
| RESEARCH ARTICLE

Economic Voting Theory in the Philippines

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| ABSTRACT

The study examined how the performance of the politicians influences the voters' decisions in the elections. The researchers modified Reed's (1994) performance-based voting model to evaluate the performance of the politicians during their term in office. Since the model is a repeated election framework, the researchers focused on the senatorial elections during the Arroyo to Duterte administration (2004-2019) in the Philippines. The framework was used to determine whether the prospective or retrospective voting theories occurred in the elections and was able to compute for the value of the office of the politicians and evaluate their performance in office. The study showed that the retrospective voting theory occurred more than the prospective voting theory. It also showed that the citizens would vote for the senator regardless of their performance in office.

| KEYWORDS

Reed's (1994) Performance-based Voting model, Philippines, Value of the Office, Retrospective Voting Theory, Prospective Voting Theory

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1. Introduction

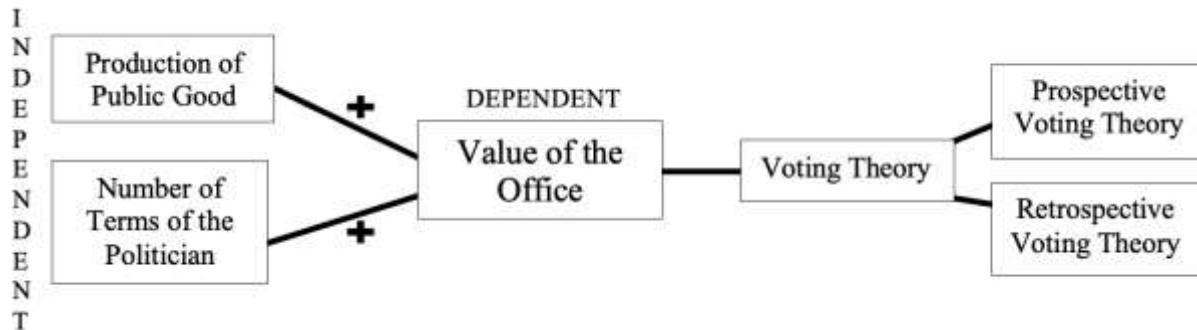
The system of democracy emphasizes that the citizens are the rulers of the country. It makes sure that each individual has a duty to decide and vote for the most capable leaders who can effectively lead the country. This is an opportunity for the citizens to overthrow an administration with failed policies and address social issues. Electing capable officials can indeed lead to prosperity in the country. They can effectively make the citizens follow their new policies, create opportunities, and most of all, strengthen the relationships with other countries. Hence, a democratic country can undoubtedly help boost the country's economy (Acemoglu et al., 2015)

A democratic country like the Philippines exercised the right to vote as early as 1902 and successfully elected the president and vice president of the Commonwealth in 1935. The elections are one of the country's most anticipated events as candidates have different ways of gaining the citizens' trust. The long-standing democracy in the country has established political cultures such as festive campaign seasons, political dynasties, and a disorganized voting system which caused repetitive problems like missing ballots, illegitimate voters, and cluttered polling stations (Velmonte, 2020). These political cultures have continued to define the Philippine elections.

The platform where citizens supposedly elect leaders became a platform for politicians who have questionable agendas and backgrounds. As quoted in Velmonte (2020), Harden (2010) stated in his Washington Post, "Elections in the Philippines are personality-driven, a kind of national soap opera in which distinctions between infamy and celebrity tend to blur over time." Instead of new promises, hope, and solutions, the country's election season is filled with controversies, violence, and even suspected fraud.

The elections are one of the few chances that the citizens can break the political norms that continue to dictate the elections' outcome. This groundbreaking event allows citizens to freely exercise their rights to choose the leaders who can aid the country's problems and concerns—making it the reason why every vote is essential.

1.2 Conceptual Framework



1.3 Statement of Objectives

The primary objective of this research was to identify how the politicians' performance affects voters' choices in the elections.

More specifically, the research aimed to determine the following:

- To determine which voting theory is present in the Philippines during the senatorial elections of the Arroyo to Duterte administration
- To evaluate the performance of the politician during their term in the office

1.4 Scope and Limitations

The research focused on the theoretical interior of the Pocketbook voting system, which states that voting for the political candidate or party is most financially valuable for the voter. This theory covers the idea of Retrospective and Prospective voting theories. The study also analyzed how a politician's performance could influence the voters' electoral preference during the election period. The researchers focused on Philippine senators since the model of Reed (1998) focuses on a repeated election framework. The data gathered is the Philippine Senators' Statement of Assets, Liabilities, and Net (SALN) during every first year and the last year of their term in office. The senators do not release their SALNs on their last year unless they get reelected for the second term. Instead, the researchers used their SALN during their second to the last year in office. The researchers also gathered the yearly government expenditures and salaries from the Commission of Audit (CoA). The social discount rate from the Investment Coordination Committee and the total budget of the senate provided by the Department of Budget and Management under the General Appropriations Act (GAA) during the Arroyo to Duterte administration, Congress 13 to 18 (2004-2019). The researchers only focused on the senators who completed their first term during the period mentioned. The data also lacks the fiscal year 2007, as the Commission of Audit stated that there is no data available.

1.5 Significance of the Study

This study will contribute to students, future researchers, economists, government agencies, and voters during the national elections. The determination of which voting theory occurred in the senatorial election would help voters understand and evaluate the politicians' performance during their term. This research also served as a basis for the general public to understand the candidate's background, records, and motivation to run in office. This study aimed to evaluate which economic voting theory should the majority of the population adopt.

2. Literature Review

2.1 Value of the Office

The citizens' voice in the country and their involvement in politics connect them to those who lead the state—politicians and policymakers. One of the politicians' duties is to provide the utility and satisfaction gained in the interests of the public. It is the utility of goods and satisfaction obtained by the politician to benefit the public's needs. One of the core functions of government is generally understood to provide public goods that markets either fail to provide or cannot deliver efficiently (Anomaly, 2015). Kallhoff (2011) stated that public goods had been examined as goods needed by society to strengthen the public forum and visible expressions of social inclusion. They also reflect recognizable representations of a shared sense of citizenship (Judt, 2010). Hence, it will maintain a well-functioning society and ensure a globally competitive economy (Walzenbach, 2016).

