and procurement officers, in procurement activities.	3.19	0.61	To a Great Extent
2. effectively communicated to stakeholders, ensuring clarity in procurement transactions.	3.22	0.69	To a Great Extent
3. responsive to stakeholder feedback to improve procurement processes.	3.22	0.52	To a Great Extent
4. integrated with stakeholder consultations to align with procurement needs.	3.33	0.47	To a Very Great Extent
5. supported by strong collaboration between government units and suppliers.	3.55	0.50	To a Very Great Extent

Overall	3.30	0.45	To a Great Extent
Legend: 3.25-4.00 To a Very Great Extent; 2.50-3.24 To a Great Extent; 1.75-2.49; To a Low Extent; 1.00-1.74 To a Very Low Extent			

Table 2.5 presents the respondents' assessment of the extent to which the PhilGEPS platform involves key stakeholders—namely suppliers and procurement officers—in procurement activities within the selected municipalities of the Fourth District of Laguna. The overall mean score of 3.30 (SD = 0.45) indicates that stakeholder involvement is realized “To a Great Extent.” Among the specific indicators, “supported by strong collaboration between government units and suppliers” achieved the highest mean of 3.55 (SD = 0.50), signifying that formal and informal coordination mechanisms—such as joint planning sessions and inter-agency working groups—are functioning very effectively. Closely following, the indicator “integrated with stakeholder consultations to align with procurement needs” yielded a mean of 3.33 (SD = 0.47), demonstrating that municipalities proactively seek and incorporate stakeholder input when framing procurement specifications. The measures “effectively communicated to stakeholders, ensuring clarity in procurement transactions” and “responsive to stakeholder feedback to improve procurement processes” both obtained means of 3.22 (SD = 0.69 and 0.52, respectively), suggesting that while communications channels exist and feedback loops are in place, the effectiveness of these channels varies somewhat across municipalities. Lastly, “utilized by stakeholders, including suppliers and procurement officers, in procurement activities” scored 3.19 (SD = 0.61), indicating that everyday platform usage is solid but could be further enhanced to achieve more consistent engagement.

The variability seen in standard deviations—particularly in communication clarity (SD = 0.69) and platform utilization (SD = 0.61)—points to disparities among municipalities in how stakeholder involvement is operationalized. To address these inconsistencies and elevate stakeholder engagement from a great to a very great extent, it is recommended that local government units institutionalize regular stakeholder forums, standardize communication protocols, and conduct periodic capacity-building workshops for both procurement officers and suppliers. By implementing these measures, municipalities can ensure clearer, more consistent information exchange and stronger, more uniform collaboration, thereby maximizing the benefits of the PhilGEPS platform for all stakeholders.

These findings are consistent with the study of Reyes, Santos, and Garcia (2022), who evaluated the effectiveness of PhilGEPS implementation in local government units across the Philippines. Their research emphasized that the success of the platform heavily relies on the active involvement of stakeholders—particularly procurement officers and suppliers—at each stage of the procurement process. Similar to the present study, Reyes et al. observed that while collaborative mechanisms such as consultations and joint planning sessions were evident in many LGUs, there were noticeable gaps in how these were standardized and communicated. The variability in stakeholder engagement, particularly in the clarity of communication and the responsiveness to feedback, mirrors the differences noted across municipalities in the Fourth District of Laguna. Both studies highlight the importance of institutionalizing structured stakeholder forums, strengthening communication protocols, and enhancing capacity-building efforts to ensure more consistent and effective engagement with the PhilGEPS platform.

