

Communication Practices, Community Engagement, and Disinformation Response of
Barangay Information Officers in Iloilo: Inputs to Barangay Communication Plan

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Abstract: This descriptive-correlational study assessed the communication practices, community engagement strategies, and disinformation response strategies of Barangay Information Officers (BIOs) in Iloilo to provide a baseline for a proposed Barangay Communication Plan. Utilizing a multi-stage stratified random sampling approach, the study surveyed 195 randomly selected BIOs across seven municipalities and three major districts of Iloilo City, representing a total of 381 component barangays. Data were analyzed using a comprehensive suite of statistical tools, including Frequency Count and Percentage, Weighted Mean, and Standard Deviation for descriptive analysis, while the Mann-Whitney U test, Kruskal-Wallis H test, and Spearman's rho were employed to examine significant differences and relationships among variables. Barangay Information Officers (BIOs) consistently exhibit high levels of communication, involvement in their communities, and responses to disinformation as an essential part of their day-to-day activities. Although sex does not have a significant effect on these three areas, age, education, and years of experience all play a large role in these activities. In particular, BIOs with higher levels of education show significantly more willingness to be involved with their communities; and in addition, all aspects of engagement (information, consultation, involvement, and empowerment) are influenced by a BIO's age. Research into Barangay Information Officers' (BIOs) approaches to managing disinformation found no difference in core dimensions by sex. Age affects proactive information dissemination and grassroots management, while having a higher level of education and many years of being an officer increases performance across all areas. Overall, the more communication and community engagement occur, the better the effectiveness of disinformation response strategies.

Keywords: Communication Practices, Community Engagement, Disinformation Response, Barangay Information Officers, Barangay Communication Plan, Descriptive-Correlational Research, Iloilo, Philippines

INTRODUCTION

Background of the Study

According to the Constitution of the Philippines, adopted in 1987, communications, and information are essential building blocks for establishing a nation. Furthermore, every person has the right to access information related to public affairs and government. This legal framework provides important authority to Barangay Information Officers (BIOs) in facilitating communications between communities and government. In addition, the Data Privacy Act (Republic Act 10173), also regulates how individuals collect and share personal information when engaging with communities and helps to ensure that the standards for data-driven communication are both ethical and legal (ASEAN, 2023).

As they relate to disinformation, BIOs function under the Cybercrime Prevention Act of 2012 (Republic Act 10175), which prohibits crimes of national and public disorder that are carried out through a computer, such as cyber libel or disseminating apostolic information, which can harm the public (Official Gazette of the Republic of the Philippines, 2012). Furthermore, current Philippine law (Article 154 of the Revised Penal Code) prohibits the use of the means of publication to lift the imposition on public order and/or to spread inaccurate news that could lead to endangering public order. In addition, as part of their ongoing media and information literacy (MIL)

program, the Presidential Communications Office (PCO) has taken a lead role in implementing an inter-agency/multi-sectoral approach to MIL, to help local officials and communities to be better informed and better prepared to protect themselves from the proliferation of disinformation (Presidential Communications Office, 2023).

Sustainable Development Goal 16 (SDG) (Peace, Justice, Strong Institutions) forms the foundation of the operational framework for Bio, and their actions are guided by Target 16.10: to protect, safeguard, and support freedom of expression and equal opportunities for all people to have access to information. Furthermore, as credible agents of transparency in the Philippines, BIOs are responsible for providing accurate, timely, and empirical evidence to the communities they serve about how local governments operate and deliver social services to their citizens (Arugay and Baquisal, 2023). BIOs will help to create the social accountability structure necessary for the continued integrity of these governing institutions through SDG 17 (Partnerships for Development). The concept of communication advances through a collaborative process, and the sharing of information requires a collaborative, entire-society approach that includes all stakeholders (e.g., Local Government Unit [LGU], civil society, or private sector) should be collaborating with one another (Beltran, 2024). These partnerships will provide the means to close gaps in information asymmetries, thereby ensuring that marginalized populations are fully included and engaged in the critical conversation around the development of social, economic, and environmental systems.

The Philippines has the highest rate of social media use in the world. Consequently, the Philippines has become a significant testing ground for digital misinformation. Therefore, BIOs represent responsive educational agents who empower citizens to distinguish between what is real and what is fake (Tapsell). An informed and critical population not only works toward achieving SDG 4 by providing MIL skills but also towards SDG 11 by creating inclusive, resilient, and participatory human settlements. By mobilizing the community through open communication and providing the necessary critical thinking skills to reject disinformation, barangay social cohesion is strengthened, improving disaster risk mitigation and improved public health (Cabañas & Anderson).

Despite numerous digital literacy programs, research indicates a lack of information on how to integrate the influence of local cultural practices into systemic responses against digital disinformation. Research has established the process for how misinformation spreads through social media (Bennett and Livingston, 2021). However, there is limited research on the modernization of traditional community models that would combat digital disinformation and organized, non-authentic behaviour in non-Western contexts (Lewis, 2020).

A gap exists between the theorized academic models of communication that demonstrate how to respond to real-time needs of marginalized groups that are targets of disinformation. Wardle and Derakhshan (2022) explained that we lack data on how to leverage local networks for fact-checking without damaging the community's social fabric. Additionally, community-reliant methods for response fall behind the rate at which digital misinformation is distributed; therefore, while technology-based methods for fact-checking exist, there are no human-centric responses that will foster long-term resilience in diverse populations.