At the same time, politicians also prosper from their production to the public. Politics includes establishing mutually beneficial relationships between your station and the representatives of the elected authorities, including state and federal parliamentarians (Holmes, 2011). In addition, the willingness of politicians to communicate with voters without mediation will improve the

connection between politicians and the public (Dalton & Klingemann, 2007). The former Prime Minister, Kevin Rudd, mentioned that "the first is to establish a stronger relationship with people by improving services and enhancing public participation in government". As the person responsible for introducing the reforms, Moran stated: "It is not only important to consult people, but also to enable them to participate together in the design of services and policy." Citizen participation in service and policy design is not the only right thing to do but will provide the government with a rich new pool of ideas (Holmes, 2011). Only when voters can determine to what extent domestic political actors have affected the economic result can they get the "sign of competence": the burden of responsibility for good or poor economic time for people in charge (Hellwig, 2015). Aside from the ability to make a difference, they also had other benefits from being a politician. Leaders with powerful political skills such as building connections and building confidence are thriving and more involved at work. Direct contact between politicians and citizens also opens up the potential for demagoguery and politicization. This political environment is likely to benefit, at least in the short term, from the right-wing and left-wing political movements (Dalton & Klingemann, 2007).

Politicians receive utility from holding office and from the success of their projects for the public (Muller, 2014). He also stated that there are two kinds of politicians when it comes to their utility. The advantages of holding office inspire one kind of politician. He would also follow a strategy that gives him the best opportunity to be reelected because he generated the maximum quantity of production of pure public goods of the government during his last term. The politician's per-period payout is a result of his blissful public good. One can think of it as the utility of public good that the politician earns from holding office alone (Reed & Cho, 1998). Garri (2009) also considered a two-period model in which politicians have different motives. He also stated that good policymakers provide an effective outcome for an ideal public good because if he provided otherwise during the second term, it would be reasonable for the people to consider him a bad politician and, therefore, not reelect him. Researchers presume that the quality of the holding office is so good that this scenario never occurs. Nevertheless, politicians choose to extend their term and run for the second term because they know that they are beneficial to the electorate, therefore boosting their performance value (Reed & Cho, 1998).

However, does a politician's conduct alter when elected to the political holding office? Some academicians claim that elected officials vary intrinsically from non-politicians, while others argue that such behaviors are taught in government institutions or the political community. They have determined the behavioral impact of the office (Enemark et al., 2016). Research provides support for the view that the non-selfish behavior of leaders reflects a reciprocity motive. They also show that candidates do not simply implement their preferences once in office, as suggested by the basic citizen-candidate model (Drazen & Ozbay, 2016).

Hypothesis 1: The voters will be satisfied when the value of the office of the government is high.

2.2 Production of Public Good

The discussion of politics has been present for the longest time. As mentioned in early theories like the Neo-classical theory, a political decision-maker is assumed to be motivated by the desire to promote the public good. In contrast, Adam Smith's Butcher, Brewer, and Baker discussed that politicians and administrators serve the public that focuses on their interests (Young, 1989). Adam Smith, Thomas Hobbes, and David Humes determined that the fundamental function of the government is to provide public goods for the citizens. They also stated that governments could provide benefits and services conveniently for the citizens (Anomaly, 2015).

Public sector agencies produce public goods that must meet society's needs, such as providing accessible necessities to all citizens, improving and operating society in general, and aiding complex common-need problems (Sekera, 2019). The public good has two characteristics which are *non-rivalry* and *non-excludable*. As mentioned by Samuelson (1954), "One man's consumption does not reduce some other man's consumption.", public goods are *non-rivalry*, where individuals can consume without worrying about the quantity of good for another consumer as it is available to everyone else's. Public goods are also *non-excludable* when a good is available to all at once. It is already difficult or impossible to exclude individuals from consuming the good (Yoo, 2007; Kallhoff, 2014; Sekera, 2019; Tanimoto, 2019). These characteristics create *Free riders* when a good is widely available but expensive to make. Some people may be tempted to take advantage of others' efforts. The existence of free riders will also make individuals decline to produce public goods as there is no assurance that others will contribute. Arguments were made to resolve this problem where the government should actively provide or indirectly facilitate the provision of public goods (Anomaly, 2015).

Politicians in most developing countries are in charge of providing public goods financed through transfers (Cruz et al., 2020). Government officials' primary function is to produce these public goods to provide for the citizens' needs; however, there are instances where the government is questioned on which goods they should supply that can truly satisfy the desires of the citizens and not desirable goods. Demands from the citizens can indeed be inconsistent with poorly formed preferences. It can also be tainted with different irrational and rational political and economic beliefs that will make measuring demands challenging to accomplish (Caplan, 2008; Huemer, 2013). According to Anomaly (2015), Contingent Valuation (CV) surveys were created to ask

the public how much they are willing to pay for the production or preservation of public goods. The CV had inconsistent responses as people's ability to pay seems to vary considerably depending on the order of things on a list of various public benefits (Samples and Hollyer, 1990; Tolley et al., 1983). There are even events where the produced good is beneficial to significant community members while others consider it harmful (Anomaly, 2015).

Many citizens profit from publicly-funded public goods, and others pay for them. It can be reasonable in some cases that it might be worthwhile to invest funds. A public benefit creates a result of public policy, and it's questionable whether policymakers should have it or whether they should change the policies that made the good public in the first place (Anomaly, 2015). Moreover, Anomaly (2015) also mentioned that when public policy introduces new types of public goods issues, it should evaluate whether further legislation attempting to deliver the relevant public interest should be implemented or whether those that cause the problem should be changed. Governments that generate public goods will fix traditional issues while still making changes. The Pareto principle appears to be overly stringent in this case: it restricts states from implementing virtually any new constitution because at least one citizen would be dissatisfied with any proposed policy (Gaus, 2007). According to Pareto efficiency, public good should be delivered if it improves the lives of certain citizens without impacting others. Meanwhile, Pareto improvements, which need government responsibility to change, are among the least problematic distributive steps if the starting point is reasonable (Gaus, 2007; Anomaly, 2015).

The willingness to pay of the citizens for the public good is constrained by the ability to pay, how much the demand is needed, budget constraints, different economic and political beliefs will undoubtedly lead to inconsistent demands by the public. Moreover, information is limited and costly to gather, and there have been a series of rational ignorance in decision-making in politics (Downs, 1957). These uncertainties state that the government should not produce a public good even if the demand is high as there is no accurate way of measuring demand for public goods (Anomaly, 2015).

Reed & Cho (1998) stated that both the politician elected and voters expect that they will gain from public goods or government spending while they are in office. However, politicians differ from voters as they are the only individuals capable of producing the public good required for the country. Each politician has different skills they acquired to exert effort to satisfy or even exceed the citizens' expectations. Politicians are also required to weigh the benefit of increasing the government output against the cost of producing output. The optimal quantity of public good (β^i) is the amount that the politician is willing to spend to produce that will certainly give utility to the citizens. The amount of government spending also determines if the incumbent is suitable to get reelected in office.