Table 3.1*Level of Employee Adaptability in PhilGEPs with regard to Learning flexibility*

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. easy to learn, allowing employees to adapt quickly to system updates.	3.27	0.65	High
2. used by employees who actively seek opportunities to	2.92	0.73	High

	improve their knowledge of its features.			
3.	supported by resources that help employees continuously enhance their learning.	3.42	0.49	Very High
4.	explored by employees who demonstrate a willingness to discover new system functions independently.	2.88	0.75	High
5.	utilized effectively by employees who apply their training to actual procurement transactions.	3.28	0.67	High
Overall		3.15	0.49	High
Legend: 3.25-4.00 Very High; 2.50-3.24 High; 1.75-2.49; Low; 1.00-1.74 Very Low				

Table 3.1 shows the respondents' evaluation of employee adaptability to the PhilGEPS platform in terms of learning flexibility. With an overall mean of 3.15 (SD = 0.49), employee adaptability is rated High, indicating that staff across the selected municipalities generally embrace changes and updates in the system. The highest score is observed for "supported by resources that help employees continuously enhance their learning" (M = 3.42, SD = 0.49; Very High), suggesting that training materials, user guides, and helpdesk support are effective in facilitating ongoing skill development. Closely following are the indicators "utilized effectively by employees who apply their training to actual procurement transactions" (M = 3.28, SD = 0.67; High) and "easy to learn, allowing employees to adapt quickly to system updates" (M = 3.27, SD = 0.65; High), reflecting that practical application of learned skills and the intuitive design of the platform both contribute positively to adaptation. Conversely, the indicators "used by employees who actively seek opportunities to improve their knowledge of its features" (M = 2.92, SD = 0.73; High) and "explored by employees who demonstrate a willingness to discover new system functions independently" (M = 2.88, SD = 0.75; High) scored somewhat lower, revealing more variability in self-directed learning behaviors among staff.

The relatively larger standard deviations for self-directed learning (SD = 0.73 and 0.75) point to inconsistencies in individual initiative when it comes to exploring and mastering advanced system features. To bolster learning flexibility and raise the overall level of adaptability from High to Very High, municipalities should consider introducing structured yet flexible learning pathways—such as peer-led workshops, gamified e-learning modules, and mentorship programs—that encourage employees to take ownership of their professional development. By reinforcing both formal and informal mechanisms for knowledge sharing and by incentivizing proactive system exploration, local government units can ensure that all users not only keep pace with platform enhancements but also leverage PhilGEPS's full range of functionalities for more efficient procurement operations.

The results presented in Table 3.1 align well with the findings of Reyes, Santos, and Garcia (2022), who examined PhilGEPS effectiveness within local government units and highlighted the crucial role of employee adaptability in system implementation. Their study emphasized that while institutional support such as training and user resources was generally in place, the degree to which employees actively engaged in continuous learning and system exploration varied significantly across LGUs. This observation mirrors the present study's findings, where structured learning support was rated very high, but self-directed learning behaviors—such as independently discovering new features—showed greater inconsistency. Reyes et al. further recommended enhancing peer learning and institutional incentives to promote a deeper engagement with the platform, which resonates with this study's suggestion to implement flexible learning strategies like gamified modules and mentorship programs. These parallels reinforce the idea that while the foundation for adaptability exists, more personalized and engaging learning approaches are necessary to elevate employee adaptability from high to very high and ensure sustained success in e-procurement initiatives.

Table 3.2*Level of Employee Adaptability in PhilGEPS with regard to Technological competency*

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. operated by employees who have the necessary digital skills to use it efficiently.	3.63	0.49	Very High
2. used by employees who can troubleshoot basic system issues independently.	3.37	0.48	Very High
3. managed effectively by employees in uploading, tracking, and managing procurement documents.	3.68	0.47	Very High
4. confidently used by employees for procurement-related tasks.	3.75	0.43	Very High
5. supported by adequate tools and infrastructure to enhance employees' technological competence.	3.10	0.54	High
Overall	3.50	0.36	Very High

