

Decision-Making Techniques of Barangay Officials in The Light of Edward De Bono's Six Thinking Hats

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Abstract—The study in Urdaneta City, Pangasinan, focused on the barangay captains, kagawads, secretaries, treasurers, and SK chairman to determine the barangay authorities' decision-making process in light of De Bono's six thinking hats. Effective decision-making will be a fundamental aspect of how public authorities address key goals. To guide the anticipated rapid expansion, an efficient decision-making process that makes use of data, expertise, and tried-and-true frameworks and processes is required. Based on the officials' age, sex, rank, and number of years of service, the barangay authorities were split into different categories. It can be used to swiftly determine the strategies used by barangay officials. Funding the significant differences in the barangay officials' decisions based on sex, age, and years of service is also essential. To acquire a clear picture of the barangay official's decision-making, a descriptive survey was used in the majority of cases. To identify the different modes of thought employed by the barangay officials, the researcher tallied up the individual responses' scores for each indicator of the six thinking caps. The statistical significance of the difference between the thinking headwear of male and female barangay council members was determined using the *t*-test. ANOVA was also used to determine whether there was a statistically significant difference between the places of the respondents. In this study, barangay officials tended to wear yellow hats more frequently than green, blue, green, black, or black caps. The decisions made by the barangay officials do not differ considerably based on sex. Based on age, there is a discernible difference in how they approach making decisions. Additionally, an analysis using groups based on service length reveals differences in their approaches to decision-making.

Indexed Terms—Barangay officials, De Bono's six thinking hats, Decision-Making Techniques

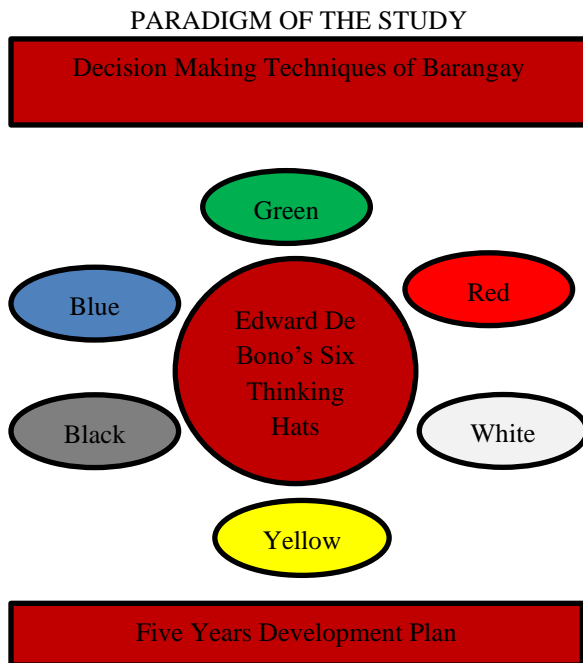
I. INTRODUCTION

The development of any society or culture presents enormous challenges that may push institutions and organizations to the brink of collapse. One issue is combining the very demanding technology of industrialization with humans as a source of energy and talent. It is not a spontaneous process; this sentient relationship must be carefully planned and implemented. As modernization advanced, this integrative responsibility was considered professional leaders' primary responsibility. It looked to be based on an essential concept about people and the technology they used (Ganapati & Reddick, 2018). Specifically, because of conflicting demands that push decision-makers in various directions today, administrative decision-making is becoming more complex. Decision-making by public authorities refers to the act or process of ruling with authoritative direction or control and a leader's continuous exercise of power over and fulfillment of tasks for a political subdivision like the barangay (Bason, 2018). In addition to delegating the duty to administrative or governing entities, it refers to the structure, system, or agency a political unit employs to carry out its obligations and exercise its authority. Masuku et al. claim this. Al. (2019), political interest permeates every sphere of the government, including the institutions and apparatus where the political unit executes its functions. A highly politicized environment permeates government and public administration. Regarding structure, political action, and influence, politics looks for both ends and means to better the society it serves and tries to bring diverse groups together around political problems. Making the proper decisions is an essential part of leadership, as

are all the other elements, such as the atmosphere and how ideas are developed and distributed. Making the right choices is essential for preserving good relationships with other people. The interconnectedness between administration and politics, in addition to political leadership, has also been highlighted, as has the significance of administrative leadership (Clinton, 2018). Good governance can encourage public participation in policymaking and inclusion in decision-making. Everyone should have the best chance in a well-functioning society to realize their full potential. Therefore, establishing good governance in a fundamental political unit like the barangay can be a potent tool for advancing the welfare of the populace as a whole. This is an assessment of the efficiency of the elected barangay officials. This analysis shows that officials' ineptitude and reluctance can impair a barangay's good governance influence on their siblings and other family members and the delicate nature of the issues and concerns being raised. The "6 Thinking Hats" method, made famous by Edward de Bono, is only partially applied in this study to pinpoint the dominant hats that Urdaneta City executives rely on to inform their choices. Since every human being is designed to think in six different ways, the outcome might inspire Urdaneta Municipal residents and the city council to value and use the decision-making process. Due to changes in how societies are constituted, it has become essential for innovations in all disciplines. Since people, or human resources, are the most crucial part of any organization, it is necessary to influence and direct them toward achieving the goals and vision of the company, as stated by Ciner et al. (2019). The minor political organization used to run the country and its core political unit is the barangay, a political subdivision of the national government. The barangay is responsible for coordinating development initiatives and programs, enforcing local government directives and initiatives, planning projects inside its boundaries, and offering the people essential government services (Alipio, 2020). The Punong Barangay is mandated by Section 389 of the Local Government Code of 1991 to: uphold all local laws and ordinances that apply to the barangay; negotiate, engage into, and execute contracts on the barangay's behalf; calling and presiding over the sessions of the sangguniang barangay and the barangay assembly, appointing or