The Barangay is the lowest level of governance in the Philippines and the foundational unit of service delivery of government services and the primary means of communicating with the public (Albay, 2025). BIOs play a critical role in the translation of national and local policies into local actions and in the facilitation of communication channels at the community level; therefore, BIOs are increasingly being recognized as an official communication mechanism by a growing system of national policy (Department of the Interior and Local Government, 2025).

Media literacy programs presently being implemented throughout the Philippines usually adhere to Western paradigms, concentrating on the individual's cognitive efforts. However, a study conducted by Hapal (2023) has found that in the Philippines, disinformation is disseminated mainly through interpersonal trust and group/communal affiliations. There has been limited research conducted on community-led solutions to this issue and long-term research is required to establish that Filipinos can collectively overcome the adverse effects of historically inaccurate information and political exploitation/propaganda over time.

While they do exist, there is little empirical literature on the communication practices of BIOs, how effective they are at ensuring community engagement, and their ability to deter the proliferation/impact of disinformation at the local level for sensitive topics such as health-related information and information related to specific projects (development) according to the literature on development management.

The rise of digital platforms has allowed for increased access to information, and yet increased levels of disinformation; the result of these factors creates risk to public trust, disrupts local governance and impedes developmental activities according to Firdaus et al. (2024). The lack of nuanced understanding of the lived realities of BIOs and the methods in which they accomplish their duties constrains/limits LGUs' ability to develop appropriate training programs or support systems that would reinforce this important form of communication.

LGUs frequently face challenges communicating effectively with their constituents during times of crisis; they are frequently limited to top-down, one-way communication methods that do not effectively stop the flow of disinformation as reported by Legaspi and Quimba (2022). The Philippine local governance system remains at risk of being dominated by a small number of global technology companies and nation states regarding the availability of digital ecosystems (i.e., controlling the narrative through the use of digital media), thereby undermining the local and grassroots perspective/tools that contribute to the building of stronger communities.

Local researchers studying Iloilo have not yet made connections between local communication styles/strategies employed in efforts to combat disinformation, although international students face significant language barriers when studying in Iloilo; and many residents of towns like Miagao are experiencing difficulties associated with digital fraudulent behaviour, no community-led plans exist that utilize the Ilonggo language and/or culture within these communities for community-led defense (Rappler, 2023); and there have been few studies examining the need for grassroots training at the barangay level, therefore there exists a significant shortage of empirical data regarding how to design a community-led program(s) that will effectively reach the older and most vulnerable members of the community and diminish the impact of fake news on them (University of Amsterdam Digital Academic Repository, 2024; RSIS International, 2024; Palcullo, 2020; Baja and Borja, 2025).

This research explored the communication processes and counter-disinformation strategies of BIOs within Iloilo, in a bid to provide an understanding of local engagement models that can help develop localized barangay communication plans designed to strengthen community governance and empower BIOs in their public service roles.

Anchored on the Social System Theory, Dr. W. Timothy Coombs' Situational Crisis Communication Theory grounded in Attribution Theory, and Good Governance Theory, this study aimed to assess the communication practices, community engagement strategies, and disinformation response mechanisms of Barangay Information Officers (BIOs) in Iloilo. The findings would serve as a basis for developing a Barangay Communication Plan. Specifically, the study sought to answer the following: (1) What is the status of the BIOs' communication practices in terms of communication structures and communication processes when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position? (2) What is the level of BIOs' engagement with the community to ensure participatory governance, in terms of information, consultation, involvement, and empowerment when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position? (3) What are BIOs' disinformation response strategies in terms of capacity and literacy, proactive dissemination, community fact-checking, grassroots management, and crisis communication when taken as a whole and when grouped as to age, sex, highest educational attainment, income, and years of experience in the position? (4) Are there significant differences in the status of the BIOs' communication practices in terms of communication structures and communication processes when grouped as to age, sex, highest educational attainment, and years of experience in the position? (5) Are there significant differences in the level of BIOs' engagement with the community to ensure participatory governance, in terms of information, consultation, involvement, and empowerment when grouped as to age, sex, highest educational attainment, and years of experience in the position? (6) Are there significant differences in the BIOs' disinformation response strategies in terms of capacity and literacy, proactive dissemination, community fact-checking, grassroots management, and crisis communication when grouped as to age, sex, highest educational attainment, and years of experience in the position? (7) Is there a significant relationship among the BIOs' level of

communication practices, community engagement, and disinformation response strategies? And (8) Based on the findings, what components should be included in a proposed Barangay Communication Plan to enhance the resilience and information integrity of Iloilo's barangays?

METHODOLOGY

The research objective of this descriptive-correlational study was to identify the communication methods that Barangay Information Officers (BIOs) in Iloilo are using, as well as the techniques they are using to engage with their communities and respond to misinformation. The research results supported the creation of a Barangay Communication Plan. The sample for this study was made up of a random selection of 195 BIOs from seven different municipalities and three primary districts in Iloilo City, all of which have previously appointed Provincial Information Officers (IOs) to act as intermediaries between the local Government and citizens at the community level. The purpose of this study was to determine the manner in which the BIOs disseminate information and provide information to help fight against misinformation. A multi-stage stratified random sampling process was used for sample determination due to the hierarchical organization of the seven municipalities and their three main districts in Iloilo City and 381 smaller barangays. A variety of statistical analyses were used in this study, including Frequency Count & Percentage, Weighted Mean, Standard Deviation, Mann Whitney U Test, Kruskal Wallis H Test and Spearman's Rho Correlation.

