

Utilization of the Community-Based Monitoring System (CBMS) Data for the Local Government Programs as Basis for Action Plan

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Abstract

The Community-Based Monitoring System (CBMS) serves as an important tool for local evidence-based planning.

Using a stratified survey of 106 planning division employees across three strata of LGUs, this study measured the extent of CBMS utilization on a 5-point scale. A deep understanding of CBMS data will provide a more robust basis for local governance, thereby improving precision in socio-economic planning, fairness in fiscal distribution, and the efficacy of poverty-alleviation projects. Given these considerations, this study examined the extent to which CBMS data are used in local government planning, budgeting, and program implementation. between age, digital adaptability, and engagement with data systems. While both younger and older employees can effectively utilize CBMS data, younger employees demonstrated notably higher utilization in program implementation, possibly reflecting greater familiarity with digital technologies and data-driven processes. Furthermore, female employees exhibited significantly higher utilization of CBMS data in budgeting activities.

These results indicate that although CBMS is broadly utilized across demographic groups, differences in specific areas of application may be influenced by age-related competencies and gender-related roles in local governance functions. Despite overall high utilization, gaps in specific indicators highlight the need for capacity building. Such as health service delivery, youth development, skills training, and age-specific interventions highlight gaps in data application, which need to strengthen technical capacity, training, and data integration processes for effective, evidence-based planning, budgeting, and program implementation.

Keywords: Planning, budgeting, program implementation

Bio-profiles

Joevilyn S. Ariesga is a Filipino statistician in Central Philippines. Being a young leader in public service, she acted as the key specialist in the statistical division. Her research interests include the utilization of data and data-driven policy making.



Assoc. Prof. Yasmin Pascual-Dormido, LPT, DPA, is a multi-awarded broadcast journalist, columnist, educator, and published researcher, with an academic background in Mass Communication and as a Licensed Professional Teacher specializing in Secondary Education–English. Her paper, “Integrating Cybercrime Prevention into Sustainable MSME Practices and Business Education,” won Best Paper at the Philippine Association of Collegiate Schools of Business 5th International Research Conference in Vietnam on October 14, 2025. She teaches Public Administration, Management, Research, and Communication and Media subjects in the undergraduate and graduate programs of STI West Negros University in Bacolod City, Philippines, where she also serves as Director of External Affairs and Linkages and International Relations Officer. A fellow of WAN-IFRA’s Women in News (WIN) Leadership Accelerator Programme in Southeast Asia, she is a professional lecturer and public speaker who advocates women’s empowerment, gender sensitivity and equality, inclusive education, support for children with special needs, good governance, and campus journalism.

Introduction

Rationale

International bodies and partner organizations rely on country data to monitor progress toward global commitments, such as the SDGs (UN, 2019). National-level data are sometimes insufficient to identify local and community socio-economic circumstances and deprivation, an essential requirement in addressing global development objectives. According to Reyes et al. (2019), poor, marginalized, and vulnerable segments often failed to access resources because a lack of fine-grained local data, international aid, and national funds prevented these resources from reaching them. Similarly, Paguio and Asio (2021) claimed that government budgeting is an important process in which revenues and loan funds are allocated to address the nation's economic and social objectives, enabling the government to prioritize plans, programs, and policies with the available means. To address data gaps, alternative data sources such as national censuses and surveys have been used, including the mandatory decennial census, but these are too infrequent for annual or three-year local planning cycles, according to Reyes et al. (2024).

Targeting inefficiencies in LGUs is hindered by the absence of detailed, household-level data. As a result, errors in leakage, referring to non-poor households that received cash transfers, and exclusion, referring to poor households that did not receive cash transfers, are prevalent in the targeting of the Pantawid Pamilyang Pilipino Program (4Ps). There are perennial complaints about inclusion and exclusion errors in 4Ps (Albert et al., 2024). The 71-76 percent data accuracy of income and employment indicates a high data lag due to very dynamic household conditions. Republic Act 11315 strengthens LGUs' targeting and poverty-reduction capacity. It is instrumental in supporting program targeting, planning, budgeting, policy development, and impact evaluation by strengthening their capacity to produce and utilize household-level data. LGUs more frequently use CBMS data to address concerns about poverty and to guide just and equal policy decisions. However, the problem in applying CBMS varies across sectors and constraints, for which broader institutional support and technical capacities are yet to be required.