Reed's (1994) performance-based voting model also provides an analysis in which the voting rule has both performance and selection effects. The performance effect suggests a change in the production of public goods by the politicians due to an increased effort of the government official, holding all kinds of politicians serving in office constant. On the other hand, the selection effect is the changes in good public production resulting from the different types of politicians being elected to run office. Accordingly, if the performance standard given by the voters is high, it will discourage politicians from seeking reelection. Moreover, these lawmakers are unlikely to act under the wishes of their constituents. In return, the performance standard by the voters must trade-off their goals of securing the optimal performance given the kinds of politicians and ensure that only the qualified types of politicians are elected in office.

Furthermore, Reed (1994) implied that the increase in the voting standard could produce public output and increase the voter welfare when the performance standard is lower than the standard to reelect all politicians. This increase results from the influence of the performance effect; hence, more politicians are discouraged from getting reelected when the performance effect declines. Meanwhile, the increase in public good production by reelected incumbents offsets the decrease in public good production caused by the performance effect and increases voter welfare. The selection effect also increases the production of public goods by the few politicians who are reelected, and voter welfare declines as well.

Reed's (1994) framework states that the production of public good or government spending has a positive relationship with the citizens' utility. The greater the production, the greater utility the citizens will receive. The value of the office relies on the value of the optimal quantity of public goods and government spending.

Hypothesis 2: The higher the value of office to optimal spending ratio of term 1, the more the citizens will be encouraged to reelect the politician.

2.3 Number of Terms of the Politician

Schumpeter (1942) stated that a democratic country is an opportunity for the citizens to appoint. However, there are many circumstances to focus on when electing officials, as they are expected to produce an outcome where citizens will gain. Müller

(2007) determined that policies produced by politicians can affect their motivation to stay in office. There are two options that a politician can make when conducting policies. A policy project that is said to be inefficient in the long run yet leads to a good result in the short run or a long-term oriented policy project with the best long-term result in the long run. These policies that politicians tend to make create two types of politicians running the office. A *populist* is only motivated by the benefits obtained while in the office that tends to pursue a policy that will undoubtedly help him keep his position and a *policy success-seeker* who attains private benefits from the policy's positive results. Müller (2007) states that most politicians tend to be populist where they prefer implementing a short-term-oriented policy to increase reelection chances. However, populists may lead to unsatisfactory and inefficient outcomes as politicians try to align their policies to the citizens' needs to appear competent enough for reelection. These occurrences may indeed lead to inefficient short-term policies and undesirable outcomes (Gersbach, 2004).

According to Reed's (1994) performance-based voting model, the citizens are not the only ones who will gain utility when the politician runs the office. Politicians must also gain utility when in office as it is one of the critical factors that determine if the incumbent is still eligible to hold office. Müller (2004) implies that there are two sources for the politician to gain utility. It is assumed that the politician is greatly concerned about the social return that he will receive in the policies he implemented while in office. The policies and projects implemented that have a high social return will give the politician private benefits. The second source comes from the benefits of the politician when holding office. These benefits include monetary rewards and non-monetary rewards such as prestige, power, and satisfaction.

Reed's (1994) framework also emphasizes that the voting rule has two effects. First, it can influence the output production of the government by affecting the incentives for politicians to make them exert more effort in the office, and two, it also influences the government output through its effect on the candidates who will get reelected in office.

2.4 Voting Theory

The Economic Voting Theory or voting theory, as mentioned by Reed (1994), is where voters prefer to vote in elections based on their evaluation of the government's economic results. If voters are satisfied with the country's current economic status, voters will tend to reelect the current official or the incumbent to remain in office. Meanwhile, if voters are dissatisfied with the country's current economic conditions, voters will vote against the incumbent party and vote for the challenger (Tsai, 2017).

According to Downs (1957), a democratic government will maximize the votes it will gain; thus, officials tend to create policies for citizens to vote for them. He emphasized that the world has imperfect knowledge where information is costly as a nature of the government's decision-making. In this context, he highlighted that politicians do not always know the preferences of individuals, and citizens are not fully aware of the current and old administration's policies and work. Furthermore, the government remains ignorant of listening to what the citizens need. He argued that a world with imperfect knowledge where gaining information is costly can lead to bribery, which allows the workers in the division of labor, especially the politicians, to seek power to enjoy the unequal distribution of income, power, and influence. With scarce information, the citizens rely on the different ideologies, policies, and stands established by the different political parties to allow citizens to gain the information needed during the election. These political ideologies also help the politicians to gain citizens' trust and votes.

Downs (1957) stated that voters look and rely on timely information about the possible effects of the promised policies. Voters look to the past policies, which provide low-cost information for a more solid, grounded set of expectations about where the parties and candidates could lead them in the future. On the other hand, Key's *The Responsible Electorate* (1966) famously argued that "Voters are not fools." He emphasized that voters were results-oriented, so voters can decide whether they reward the politician by reelecting them in office or voting against the politician if voters think that the policies established were a success. These theories evaluated that economic voting research clarifies that economic conditions can affect political behavior. While Key (1966) stressed that voters look at the incumbent's records, Downs (1957) argued that voters would consider the politicians' promises and past performance. Furthermore, Fiorina (1981) was able to refine both Key's and Downs' theories where he described that the criterion for casting their ballots was "reward-punishment."

2.4.1 Retrospective Voting Theory

According to Shin (2016), a democratic country is where citizens have the opportunity to make government officials accountable for their failed policies and service outcomes. Shin (2016) states that retrospective voting theory is a fundamental mechanism of democracy as the citizens can vote against an incumbent party when they are dissatisfied with their performance. Similarly, the retrospective voting theory is denoted as a straightforward, backward-looking strategy in which voters will reelect and continue to support the incumbent whenever voters feel satisfied with their performance in the country's economic status (Reed & Cho, 1998; Tsai 2017). If voters do not hold incumbents responsible for their actions while in office, then democratic accountability is severely harmed. The long-standing discussion on retrospective voting states that there is evidence present in a democratic country

(Levendusky, 2017). Voters indeed reward or punish politicians based on their performance in the country's economic state economy (Besley and Case 1995; Bechtel and Hainmueller 2011; Kayser and Peress 2012).