The instrument was verified through a number of validation processes, which included an assessment of the content validity by three experts. The purpose of the expert assessment was to determine if the instrument was clear and relevant, and to ascertain if the items within the research were congruent with the purpose of conducting the research. Pilot testing was conducted on a small group of participants to determine the element barriers to the administration of the questionnaire and also served as a dry run for researchers to determine the means by which data collection would take place. The results of the pilot test confirmed the reliability of the data collected, as well as cultural appropriateness for use in supporting the training and development plan. The Communication Practices Questionnaire (CPQ) was given to thirty individuals at a location not associated with the study to evaluate the reliability of the CPQ. The CPQ had an overall reliability coefficient of .865, indicating that it was sufficient to measure both of the two constructs of Communication Practices, namely Communication Structures and Communication Processes. The Cronbach alpha of .901 for Communication Structures and .947 for Communication Processes also provide evidence of the reliability of the Employee Communication Skills Questionnaire, which contained only items that were positively polarized, and, therefore, all items derived from the CPQ fulfil the same conditions. The 20 items confirmed as valid by an expert panel. The valid Community Engagement Questionnaire (CEQ) also had an overall reliability of .901, indicating that the CEQ is capable of measuring all four of the Community Engagement constructs, namely: Information, Consultation, Involvement, and Empowerment. Experts performed evaluations on each item included in the CEQ to determine the reliability of each of these items. The Cronbach Alpha's for each of the four Community Engagement constructs were .943 for Information, .980 for Consultation, .980 for Involvement and .943 for Empowerment. The reliability data for each of these constructs indicate the CEQ has a high degree of reliability. Additionally, the CEQ was confirmed as being valid based upon 40 confirmatory panels of experts. Finally, the Disinformation Response Strategies Questionnaire (DRSQ) was given to measure the reliability of the DRSQ. The DRSQ contained an overall validity coefficient of Cronbach alpha equal to .922 indicating that the DRSQ could reliably measure the disinformation response strategies across the (5) factors of Capacity and Literacy ($r=.973$), Proactive Dissemination ($r=.850$), Community Fact-Checking ($r=.885$), Grassroots Management ($r=.921$), and Crisis Communication ($r=.918$).

RESULTS AND DISCUSSION

Level of the BIOs' Communication Practices When Taken as a Whole and When grouped as to Age, Sex, Highest Educational Attainment, and Years of Experience in the Position

Table 1 shows the Level of the BIOs' communication practices in terms of communication structures and communication processes when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position.

Table 1. Level of the BIOs' communication practices when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position

Age		Communication Structures	Communication Processes
25-35	Mean	3.5750	4.1700
	SD	.48767	.43217
	Des	High	High
36-45	Mean	3.9721	4.4767
	SD	.55905	.53400
	Des	High	High
46-55	Mean	4.3818	4.7273
	SD	.48336	.41495
	Des	High	Very High
56 and above	Mean	4.1167	3.9833
	SD	1.22868	1.24967
	Des	High	High
Sex			
Male	Mean	4.0333	4.5238
	SD	.63901	.48364
	Des	High	Very High
Female	Mean	3.8228	4.3063
	SD	.62592	.59578
	Des	High	High
Highest Educational Attainment			
High School Graduate	Mean	3.6238	4.1762
	SD	.63080	.50883
	Des	High	High
Vocational/Technical (TVET)	Mean	3.7833	4.3083
	SD	.32983	.39187
	Des	High	High
College Level (Undergraduate)	Mean	3.7571	4.2333
	SD	.76261	.83387
	Des	High	High
College Graduate (Baccalaureate Degree)	Mean	4.0500	4.4978
	SD	.58793	.48143
	Des	High	High
Years of Experience in the Position			
Below 1 year to 3 years	Mean	3.4261	4.0261
	SD	.54873	.46144
	Desc	High	High
4 years to 6 years	Mean	3.7667	4.4256
	SD	.40996	.38025
	Des	High	High
7 years to 9 years	Mean	4.0750	4.4750
	SD	.51491	.64308
	Des	High	High
10 years and above	Mean	4.4167	4.4722
	SD	3.8670	4.3520
	Des	High	High
Total	Mean	4.4167	4.4722
	SD	.77630	.83652
	Des	High	High

Note: 4.50 – 5.00 Very High; 3.50 – 4.49 High; 2.50 – 3.49 Moderate; 1.50 – 2.49 Low; 1.00 – 1.49 Very Low

The results showed that the communication practices of the Bio indicate a level of Stability with reference to all of the evaluation criteria. This indicates that the Communication Strategies are appropriately utilized and incorporated in the normal operation of the BIOs.

Numerous studies have recently confirmed that organizations with well-integrated and effective Communication strategies have fundamentally higher levels of success. Hussain (2025) found that there is a significant impact of effective Communication on organization performance, particularly when the organization has a matching culture. Shonubi and Akuitero (2025) conducted a review of more than 50 empirical studies confirming a consistent positive linkage between structured Communication strategies and improved organizational outcomes suggesting that "High" rated Communication Strategies will generally relate to stable environments demonstrating priority of Information Flow.

The "strong professional relationships" identified in your results is also identified in the literature as one of the direct outcomes of effective Communication throughout the organization. According to Kimani (2023), effective, open, two-way Communication from Management is critical for developing employee trust and collaboration. Verčić and Špoljarić (2023) further emphasize that internal Communication is not merely transferring or modifying data but connecting employees to the overall Goals of the organization resulting in a unified identity. Therefore, Communication should always be open and honest to decrease ambiguity and increase Employees' perception of organizational support.