Legend: 3.25-4.00 Very High; 2.50-3.24 High; 1.75-2.49; Low; 1.00-1.74 Very Low

Table 3.2 summarizes the respondents' evaluation of employee adaptability to the PhilGEPS platform in terms of technological competency. With an overall mean score of 3.50 (SD = 0.36), employees' technological competency is rated "Very High," indicating that staff across the selected municipalities are generally well-equipped to operate the system. The highest mean of 3.75 (SD = 0.43) was recorded for "confidently used by employees for procurement-related tasks," reflecting strong user confidence in carrying out day-to-day procurement functions. Closely following were "managed effectively by employees in uploading, tracking, and managing procurement documents" (M = 3.68, SD = 0.47) and "operated by employees who have the necessary digital skills to use it efficiently" (M = 3.63, SD = 0.49), both of which reinforce that employees possess core digital proficiencies and execute essential system processes with ease. Employees' ability to "troubleshoot basic system issues independently" also rated very high (M = 3.37, SD = 0.48), suggesting that many users can resolve minor technical hiccups without external support. The exception lies in the indicator "supported by adequate tools and infrastructure to enhance employees' technological competence," which, at 3.10 (SD = 0.54), is interpreted as "High" rather than very high. This lower score and its comparatively larger standard deviation—indicates variability in the availability and quality of hardware, software, and network resources across municipalities.

To sustain and further elevate technological competency, local government units should prioritize investment in standardized, up-to-date infrastructure such as reliable internet connections, modern workstations, and dedicated troubleshooting helpdesks to ensure equitable access to necessary tools. Establishing a central inventory of digital resources and instituting routine technology audits will help identify and address gaps more systematically. By reinforcing the technical backbone that underpins PhilGEPS usage, municipalities can not only maintain the very high levels of user confidence and proficiency already observed but also ensure that every employee has the consistent, dependable support needed to troubleshoot issues, explore advanced system features, and contribute to more efficient, error-free procurement operations.

The findings in Table 3.2, which highlight a "Very High" level of employee technological competency in using the PhilGEPS platform, strongly resonate with the insights presented by Villanueva (2021). In his study on technical challenges in PhilGEPS implementation, Villanueva noted that while most users had developed a functional understanding of the platform, disparities remained in terms of infrastructure availability and technical support across municipalities. This mirrors the current study's results, where respondents rated their personal digital skills and ability to navigate the system highly, but reported slightly lower satisfaction with the adequacy of tools and infrastructure provided to support those skills. Villanueva

emphasized that even technologically competent personnel may be limited in their performance if infrastructure—such as computers, stable internet, or system maintenance support—is inconsistent. Therefore, the present study’s recommendation to improve IT infrastructure and conduct regular technology audits aligns with Villanueva’s conclusion that enhancing the technical environment is essential to fully capitalize on employee competencies. This parallel further affirms the need for municipalities to bridge resource gaps to unlock the full potential of e-procurement systems like PhilGEPS.

Table 3.3

Level of Employee Adaptability in PhilGEPS with regard to Flexibility in Role Adjustment

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. used by employees who are willing to take on new roles related to its implementation.	3.10	0.66	High
2. integrated into procurement processes that employees can quickly adapt to.	2.95	0.74	High
3. utilized effectively by employees who can adjust to additional responsibilities in digital procurement.	3.05	0.70	High
4. incorporated into workflows without negatively affecting employees’ productivity.	3.25	0.43	High
5. embraced by employees who respond positively to role adjustments related to its use.	3.33	0.47	Very High
Overall	3.13	0.47	High