Most existing studies refer to the retrospective voting of voters based on their economic perceptions in their countries. Fiorina (1981) states that the economy is a common subject in which voters have similar preferences when evaluating economic performance, such as economic growth and low levels of inflation and unemployment (Shin, 2016). Economic growth also serves as an essential issue (Wlezien, 2005) as it becomes a more accessible basis for the general public to understand and observe the state of their country. This economic evaluation divides the perception of the voters in the state of the economy. Perception in which respondents are *sociotropic* emphasizes the economy's condition as a whole or *egocentric* where voters focus on their own economic circumstances (Lockerbie, 2006). While the degree of economic voting varies depending on circumstances such as accountability, it is understood that political leaders' electoral fortunes are heavily determined by their economic success (Nadeau et al., 2013; Shin, 2016). Another standard evaluation is the issue of corruption. The corruption behavior of the existing government officials can have a negative effect on the incumbent party; however, depending on the economic conditions and lack of information provided for the citizens, some corrupt officials are not held accountable (Shin, 2016). Unlike the issues of economy and corruption, foreign policy has a different impact on voters. Nevertheless, foreign policy still plays a role in vote choice when there are significant policy threats in society (Li et al., 2009). Other retrospective evaluations, such as welfare protection, also affect vote choice (Shin, 2016), including human rights. It is one of the vital components in a democratic country; thus, voters ensure that human rights are still respected in society. Richards and Gelleny (2007) state that the success of national elections is linked to human rights.

The study of Shin (2016) was able to conduct a comprehensive retrospective performance model in a mixed electoral system using the multinomial logistic regression models. Their analysis examines the effects of voters' retrospective evaluations of six performance categories: economic performance at the national and personal levels, human rights, corruption, welfare protection, and foreign policy. The study focused on the vote choice for the 2016 Korean legislative elections for the incumbent party, where the voters have two ballots – one for the party list vote and one for the district vote. It also examines whether Korean citizens base their votes on retrospective evaluations more for the party list vote than for the district-level vote choice. The research conducted a survey that includes questions about the citizens' evaluation of the government performance in relation to the six retrospective evaluations mentioned and consists of three categories: worse, the same, better. The study focused on the four parties in which the *Saenuri Party* is the incumbent, and the opposition parties were the *Democratic Party*, the *People's Party*, and the *Justice Party*.

Emphasized in the research of Shin (2016), he examined how the voters react in the national election versus the district level elections. It is believed that voters usually want the president and not the other government members to be held accountable for either economic growth or failures that occur in their country. Unlike other government officials like the performance of the individual politicians, voters focus on the performance of the presidential party and the majority party as they usually have the decision-making power that can make or break the country's status. Similarly, Erikson (1981) also implied that voters blame or credit the president in the office depending on whether they are satisfied with their country's economic status. Shin (2016) also states that penalties or incentives for policy results are unlikely to be distributed fairly among all representatives of the presidential party or the majority party in the national assembly. The candidates have an advantage in the district-level election. They can quickly build a foundation of trust and connection with their peers and relate their programs and outputs to deal with local issues. This means that the incumbent members from the district-level elections have a clear advantage of reelection creating disadvantages for the challengers. Hence, the incumbent politicians in the district-level elections are also evaluated by their performance and personality.

The results of the study of Shin (2016) state that the retrospective evaluations are more significant for the party list vote than the district level vote. The voters in the party-list tend to blame the incumbent party for the conditions of the national economy and possible violations of human rights, yet; the incumbent is not held accountable when foreign policy is insufficient. However, they do not credit the incumbent party whenever the economic conditions are good. The retrospective evaluation, such as corruption and welfare protection, does not significantly impact the voters' choice. Meanwhile, the voters at the district level only focus on foreign policies. Voters hold the incumbent party's candidates responsible for both success and failure in foreign policy. Hence, the outcome of the study of Shin's (2016) attempt to examine the retrospective evaluation between the incumbent and opposition parties suggests that it does not have any significant impacts.

2.4.2 Prospective Voting Theory

Theorists rely on retrospective voting theories to understand how democracies can work efficiently with electorates with low levels of knowledge and complexity. Democratic theorists often turn to theories of retrospective voting instead of prospective voting (Campbell, 2010). Prospective voting requires voters to evaluate the candidate who holds a better prospect in running the office (Campbell, 2010; Tsai, 2017). It is also a forward-looking strategy by which voters will predict the candidate's future performance

and elect the politicians that voters believe will satisfy their performance standard (Reed & Cho, 1998; Tsai, 2017). Some studies were able to conclude that prospective voting has a greater significance when it comes to economic concerns (Mackuen, Erikson, and Stimson, 1992; Lockerbie, 1992, Lewis-Beck, 1988; Abramowitz, 1985; Kewiet, 1983; Kuklinski and West, 1981; Reed & Cho, 1998).

According to the *Economic Voting in Taiwan* by Tsai (2017), Taiwan voters value their economic prosperity due to a shortage of natural resources. His research was able to conduct an aggregate-level analysis in which he found evidence of economic voting in the 2004, 2008, and 2012 Taiwan presidential elections. Tsai (2017) suggests that partisanship overshadows retrospective evaluations and that prospective economic evaluation is a significant determinant of voting behavior. He argued that Taiwanese voters tend to choose what the government will do in the near future, while macroeconomic conditions affect election outcomes. Tsai (2017) also included the disposable income per capita (DIPC) to explain the incumbent party's vote shares. Moreover, Kramer (1971) discovered that shifts in real personal income explained more than half of the difference in the vote during the elections and states that there are three parts of the party's vote share: party identification, past economic performance, and the incumbent advantage. Fiorina (1981) also mentioned that in retrospective voting theory, the vote for the incumbent president's party is a function of individual personal income.

There have been several models that have been developed in determining and predicting electoral outcomes. One of which is the prospective and retrospective frameworks. Tsai (2017) emphasized that both frameworks require a lot of information for the voters to make forward or backward judgments. These country's economic situations include employment, housing, food prices, and the like. It is possible that retaining information for such problems can challenge voters' to make precise judgments, and voters tend to make a rough evaluation of the national economy. Additionally, he emphasized that residents may not accurately track the incumbent's past record if the economic prospect is more appealing. But why do the citizens refer to the future economic situation as the basis for voting in the elections? Tsai (2017) provided two possible explanations. First, people may connect their current state of the economy with partisan squabbling. Lastly, the incumbent may have the resources to provide a plan to stimulate the economy in the election year to distract the citizens' attention from the actual economic conditions. Therefore, Tsai (2017) argued that the prospective framework is more efficient than the reward model retrospective.

Tsai (2017) conducted a survey where he asked the citizens in a retrospective and prospective evaluation. In a retrospective evaluation, Tsai (2017) stated the question, "would you say that over the past year, the state of the economy of Taiwan has gotten better, stayed about the same, or gotten worse?". He then reworded the question to "would you say that in the forthcoming year, the state of the economy of Taiwan will get better, stay about the same, or get worse" in a prospective evaluation. Furthermore, Tsai (2017) calculated the percentage change of the disposable income per capita from the previous year and included the year's percentage change before the election. Tsai (2000), real personal income per capita also explains the popularity of presidential politicians. The change in relative growth of per capita income is also one of the factors that determined election results (Erikson, 1989).