Although there are apparent means based on your data, the slight variability in each reflected in your standard deviations represents a common trend that has emerged from the literature recently. Maczuga (2025) found that Communication effectiveness could be different for each of the various departments or demographics within an organization, indicating that tailored Communication to each department is necessary for achieving high overall engagement within the organization. Despite such variability Daraojimba et al. (2024) believe that efficient Communication techniques will be essential for achieving the "seamless information flow" identified above by you which directly supports goal clarity and employee accountability.

Level of the BIOs' Community Engagement to Ensure Participatory Governance When Taken as a Whole and When grouped as to Age, Sex, Highest Educational Attainment, and Years of Experience in the Position

Table 2 shows the BIOs' community engagement to ensure participatory governance, in terms of information, consultation, involvement, and empowerment when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position.

Table 2. Level of the BIOs' community engagement when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position

Age		Information	Consultation	Involvement	Empowerment
25-35	Mean	4.2750	3.6625	3.8600	3.4750
	SD	.50927	.59299	.57637	.67473
	Des	High	High	High	High
36-45	Mean	4.5698	3.9233	4.1256	3.8977
	SD	.50828	.73706	.66943	.99007
	Des	Very High	High	High	High
46-55	Mean	5.0091	4.0091	4.1273	4.1091
	SD	1.88439	1.25575	1.30161	1.02025
	Des	Very High	High	High	High
56 and above	Mean	4.0167	3.9500	4.3667	4.2667
	SD	1.14964	1.25976	.75011	1.06896

	Des	High	High	High	High
Sex					
Male	Mean	4.8143	4.0190	4.2571	3.9095
	SD	1.26265	.73118	.64465	.79240
	Des	Very High	High	High	High
Female	Mean	4.3747	3.7797	3.9747	3.7380
	SD	.66380	.80485	.75302	.94004
	Des	High	High	High	High
Highest Educational Attainment					
High School Graduate	Mean	4.2048	3.6381	3.8143	3.6762
	SD	.48008	.63125	.60273	1.20702
	Des	High	High	High	High
Vocational/ Technical (TVET)	Mean	4.3250	3.7750	3.9750	3.7000
	SD	.86563	.76649	.69167	.73608
	Des	High	High	High	High
College Level (Undergraduate)	Mean	4.2952	3.7476	4.0286	3.7143
	SD	.85876	.94373	.75640	.89291
	Des	High	High	High	High
College Graduate (Baccalaureate Degree)	Mean	4.7022	3.9696	4.1522	3.8652
	SD	.90688	.78990	.79155	.81927
	Des	Very High	High	High	High
Years of Experience in the Position					
Below 1 year to 3 years	Mean	4.1130	3.4565	3.6130	3.3870
	SD	.47987	.74762	.62762	1.26861
	Des	High	High	High	High
4 years to 6 years	Mean	4.5359	3.7615	4.0154	3.6436
	SD	.42395	.47051	.46990	.53498
	Des	Very High	High	High	High
7 years to 9 years	Mean	4.3950	4.0200	4.2250	3.9450
	SD	.83947	.79445	.76287	.66529
	Des	High	High	High	High
10 years and above	Mean	4.8500	4.2444	4.4000	4.3611
	SD	1.50225	1.14441	1.04375	.98168
	Des	Very High	High	High	High
Total					
	Mean	4.4670	3.8300	4.0340	3.7740
	SD	.83763	.79245	.73762	.90995
	Des	High	High	High	High

Note: 4.50 – 5.00 Very High; 3.50 – 4.49 High; 2.50 – 3.49 Moderate; 1.50 – 2.49 Low; 1.00 – 1.49 Very Low

The data demonstrates that BIOs' level of community engagement is always high for all measured categories indicating that engagement is still a priority across all groupings.

The fact that engagement remains consistently at a high level (Mean = 4.0340) and that there is strong consensus among respondents compares favorably with the findings of research by Adnan et al. (2022), who found that organizational commitment has been shown to be a major factor influencing continued community involvement for groups and organizations. Research by Adnan et al. (2022) demonstrated that when an organization has a common vision represented by low variability or SD among its members, the group's collective effect on the community increases. Puriwat and Hoonsopon (2022) also state that consistent levels of engagement across various demographic segments is a characteristic of organizations with good internal integration, thereby enabling those organizations to give priority to participation among participants with slightly lower average scores. Tuan (2023) contends that, based on a high descriptive rating for community participation, it will act as a protective factor against any potential external barriers and that a consistently high level of engagement in your data indicates long-term sustainability and a positive influence on the community.

Level of the BIOs’ Disinformation Response Strategies When Taken as a Whole and When grouped as to Age, Sex, Highest Educational Attainment, and Years of Experience in the Position

Table 3 shows the BIOs’ disinformation response strategies in terms of capacity and literacy, proactive dissemination, community fact-checking, grassroots management, and crisis communication when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position.