replacing the barangay treasurer, secretary, and other appointive barangay officials, organizing and leading an emergency group when necessary for the maintenance of peace and order, preparing the annual supplemental budgets of the barangay, and approving vouchers for the disbursement of barangay funds, administer katarungang pam barangay operations, exercise general supervision over the activities of sangguniang kabataan, ensure the delivery of essential services, hold an annual palarong pambarangay, promote the general welfare of the barangay, and exercise any other powers and carry out any other duties and functions that may be imposed by law or ordinance. In the Urdaneta Community, political leaders are recognized for their ability and significant contributions to the city. They have a unique way of handling problems and are well-known for serving on the city council. Strong political will, a "ningas cogon" approach, and hands-on administration are other leadership qualities that have helped Urdaneta City become a model for other municipal governments in the country today (Haque, 2020). These qualities have motivated the researcher to investigate the decision-making processes of Urdaneta City's leaders. This study investigates if sex and position impact the barangay official's judgment. Additionally, this paper reviewed the literature on various decision-making contexts, leaders' decision-making, and De Bono's six thinking hats to illustrate the universal nature of decision-making from the leader's perspective. The second gap challenges the researcher to determine if there is a significant difference when the leaders' decision-making differs when grouped by sex and position. Through this study, we can more clearly communicate our opinions on significant administrative issues related to the principles and methods of contemporary good governance. To effectively develop plans to carry out the goal of effective governance, we must first be clear about what we mean by good governance before going on to the challenges. We can address the problem of effective governance by assessing where we currently excel in each area, acknowledging our deficiencies, and creating plans to address those concerns and advance the cause of good governance. The empowerment of the electorate through the provision of guidance to individuals who are qualified to handle electoral activities and can carry out the responsibilities of a barangay official is another

objective of this study. Through interactions with the representatives and organizations of their local government, they learn about its real-world potential advantages and limitations, as well as clever strategies and different types of engagement. Governments at the local and state levels are the best places to encourage civic engagement. The assumption that skilled municipal or city officials will frequently handle organizing public involvement while considering their local knowledge and sensibility fails. Due to these, the researcher examined De Bono's Six Thinking Hats to see how barangay officials make decisions.



II. METHODOLOGY

The approach of this study is described in depth in this chapter. This covers the demographic and setting of the study, the data-gathering technology, the data collection process, and the handling of the data. Additionally presented and covered in the content is a description of the tools and resources that will be used to compile the data for this study. The data will then be arranged, tabulated, illustrated, and described by the researcher. In this study, particular accounting staff profile variables and the difficulties they faced with the work-from-home arrangement were given and examined descriptively. Also, correlational analysis was conducted to see if there were any relationship between the profile of the accounting people and the

level of challenges they experienced when working from home. This study was conducted at the researcher's current workplace, the Accounting Department (Main and Annex Office) of the Schools Division Office of Pangasinan II in Canarvacanan, Binalonan, Pangasinan. The school's division Office of Pangasinan II, specifically the accounting department, was chosen by the researcher to be the site of this study because of its convenience, accessibility to the required data, and readiness to cooperate with the researcher in providing information. All employees working at the Accounting Main and Annex Office in the Schools Division Office of Pangasinan II are included among the respondents to this study. The primary tool the researcher used to collect the required data was a closed-form questionnaire. These research instruments are used to measure the degree of difficulties accounting staff members face when working remotely. The Microsoft Excel Tool Pak was used to examine the validity of this self-made questionnaire, and the computed Cronbach's Alpha values for the items listed under the Internal, External, and Technical Factors are 0.71571, 0.80459, and 0.77210, respectively. The accounting staff's responses were tallied, combined, and statistical analysis was applied. The study conducted frequency counts and percentages to describe the profile of the accounting employees - respondents in terms of their age, sex, civil status, position, state of employment, length of service, highest educational attainment, and monthly salary. This study will use descriptive survey research to gain a thorough understanding of the barangay officials' decision-making process in the context of De Bono's Six Thinking Hats. The objectives of the study will be established using a descriptive technique, which will also be used to build more enthusiasm and answer any queries. Data will be gathered and statistically analyzed for this quantitative study. With the help of statistical analysis, a researcher can use this type of study to acquire data and characterize the demographics of the data (Chen and Terken, 2020). The descriptive method will be used because the research focused primarily on describing, analyzing, and interpreting the profile of barangay officials concerning sex, age, educational attainment, position, number of years in the public sector, and the classification of the Thinking hats they are employing. The researcher's goal is to use the six thinking caps to identify the decision-making process used by

barangay authorities in Urdaneta City. Descriptive survey research as a research technique describes the characteristics of the population under investigation. The study topic's "what" rather than its "why" is more the focus of this methodology (Tambourrino and Fountuoki, 2018). A descriptive survey research design was developed to ensure the validity and reliability of the research study's conclusions. In contrast, survey research enables the researcher to acquire data that may be examined by outlining the decision-making procedure used by local public officials. The researcher will also be able to investigate the important differences in the decision-making processes of barangay officials as well as the problems experienced by public employees, thanks to survey research. To help barangay authorities in Urdaneta City, Pangasinan, optimize their decision-making process in light of De Bono's Six Thinking Hats, this descriptive survey research will evaluate the responses and establish an action plan. In descriptive research, a comparative analysis is carried out to find any patterns or distinctions within the study's participant groups and to better comprehend the reactions of public figures.