To address such targeting inefficiencies, the government will gradually shift from static to dynamic targeting mechanisms that continuously update information, thereby reducing subsequent errors (DSWD, 2024).

The study on the extent of Utilization of the CBMS data is critically aligned with the United Nations Sustainable Development Goals (SDGs). Despite the enactment of RA 11315, limited empirical evidence exists on the actual extent of CBMS data utilization in planning, budgeting, and program implementation at the LGU level.

Theoretical Underpinnings

The study was founded on the Dynamic Capabilities Theory (DCT) in 1997 and served as the basis for the research. A conceptual framework that looked at the strategic lens to assess not just if the data was used, but how effectively the LGU used the data to adapt, innovate, and achieve sustained development outcomes in a constantly changing environment. By utilizing the DCT theory, the researcher intended to depict how to mobilize resources, make strategic policy decisions based on sensed data, and reconfigure the LGU's organizational structure and processes to sustain the effectiveness of data utilization (Teece, 2018).

Besides, Mankins Utilization Theory was an additional perspective that assisted the researcher in gaining a deeper understanding of principles applied analogously, shifting the focus from corporate time-waste to public resource and data waste. This emphasized the center on the idea that organizations prioritized activity over value creation, leading to profound inefficiency (Mankins, 2017).

Combining the Dynamic Capabilities Theory (DCT) and Mankins Utilization Theory gave the study a firm theoretical basis. The DCT provided a strategic and adaptive framework for analyzing how the LGU institutionally leveraged CBMS data to achieve sustainable development. Mankins Utilization Theory provided a critical, efficiency-focused lens for quantifying the value capture and waste associated with the data utilization process.

Objectives

The study aimed to measure the extent of utilization of the CBMS data for local government programs in local government units in Central Philippines for the calendar year 2026 as a basis for an action plan. More specifically, it aimed to determine: 1) the profile of the respondents in terms of age, sex, and local government unit; 2) extent of utilization of the CBMS data for local government programs, according to planning, budgeting, and program implementation; 3.) extent of utilization of the CBMS data for local government programs, according to planning, budgeting, and program implementation when grouped and compared to the profile of the respondents; 4.) significant difference in the extent of utilization of the CBMS data for local government programs, according to planning, budgeting, and program implementation when grouped and compared to the profile of the respondents.



Methodology

This section discusses the research methodology used, the subjects and respondents of the study, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, and the statistical tools and procedures for data analysis.

Research Design

This study employed a quantitative descriptive-comparative research design (Creswell and Creswell, 2023). It aimed to describe the extent of CBMS data utilization and to compare differences across respondent profiles (age, sex, and LGU). The descriptive-comparative approach is suitable because the study not only describes the extent of utilization but also examines differences according to respondent characteristics through statistical testing.

Locale of the Study

The researcher conducted the study in the Sugar Capital of Negros Island. Although there are 33 LGUs, including the PPDO, only a few are reasonably accessible from the town center. Out of these 33 LGUs, 12 cities, 15 municipalities, 2 Highly Urbanized Cities (HUC), and the Provincial Planning and Development Office (PPDO), reflecting the predominantly rural and geographically dispersed nature of the municipalities.

The study was conducted in three locales representing different levels of governance and development contexts in Negros Occidental. The selection of these sites was intended to capture diverse experiences in the utilization of CBMS data for local planning, budgeting, and decision-making.

The first locale, LGU A, is a component city in Negros Occidental that evolved from a Spanish-era settlement into a significant center of trade, agriculture, and local governance. Its continued economic and administrative growth makes it an appropriate setting for examining how urban local government units utilize CBMS data in development planning and service delivery (Provincial Government of Negros Occidental, 2022; Department of Agriculture, 2025).

The second locale, LGU B, is a municipality characterized by a predominantly rural and agriculture-based economy. Historically shaped by agricultural production and local trade, the municipality represents the experiences of rural local government units in generating and utilizing CBMS data to support community development, resource allocation, and poverty reduction initiatives (Philippine Institute for Development Studies, 2021; Department of the Interior and Local Government, 2022).