Legend: 3.25-4.00 Very High; 2.50-3.24 High; 1.75-2.49; Low; 1.00-1.74 Very Low

Table 3.3 presents the respondents’ evaluation of employee adaptability to the PhilGEPS platform in terms of flexibility in role adjustment. The overall mean score of 3.13 (SD = 0.47) indicates a High level of adaptability, suggesting that employees are generally capable of adjusting their roles to accommodate the system’s requirements. Among the specific indicators, “embraced by employees who respond positively to role adjustments related to its use” scored highest, with a mean of 3.33 (SD = 0.47) and an interpretation of Very High, showing that most staff view role changes as acceptable or even beneficial. Next, “incorporated into workflows without negatively affecting employees’ productivity” achieved a mean of 3.25 (SD = 0.43; High), revealing that the system’s integration into existing processes has not substantially disrupted day-to-day tasks. The indicators “used by employees who are willing to take on new roles related to its implementation” (M = 3.10, SD = 0.66; High) and “utilized effectively by employees who can adjust to additional responsibilities in digital procurement” (M = 3.05, SD = 0.70; High) both suggest a solid—but variable—willingness among staff to expand or shift their duties. The lowest mean of 2.95 (SD = 0.74; High) was reported for “integrated into procurement processes that employees can quickly adapt to,” indicating that while processes are in place, some employees may require more time or support to fully acclimate to revised workflows.

The range of standard deviations—particularly the higher variability in process integration (SD = 0.74) and role-taking willingness (SD = 0.66)—highlights differences across municipalities in how smoothly employees transition into new or expanded roles. To strengthen role-adjustment flexibility and raise overall adaptability, it is recommended that local government units implement structured cross-training programs, clarify revised job descriptions, and establish peer-mentoring arrangements. In addition, conducting regular process reviews and soliciting employee feedback on workflow changes can identify pain points early and guide refinements. Ensuring employees are provided with proper support and role guidance advises police departments to use the PhilGEPS system as a chance to improve their skills.

Reyes, Santos and Garcia’s (2022) findings explain why employee adaptability was ranked “High” in

Table 3.3. The authors argued that for PhilGEPS to help local government units, employees also need to change their mindset and learn to accept new work tasks.

Both parties observed that employees who handled different roles, showed open-mindedness, keen interest in learning and were active members of the team, promoted greater involvement of the platform in the procurement department. According to the study, people were generally prepared to change their duties when the details were clearly presented and there were defined plans for how work was performed.

Still, lower scores and bigger standard deviations for a few indicators such as adapting to new processes, show there is a gap in services to help managers and employees more smoothly switch roles in different municipalities.

Reyes et al. also noted that where change management practices were weak or inconsistent, resistance or confusion emerged among staff. Thus, the present study's recommendations for structured cross-training, clarified job roles, and employee-centered workflow reviews echo the literature's call for institutionalized support to ensure sustained adaptability. By embedding these mechanisms within local governance frameworks, PhilGEPS implementation can be positioned as a driver of professional development and not merely as an administrative obligation.

Table 3.4

Level of Employee Adaptability in PhilGEPS with regard to Resistance to Change

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. embraced by employees who are open to adopting its new features and updates.	2.93	0.73	High
2. easy for employees to transition to from manual procurement.	3.09	0.69	High
3. welcomed by employees as a beneficial shift to online procurement.	3.13	0.84	High
4. fully utilized by employees who actively engage with the system.	3.08	0.61	High
5. implemented with strong support, ensuring employees adapt smoothly to changes.	3.18	0.38	High
Overall	3.08	0.46	High

Legend: 3.25-4.00 Very High; 2.50-3.24 High; 1.75-2.49; Low; 1.00-1.74 Very Low

Table 3.4 examines how employees cope with transitioning from familiar, manual procurement workflows to the digital PhilGEPS environment. With an overall mean of 3.08 (SD = 0.46), the data indicate a High level of openness among staff, yet also signal areas where change management can be strengthened. The indicator “implemented with strong support, ensuring employees adapt smoothly to changes” earned the highest rating (M = 3.18, SD = 0.38), underscoring the importance of managerial backing and readily available technical assistance. Meanwhile, “welcomed by employees as a beneficial shift to online procurement” (M = 3.13, SD = 0.84) and “easy for employees to transition to from manual procurement” (M = 3.09, SD = 0.69) suggest that, although most users recognize the strategic advantages of e-procurement—such as faster bid notices and real-time tracking—some still struggle with the mechanical shift from paper-based processes. The relatively lower mean for “embraced by employees who are open to adopting its new features and updates” (M = 2.93, SD = 0.73) highlights pockets of resistance, likely stemming from habit or limited exposure to iterative platform improvements.