The city of Urdaneta has a land area of 98.21 square kilometers, or 37.92 square miles, or 1.80% of Pangasinan's total size (Yamaoka, et. al., 2021). This is where the data collection will take place. According to the 2020 Census, it had 144,577 residents added by them. This was equivalent to 2.73% of the total population of the Ilocos Region or 4.57% of the population of the Pangasinan province. These numbers are used to calculate the population density, which is 1,472 people per square kilometer or 3,813 people per square mile (Kahambang and Taggapaoa, 2021).

Table 1. Distribution of the Respondents According to Job Assignment

Positions	Number of Respondents	Percentage
Barangay Chairman	15	9.09
Barangay Kagawad	120	72.72
Staff	30	18.18
Total	165	100

A total of 170 barangay officials from Urdaneta City, including the barangay chairman, kagawads, and staff, participated in this survey as respondents. In charge of the barangay for a set period—months or years—these leaders are capable and experienced. For the growth and programs in the barangay, they take on responsibility. The decision-making of the respondents in the setting of shared experiences was another area on which the researcher concentrated. The distribution of the study's identified respondents, organized by positions, is shown in Table 1. Typically, respondents were chosen based on their jobs to ensure fair representation, and a sample size of no less than 75% of the population was the goal.

Figure 2: Locale of the Study

The researcher adjusted the online Jensen test as the data collection instrument to correlate the questions with the leaders' decision-making experiences or the working conditions in the several Barangays in Urdaneta City. Because of the modification, to speed up data collection, and to respect the Barangay Council's preferred time for responding, the questionnaire was printed. The tool for data collection was conceptualized by American psychologist Arthur Robert Jensen, renowned for his work in psychometrics and differential psychology. This test was based on De Bono's theory of the six "thinking hats," each with a unique function in problem-solving. The questions are derived from "A 6-Hats Based Team Formation Strategy" by Jensen et al., which seeks to identify a person's most likely hat. In determining the different thinking hats of the barangay council in Urdaneta City.

III. RESULTS AND DISCUSSION

Based on De Bono's six thinking hats, this chapter analyzes and interprets data on the decision-making process used by barangay officials in Urdaneta City, Pangasinan. It focuses in particular on the

characteristics of the barangay councils, including their age, sex, position, educational level, and several years as public servants; the decision-making process they use based on De Bono's six thinking hats; and the significant differences between.

Profile of the Respondents

Table II. Profile of the respondents by sex

Barangay	Brgy Captain		Kagawad		Secretary		Treasurer		SK Chairman		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
DILAN-PAURIDO	1		6	1		1		1	1	1	11
BACTAD EAST		1	6	1		1	1		1		11
TIPUSO	1		5	2		1	1			1	11
CABULOAN	1		7		1		1				11
CAMANTILES	1		5	2		1		1	1		11
PEDRO T. ORATA	1		6	1		1		1	1		11
SAN VICENTE	1		5	2		1		1	1		11
CAYAMBANAN	1		5	2		1		1	1		11
BOLAOEN	1		3	4		1		1	1		11
POBLACION		1	7		1		1		1		11
NANCAYASAN	1		5	2	1			1	1		11
NANCAMALIRAN WEST	1		7		1			1	1		11
CASANTAAN	1		6	1		1	1			1	11
SAN JOSE	1		6	1		1		1	1		11
CATABLAN	1		6	1		1		1	1		11
Total	13	2	85	20	5	10	5	10	11	4	165

It was noted that all but one of these barangays had female barangay captains—Bactad East—on record as barangay captains. As previously stated, there are typically more male kagawads than females. Four barangays with male secretaries represent Cabuloan, Poblacion, Nancayasan, and Nancamaliran East. It was reported that there are more female secretaries than male secretaries. Regarding treasurers, only five barangays—specifically, Bactad East, Tipuso, Poblacion, Casantaan, and Cabuloan—have male treasurers. The SK chairperson in these barangays was a man, completely contrasting with the secretarial role. The general public has a significant stake in the decision-making process, and governance has played a vital role in the requirement for the engagement of all relevant stakeholders (Uddin et al., 2021). Men are more likely than women to participate in formal and informal decision-making institutions, but significant disparities exist. Citizens' involvement as a crucial component of "effective governance," a top priority for "sound governance," and a means of advancing "democratic governance" was seen. Institutional, cultural, economic, and sociological barriers limit women's options and abilities to participate in decision-making. Social role theory claims that gender stereotypes constantly change due to the social structures in a particular culture and society (Xi et al., 2020). It asserts that certain gender stereotypes result

from the varied social roles assigned by men and women in culture. Women are often homemakers and focused on domestic activities with traits like warmth and sympathy, whereas men are typically the breadwinners with corresponding adjectives like task achievers and assertiveness. By learning and acquiring the specific knowledge and skills necessary to fulfill these tasks, men and women adjust their attitudes and behaviors to correspond to these gender roles. Another is that different men and women comprehend and see the world differently, ultimately leading to diverse systems of values and behaviors (Villanuava, 2019). The general public's assessment of two other leadership traits unquestionably does not favor either gender. More than eight out of ten respondents (86%) think that both sexes are capable of intelligence. 9% more respondents than those who disagree believe that women are more intelligent than men. More than 75% of respondents think both men and women can be creative. Among those who perceive a difference in this trait, there is no apparent advantage for either gender: 11% believe women are better at invention, while 12% believe men are (Figueira, et al., 2018). Males outperform females among those who make this distinction, even though most people do not. Compared to 27% of adults who think men are more decisive than women, only 9% of adults believe women are. More than half of people (56%) think that men and women make similar decisions. Similarly, only 9% of respondents believe that men are more ambitious than women, despite 21% of respondents holding this belief (Zorica, et al., 2018). In America, 65% of respondents think being sympathetic defines women more accurately than men, while only 2% think the contrary. Additionally, women are much more likely than men to be considered more organized by the general public (Salvosa and Hechanova, 2020). Only 4% of respondents disagree with the complete 48% who claim that women are more likely than men to be organized (Jones, et al., 2018). No meaningful differences exist across socioeconomic or racial categories concerning this question (Ciner et al., 2019). Surprisingly, men are significantly more likely than women to believe that male political leaders dominate in a couple of these areas. However, even men prefer to give female political leaders at least a slight advantage in most circumstances. The intention is to ensure that government expenditure is dispersed equally. It fulfills individuals' and groups' most

pressing needs rather than creating separate budgets to handle gender concerns. Perhaps the government has succeeded in doing so because the populace has faith in it to act in the nation's best interests while also upholding tradition and culture.