The third locale, LGU C, comprises Bacolod City and the Provincial Planning and Development Office (PPDO) of Negros Occidental. As the province's economic and administrative center, Bacolod City provides insights into CBMS data utilization in a highly urbanized setting (National Economic and Development Authority, 2023; Department of Trade and Industry, 2022). Meanwhile, the PPDO serves as the provincial government's technical and planning arm, responsible for coordinating development plans, policies, and investment programs. Its inclusion enables the study to assess how



CBMS data are integrated into provincial-level planning and decision-making processes (Serote, 2019; Local Government Academy, 2020; Republic Act No. 7160, 1991).

Collectively, these locales were selected to provide a comprehensive perspective on CBMS data utilization across urban, rural, and provincial planning contexts, thereby enabling a more nuanced assessment of its application in local governance and development planning.

Respondents of the Study

The respondents in the study were employees in the planning division who would use the CBMS data. The survey respondents include cities, municipalities, and Highly Urbanized Cities (HUC), as well as the Provincial Planning and Development Office (PPDO). LGU A has 59 respondents, LGU B has 67 respondents, and LGU C has 20 respondents.

To ensure fair representation of all LGUs, the study employed stratified sampling. In this method, the population was divided into three subgroups (strata), after which respondents were selected from each stratum in proportion to its size.

According to Cohen (2025), stratification is the division of a population into groups, called strata, such that pairs of population units within the same stratum are deemed more similar (homogeneous) than pairs from different strata. The strata are mutually exclusive (non-overlapping) and exhaustive of the population. Clearly, sufficient information on each population unit must be available before we can divide the population into strata.

Table 1
Distribution of the Respondents

LGU	Population (N)	Sample (n)	Percentage (%)
Cities	59	43	40.60
Municipalities	67	49	46.20
HUC and PPDO	20	14	13.20
Total	146	106	100.00

Data Gathering Instrument

A researcher-made survey questionnaire was used to determine the extent of Utilization of the CBMS Data for Local Government Programs. The research instrument underwent validity and reliability testing. Items were developed based on key CBMS indicators and the provisions of Republic Act 11315.



The questionnaire consisted of two parts:

Part I dealt with the respondents' profile, including their age, sex, and local government units.

Part II is the questionnaire that collected data to determine the Extent of Utilization of the CBMS Data for Local Government Programs. There were ten (10) line items under each of the study areas, namely: planning, budgeting, and program implementation, for a total of thirty (30) items for the three (3) areas.

The respondents were asked to rate each item with a numerical score and description, with five being the highest, interpreted as "Always," 4 "Often," 3 "Sometimes," 2 "Rarely," and one as "Almost Never".

Instrument Validity and Reliability

The questionnaire underwent face-to-face and content validation by a panel of three (3) validators, all subject-matter experts in the field of study and research, to demonstrate the validity of the researcher-made instrument. Validity is defined by Middleton (2019) as the degree to which the findings measure the intended construct.

The first validator was the Statistical Specialist II, who was assigned as one of the focal persons at the Province Office during the CBMS.

The second validator was the focal person, the Statistical Specialist II, who was assigned to the Highly Urbanized City during the CBMS.

The third validator was an expert statistician, a professor, and an experienced researcher and research adviser in an autonomous university's School of Graduate Studies.

A five-point scale based on the criteria set forth by Carter V. Good and Douglas E. Scates was used to rate each item's validity. The mean score ranges from 4.21-5.00 as "Excellent," 3.41-4.20 as "Very Good," 2.61-3.40 as "Good," 1.81-2.60 as "Fair," and 1.00-1.80 as "Poor."

The data-gathering instrument obtained a validity rating of 4.63, indicating excellent validity. Therefore, the researcher conducted the reliability test using the survey questionnaire.

After the data gathering tool's validity was established, its accuracy, stability, and predictability were assessed using a reliability test. According to Laerd Statistics (2018), reliability describes how consistently a particular test, procedure, or tool (e.g., a questionnaire) produces similar results across different circumstances, assuming nothing else has changed.

The researcher-made instrument was pilot- tested on thirty (30) respondents who were employees of the LGUs. However, these respondents were not included in the survey sample. After collecting data from 30 respondents, Cronbach's Alpha was used to assess the instrument's reliability. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items is as a group. It is considered to be a measure of scale reliability. A "high" value of alpha does not imply that the measure is unidimensional. Reliability coefficients of 0.70 to 1.0 are considered "acceptable" in most research situations (Taber, 2018).