To build on this generally positive foundation and move toward a Very High level of change adaptability, municipalities should adopt a multi-pronged change management strategy. First, a phased rollout of new system features—with pilot groups in each department—would allow early adopters to champion the

platform and share success stories. Another strategy is to find employees with several years of experience to champion the changes; with workshops, they can guide others in making better use of the new system. Moreover, if learners see the e-learning capsules on the same page where PhilGEPS is located, their brains will not need to switch from one place to another to learn about the new functions. Eventually, regularly monitoring employees' opinions about change can help IT and management teams spot any issues and address them before they grow.

The findings in Table 3.4—indicating a “High” level of employee openness to shifting from manual to digital procurement processes—are well-aligned with Villanueva’s (2021) study on the technical challenges and user experience in PhilGEPS implementation. Villanueva highlighted that successful digital transitions rely not only on infrastructure and system design, but heavily on employees’ willingness and ability to move away from traditional practices. His study emphasized that the learning curve, though initially steep for some users, can be overcome with consistent technical support and visible management commitment—both of which were confirmed in the current research, particularly through the highest-rated indicator, “implemented with strong support.”

Additionally, Villanueva (2021) discussed resistance to system updates and enhancements as a recurring barrier, especially among long-tenured personnel accustomed to manual workflows. This echoes the lower score observed in the present study for “embraced by employees who are open to adopting its new features and updates” ($M = 2.93$), indicating that while the general reception of PhilGEPS is positive, targeted interventions are needed to foster continuous openness. The proposed strategies—such as phased rollouts, e-learning modules, and assigning peer “change champions”—align closely with Villanueva’s conclusion that addressing psychological and behavioral responses is as critical as providing technical solutions.

Table 3.5

Level of Employee Adaptability in PhilGEPS with regard to Engagement and motivation

Indicator	M	SD	Interpretation
<i>The PhilGEPS platform is...</i>			
1. embraced by employees who are open to adopting its new features and updates.	3.38	0.49	Very High
2. easy for employees to transition to from manual procurement.	3.06	0.64	High
3. welcomed by employees as a beneficial shift to online procurement.	3.08	0.61	High
4. fully utilized by employees who actively engage with the system.	3.03	0.54	High
5. implemented with strong support, ensuring employees adapt smoothly to changes.	3.08	0.47	High
Overall	3.12	0.39	High

Legend: 3.25-4.00 Very High; 2.50-3.24 High; 1.75-2.49; Low; 1.00-1.74 Very Low

Table 3.5 explores the motivational drivers and sustained engagement of employees using PhilGEPS. The overall mean of 3.12 ($SD = 0.39$) again falls into the High category, reflecting a workforce that is generally enthusiastic about e-procurement but may require additional incentives to maintain momentum. Notably, “embraced by employees who are open to adopting its new features and updates” scored Very High ($M = 3.38$, $SD = 0.49$), indicating that initial attitude toward innovation is strong. However, indicators assessing the depth of ongoing engagement—such as “fully utilized by employees who actively engage with

the system” ($M = 3.03$, $SD = 0.54$) and “implemented with strong support, ensuring employees adapt smoothly to changes” ($M = 3.08$, $SD = 0.47$)—reveal that after initial adoption, consistent use and enthusiasm can wane without reinforcement.

To sustain and deepen engagement, municipal administrators should implement a structured recognition and reward framework aligned with PhilGEPS performance metrics. For example, a tiered points system could track metrics such as on-time bid publication, accuracy of uploaded documents, and timely feedback resolution; employees who reach certain thresholds might receive certificates, public commendations during inter-municipal meetings, or even nominal incentives such as additional training credits. Complementing this, creating a live dashboard visible to all staff—highlighting departmental and individual “top performers” in system engagement—would harness friendly competition and peer accountability. Periodic “innovation days,” where employees showcase hacks or shortcuts they’ve developed on PhilGEPS, can also foster a sense of ownership and community around continuous improvement. Finally, integrating short, scenario-based micro-learning modules directly into daily routines—accessible via mobile devices—will ensure that motivation is not solely driven by formal workshops but is sustained through bite-sized, context-relevant learning that sparks curiosity and reinforces usage habits.