Table III. Years of Service and Age of the Barangay Captains

Barangay	Brgy Captain		Kagawad		Secretary		Treasurer		SK Chairman		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
DILAN-PAURIDO	1		6	1	1		1		1	1	11
BACTAD EAST		1	6	1	1	1			1		11
TIPUSO	1		5	2	1	1				1	11
CABULOAN	1		7		1						11
CAMANTILES	1		5	2	1		1	1			11
PEDRO T. ORATA	1		6	1	1		1	1			11
SAN VICENTE	1		5	2	1		1	1			11
CAYAMBANAN	1		5	2	1	1	1	1			11
BOLAOEN	1		3	4	1		1	1			11
POBLACION		1	7		1		1		1		11
NANCAYASAN	1		5	2	1		1	1			11
NANCAMALIRAN WEST	1		7		1			1	1		11
CASANTAAN	1		6	1	1	1			1		11
SAN JOSE	1		6	1	1		1	1			11
CATABLAN	1		6	1	1		1	1			11
Total	13	2	85	20	5	10	5	10	11	4	165

As stated in Table 03, the barangay captains were chosen based on their age and years of service. 1-3 years, 4-6 years, 7-9 years, and more than ten years were the service time categories. Six of the 15 barangay captains, most of whom have jurisdiction over Cabuloan, Tipuso, San Vicente, Cayambanan, Poblacion, and Catablan, have served in the public sector for seven to nine years or longer. Of the remaining six, six hail from Casantaan, Bactad East, San Jose, Camantiles, Nancayasan, and Poblacion. The barangay captain from Pedro T. Orata and Nancamaliran West served 1-3 years of public service, whereas the barangay captain from Dilan-Paurido served more than 4-6 years. Their ages were divided into groups of 20 to 30 years old, 31 to 40 years old, 41 to 50 years old, 51 to 60 years old, and 61 and over. The barangay leaders are public employees from the barangays of Dilan-Paurido, Bactad East, Pedro T. Orata, Tipuso, Bolaoen, Nancamaliran West, Poblacion, and Casantaan. Their ages range from 51 to 60. The barangay captains of barangays Nancayasan, Cabuloan, San Jose, Catablan, and Cayambanan were 60 years of age and older. However, it was discovered that the youngest of these barangay captains was 31 to 40 years old. One consequence of an aging planet is that more senior citizens are in leadership positions than ever. The age of a leader or a subordinate can significantly impact how people perceive and relate to one another, according to psychological studies, and

older leaders differ from younger ones in a few crucial areas (Barbosa and Ferreira, 2019). It has also been shown by the research of Torfing and Serensen (2019) that having elderly team leaders who are substantially younger than them may have significant drawbacks. In closely-knit civilizations, upholding social order and coordination is essential (Christensen et al., 2020). Older leaders have a greater understanding of prevailing societal norms and can influence their followers to uphold these standards. On the other hand, age impacts a leader's willingness to change. As they age, leaders lose their enthusiasm for change and desire to innovate. Compared to younger executives, older executives are more likely to adopt a passive leadership style and spend less money on R&D. For instance, dividing up tasks and only participating in emergencies. Additionally, they are more likely to maintain the status quo than to take advantage of recently presented opportunities, so it might be preferable to innovate rather than support. Others see it negatively, and it can be difficult to generalize from these results, especially in a presidential race where some of the most seasoned candidates hold some of the most liberal stances (Suwanda and Suryanda, 2020).

Table IV. Years of Service and Age of the Barangay Kagawads

BARANGAY	Yrs of Service				Age				
	1-3 yrs	4-6 yrs	7-9 yrs	More than 10	20-30	31-40	41-50	51-60	61 and above
Dilan Paurido		4	3				4	3	
Tipuso	1	4	2			1	2	3	1
Cabuloan	2		5				1	1	5
Bactad East		2	5				5		2
Camantiles		5	2			2	1		4
Pedro T. Orata	2	3	2		1			2	4
San Vicente		6	1				3		4
Cayambanan	1	5	1					5	2
Bolaoen		4	3					3	4
Poblacion	1	2	4				1	3	3
Nancayasan	1	4	2					6	1
Nancamaliran West	1	5	1					6	1
Casantaan	1	5	2					2	5
San Jose	1	1	5			1	1	3	2
Catablan	1	1	5				1	4	2

Each barangay's kagawad was profiled based on their age and number of years of service. 1-3 years, 4-6 years, 7-9 years, and more than ten years were the service time categories. The majority of the barangay kagawads in Camantiles, Pedro T. Orata, Cayambanan, Bolaoen, Nancayasan, and San Vicente have been providing services to the people for 4-6 years. Casantaan, Dilan Paurido, Tipuso, and Nancamaliran West. After that, the barangays of Cabuloan, Bactad East, San Jose, Poblacion, and