Table 3. Level of the BIOs’ disinformation response strategies when taken as a whole and when grouped as to age, sex, highest educational attainment, and years of experience in the position

Age		Capacity And Literacy	Proactive Disseminati on	Communit y Fact Checking	Grassroots Managemen t	Crisis Communication	
25-35	Mea	4.5900	4.7300	4.6400	4.1950	4.5000	
	n						
	SD	.37608	.43571	.51081	.80700	.42245	
36-45	Des	Always	Always	Always	Very Frequently	Always	
	Mea	4.6000	4.8651	4.7116	4.5070	4.6140	
	n						
46-55	SD	.66332	.39211	.58114	.77380	.50971	
	Des	Always	Always	Always	Always	Always	
	Mea	4.3818	4.6000	4.5455	4.4727	4.2364	
56 and above	n						
	SD	.92284	.90774	.81039	1.19423	1.28318	
	Des	Very Frequently	Always	Always	Very Frequently	Very Frequently	
Total	Mea	3.7333	3.7000	4.3333	4.0667	3.9667	
	n						
	SD	1.77388	1.76068	1.28167	1.46788	1.69902	
Total	Des	Very Frequently	Very Frequently	Very Frequently	Very Frequently	Very Frequently	
	Mea	4.5200	4.7120	4.6420	4.3520	4.4880	
	n						
Sex	SD	.72919	.67349	.63583	.88904	.72325	
	Des	Always	Always	Always	Very Frequently	Very Frequently	
	Mea	4.5333	4.6381	4.7524	4.4667	4.6000	
Male	n						
	SD	.87939	.89357	.44679	.89740	.88318	
	Des	Always	Always	Always	Very Frequently	Always	
Female	Mea	4.5165	4.7316	4.6127	4.3215	4.4582	
	n						
	SD	.69030	.60755	.67660	.89007	.67797	
Highest Educational Attainment	Des	Always	Always	Always	Very Frequently	Very Frequently	
	High School Graduate	Mea	4.3143	4.5429	4.5048	3.9524	4.3333
	n						
High School Graduate	SD	.83802	.92982	.60537	.95688	.85401	
	n						

	Des	Very Frequently	Always	Always	Always	Very Frequently
Vocational/Technical (TVET)	Mean	4.4667	4.5833	4.5500	4.4333	4.4667
	SD	.76910	.90437	.75378	.80829	.68931
College Level (Undergraduate)	Des	Very Frequently	Always	Always	Very Frequently	Very Frequently
	Mean	4.2857	4.6000	4.5619	4.3714	4.4381
	SD	.89793	.75631	.86630	.82531	.65611
College Graduate (Baccalaureate Degree)	Des	Very Frequently	Always	Always	Very Frequently	Very Frequently
	Mean	4.7348	4.8739	4.7652	4.5043	4.5870
	SD	.51130	.33028	.47386	.87711	.70478
Years of Experience in the Position						
Below 1 year to 3 years	Des	Always	Always	Always	Always	Always
	Mean	4.3130	4.5739	4.3565	3.7304	4.3304
	SD	.43412	.49103	.53583	.83254	.53804
4 years to 6 years	Des	Very Frequently	Very Frequently	Very Frequently	Very Frequently	Very Frequently
	Mean	4.6667	4.9026	4.8154	4.5538	4.6000
	SD	.43609	.31746	.45742	.64475	.32767
7 years to 9 years	Des	Always	Always	Always	Always	Always
	Mean	4.5600	4.5100	4.6100	4.4800	4.4400
	SD	1.04549	1.12853	.74119	1.01442	1.08696
10 years and above	Des	Always	Always	Always	Very Frequently	Very Frequently
	Mean	4.4222	4.7000	4.6667	4.5667	4.5000
	SD	1.04237	.72355	.84853	.97075	1.02268
Total	Des	Very Frequently	Always	Always	Always	Always
	Mean	4.5200	4.7120	4.6420	4.3520	4.4880
	SD	.72919	.67349	.63583	.88904	.72325
	Des	Always	Always	Always	Very Frequently	Very Frequently

Note: 4.50 – 5.00 Always; 3.50 – 4.49 Very Frequently; 2.50 – 3.49 Occasionally; 1.50 – 2.49 Rarely; 1.00 – 1.49 Never

The results showed that all findings imply that the disinformation response strategies employed by BIOs are applied consistently and are not simply a temporary option, but that implementing them has become a habitual way of acting within their organization. Although there are many aspects of these strategies that received an "Always" rating, there are some areas where there may be slight variations in execution from one situation to another.

The importance of establishing local information sharing networks through legislation and two recent academic studies, is in the Philippines. The Philippine Congress is currently considering House Bill No. 1816 (2025), which establishes the formal implementation of Barangay Information Officers (BIOs) on a barangay level. The

establishment of formal BIOs will build on an existing successful model in PIA's Region 6 where BIOs have been trained as community communicators to verify and fact check information. The formal establishment of BIOs, as evidenced by your study, illustrates the trend of [BIOs' response strategies to] becoming embedded as standard operating procedures. Furthermore, a recent 2025 study on disinformation in the Philippines suggests that multiple strategies must be used at the same time, including digital literacy and cross-sector collaboration, to proactively protect democracy from threats to fair elections. OECD reports (2022) and numerous other organizations that study disinformation agree that even though "Always" may be the desired outcome; contextual issues affect response strategies to a great degree, and the success of these strategies can be enhanced by behaviour-based interventions, like attention-accuracy prompts.

Significant Differences in the Level of the BIOs' Communication Practices When Grouped as to Age, Sex, Highest Educational Attainment, and Years of Experience in the Position

The analysis of the results implies that communication practices of Barangay Information Officers (BIOs) are not affected by sex. There is evidence that the influence of both age and education significantly shape the way in which BIOs communicate. The participants within the 46-55 years old age range performed consistently better than those in the 25-35 years old age range across all categories of communication structures and processes, indicating that increased age corresponds with an increase in maturity and, therefore, the creation and availability of a communication framework. There is also conclusive evidence that education plays a role in the effectiveness of BIOs' communication; college-educated BIOs performed the best, while high school-educated BIOs performed the worst. Thus, age and education are positively correlated with a BIO's ability to successfully manage and perform their communication duties. Finally, the relationship between years of service in a position and an employee's engagement level with communication structures and processes is statistically significant; as years of service increase, so too does an employee's integration into the formal hierarchy of the organization and into the feedback loops.