The computed alpha for the questionnaire on the extent of CBMS Data for Local Government Programs was 0.987, interpreted as "excellent." Therefore, the researcher used the survey tool to conduct the actual survey.



Data Gathering Procedure

After establishing the validity and reliability of the research instrument, permission to conduct the survey was obtained from the concerned office heads. The respondents were informed of the study's purpose, procedures, and confidentiality provisions before completing the questionnaire.

Data were collected through both printed questionnaires and Google Forms, with appropriate guidance provided to respondents throughout the process. Data collection was conducted from January to March 2026.

Research Ethics Protocol

All participants provided written or electronic informed consent. Participation was voluntary, and respondents could withdraw at any time without consequence. Confidentiality was maintained by not collecting names and storing data securely in password-protected files, in accordance with the Data Privacy Act of 2012.

Analytical and Statistical Schemes

Profile of respondents and extent of utilization (Objectives 1 & 2) wherein Descriptive statistics (frequency, percentage, mean, standard deviation) and to the Extent of utilization by group (Objective 3): Mean comparisons with standard deviation and for the Significant differences (Objective 4): Independent samples t-test (for sex) and One-way ANOVA (for age and LGU) at 0.05 level of significance.

Results and Discussion

This section presents, analyzes, and interprets the data that were gathered consistent with its predetermined objectives.

Table 1

Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in Planning

Planning		
Items	Mean	Interpretation
<i>As an employee, I use data to...</i>		
1. determine the high portion of children, the elderly, or dependents that require age-specific services	4.03	High Extent
2. know the population structure for education, health, and social protection planning	4.16	High Extent



3. determine the poverty dimensions (e.g., income, employment, housing, access to services) as priorities in local development plans	4.14	High Extent
4. determine the household economic status (e.g., household below poverty threshold) and where there are geographically concentrated	4.09	High Extent
5. determine the areas that have the highest number of out-of-school children or low educational attainment	4.10	High Extent
6. plan on education infrastructure and support programs for education	4.04	High Extent
7. determine the barangays that have a high incidence of malnutrition, disability, or limited access to health facilities	4.10	High Extent
8. determine the health services delivery to address identified gaps	4.04	High Extent
9. determine the community's level of water, sanitation, sanitary toilets, or durable housing	4.17	High Extent
10. determine shelter and WASH (Water, Sanitation, and Hygiene) interventions which will be prioritized.	4.11	High Extent
Overall Mean	4.10	High Extent

Table 1 reveals the extent to which the Community-Based Monitoring System (CBMS) data are used for local government planning. The overall mean score is 4.10, indicating a “high extent” of utilization. Item 2, “know the population structure for education, health, and social protection planning,” obtained the highest mean score of 4.16, interpreted as “high extent” of utilization, while item 1, “determine the high portion of children, the elderly, or dependents that require age-specific services,” got the lowest mean rating of 4.03, indicating “high extent” of utilization.

Although overall utilization was high, item 1 received the lowest rating. This implies that data concerning children, the elderly, or other dependents who require age-specific services may not



be fully utilized. Consequently, demographic dependency indicators that could inform the design of targeted, age-specific interventions may not be prioritized or maximized in the planning process.

Diokno-Sicat et al. (2019) supported the current survey results; the study found that municipalities frequently use CBMS indicators in preparing ecological profiles and local development plans, although the rating for determining dependency groups was slightly lower. It suggests that while CBMS supports evidence-based planning, some local government units may still utilize specific demographic indicators less for designing targeted age-based interventions. Additionally, as a local planning tool, it was revealed that most of the CBMS data items are reported to be highly utilized by the LGUs, particularly data on demography (96.4%), water, and sanitation (96.2%), and education and literacy (96.0%) as the top three data items that are “mostly used” by the LGUs. In comparison, data on access to programs (78.0%), climate change (76.6%), household members who died (73.3%), and political participation (57.0%) were the least used categories (Sicat et al., 2020). In this context, the Organization for Economic Co-operation and Development (2020) emphasized that the effectiveness of data-driven governance depends not only on the availability of data but also on government personnel’s ability to analyze and interpret socio-economic indicators for policy development. Similarly, the United Nations (2022) noted that governments must invest in training, data management systems, and analytical tools to ensure that public servants can effectively use statistical information in planning and program implementation. Without sufficient technical capacity, data systems may be less utilized even when reliable information is available.