Catablan perform a public duty for 7-9 years. The barrio Tipuso represented the barangay kagawad with the least amount of publicly-recorded service for 1-3 years. Barangays Catablan, Nancayasan, Nancamaliran West, Cayambanan, and other barangays, which together accounted for 41 of them, formed most of those aged 51 to 60, followed by those aged 60 and more, which had 40 individuals. It was discovered that there was just one barangay kagawad, between the ages of 21 and 30. Examining previous data demonstrates a perceived gap between young adults and adults. The idea that young people need to be more appropriately engaged in politics supports that young adults score the lowest in almost all categories of political activity. Trends, such as the lowest voting rates of any age group among young adults with the lowest rates of youth party participation, lend credence to this belief (Polzer et al., 2021). It is critical to distinguish between generational impacts and lifecycle effects when discussing this tendency, which has been the subject of decades of research. In terms of lifelong consequences, what counts is how political engagement changes during different life stages. According to this theory, no one prioritizes political participation since it competes with more critical personal matters, especially for young people. People only have so much time. Thus, those whose lives have not yet been planned must pay more to participate in politics. Along with young adults gaining more exposure to the electoral and political processes as they get older, certain developmental stages have been shown to influence political engagement behavior. According to Klausen and Askim (2021), the influence of lifetime effects on voting participation is the only factor contributing to these findings. The result of lifespan effects on other forms of political activity only contributes to a few discrepancies. Youth's low political participation rate results from their limited view of politics and belief that elected officials need to care about their concerns genuinely. Therefore, rather than being the product of the youth's lack of interest, youth disengagement is caused by how politics is organized. As a result, there is an increase in studies on what constitutes political involvement for young adults and how they define it. They demonstrate further how limited a definition of involvement was utilized in earlier studies and how not participating in politics has yet to receive enough attention.

Table V. Years of Service and Age of the Barangay Secretaries

BARANGAY	Yrs of Service				Age				
	1-3 yrs	4-6 yrs	7-9 yrs	More than 10	20-30	31-40	41-50	51-60	61 and above
Dilan Paurido				1			1		
Tipuso			1				1		
Cabuloan				1			1		
Bactad East				1			1		
Camantiles				1					
Pedro T. Orata				1		1			
San Vicente				1			1		
Cayambanan			1				1		
Bolaoen				1				1	
Poblacion				1			1		
Nancayasan	1							1	
Nancamaliran West				1		1			
Casantaan				1				1	
San Jose			1				1		
Catablan				1					

According to the findings in Table 5, most of the secretaries, including Dilan Paurido, Poblacion, Cabuloan, Bactad East, San Vicente, Cayambanan, Tipuso, San Jose, and Catablan, were between the ages of 41 and 50. Another report shows that only one secretary is listed, and barangay Pedro T. Orata, between the ages of 31 and 40, is the youngest. The secretary's role is to support the captain in ensuring smooth local management. The secretary is responsible for keeping influential books and records, upholding the legal requirements of governing documents, fostering effective communication, and recording minutes of meetings (Erickson, 2018). The majority of the secretaries were older than 60, according to the information presented. Founding out that more senior secretaries are usually chosen for long-term roles because they are reliable in people's view. These studies are the first to show that there are age-related changes in a particular pattern of brain activation during a social situation involving the assessment of another person's dependability. Additional research is necessary to determine whether the results result from age-related brain changes or if older people are simply less motivated to look for unreliable social cues. Salvosa and Hechanova (2020) supported Masuku and Jili's earlier findings about older secretaries' higher honesty ratings. Still, they found different things from Ross et al. regarding whether there were age differences in perceived expertise. The contradictory results for competency may be due to the secretaries' varying ages and sexes in the two studies: a 74-year-old male may be perceived entirely differently than an 82-year-old female for reasons connected to gender or age. The younger witness belonged to the young-old group, which includes those between the ages of 65 and 74,

while the older secretary belonged to the middle-old group, which consists of those between the ages of 75 and 84.

Table VI.

Years of Service and Age of the Barangay Treasurers

BARANGAY	Yrs of Service				Age				
	1-3 yrs	4-6 yrs	7-9 yrs	More than 10	20-30	31-40	41-50	51-60	61 and above
Dilan Paurido				1					1
Tipuso				1					1
Cabuloan									
Bactad East			1				1		
Camantiles			1					1	
Pedro T. Orata						1			
San Vicente				1			1		
Cayambanan				1				1	
Bolaoen								1	
Poblacion				1					1
Nancayasan							1		
Nancamaliran west				1				1	
Casantaan				1					1
San Jose				1					1
Catablan				1					1

Barangays Bactad East, San Vicente, Poblacion, Nancayasan, Casantaan, San Jose, and Catablan were found to represent the most prevalent barangay factions, which ranged in age from 41 to 50 years old. Only one barangay treasurer, Pedro T. Orata, who describes his barangay, was chosen as the minimum candidate and is between the ages of 31 and 40. The Treasurer oversees financial concerns and ensures the committee's finances are protected. The Treasurer is also in charge of managing cash flow, reconciling the books, and responsibly investing funds. They might also back efforts to gather funds to improve the committee's financial standing. The Treasurer plays a significant role in the committee in charge of the institution's financial management. A skilled Treasurer should be able to manage income payments, acknowledge received monies, keep an eye on departing checks, record all transactions, manage formal reports and business bank statements, and perform other duties regularly in any sector stated by McCourt (2018). The Department of the Treasury manages and oversees the production of coins and currency, the distribution of payments to the general public, the collection of taxes, and the borrowing of funds needed to fund the government (Widt and Panagiotopoulos, 2018). According to studies, local governments choose treasurers based on their expertise and experience. As a result, they choose a candidate with a wealth of life experience and education. Competence supports personal characteristics linked to job outcomes. Competence also has an impact on how well a person performs in

their actual jobs. As a result, the treasurer of expenditures in each work unit must be qualified human resources supported by an accounting education background, attend education and training, and have experience in finance. The problem with applying accrual-based accounting is that it requires human resources with a strong understanding of accounting logic.