The findings in Table 3.5 indicate that while employees show High motivation and engagement with PhilGEPS overall, there is room to enhance sustained enthusiasm through strategic interventions. These results align closely with Reyes’ (2020) study, which emphasized that continuous motivation in digital platforms depends not only on initial training but also on consistent reinforcement and user recognition. Reyes found that government employees are more likely to maintain high levels of system engagement when their efforts are acknowledged and when they can see tangible benefits—both professional and procedural—from using the system.

The “Very High” score in the current study for openness to new features ($M = 3.38$, $SD = 0.49$) supports Reyes’ (2020) assertion that innovation readiness is present in the public workforce. However, the slightly lower scores for indicators tied to sustained usage—such as “actively engage with the system” and “implemented with strong support”—suggest that motivation can taper off without ongoing support mechanisms, consistent with Reyes’ findings.

To address this, the proposed interventions in the current study—such as gamified recognition systems, peer accountability dashboards, and mobile micro-learning modules—echo Reyes’ (2020) recommendation for creating an “ecosystem of engagement” rather than relying solely on traditional top-down enforcement. These strategies are designed to build intrinsic motivation and peer-based reinforcement, which Reyes found to be more effective than one-time training in promoting long-term digital adoption.

By embedding motivation into daily workflows and recognizing employee contributions through visible, value-aligned incentives, municipalities can transition PhilGEPS from a compliance task into a platform for professional empowerment and innovation.

Table 4*Test of Relationship between the Implementation and Employee Adaptability of PhilGEPS*

	M	SD	1	2	3	4	5	6	7	8	9	10
Extent of Implementation of PhilGEPS												
1 System accessibility and usability	3.45	.19	-									
2 User training and competency	2.94	.50	.674**	-								
3 Technical Support	2.97	.56	.639**	.804**	-							
4 Compliance with procurement guidelines	3.16	.38	.624**	.775**	.821**	-						
5 Stakeholder involvement	3.30	.45	.571**	.844**	.796**	.790**	-					
Level of Employee Adaptability on PhilGEPS												
6 Learning flexibility	3.15	.49	.623**	.844**	.837**	.794**	.859**	-				
7 Technological competency	3.50	.36	.523**	.834**	.765**	.768**	.864**	.816**	-			
8 Flexibility in role adjustment	3.13	.47	.624**	.796**	.848**	.817**	.794**	.883**	.738**	-		
9 Resistance to change	3.08	.46	.629**	.781**	.753**	.737**	.716**	.755**	.676**	.778**	-	
10 Engagement and motivation	3.12	.39	.599**	.743**	.782**	.783**	.769**	.821**	.699**	.846**	.746**	-

** $p < .05$ Significant

Table 4 presents Pearson correlation coefficients between five dimensions of PhilGEPS implementation (system accessibility and usability; user training and competency; technical support; compliance with procurement guidelines; stakeholder involvement) and five dimensions of employee adaptability (learning flexibility; technological competency; flexibility in role adjustment; resistance to change; engagement and motivation). All correlations are positive and significant at $p < .05$, with coefficients ranging from .523 to .883, demonstrating that stronger implementation practices are closely associated with higher adaptability. The highest correlations appear between stakeholder involvement and learning flexibility (.859) and between technical support and flexibility in role adjustment (.848), indicating that inclusive consultation and effective help-desk services most strongly empower employees to learn and adjust roles. Likewise, user training and competency correlate very highly with learning flexibility (.844) and technological competency (.834), confirming that comprehensive capacity-building directly enhances both employees' willingness and ability to engage with PhilGEPS.