The results of his survey stated that prospective voting occurred during the 2004 and 2008 elections. Meanwhile, retrospective voting happened in the 2012 elections. The survey garnered results such as indicating that citizens' perception of the economy's future has an impact during the elections. It was concluded that the better predictor of outcome than retrospective evaluations is partisanship. Prospective evaluations are also considered a significant determinant of voting behavior when controlling partisanship. Tsai (2017) also suggests that the previous election results are a better predictor, and the status of the economy may not explain the results of the incumbent party's election. The results also indicated that the Taiwan voters still vote for the incumbent regardless of their disposable income per capita (DIPC) of one or two years; however, the DIPC can lead to inconsistencies as some people tend to alter their real personal income. Moreover, Tsai (2017) mentions that the incumbent indeed has the advantage of reelection since the voters do not hold incumbents accountable for their performance in just the first term.

Even if Lanoue (1994) states that retrospective voting is more consistent than prospective voting, with limited information, voters tend to commit mistakes in the elections as they focus on the short-term economic conditions (Huber et al., 2012; Healy and Lenz 2014). Tsai (2017) also states that retrospective tends to be susceptible to partisan framing. Partisan framing is when the incumbent and the challenger taint the achievements of one another. It also stated that the incumbent could gain the least credit and get blamed for short-term economic fluctuations. Retrospective voting is not an end in itself but rather a "means to a prospective voting" as voters tend to look to the past for a more solid grounded set of expectations where existing parties and candidates in the elections could take them in the future (Fiorina, 1981). Meanwhile, Lewis-Beck (1988) states that voters learn from the past and apply this to the election decisions in the future since voters do not simply vote retrospectively since prospective voting is informed by retrospective evaluation.

Reed & Cho (1998) was able to differentiate voting strategies and government officials' behaviors. They were able to test the said theories on how voters elect candidates during the elections. Reed (1994) used the Performance-based voting model as a theoretical framework to determine if voters vote *Prospectively* or *Retrospectively*. Reed's (1994) framework was denoted from the previous works of Barro (1973), Ferejohn (1986), and Austen-Smith (1990). Similarly, Reed (1994) also assumes that voters are infinitely lived, elect politicians to produce public goods, and voters expect a maximum level of public good production of the politicians. The performance-based voting model is a repeated elections framework and tackles the country's politicians' performance that comes from two possible sources (Reed & Cho 1998). First, it is not necessarily clear if the elected politicians are interested in giving the voters what they need. Secondly, politicians have different abilities, making some politicians more suited to produce desirable policies that will satisfy voters. These two possible sources of the politicians' performance are also associated with problems such as the "moral hazard" and the "adverse selection" when choosing the proper official to run the office. The moral hazard is where an individual uses the elections to make politicians accountable for their doings since they believe politicians are lazy and corrupt. This concept makes the politician more aware that he can lose his chances to retain office; thus, this motivates him to meet the voters' expectations in his current term. Meanwhile, adverse selection is when the elections sort out the most suited politician from less competent officials (Reed & Cho, 1998).

Hypothesis 3: The voters tend to reelect the politician despite their first term performance in office.

2.5 Theoretical Framework

In *An Economic Theory of Political Action in Democracy* by Downs (1957), early economists assumed that the primary function of the government is to maximize social welfare. However, Arrow (1950) implies that there is no precise, rational method of maximizing social welfare unless specific restrictions and preferences are given in society. The government officials' motivation remains unclear since even if they are expected to maximize social welfare, there is no clear evidence that they will. Schumpeter (1942) pointed out that the government is not treated as part of the division of labor. As a result, working citizens pursue their social function to attain their interests such as income, prestige, or power.

The Performance-based voting model of Reed (1994) was used in Robert Reed and Joonmo Cho (1998) study to compare voters' and politicians' behavior under alternative voting regimes. The study further elaborated the different voting strategies, how the citizens elect candidates and how politicians' behavior affects voters' choices. Reed constructed the Performance-based voting model from the models of Barro (1973), Ferejohn (1986), and Austen-Smith and Banks (1989).

The model of Barro (1973) analyzes the officials' behavior in office and assumes that a politician is driven by his self-interest, which creates a division of interest between the public and the politicians. This model shows how the performance of the politicians allocate their budget in the production of public goods and what public goods are to be produced.

Barro (1973) assumed that politicians would try to maximize their utility in office, and they could control the amount of production of output. The politician receives salary income and additional fees that will depend on their activities in the office. However, Barro (1973) stated that this model would only focus on political income, which is derivable from excess payments to factors and treated as an explicit income flow to the politician. In this model, Barro (1973) included the amount of *overpayment* denoted by Ψ to determine the income of the seated politician, which depends on the total production cost and the control of the public to limit overpayment spending.

$$\text{Factor overpayment} = \Psi[C(G)] \tag{1}$$

Since the factor of overpayment will help determine the political income, which is denoted as Φ . Then,

$$\text{Political income} = \Phi[C(G)] \tag{2}$$

It is considered challenging to limit the amount of factor overpayment as there is also an increase of political income and citizens working under the production or projects of the politicians. Thus,

$$T = C(G) + \Psi(C) + w_p = C(G) + [\Psi(C) - \Phi(C)] + \Phi(C) + w_p \tag{3}$$

Politician's utility comes from his consumption of private goods X_p

$$U_p = U(X_p, G) \tag{4}$$

Barro's model (1973) assumes that his self-interest and motivation in office drive a politician, yet they can still provide an acceptable output for the citizens. Politicians also use the same assumption that citizens have an equal amount of payment of taxes; they will choose the production of public good to maximize their politician's utility which is subject to:

$$\Phi(C) + w_p = X_p + \left(\frac{1}{N}\right)[C(G) + \Psi(C) + w_p] \quad (5)$$

Then the choice of production of the public good may be denoted by \hat{G} and be solved by

$$\frac{\partial U/\partial G}{\partial U/\partial X_p} = \frac{1}{N} C'(G)[1 + \Psi'(C) - N\Phi'(C)] \quad (6)$$

The equations from the model of Barro (1973) emphasized that government officials in office will try to maximize the production of public good (G). Since political income can only be derived from the factor of overpayment, the behavior of politicians will depend on the political income function.

Meanwhile, Ferejohn (1986) emphasizes that voters have the power to choose politicians based on their behavior and actions in an office where voters ask the question, "But what have you done for me lately?" The model assumes that politicians are pursuing their self-interest in office; however, as voters try to base their preferences on the production output of politicians for their well-being, this tends to motivate the politicians to meet the citizens' expectations. This leads to the fact that the country's economic condition will also determine if the officeholder can be elected.