Table VII. Years of Service and Age of the Barangay SK Chairman

BARANGAY	Yrs of Service	
	4-6yrs	20-30
Dilan Paurido	1	1
Tipuso	1	1
Cabuloan	1	1
Bactad east	1	1
Camantiles	1	1
Pedro T. Orata	1	1
San Vicente	1	1
Cayambanan	1	1
Bolaoen	1	1
Poblacion	1	1
Nancayasan	1	1
Nancamaliran West	1	1
Casantaan	1	1
San jose	1	1
Catablan	1	1

The barangay SK chairpersons were determined according to their years of service and age. The length of duty was between four and six years. Except for barangay Nancamaliran, all had SK Chairmen who had been in public service for at least four to six years. They were between the ages of 20 and 30 at the time. All SK Chairmen were between 20 and 30, with Nancamaliran being the exception. The Sangguniang Kabataan is a platform restored by Republic Acts No. 10742, commonly known as the Sangguniang Kabataan Reform Act. It was designed to allow youth delegates to run programs and participate in decision-making. The Republic Act No. 10742's implementing rules and regulations, encouraging young people to apply for jobs in the Sangguniang Kabataan, set forth unique benefits for Sangguniang Kabataan officials. The majority of research on young leaders in the Philippines so far has focused on the perspectives of ordinary youth and Sangguniang Kabataan (SK) leaders regarding their views on citizenship and how they relate to the importance of civic engagement.

Studies have lauded young people for their creativity and prodigious capacity to promote progress. To achieve both local and national growth, they are crucial. The amount of youth involvement in the formulation of policies is still tiny and distributed across many geographical areas. Both young people's participation in peace processes and young people's involvement in anti-drug initiatives are constrained. They gather information and learn new skills, assume greater accountability and responsibility, develop self-assurance, and forge close relationships with children and adults. The SK authorities faced another administrative issue due to lowering the age to 17, which rendered children unable to make contracts or sign the paperwork, which had a detrimental effect on the efficacy of their initiatives and their capacity to run effectively. There have been reports of parents "co-governing" SK affairs on behalf of their kids (Alcoba and Pjinaitrup, 2020). Studies and literature support the assertion made by abolitionists that the SK, among other things, affected young leaders with poor governance practices and served as a tool for political favoritism. Through key informant interviews with more than 40 SK officials across the country, a study conducted by the Department of Interior and Local Government (DILG) and UNICEF revealed that the SK taught youth leaders various harmful behaviors, such as nepotism and corrupt practices. Another group, the League of Municipalities of the Philippines, called for the abolition of the SK and urged that young representatives be nominated to the city, municipal, and provincial councils in its place due to claims of financial corruption among SK officials.

13 of the 15 barangay captains wore yellow hat, while all were male and wore the blue hat. In contrast to the other male captains, only two female captains wore red hats next to this. Regarding male kagawads, the majority—25 kagawads—wear blue or yellow hats. Two kagawads, at the very least, wear green, blue, and green-black hats. Ten female kagawads wear yellow hats, while another five wear blue caps. Most of the secretaries were women, as was previously said. Six of them wear the yellow hat, followed by the blue and yellow hats, and four of the male secretaries. The hats worn by the least among them are blue, white, and blue, as is noted. Since there were few male treasurers, it was noted that they used yellow, blue, and black hats only. Eight female treasurers wear the yellow hat, making up most of their use, while four use the blue hat. In contrast to the barangay secretaries, all the SK chairpersons were men. They only used the blue hat, 12 of them, and the yellow hat, 3 of them, as their only two techniques. Transparently, it was discovered that the yellow hat was the most frequently worn among De Bono's thinking hats. Positive thinking is associated with leaders who wear yellow hats. Engaged employees are energized, inspired to focus more intently, and motivated to give their all to the task at hand, thanks to positive leadership, all of which are compatible with the definition of engagement. The least frequently used hat is the black one, which is the antithesis of the yellow one and is where we find the benefits of ideas and plans. The black one is important because it allows everyone—including the person who came up with the idea—to be critical and recognize potential risks (Ravanilla and Hocken, 2022). In this sense, the black-hat strategy aims to create the capacity to master and control every variable to achieve the desired outcomes. The black-hat research aims to examine management techniques and tools, including those for human resources, accounting, finance, indicators, budgets, and plans. The classic rationalist notion of instruments as precise or only partially precise but adequately precise representations of cognition and action, information processing procedures that would duplicate reality and specify the action, is at odds with the black hat method. The rationalist heteronomous notion of collective action is replaced with an individual vision.

Table VIII. Thinking hats of the Barangay officials in Urdaneta City

Hats	Brgy Captain		Kagawad		Secretary		Treasurer		SK Chairman	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Yellow	13	0	10	10	4	6	1	8	3	4
Blue	0	0	15	5	0	4	1	4	6	0
Red	0	2	5	3	0	0	0	0	0	0
Green		0	9	1	0	0	0	0	0	0
White	0	0	5	1	0	0	0	0	2	0
Black	0	0	3	0	0	0	0	0	0	0
Blue, Black	0	0	7	0	0	0	1	0	0	0
Blue, Yellow	0	0	25	0	0	4	0	0	0	0
Blue, White	0	0	8	0	0	0	0	0	0	0
Green, Blue	0	0	2	0	0	0	0	0	0	0
Green, Black	0	0	2	0	0	0	0	0	0	0
Total	13	2	85	20	4	14	3	12	11	4

Table IX
ANOVA Result on the Difference in Sex

Groups	Count	Sum	Average	Variance
Male	15	117	7.8	2.6
Female	15	37	2.46666	0.98095
*P-value 1.34E-11				