Based on what we found, administrations in municipalities should use a weighed strategy for best employee adaptation. At the beginning, keeping in mind to give importance to training employees to use the system and all its tools. Second, having quick-action teams and collections of support information will

support role changes and help reduce opposition to changing ways of working. Moreover, including various stakeholders in workshops and feedback activities not just helps the company comply and be open, but also encourages everyone to keep learning. In summary, adhering to procurement standards regularly and ensuring simplicity in using the system will motivate staff for a long period. If cities integrate the processes of these five domains, they create a situation where effective implementations make them more able to respond to changes which increases the effectiveness and efficiency of their work on the PhilGEPS platform.

All the strong and significant positive correlations listed in Table 4 confirm Delgado & Santos (2021), who pointed out that adopting digital tools in public procurement depends on more than equipment; people's capabilities and involvement must be strengthened as well. Like Delgado and Santos, this study found that allowing others to play a role and well-adapted support play a big part in making government employees more adaptable.

Furthermore, the very high correlations between user training and both learning flexibility (.844) and technological competency (.834) echo Reyes' (2020) assertion that sustained capacity-building efforts lead to deeper, long-term digital competence. Reyes observed that training programs aligned with real system demands—as opposed to generic modules—help users become both more confident and more proactive in navigating evolving e-procurement systems.

These findings collectively support the argument that a holistic implementation framework is crucial. Delgado & Santos (2021) proposed a model that integrates training, support, stakeholder engagement, compliance enforcement, and system design usability, all of which were confirmed in this study as significantly associated with employee adaptability. The reinforcing relationships identified here validate that implementation strategies should not operate in silos but rather interconnect to generate a system-wide culture of learning, responsiveness, and digital readiness.

By using this comprehensive, evidence-based approach, municipalities can ensure that employees are not only equipped to meet current system demands but are also adaptable to future enhancements, changes in procurement policy, or broader digital governance initiatives.

Title: PhilGEPS Purchasing Enhancement Program (PPEP)

For: Selected Municipalities of the Fourth District of Laguna

Based on the Thesis: Implementation and Employee Adaptability to Philippine Government Electronic Procurement System (PhilGEPS)

The problems identified in using the Philippine Government Electronic Procurement System (PhilGEPS) in the Fourth District of Laguna lead to proposing the PhilGEPS Purchasing Enhancement Program (PPEP). The program's goal is to increase the skills of people in the government when using the system, so buying goods and services is done transparently, efficiently and legally.

To best support its workers, the PPEP features six core parts: (1) technical knowledge-building workshops and more training, (2) tools to teach digital skills to individuals uncomfortable with computers, (3) a promotional campaign to introduce employees to the features of PhilGEPS, (4) extensive technical help and maintenance, (5) lessons on online data protection and (6) incentives for wanting to do things right.

The program counts on teamwork between municipal procurement officers, HR departments, IT departments and other supporting agencies, so that employees can feel confident using PhilGEPS and there is further progress and transparency made in government procurement.

Table 5: PhilGEPS Purchasing Enhancement Program (PPEP)

Program Component	Description	Objectives Addressed	Responsible Offices	Timeline
1. Training and Re-Training Workshops	Conduct monthly or quarterly training on basic and advanced PhilGEPS features; includes hands-on simulations.	Obj. 1, 2	Procurement Office, HR, IT Unit	Monthly/Quarterly
2. Digital Literacy and Confidence Building	Provide digital skills workshops, practice sessions, and peer support for employees uncomfortable with online systems.	Obj. 2, 3	HR, IT Unit, Municipal Information Office	Bi-monthly
3. PhilGEPS Awareness Campaign	Disseminate information about PhilGEPS features, e-centers, and digital tools via posters, bulletins, and briefings.	Obj. 3	Procurement Office, HR	Ongoing
4. Enhanced Technical Support System	Establish dedicated local tech support per municipality, with regular checkups and feedback collection.	Obj. 4	IT Department, Procurement Office	Continuous
5. Privacy and Cybersecurity Education	Conduct seminars and distribute guidelines on data privacy, password security, and safe online transactions.	Obj. 5	IT Department, Legal Office	Quarterly
6. Incentive and Recognition Program	Recognize and reward high-performing PhilGEPS users and departments to boost morale and promote best practices.	Obj. 6	HR, Municipal Admin Office	Quarterly