Reed (1994) was a hybrid of the models of Barro (1973), Ferejohn (1986), and Austen-Smith and Banks (1989), where he was able to construct a model to determine which voting theory occurred during the elections. Reed's (1994) Performance-based voting model emphasized that voters either vote *Prospectively* where citizens predict the candidates' future performance and select the candidate who can produce the best output or *Retrospectively* where the voters reelect the current administration when their past performance exceeds voters' expectations; otherwise, voters will elect the new candidate.

Reed's (1994) Performance-based voting model emphasizes the production and the performance of the politicians where the voters expect to receive utility. This model features the performance of politicians with respect to the changes of α , β^i , G where:

$$v(G, \beta^i) = \alpha - (\beta^i - G)^2 \quad (7)$$

G = production of the pure public good of the government

α = the intercept, politician's utility

β^i = the optimal quantity of public good

$v(G, \beta^i)$ = value of the office of the politician

This assumption that the citizens will gain utility from the performance of the politician is denoted by U and states that it has a positive relationship with G . The increase in G will increase the voters' utility, while a decrease in G will also decrease the voters' utility. Thus the model assumes that:

$$U = G \quad (8)$$

According to Austen-Smith and Banks (1989), it is assumed that politicians have a maximum of two terms to run office. Similarly, Reed's (1994) performance-based voting model is used in a repeated elections framework and has two kinds of elections. The first kind is when the first-term politician, also known as the *incumbent*, runs against a new candidate with no previous experience, otherwise known as the *challenger*. The second kind is when two challengers run against each other, which occurs when the office's second term retires.

Generally, equation (7) is the critical factor that determines whether the politician can get reelected. It shows that if the politician were able to produce and satisfy the voters' expected utility, then there would be a higher chance that the incumbent will be reelected; thus, the binary choice function will be 1; otherwise, 0.

$$\max_{G_1^i, G_2^i} = [(\alpha - \beta^i - G_1^i)^2] + \rho R(G_1^i)[\alpha - (\beta^i - G_2^i)^2] \quad (9)$$

Rogoff (1990) called the politician's utility "ego rents". Whereas Reed (1994) mentions that a politician's utility represents the monetary rewards or non-monetary rewards that they receive in office, which is denoted by α in the model. It is essential for it to be large enough to continue running the office. The closer α to the optimal, then the value of the politicians' utility will increase as well. The model states that when the politicians reach the citizens' performance standard.

3. Methodology

3.1 Research Design

The researchers modified Reed's (1994) Performance-based voting model to incorporate a modern approach to evaluating the performance and the value of office of the politicians. The model was used to identify the total value of office of the Philippine senators during the Arroyo to Duterte administration years 2004-2019. The model was used to identify whether Filipinos voted retrospectively or prospectively in the senatorial elections.

3.2 Study Site

The study is based primarily on the Philippines that covers the elected senators from the administration of former presidents Gloria Macapagal Arroyo and Rodrigo Roa Duterte from the year 2004-2019, respectively.

3.3 Data Collection Procedure

The data used is the elected Philippine senators between 2004 and 2019. The researchers gathered the total yearly salaries, the Statement of Assets, Liabilities, and Net (SALN) during their first term and last term in office, yearly government, the social discount rate, and the yearly budget of the senate. The data collected was from various news articles, the Investment Coordination Committee, the Department of Budget and Management under the General Appropriations Act (GAA), and the Commission on Audit.

3.4 Data Analysis

This research identified how the politicians' performance affected the voters' decisions during the senatorial election of the Arroyo to Duterte Administration. As stated in the theoretical framework, the researchers used Reed's (1994) performance-based voting model to determine which voting theory, such as the Prospective Voting Theory or the Retrospective Voting Theory, occurred.

$$v(G, \beta^i) = \alpha - (\beta^i - G)^2 \tag{10}$$

Where:

$v(G, \beta^i)$ = value of office of the politician

G = production of the pure public good of the government

α = the intercept, politician's utility

β^i = the optimal quantity of public good

The dependent variable (v) is the value of the office of the elected politician, which determines if their term produced enough utility for the citizens and if they are still capable of reelection. The researchers intended to get the value of the optimal quantity of public good (β^i) in the yearly budget provided by the Department of Budget and Management. Furthermore, the framework denotes α as the politician's utility representing the monetary rewards or salary in office and the non-monetary rewards of being a politician, including their assets. Thus, the researchers will solve α by

$$\alpha = TS + (VTA_{et} - VTA_{st}) \tag{11}$$

Wherein:

α = politician's total utility

TS = total salary (monetary gains)

VTA_{et} = value of total assets at the end of term

VTA_{st} = value of total assets at the start of term

The framework of Reed (1994) emphasizes voters in a repeated election. It is assumed that the politicians have a maximum of two terms to serve in office; hence, the researchers focused on the Philippines' senatorial elections instead of the presidential elections, similar to other studies.

$$\max_{G_1^i, G_2^i} = [(\alpha - \beta^i - G_1^i)^2 + \rho R(G_1^i)[\alpha - (\beta^i - G_2^i)^2]] \tag{12}$$

Where:

$R(G_1^1)$ = reelection function

ρ = discount factor

It is expected for the politician to maximize his first term in office as it will be a deciding factor if he can get reelected. The reelection function, $R(G_1^1)$, also stands for a binary choice function where the value is 1 if the politician gets reelected; otherwise, 0. According to Reed (1994), ρ stands for the discount factor, which is assumed to be the same for all politicians. In order to get the value of ρ the researchers will base it on the *Social Discount Rate* provided by the Investment Coordination Committee.

The framework also includes X as the performance standard of the citizens in which can be stated explicitly, as in retrospective voting, or it can be implicit, as in prospective voting. The performance standard also determines if the politicians satisfy the voters based on their production of public good; thus, the binary function can also be denoted as:

$$R(G_1^i, X) = \begin{cases} 1, & \text{if } G_1^i \geq X \\ 0, & \text{if } G_1^i \leq X \end{cases}$$

The researchers have modified the model to compute the politician's value of office in monetary terms. The first term of the politician will be solved by

$$v(G, \beta^i) = ((\beta^i - G_1^i) - (TS + (VTA_{et} - VTA_{st}))) \tag{13}$$

Where:

$v(G, \beta^i)$ = value of office of the politician

TS = total salary

VTA_{et} = value of total assets at the end of term

VTA_{st} = value of total assets at the start of term

β^i = the average budget of each politician during their term

G = the average expenditure of the term

In the modified equation, the researchers averaged the six years' worth of total expenses of the senator during their term to get the government spending (G_1^i). Meanwhile, to get the value of the optimal quantity of public good (β^i) or the average budget of each politician during their term, the researchers also averaged six years' worth of budget and divided it into the number of total senators, which is 24.

$$R[((1 - \rho)(G_1^i) + ((\beta^i - G_2^i) - (TS + (VTA_{et} - VTA_{st})))_2)] \tag{14}$$

where:

R = reelection function

ρ = Social Discount Rate

$((\beta^i - G_2^i) - (TS + (VTA_{et} - VTA_{st})))_2$ = Second Term value of the office

Similar to Reed's performance-based voting model (1998), the researchers will also denote 1 in the reelection function if the senator gets reelected otherwise 0. The social discount rate will be constant at 10% provided by the Investment Coordination Committee. Politicians mostly use their first term in office to seek possible reelection after their term (Reed & Cho, 1998); thus, the researchers will get the depreciated value of the first term in office. As seen in equation (14), the value of the office of their second term will be added to the depreciated value of the first term.