Table 2

Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in Budgeting

Budgeting		
Items	Mean	Interpretation
<i>As an employee, I use data to...</i>		
1. determine how much of the local budget should be allocated to barangays with the highest poverty incidence	3.95	High Extent
2. distinguish which vulnerable groups (poor households, solo parents, PWDs, and the elderly) require increased funding	4.06	High Extent
3. allocate funds for livelihood programs based on unemployment and underemployment data	3.98	High Extent
4. determine the sectors that need skills training investments based on labor force indicators	3.92	High Extent
5. proportionate the health budget to be allocated to barangays with high malnutrition or illness prevalence	3.95	High Extent
6. guide the allocation of medical assistance and nutrition programs	4.01	High Extent
7. determine the education funds to be distributed to address the shortage in classrooms, teachers, or learning support	3.97	High Extent
8. determine the barangays that should be prioritized for scholarships or educational assistance	3.92	High Extent
9. aligned infrastructure budgets based on data on inadequate housing, water, and sanitation	3.99	High Extent
10. determine areas that require immediate capital outlay for basic services	4.01	High Extent
Overall Mean	3.98	High Extent



Table 2 reveals the extent of utilization of the Community-Based Monitoring System (CBMS) data for local government programs in Budgeting. The overall mean score is 3.98, indicating “high extent” of utilization. Item 2, “distinguish which vulnerable groups (poor households, solo parents, PWDs, and the elderly) require increased funding” obtained the highest mean score of 4.06, interpreted as “high extent” of utilization, while item 4 and 8 “determine the sectors that need skills training investments based on labor force indicators” and “determine the barangays should be prioritized for scholarships or educational assistance,” got the lowest mean rating of 3.92, indicating “high extent” of utilization.

Although the overall budget utilization was high, items 4 and 8 received the lowest ratings. This implies that data on skills investment and prioritization for scholarships or educational assistance had not been fully utilized in budgeting. This may be because of prioritization, complexity, and capacity constraints within LGUs. However, the relatively lower ratings for determining sectors requiring skills-training investments and for prioritizing barangays for scholarships suggest that, although CBMS data are used in budget preparation, sectors such as labor force and education data may still be less frequently funded.

The study’s results do not align with those of Lorenzo et al. (2021), as local government budgeting often emphasizes general priority sectors such as skills enhancement and education, while further strengthening sector-based resource allocation processes remains necessary, as government budgeting often prioritizes broader sectoral needs. This suggests that evidence-based budgeting improves public sector performance by supporting financial decisions with measurable socio-economic indicators rather than political or administrative assumptions, and that data-driven budgeting enables governments to prioritize programs that address poverty, health disparities, and infrastructure gaps (Schick, 2019). Likewise, Brillantes and Fernandez (2021) emphasized that the decentralization of governance in the Philippines requires local government units to strengthen their data management systems to support effective budgeting and development planning. In line with this, Acheron (2019) found that recent developments in planning and budgeting can be linked to decentralization and downward accountability. However, Reyes (2018) noted that local governments use CBMS data to prepare annual investment plans, prioritize projects for poverty reduction, evaluate the impacts of their projects, and prepare for impending social crises, which is further corroborated by evidence from a nationwide survey of municipalities identifying several areas for improvement in the planning and budgeting process, such as stricter enforcement of the presence of development plans and substantiating the prioritization of investment programs (Sicat et al., 2019).