Objective No.	Objective Statement
1	
2	Improve digital literacy and reduce resistance to online procurement.
3	Raise awareness about digital resources, including e-centers.
4	Improve responsiveness and accessibility of technical support services.
5	Promote understanding of cybersecurity and privacy practices.
6	Foster a culture of digital innovation through incentives and recognition.

4. Summary, Conclusions, and Recommendations

4.1. Summary of Findings

The majority of respondents were aged 46–55, predominantly female, earning between ₱30,001–₱40,000, and had over 16 years of government service. Most municipalities were well represented, with Kalayaan having the highest number of respondents.

1. The implementation of PhilGEPS was rated to a great extent. The system was accessible and user-friendly, though technical issues were occasionally noted. Training was available but inconsistent, especially for new users and system updates. Technical support and compliance with procurement guidelines were generally present but varied across municipalities. Stakeholder involvement was active but communication and feedback mechanisms require enhancement.
2. Employee adaptability was rated high to very high. Most employees showed strong digital skills, flexibility in role adjustment, and willingness to embrace system changes. Some, however, were less proactive in exploring new features or adapting to updated workflows.
3. A significant positive relationship was found between PhilGEPS implementation and employee adaptability, confirming that better implementation contributes to higher adaptability among staff.
4. Based on the results, the proposed PhilGEPS Purchasing Enhancement Program (PPEP) includes improved training, stronger technical support, digital skill-building, stakeholder engagement, and motivation strategies to enhance procurement efficiency across the district.

4.2. Conclusions

Based on the findings, the following conclusions are drawn:

PhilGEPS is effectively implemented in the selected municipalities of Laguna's Fourth District, though areas like training, support, and stakeholder engagement need improvement. Employees show high adaptability, especially in digital skills and openness to change. A strong positive relationship between implementation and adaptability confirms that better system rollout leads to more responsive and capable personnel. Strengthening support systems will further enhance procurement efficiency and employee performance.

4.3. Recommendations

Based on the conclusion, the following are recommended:

1. **For Government Agencies (including Procuring Entities and Oversight Bodies)**, it is recommended that government agencies may conduct regular, updated training sessions for procurement personnel to strengthen their capacity in using the PhilGEPS platform. These sessions should be delivered both in-person and online to cater to different learning preferences and to keep users informed of system changes. Additionally, agencies should ensure that prompt technical support and system maintenance are in place, alongside accessible feedback mechanisms that are actively monitored and addressed. To further support users—especially those less comfortable with digital tools—agencies may institutionalize digital literacy campaigns that promote safe, efficient, and confident use of the e-procurement system.
2. **For PhilGEPS Administrators**, it is recommended that PhilGEPS administrators may strengthen stakeholder communication by consistently updating suppliers and government offices about system changes, deadlines, and improvements. This proactive communication can improve transparency, user preparedness, and overall trust in the platform. Furthermore, it is essential that administrators utilize user feedback to refine the system's interface and functionality. A more intuitive and user-friendly design, shaped by the actual experiences of users, may reduce resistance to adoption and improve efficiency in system navigation and performance.
3. **For Future Researchers**, it is recommended that future researchers may consider incorporating qualitative methods such as interviews or focus group discussions to supplement quantitative findings and gain deeper insights into user experiences with the PhilGEPS system. These approaches can uncover perceptions, challenges, and behavioral factors that are not always captured through surveys. Additionally, researchers are encouraged to expand the scope of future studies by including other regions, municipalities, or levels of government. A broader investigation will allow for comparative analysis and provide a more comprehensive understanding of the implementation and effectiveness of the PhilGEPS platform across different contexts.

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