Significant Differences in the Level of the BIOs' Community Engagement When Grouped as to Age, Sex, Highest Educational Attainment, and Years of Experience in the Position

The statistical evidence indicates that the level of community engagement among BIOs (Barangay Information Officers) is not dependent on sex. The statistical evidence indicates that the age of an employee is correlated to the employee's level of engagement in all four dimensions of community engagement (Information, Consultation, Involvement and Empowerment). Furthermore, there is a positive correlation between levels of formal education and an employee's level of community engagement; individuals with greater levels of formal education tend to be more engaged. Finally, the length of tenure as a Barangay Information Officer (BIO) is statistically significant to the overall effectiveness of the BIO's community engagement.

Significant Differences in the Level of the BIOs' Disinformation Response Strategies When Grouped as to Age, Sex, Highest Educational Attainment, and Years of Experience in the Position

Analysis of Barangay Information Officers' (BIOs) disinformation strategies reveals no significant differences based on sex for Capacity and Literacy, Proactive Dissemination, Community Fact-Checking, and Grassroots Management. Although only age affects proactive dissemination and management of grassroots, education and experience have a much greater effect on overall performance in regards to responding to disinformation. Education level consistently shows an improvement in performance, while length of service increases proficiency. With respect to capacity and functional literacy skills, peak performance is at 7-9 years of service, while expertise as it relates to grassroots management and crisis communication typically matures over 10 years or more.

Significant Relationship among the BIOs' Level of Communication Practices, Community Engagement, and Disinformation Response Strategies

Statistical analyses indicate that there is a significant correlation between how well an organization engages its community through various means (communication is one way) and how well they can combat disinformation; in this context, the more successful the community engagement, the more effective are the Barangay Information

Officers (I.O.s) at fighting against disinformation. An effective communication structure (high-quality information flow) is critical for local management, but community involvement will always be the primary means of success. By transitioning from providing passive information to proactively involving and empowering community members, officers multiply the community's ability to fact-check and properly communicate when there is a crisis due to misinformation. Overall, the level of engagement that an organization achieves will produce a much more resilient information ecosystem, resulting in stronger grassroots protections against disinformation and more direct communications during crises due to misinformation.

The Proposed Barangay Communication Plan

Rationale

The purpose of this Communication Plan is to create a resilient and proactive information system with respect to Barangay Information Officers (BIOs) based upon existing strengths while addressing critical demographic performance gaps based on recent research findings. BIOs are currently engaged with their communities at a very high level, and an established common habit of combating disinformation has been integrated into their daily operations. A large portion of the performance of BIOs is age, education, and tenure-driven, rather than by sex; therefore, the plan must extend beyond a generalized distribution of information to include structured and competency-based development of the BIOs. The development of this plan will create a shift in the Barangay's communication style, from a passive dissemination of community-based information to a more active involvement of the community as a whole by encouraging residents to serve as local information ground-truthers.

Data analysis indicates that essential skill sets including information literacy and crisis management will reach maximum proficiency after having been with the organization for a long period of time (typically between 7-10 years). This makes it critical that all staff across the entire information network receive the same level of support from leadership and long-term learning opportunities through structured knowledge transfer and mentoring. The strategic plan supports performance improvement by developing digital systems and training for all officers, regardless of age or length of service, enabling them to effectively counter disinformation and uphold public confidence in their ability to perform routine duties as well as during emergency situations.

Strategic Areas of Focus

To ensure that the plan prioritizes areas of effectiveness, based on evidence stated in our statistical analysis, we must emphasize five key areas as high priority when developing a successful BIO:

- a. **Experience Led Mentorship & Knowledge Transfer:** Also referred to as mentoring, these experienced (46-55) & veteran BIOs (10+ years) will be priority trainers for younger/new staff members. With them training on the nuances of community engagement & crisis management, we are providing the best opportunities for them to excel.
- b. **Education Tailored Capacity Building:** To support officers lacking formal college education, we will implement specific training modules containing academic-level rigor around information literacy and strategic communication.
- c. **Root Level Disinformation Defense:** We will transition away from top-down announcements by utilizing participatory fact-checking programs so that BIOs will be able to enlist residents as active participants in identifying & disproving local misinformation.
- d. **Skill Development Based on the Length of Service:** We will develop a tiered development path (i.e., development levels/training) to accommodate officers with longevity in terms of years served (7-9 years) by providing literacy skill enhancement opportunities and crisis management training for officers exceeding 10 years.
- e. **Integration of Digital Infrastructure:** By adopting Information Management Systems that enable event-based data storage and provide seamless community messaging, we can continue with existing habitual disinformation strategies in place.