Table 3

Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in Program Implementation

Program Implementation		
Items	Mean	Interpretation
<i>As an employee, I use data to...</i>		
1. determine households should be prioritized as beneficiaries of social protection programs	4.04	High Extent
2. prevent inclusion and exclusion errors in program targeting	3.89	High Extent
3. determine the types of livelihood programs that are appropriate based on skills, employment status, and local economic conditions	3.87	High Extent
4. determine the barangays to receive entrepreneurship or cash-for-work programs	3.92	High Extent
5. determine the need for nutrition intervention in areas with child malnutrition	4.08	High Extent
6. capacitate mobile clinics, and inform barangay health staffing, or preventive programs	4.06	High Extent
7. determine education support programs for households with school-age children not attending school	4.06	High Extent
8. determine how youth development initiatives can be designed	3.82	High Extent
9. determine housing improvement or relocation programs to be designed using CBMS housing condition data	4.02	High Extent
10. plan on the disaster risk reduction programs by identifying vulnerable households	4.18	High Extent
Overall Mean	3.99	High Extent

Table 3 reveals the extent of utilization of the Community-Based Monitoring System (CBMS) data in program implementation. The overall mean score is 3.99, indicating “high extent” of



utilization. Item 10, “plan on the disaster risk reduction programs by identifying vulnerable households,” obtained the highest mean score of 4.18, interpreted as “high extent” of utilization, while item 8, “determine how youth development initiatives can be designed,” got the lowest mean rating of 3.82, indicating “high extent” of utilization.

Although the overall extent of utilization was high for program implementation, item 8 received the lowest rating. This implies that data on youth development initiatives were less frequently used in program implementation. A related study shows that limited use of youth-related indicators may reduce the effectiveness of programs intended to support youth participation (Kapa et al., 2025). A structured evaluation process in a community environment emphasizes the value of evidence over perception alone in understanding program effects, and further notes that gaps in data collection and management can hinder effective youth program planning. Additionally, findings align with Mana (2025), which found that lower utilization of youth development initiatives reflects broader trends in local governance, suggesting that LGUs may utilize CBMS labor force and youth data for evidence-based program implementation due to the less systematic integration of youth-specific indicators into program design.

Table 4

Differences in the Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in Planning According to Variables

Variables	Categories	N	Mean Rank	Mann-Whitney U - test	Kruskal-Wallis H test	Sig. Level	p-value	Interpretation
Age	Younger	53	52.95	1376.0			0.854	Not Significant
	Older	53	54.05					
Sex	Male	42	48.20	1122.0		0.05	0.149	Not Significant
	Female	64	56.98					
Local Government Unit	Cities	43	51.28		0.500		0.779	Not Significant
	Municipalities HUC and PPDO	49 14	54.31 57.50					

Table 4 reveals significant differences in the extent of utilization of the Community-Based Monitoring System (CBMS) data in planning across groups defined by variables. Older employees



have a higher mean rank (52.95) than younger employees ($U=1376.0$, $p=0.854$), suggesting the difference is not statistically significant. Female employees have a higher mean rank of 56.98 than male employees ($U=1122.0$, 0.149), suggesting that the difference is not statistically significant. HUC and PPDO have a higher mean rank of 57.50 than municipalities and cities ($H=0.500$, $p=0.779$), suggesting that the difference is not statistically significant.

Therefore, the null hypothesis, which states, “There is no significant difference in the Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in terms of Planning when grouped according to age, sex, and local government unit,” is hereby accepted.

Although the results show that there is no significant difference in the planning variable across age, sex, or local government unit groups, this does not necessarily guarantee optimal utilization. Certain indicators received the lowest ratings, highlighting areas for an action plan to improve data use. Enhancing the utilization of these indicators can strengthen local-level program development and ensure that CBMS data effectively informs planning decisions.

Table 5

Differences in the Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Units in Budgeting according to Variables

Variables	Categories	N	Mean Rank	Mann-Whitney U - test	Kruskal-Wallis H test	Sig. Level	p-value	Interpretation
Age	Younger	53	54.67	1342.5			0.693	Not Significant
	Older	53	52.33					
Sex	Male	42	44.90	983.0			0.019	Significant
	Female	64	59.14					
Local Government Unit	Cities	43	46.73		3.781		0.05	Not Significant
	Municipalities	49	57.15					
	HUC and PPDO	14	61.50					

Table 5 reveals significant differences in the extent of utilization of the Community-Based Monitoring System (CBMS) Data in budgeting when grouped by age and local government unit, suggesting that the differences are not statistically significant. Therefore, the null hypothesis, which states, “There is no significant difference in the Extent of Utilization of the Community-Based



Monitoring System (CBMS) Data for Local Government Programs in terms of Budgeting when grouped according to age and program implementation,” is hereby accepted.