The computed value of the politician's office during their first term determined if they successfully produced the public good and have satisfied the performance standard provided by the citizens. If the politician gets reelected, the modified model of the researchers will be

$$\max_{G_1^i, G_2^i} = ((\beta^i - G_1^i) - (TS + (VTA_{et} - VTA_{st})))_1 + R[((1 - \rho)(G_1^i) + ((\beta^i - G_2^i) - (TS + (VTA_{et} - VTA_{st})))_2] \tag{15}$$

The value of the computed first term of the politicians was used to determine if the citizens voted retrospectively or prospectively in the elections. The researchers divided the value of the first term over the optimal quantity of public goods as a basis of the evaluation of which voting theory occurred.

$$\frac{\left(\left(\beta^i - G_2^i\right) - \left(TS + \left(VTA_{et} - VTA_{st}\right)\right)_1\right)}{\beta^i} \tag{16}$$

Wherein:

$\left(\left(\beta^i - G_2^i\right) - \left(TS + \left(VTA_{et} - VTA_{st}\right)\right)_1\right)$ = Value of the first term of the senator

β^i = the average budget of each politician during their term

Value of Office to Optimal Ratio of Term 1	Reelection Function	Voting Theory
< 0.5	1	Retrospective
	0	Prospective
> 0.5	1	Prospective
	0	Retrospective

Table 3.1 Guide in determining which voting theory occurred in the elections.

The researchers constructed Table 3.1 as a guide to determine which voting theory occurred in the elections. The table shows that the retrospective voting theory occurs if the computed value is greater than 0.5 and the senator is reelected. Meanwhile, if the senator did not get reelected and the value is still greater than 0.5, the voters voted prospectively. Moreover, if the computed value is less than 0.5, and the senator wins the election for the second term, prospectively voting occurs. However, if the senator did not win the election, then the voters voted retrospectively.

4. Results and Discussion

Reed's Performance-based voting model (1998) uses a repeated election framework where a politician can hold office for two terms. Due to this, the researchers based the study on the senatorial elections of the Philippines. Furthermore, the researchers were able to modify the model to get the production of public goods and compute for the politician's value of the office. The modified model emphasized that it solely focused on the politicians' performance and not the monetary and non-monetary benefits of being an elected official. It also determined the performance of the politicians in office by determining how far the value of their office to the optimal budget given by the government. The equation also included a reelection function that identified if the Prospective or Retrospective voting theory occurred in the senatorial elections from 2004 to 2019. The researchers also used the model to evaluate the performance of politicians during their term in office.

SENATORS	FIRST TERM VALUE OF OFFICE	SECOND TERM VALUE OF OFFICE	FINAL VALUE OF OFFICE	Value of Office to Optimal Spending Ratio of First Term	Voting Theory
Juan Ponce Enrile	30,416,482.73	56,892,000.06	87,308,482.79	0.45	Prospective
Pia S. Cayetano	45,360,591.33	97,236,713.76	142,597,305.09	0.67	Retrospective

Miriam Defensor-Santiago	79,141,489.14	51,924,505.79	131,065,994.93	1.16	Retrospective
Jinggoy P. Ejercito-Estrada	37,878,421.58	-21,285,843.64	16,592,577.93	0.56	Retrospective
Manuel Lito M. Lapid	42,431,229.08	64,344,960.44	106,776,189.51	0.62	Retrospective
Ramon 'Bong' Revilla Jr.	27,550,229.52	38,610,991.23	66,161,220.75	0.41	Prospective

Table 4.1 Senators elected from 2004-2016

SENATORS	FIRST TERM VALUE OF OFFICE	SECOND TERM VALUE OF OFFICE	FINAL VALUE OF OFFICE	Value of Office to Optimal Spending Ratio of First Term	Voting Theory
Francis 'Chiz' G. Escudero	68,171,612.44	141,770,390.65	209,942,003.09	0.64	Retrospective
Gregorio B. Honasan II	56,323,368.79	126,952,768.24	183,276,137.03	0.53	Retrospective
Loren Legarda	71,260,569.61	118,735,030.21	189,995,599.81	0.67	Retrospective
Antonio 'Sonny' F. Trillanes	59,699,891.65	125,585,436.84	185,285,328.49	0.56	Retrospective

Table 4.2 Senators elected from 2007-2019

Table 4.1 is the list of senators elected from 2004 to 2016, while table 4.2 is the senators from 2007-2019. Both tables showed that the senators were reelected for their second term in office. As mentioned in the modified equation, the researchers based on the value of the first term of the politicians and divided the optimal quantity of public good to get the value of the office to optimal spending ratio of the first term. The computed values served as a basis to determine which voting theory occurred in the election. Moreover, the researchers also included the depreciation value of the office during their first term to compute for the second term since most politicians choose to produce more in their first term to seek reelection.

Most voters voted retrospectively in both tables except for former senators Juan Ponce Enrile and Ramon 'Bong' Revilla Jr., where they were voted prospectively. These voters used a forward-looking strategy and expected senators Enrile and Revilla to do more in the future, and their performance last term did not matter. As seen in Table 4.1, both values of their second term increased, indicating that the voters made the right decision in voting prospectively. A similar analysis was used on the voters who voted retrospectively. Most senators increased the value of their office during their second term. In table 4.1, former senator Miriam Defensor-Santiago's value of office to optimal spending has the largest indicating that her office is performing relatively well and is relative to the optimal spending value compared to the other senators. A different case occurred with former Senator Jinggoy Ejercito-Estrada, where he was the only politician who produced a negative value during his second term in office.