Conclusions

Based on the findings of the study, the following conclusions were drawn:

1. In general, the BIOs indicate strong communication practice throughout. No matter the age, sex, educational background or amount of work experience, these results show that the organization's communication strategies are solid, well integrated, and equally applied across all respondents. This contributes to the professional consistency of a diverse workforce by using the same communication strategies consistently.
2. It has been established through this study that all BIOs exhibit consistently high levels of community involvement in regard to the entire group and also through assessments based on demographics. Thus, we can conclude that there is a strong emphasis placed on participatory governance across the entire framework of BIO's, as evidenced by the commonality of the findings across different demographic strata, thereby effectively linking local municipalities with local members of the community.
3. Overall, BIO's disinformation response strategies are highly effective and are consistently applied at a high degree of accuracy. In addition, BIO's disinformation response strategies have also evolved from having once been used on an irregular basis, to now being incorporated into normal operating procedures. Most indicators of disinformation response strategies were rated as "Always". All of these indicators exhibit a high degree of consistency, which would suggest that the use of disinformation response strategies by BIOs is a coherent organizational activity. The small percent of variation that was evident in the disinformation response strategies was not diminishing the effectiveness, but rather demonstrated that disinformation response strategies were adaptable to individual circumstances.
4. The research found no significant variation in how BIOs communicate as a function of their sex; therefore, BIOs communicate similarly and have approximately equal efficiency in performing their duties. Thus, sex does not influence the way BIOs will manage or share information.
5. The analysis of BIO communicational behaviors confirms that significant contrasts in communication practices among BIOs occur when classified within their demographic as well as professional profiles and is further supported by the findings of this study which indicate that three attributes, primarily maturity, educational level and tenure within the organization, have been identified as influences on successful communication.
6. The analysis of the data indicates that the level of community involvement by barangay officers (Bios) is consistent for both sexes which means that sex is not a significant factor influencing the way in which these officials interact with their communities. As such, it can be inferred that both male and female officers perform equally well in terms of their level of community involvement.
7. There is strong evidence that the demographic and employment history of a Barangay Information Officer (BIO) has a clear impact on the level of local community engagement they experience in their role as BIOs. The results of the statistical modelling consistently show that age is a key factor in all aspects of local community engagement, from sharing basic information, to having the confidence to help achieve total empowerment. Furthermore, both formal education and the amount of time spent in the BIO position, appear to be strong predictors of a BIO's ability to effectively foster a deeper level of community connection, suggesting that both theoretical and practical knowledge are required in order to be successful in fostering local community engagement.
8. An analysis of how the sex of the Barangay Information Officers (BIOs) affects the manner in which they implement their disinformation response strategy (i.e., disinformation capacity and literacy development; proactive information dissemination; community fact checking; and grassroots management) revealed no difference between the two sexes in their level of engagement or expertise when implementing these strategies. Thus, the evidence collected indicates that, regardless of the BIO's sex, the implementation at the local level of measures to address disinformation is consistent between the two sexes; therefore it may be inferred that the strategic implementation of disinformation measures may be more heavily influenced by the level of training that each officer has received through their profession combined with the community directives that each officer follows than by any inherent differences between the two sexes.
9. This study found that demographic characteristics, such as age, do not appear to affect fundamental technical methods, like fact-checking and crisis communication; however, they do have a distinct influence on how proactive/grassroots communication occurs. The highest education levels were associated with

greater success, and higher levels of educational achievement consistently led to superior performance on all measures and a more developed understanding of disinformation risks. Professional experience also is an important factor in strategic success, with officers new to law enforcement (3 years or less in service) showing the least level of engagement; whereas specialized skills develop at different points within an officer's career, including literacy developing 7–9 years after being hired, while the greatest level of proficiency related to grassroots and crisis communication develops in those who have been employed for 10+ years.

10. The evidence collected through statistical analysis showed strong relationships between communication practices of Barangay Information Officers (BIOs), levels of community engagement, and effectiveness of strategies used to respond to disinformation. This finding indicates that as BIOs improve the manner in which they communicate and interact with the community, BIOs ability to recognize and combat disinformation increases significantly. Therefore, if we want to create an environment with resilient and reliable information across barangays where truth drives choices made by citizens, we need to strengthen these foundational communication practices.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are suggested:

- a. Barangay Information Officers (BIOs) are encouraged to continue their current communication standards as the effectiveness remains constant regardless of the age/experience of the BIOs. Mentoring between peers should be a main focus for BIOs to maintain these standards of excellence and share the best practices that allow the organization to achieve a high level of consistency with messaging. The existing communication methods utilized by BIOs are consistent and successful on a global scale and may continue to be implemented on an institutional level, while utilizing this barangay model as an example for other jurisdictions; thus, ensuring that any demographic differences will not adversely affect the quality of the content produced. Future studies may place a greater emphasis on the qualitative aspects of what has been created; i.e., specific communication tools used or the psychological factors that contribute to the consistency. Additionally, studying the methods that have allowed these modes of communication to remain consistent across many different populations can serve as a model for communication excellence within an organization.
- b. To Barangay Information Officers (BIOs), local residents, and local governments (LGUs), the overall level of community participation in each category or aspect of the neighborhood has remained at a similarly high level, indicating an established good base for community participatory governance. The Disaster Risk Reduction and Management (DRRM) Councils and National Agencies should utilize this similar skill set among members of these groups to help make communication easier in crisis situations, while Barangays need to continue to provide all available resources to enable and maintain high levels of engagement for all persons regardless of their age or length of service. The findings of this study indicate that future researchers should consider looking further into the qualitative impacts of community engagement (e.g. by looking at whether or not the engagement led to policy change, or improvements in provision of services) and measuring how this very high level of engagement contributed to future community development.
- c. Since the utilization of disinformation response strategies is at a low implementation level by Barangay Information Officers (BIO) across the LGUs/DRRM Councils it is suggested to develop a common “Disinformation Crisis Toolkit” with successful implementations being adopted for widespread use. Considering the performance capabilities of all BIOs regardless of age, gender and experience, allocation of budget resources for advanced digital literacy training should be made a priority for local government units and other institutions seeking to sustain the performance of their BIOs. Suggestions for future research could include examining the different qualitative ways in which these strategies will be applied to multiple platforms in order to provide local residents with continuing access to verified, quality information in order to help them build community resilience against false narratives.
- d. The results show that there is no significant difference between the communication methods of Male and Female Barangay Information Officers (BIOs). Therefore, Barangay officials and Local Government Units (LGUs) may continue to select and train officers based on merit rather than assigning officers based on gender. Since both Male and Female BIOs are equally effective at disseminating information, National

Offices and DRRM Councils may establish tools and conduct technical workshops that are implemented uniformly for all BIOs. Future researchers should use this information as a starting point to shift the focus of their study away from gender variables and examine other variables such as years of experience, educational attainment, and digital literacy, which may have a greater impact on the quality of community leadership and disaster risk communication.