However, when the budgeting area was grouped by sex, female employees had a higher mean rank (59.14) than male employees (44.90), suggesting the difference is statistically significant. Female employees reported a significantly greater extent of utilization in the area of budgeting than male employees ($p=.019$). Therefore, the null hypothesis, which states, “There is no significant difference in the Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in terms of Budgeting when grouped according to sex,” is hereby rejected.

According to Fulton and Sabatier (2018), the current findings are supported, as they found that gender influences policy preferences and administrative behavior, with women in public administration often displaying stronger preferences for evidence-based policy-making, especially in areas related to health, education, and social protection. The study suggests that women are more likely to seek and use data when forming budget priorities that address community needs, thereby reinforcing the observed pattern. Additionally, Dalisay and Esposito (2019) found that women in local government leadership roles demonstrate higher engagement in community-oriented policy analysis and data utilization.

In an Asia Pacific study on local government budgeting practices, Park and Lawson (2021) concluded that female public administrators were more likely to utilize socio-economic indicators when preparing local budgets, particularly for programs targeting vulnerable groups (e.g., children, the elderly, women, and households below poverty thresholds), suggesting that this difference is linked to gendered policy preferences shaped by social roles and perceived responsibilities toward community welfare. Janssen and Van den Hoven (2020) emphasized that government institutions that use data analytics and socio-economic indicators are better able to identify priority sectors, evaluate development gaps, and allocate resources efficiently, highlighting that the use of structured data systems enhances transparency, accountability, and evidence-based decision-making in public administration.

According to Meier and O’Toole (2019), gender representation in public institutions can influence administrative behavior and decision-making patterns, as organizations with diverse leadership tend to demonstrate stronger commitment to community-oriented programs and evidence-based governance practices.

Table 6

Differences in the Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in Program Implementation according to Variables

Variables	Categories	N	Mean	Mann Whitney U - test	Kruska l-Wallis H test	Sig. Level	p- value	Interpretati on
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			Rank			
Age	Younger	53	52.57	1355.0	0.753	Not Significant
	Older	53	54.43			
Sex	Male	42	47.49	1091.5	0.101	Significant
	Female	64	57.45			
Local Government Unit	Cities	43	49.35	2.332	0.312	Not Significant
	Municipalities	49	54.28			
	HUC and PPDO	14	63.54			

Table 6 reveals a significant difference in the extent of utilization of the Community-Based Monitoring System (CBMS) data in program implementation when grouped by age, sex, and local government unit.

Older employees have a higher mean rank (54.43) than younger employees ($U=1355.0$, $p=0.753$), suggesting the difference is not statistically significant. Female employees have a higher mean rank (57.45) than male employees ($U=1091.0$, $p=0.101$), suggesting the difference is not statistically significant. HUC and PPDO have a higher mean rank of 63.54 than municipalities and cities ($H=2.332$, $p=0.312$), suggesting that the difference is not statistically significant.

Therefore, the null hypothesis, which states, “There is no significant difference in the Extent of Utilization of the Community-Based Monitoring System (CBMS) Data for Local Government Programs in terms of Program Implementation when grouped according to age, sex, and program implementation,” is hereby accepted.

Conclusion

The study concludes that CBMS data are extensively utilized by local government units in planning, budgeting, and program implementation, demonstrating their value in supporting evidence-based governance and development decision-making. CBMS data are particularly useful in population profiling, poverty targeting, and disaster risk reduction, highlighting their relevance in addressing local development concerns.



The findings further indicate that the extent of CBMS data utilization generally does not differ significantly across age groups, sex, and LGUs, suggesting a relatively consistent application of CBMS data across governance functions. However, a significant difference was observed in budgeting activities, where female employees reported greater utilization of CBMS data than their male counterparts.

Despite the high level of utilization, gaps remain in translating CBMS data into interventions for health services, youth development, and age-responsive programs. Therefore, strengthening technical capacity, data integration, and institutional mechanisms for systematic CBMS use throughout the planning, budgeting, and program implementation cycle is necessary to maximize its contribution to local development and good governance.

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Conflict of Interest

The authors declare the absence of any conflict of interest that could have influenced the content or conclusions of this paper. She affirms that no financial, personal, or professional relationships with other individuals or organizations have compromised the objectivity, integrity, or impartiality of the research work. As a final point, no external parties influenced the study design, data collection, analysis, or interpretation.

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