The decisions made by the barangay authorities do not significantly change based on their gender. There is currently little to no research on how a leader's perceived performance in a student-run group is influenced by gender. According to a meta-analysis on gender and the effectiveness of leaders in decision-making, males outperformed women in terms of their leadership performance or capacity (Xu, et al., 2022). The study also found that female leaders were slightly more effective than male leaders at making decisions; out of 82 studies, 57% revealed this. However, that percentage was not statistically significant enough to imply a difference in leadership effectiveness between men and women. Women were favored when subordinates evaluated the leader instead of the leader considering themselves or being evaluated by peers or supervisors. Another credible source that compared gender and assessment found that devaluation was increased in specific situations, such as those in business and education, where the competency of the subject or leader was the dependent variable, where female leaders adopted a masculine leadership style, or where the member sex distribution was predominately male. They concluded that there is a slight general trend toward undervaluing women. This study found that female supporters of their presidents believed they were more effective than male supporters. Contrarily, male leaders thought they were performing better than what their followers believed (Altamimi et al., 2023). As a result, female leaders underestimate their aptitude for making decisions and evaluate themselves lower than their members, whereas male leaders exaggerate it and rate themselves higher than their members. Women are underrepresented in positions of decision-making throughout the community. Because women are better able to manage complicated personal relationships, pay more attention to people's needs, have a propensity for conflict prevention and resolution, are more willing to share their opinions with others and work toward coming to agreements, and monitor and

provide feedback more diligently, the female leadership style also contributes to the benefits of diversity. According to Frisk and Bannister's research (2022), efficiency will increase if gender discrepancies are eliminated, and gender equality is promoted in decision-making positions.

Table X
ANOVA Result on the Difference in Age

Groups	Count	Sum	Average	Variance
1-3yrs	15	4	0.266667	0.209524
4-6yrs	15	53	2.2	0.742857
7-9yrs	15	63	1.133333	0.409524
More than 10	15	19	1.266667	0.495238

When classified by age, the barangay officials' decision-making processes differ significantly, according to an Anova finding with a p-value of 0.01. Globally speaking, the average age of European legislators was 53 (Wong, 2022). In the United States, members of the House of Representatives are currently 57 years old on average, whereas senators are 62 years old on average (Silva & Smark, 2022). Another study by Krishnan (2023) includes introspective assessments of how a politician's age influences political governance, re-election rates, and local public finances. First, younger politicians might have longer political careers and be more susceptible to professional factors. Second, younger politicians might support longer-term plans because they have a different time horizon and discount rate than more experienced politicians. Third, younger politicians may work more and produce more because they are more driven than old. It might be challenging to analyze how age affects policy scientifically. Comparing the choices of mayors of different ages would not allow us to identify our effect of interest because the mayor's age is related to other observable and unobservable personal characteristics. According to our data, conservative mayors and mayors of cities with a high concentration of senior citizens, for example, are more likely to be older. Because of this, it appears that older and younger politicians opt for different policies based more on their political ambitions than their skill or patience.

Table XI
ANOVA Result on the Difference in Year of Service

Groups	Count	Sum	Average	Variance
1-3yrs	15	4	0.266667	0.209524
4-6yrs	15	33	2.2	0.742857
7-9yrs	15	17	1.133333	0.409524
More than 10	15	19	1.266667	0.495238

*p-value 5.2193E

There is no significant distinction if the barangay officials are categorized by years of service. Long years of service benefit the populace because local governments continue to improve their decision-making by developing new ideas. According to Montiel and Uyheng (2020), long-serving local politicians are incredibly knowledgeable about the community's culture and its products and services. They have observed numerous changes in the neighborhood, so they know what works and what does not. Employees develop a solid knowledge base as they perform their duties daily, lowering error rates and boosting productivity. For instance, long-standing local authorities are well-versed in protocols and manufacturing techniques, ultimately leading to higher productivity (Panao, 2020). Additionally, long-serving local politicians display a stable work environment that boosts morale because they have been involved in the community for a long time. If they work for the public for a long time, they could grow bored with their tasks. As a result, they could get too comfortable in their position since they have little fear of losing it. If so, they might follow instructions without going above and beyond. As a result, their public service might need to be of higher quality and volume. Moreover, long-term employment may discourage people from looking for other opportunities where they might flourish or advance in public service (Salvosa & Hechanova, 2020). Working for an individual can be highly perilous for public employees who have not been in their positions for very long; according to Pradana and Susanto (2022), three out of every four businesses fail. However, there is a lot to learn at first, and some people do well in situations like those frequently present in newly established municipal governments. On the other hand, high-stress levels can inspire unique creativity, inventiveness, and achievement.

IV. CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the findings from the study's suggestions and the conclusions drawn from the barangay officials' use of De Bono's Six Thinking Hats in Urdaneta, Pangasinan.

Conclusions:

The following conclusions were developed based on the study's findings to provide a straightforward and precise solution for each issue raised by the project:

1. For the profile of the barangay officials, the following are presented:
 - 1a. These five barangay captains, aged 61 and up, were from the barangays of Cabuloan, Cayambanan, Nancayasan, Catablan, and San Jose. The others discovered the least experienced barangay captains to be between 31 and 40 and 41 and 50. They were from the barangays of Nancayasan, Cayambanan, and Catablan.
 - 1b. People who were primarily between the ages of 51 and 60 were present for the barangay kagawads in Catablan, Nancayasan, Nancamaliran West, Cayambanan, and other barangays that made up 41 barangay kagawads. Regarding the last one, it was found that only a few barangay kagawads were between the ages of 20 and 30. Ages range 61 and above comprise 40 barangay kagawads.
 - 1c. More than half of the barangay secretaries were between 41 and 50; their barangays included Dilan Paurido, Poblacion, Cabuloan, Bactad East, San Vicente, Cayambanan, Tipuso, San Jose, and Catablan. There is just one secretary named, and barangay PT Orata, the youngest and between the ages of 2 and 10, is the most notable fact.
 - 1d. Barangays Bactad East, San Vicente, Poblacion, Nancayasan, Casantaan, San Jose, and Catablan were utilized as a representation for barangay treasurers; these barangays ranged in age from 41 to 50. The minimum number of barangay treasurers, Pedro T. Orata, between the ages of 31 and 40, was only one. They were between 20 and 30 when they served as SK Chairmen. All SK Chairmen ranged in age from 20 to 30.