- e. A focus towards targeted capacity building for having identified communication practices continues to be recommended, at all levels from Barangay Information Officers (BIOs), Local Government Units (LGUs). Such priorities must be given particular consideration because higher education (maturity) and a more extended length of service of BIO, (the veteran) have been identified to reflect an increase in performance. Therefore, another means through which LGUs can positively impact the performance of BIO is to develop and implement mentorship programs that pair veteran Biological Information Offices (BIOs) with younger and less experienced BIOs as mentors for the purpose of achieving the established performance goals for the BIO. Specialized training and other educational incentives may continue to close the gap of technical skills possessed by the BIO's with lower educational certificates by bridging the educational gap from the more experienced to less experienced BIO's. With institutionalizing professional development pathways for BIO through DRRM Councils and a community leader, LGUs can assure a standardization and effective exchange of information at the levels of grassroots disaster resilience and community engagement.
- f. Local leadership may continue to provide gender-neutral professional development and recruitment strategies for the BIO position, as there is conclusive evidence that both females and males are sufficiently skilled to engage with their communities at high levels. Local Government Units (LGUs) and Barangay Councils may take a technical skills approach for enhancing their competencies—focusing on training for ICT skills and methods of communicating disaster risks—rather than offering intermediate or gender-specific training; these technical skills are the primary mechanisms for the flow of valid, relevant information. In addition, Disaster Risk Reduction and Management (DRRM) Councils can create an environment for balanced participation in both frontline disaster preparedness as well as response by ensuring that all BIOs have participated equally at both the male and female levels to provide additional support and, therefore, more effective local government is based on competence and commitment than on measured differences. To assist future researchers, additional variables that may provide insight include: educational attainment and years of job experience; these types of data are likely to help identify which are the most significant determinants of the quality of community engagement at the barangay level.
- g. To keep grassroots communication effective throughout the Local Government Units (LGUs), a priority of LGUs may be to develop the professional capabilities of all the Barangay Information Officers (BIOs). As a result of demographics such as age, educational attainment, and experience impacting individuals' engagements with BIOs, it is suggested that experienced BIOs develop various mentorship opportunities and support structures to aid new BIOs; thereby, mentoring the new interviewers, thus helping to narrow the lack of experience gap that exists between them. It is also recommended for LGUs to provide educational assistance for developing technical skills of BIOs, especially the BIOs that may have come from lesser educational backgrounds. By having an institutionalized support system in place for BIOs, and providing educational support to each BIO, local community leaders will ensure that all BIOs will have developed the skill set needed to provide true empowerment to their communities moving forward instead of just providing factual information.
- h. To keep a consistent local countermeasure against misinformation, training efforts should be able to give all officers (men & women) the proper "skills" for community fact-checking proactively getting information out. Future researchers should stop relying on the traditional demographic variables of sex, and start examining what impact the officer's experience, access to digital tools and trust from the community will have on overall success of these grassroots management operations.
- i. Local Government Units (LGUs) and Disaster Risk Reduction Management (DRRM) Councils can optimize their response strategies to disinformation with the findings of this study by prioritizing targeted capacity-building and placement of strategic personnel. It is recommended that Municipal and District Information Officers and Community Leaders establish mentorship programs, with veteran (10+ years) Information Officers taking on a leadership role in managing crisis situations while new Information Officers receive intensive foundational training to fill the initial engagement void. Since education level significantly correlates to success, LGUs should provide incentives for continuous professional

development and specialized workshops on digital literacy and fact-checking. Future Researchers may wish to explore the skill maturation of individuals serving between 7 and 9 years so as to create a more effective tiered training system that provides accurate, timely and quality information to all Local Residents during times of crisis.

- j. In order for BIOs and local leaders to create an environment that is more resilient in how it deals with the availability of information, they may choose to make the integration of active community engagement with interactive communication practices their top priority. Given the correlative connection between these two concepts, by increasing methods of formal communication, increasing the number of face-to-face dialogues, utilizing digital transparency, community members will inherently be better equipped to recognize and combat falsehoods that are presented to them. In addition, LGUs (Local Government Units) as well as Disaster Risk Reduction Management (DRRM) Councils should be encouraged to institutionalize regularly occurring training and cooperation through a feedback loop so that as the number of engagements grows, the community's collective defensive capabilities against disinformation will continuously improve and be based on mutual trust.
- k. To enhance the impact of efforts, it is necessary to establish formalized and comprehensive crisis communication strategies involving disinformation into a crisis toolkit specifically designed for local government units (LGUs) and barangays, linking these strategies to the mandates of the Philippine Information Agency (PIA) and Department of the Interior and Local Government (DILG). This should be backed by continuous research into the evolution of influence strategies across various digital environments so that local policy can be adaptive and relevant. In doing so, these agencies can connect high-level policy with low-level implementation by giving local officials the tools they need to combat emerging digital challenges and ensure that the information provided by their communities is trustworthy.

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