Only two barangays had female barangay captains listed on their records, Bactad East and Poblacion. There are often more men than women among the kagawads. However, Barangays Cabuloan and Nancamaliran West are the only two barangays without female kagawads. All barangays from Cabuloan, Poblacion, Nancayasan, and Nancamaliran West have more female secretaries than male secretaries, except for four recorded cases. There are five barangays with male treasurers: Bactad East, Tipuso, Casantaan, Poblacion, and Cabuloan. In stark contrast to the secretarial position, the SK chairman comprises four females from the barangays of Dilan Paurido, Tipuso, Cabuloan, and Casantaan. Six of the 16 barangay captains in charge of Tipuso, Cabuloan, San Vicente, Cayambanan, Poblacion, and Catablan have worked for the government for 7-9 years. The five barangay captains with more than ten years of experience in the government are from Bactad East, Camantiles, Bolaoen, Casantaan, and San Jose. The minor public service is between 1-3 and 4-6 years, with two barangays in each case. The majority of the barangay kagawads in the barangays of Camantiles, Pedro T. Orata, Cayambanan, Bolaoen, Nancayasan, and Casantaan have been serving the community for 4-6 years. After that, the public is served for 7-9 years by the barangays of Tipuso, Cabuloan, Bactad East, West, San Jose, and Catablan. San Vicente and Poblacion have the shortest recorded terms of government service among the kagawads, ranging from one to three years. In the barangays of Dilan Paurido, Cabuloan, San Vicente, Cayambanan, Poblacion, Nancamaliran West, Casantaan, San Jose, and Catablan, ten secretaries with more than ten years of public service were found. For the record, the lone secretary who served the public for 4-6 years was a representative of barangay Camantiles. It was determined that the barangay treasurers had served the public for 7-9 years and more than ten years. The survey respondents frequently filled up these groups. However, to pick the most significant number, more than half of them had served the government for more than ten years, and the remainder had done for one to nine years. The barangay SK chairpersons served terms of four to six years. They all had SK chairpersons who had

spent at least four to six years in public service, except barangay Nancamaliran.

2. Employing De Bono's six thinking hats, the decision-making of the barangay officials was determined:

The yellow hat is the barangay captain's most popular tactic, which 11 barangay captains have admitted to using. The blue and yellow hat is the barangay kagawads' favored decision-making method and found that 19 of them are using it. Six secretaries typically handle yellow hat administration. It is common for treasurers to wear the yellow hat. Another is that SK chairpersons make decisions using the blue hat. Based on their gender and position, founding that male barangay captain, kagawads, treasurers, and SK chairman wore yellow hats frequently. The female secretaries were currently wearing the yellow cap. After the yellow hat, frequently worn by barangay officials, the blue hat was worn by male barangay captains, female kagawads, female secretaries, female treasurers, and male SK chairman. Additionally, it was discovered that men were the only kagawads who wore green, blue, or green, black hats. As a result, more barangay officials wear the yellow hat than any other color.

3. The variables, which were sex, age, and years of service, were used to recognize the significant difference in the barangay officials' strategy in making decisions for the public:

The decisions made by the barangay authorities do not significantly change based on their gender. Another finding is that when the barangay officials were classified according to their ages, their decision-making methods showed a noticeable difference. When the barangay officials were categorized according to their years in office, there was a noticeable difference in their approaches to decision-making.

Recommendations

The Six Thinking Hats and the study's findings were combined to create significant conclusions.

1. Despite the anticipated difficulties, local officials must address the challenges of encouraging more flexible and efficient decision-making. First, decision owners should

be able to intervene after thoroughly explaining their decision rights. All decision rights belong to the decision-makers, advisors, and executors. Inform the institution of these decision-making rights, and then support and give decision-makers the authority they need to act quickly. If roles are violated, make the appropriate correction and let people know right away. After selecting a choice, discuss the approach with others and ensure the executor has a clear path to carrying it out. Last, help with problem-solving by removing bottlenecks and resolving conflicts. Share the decision with the entire organization to ensure implementation and general understanding and address any resistance.

2. To hasten decision-making, identify significant outcome-based measures improved with a data-based edge. Establish unified objectives and results institutions can support and acknowledge, such as delivering services or improving the citizen experience. Then, cascading these indicators throughout the institution will determine the performance of those objectives. Regularly evaluate the effectiveness of these metrics, and use the results to guide decisions about resources and talent distribution. Please find out how an innovative or holistic approach can help the community achieve its goals when a team member suggests it.
3. Make selections depending on the information available, keeping in mind that you should also use research records in addition to your gut feelings. Public employees unquestionably share the same propensity to use common sense and base their decisions on what they are used to. However, by using performance data to inform decisions, businesses can access the most recent and comprehensive data. It is a technique for conceiving the ideal judgments by utilizing all available facts. When making decisions, it employs numbers and facts rather than instinct, intuition, or gut feelings. Any of these various types of evidence, including academic, internal, and experiential evidence, must first have their

caliber established as the basis for making judgments.

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