SENATORS	FIRST TERM VALUE OF OFFICE	SECOND TERM VALUE OF OFFICE	FINAL VALUE OF OFFICE	Value of Office to Optimal Spending Ratio of First Term	Voting Theory
Franklin M. Drilon	27,790,639.07	156,719,397.96	184,510,037.03	0.21	Prospective
Ralph G. Recto	-41,876,274.28	128,878,800.29	87,002,526.01	-0.32	Prospective
Vicente C. Sotto III	56,269,711.36	163,335,885.02	219,605,596.38	0.43	Prospective

Table 4.3 Senators elected from 2010-2022

SENATORS	FIRST TERM VALUE OF OFFICE	FINAL VALUE OF OFFICE	Value of Office to Optimal Spending Ratio of First Term	Voting Theory
Aquilino Martin Q. Pimentel III	63,727,149.00	63,727,149.00	0.35	Prospective
Juan Edgardo 'Sonny' M. Angara	61,219,341.00	61,219,341.00	0.34	Prospective
Maria Lourdes Nancy S. Binay-Angeles	117,177,282.23	117,177,282.23	0.65	Retrospective
Mary Grace Poe-Llamanzares	161,773,721.17	161,773,721.17	0.90	Retrospective
Cynthia A. Villar	-2,080,071,175	-2,080,071,175	-11.59	Prospective

Table 4.4 Senators elected from 2013-2025

Similar to tables 4.1 and 4.2, tables 4.3 and 4.4 are senators reelected for two terms. However, the second term of the senators in these tables is still ongoing. Table 4.3 indicated that the prospective voting theory occurred in the elections. All three senators have a low value of office to optimal spending of the first term, including Senator Ralph Recto that has a negative value. The value of the second term only covers the years 2016-2019. In these years, all three senators have already increased their value of the office.

Meanwhile, in Table 4.4, the final value of their office is equal to the first term value of office of the senators since they only got reelected in the year 2019. This table showed that the citizens voted retrospectively for Senators Nancy Binay and Grace Poe as both have the highest accumulated value of office to optimal spending during their first term. Furthermore, the remaining senators

in the table indicated that they were voted prospectively since their values were less than 0.5, including Senator Cynthia Villar where she has a negative value. The senators in Table 4.4 will still have a few more years to increase the value of their offices.

SENATORS	TERM	FIRST TERM VALUE OF OFFICE	FINAL VALUE OF OFFICE	Value of Office to Optimal Spending Ratio of First Term	Voting Theory
Mar Roxas	2004-2010	40,873,848.29	40,873,848.29	0.60	Prospective
Teofisto L. Guingona III	2010-2016	58,015,420.14	58,015,420.14	0.44	Retrospective
Ferdinand 'Bongbong' R. Marcos Jr.	2010-2016	176,984,209.94	176,984,209.94	1.35	Prospective
Sergio R. Osmeña III	2010-2016	83,550,107.27	83,550,107.27	0.63	Prospective
Paolo Benigno A. Aquino IV	2013-2019	78,836,377.02	78,836,377.02	0.44	Retrospective
Joseph Victor G. Ejercito	2013-2019	50,929,834.50	50,929,834.50	0.28	Retrospective

Table 4.5 Senators did not get re-elected for the second term

Table 4.5 is the list of the senators who did not get reelected between the years 2004 to 2019. Some of the senators in this table did not seek reelection; instead, they ran for another position. Former Senator Mar Roxas ran as the Vice President in the 2010 elections. He did not get elected even if his value of the office to optimal spending ratio is greater than 0.5; therefore, the prospective voting theory occurred. In a similar scenario, former Senator Ferdinand 'Bongbong' Marcos also ran for the Vice President position in the 2016 elections, where he also did not get elected. On the other hand, the retrospective voting theory occurred for the rest of the senators who sought reelection in the senate except for former Senator Teofisto Guingona III, where voters voted prospectively.

As presented in Tables 4.1 to 4.4, the researchers were able to compute the value of the office of the politicians and determine which voting theory occurred in the elections during the given time period. As stated in the previous chapters, one of the core functions of the government is to provide public goods that can satisfy the needs of the citizens (Anomaly, 2015). It was also mentioned that politicians often provide goods that will help them get reelected in the next elections while still satisfying the needs of the public. Given the needs of the politicians to provide for the citizens' demands, it is also pointed out that each politician has different skills (Reed & Cho, 1998) and that there is no way of measuring the demands of the public to the government (Anomaly, 2015). It was also mentioned that government spending during their first term in office also helps determine if the incumbent can still be reelected in office. In this context, the researchers' first hypothesis appears to be correct since the value of the senators' office was high, and the citizens were satisfied with their performance in office since most of the senators were reelected. Furthermore, the researchers computed the value of the office to optimal spending ratio of term 1, which helped the researchers prove their second hypothesis which is the higher the ratio, the voters will be encouraged to reelect the politician. According to the results, most politicians were reelected that attained a ratio greater than 0.5 value.

As mentioned in Table 3.1, the researchers computed the value of the office to optimal spending ratio during their first term to identify the voting theory that applies in the elections. These theories are the retrospective voting theory occurs wherein voters rely on the past achievements of the incumbent or prospective voting theory where voters predict the future performance of the

politician and elect the candidate with the most favourable outcomes. According to Reed (1994), if voters are satisfied with the country's economic status, the citizens chooses to reelect the current official to remain in office. Otherwise, they will vote for the challenger to remove the incumbent in office. But how do voters elect the politicians? Downs (1957) argued that since information is costly and limited, the citizens tend to base on past policies. On a similar note, Key (1966) also pointed out that voters were results-oriented as he stated that "voters are not fools".

According to Shin (2016), the retrospective voting theory is necessary for a democratic country since citizens can vote against the incumbent politician if they are dissatisfied with their performance. Since this theory is a backwards-looking strategy, the citizens can indeed reward or punish politicians based on their performance in office. The more reasons why Levendusky (2017) argues that if the voters do not hold the politicians accountable for their actions during their term in office, then the system of democracy can be harmed. On the other hand, some studies like Tsai's *Economic Voting in Taiwan* (2017) say that the prospective voting theory is a more efficient basis than the other voting theory.

Tsai (2017) mentioned that both theories require a lot of information for the voters to make their judgments during the elections. Since information is scarce, theorists rely on the retrospective voting theory to understand how democracy works efficiently. However, why did he mention that prospective voting theory is more efficient? One argument he made is that since voters have limited information, the citizens may have difficulty tracking the politicians' achievements during their term. Moreover, the incumbent may strategically stimulate the economy during the election year to divert the attention of the citizens from the actual conditions that occurred on their terms. In the results of his study, Tsai (2017) suggests that the previous elections are a better predictor during the elections. He also mentions that the incumbent has more advantage in the elections regardless of their performance in their first term.

Based on the results of the study of the researchers, 13 senators were voted retrospectively while 11 senators were voted prospectively. In comparison to Tsai's *Economic Voting Theory in Taiwan* (2017), both studies were able to garner the same results even if his study is survey-based, focusing on voters data, whereas this study focused on the politician's data. Similar to the results of Tsai (2017), most voters did rely on the previous election results as most senators were elected for their second consecutive term in office. Furthermore, the researchers' results also showed that the incumbent has a greater advantage in the elections despite their performance in their first term. This also shows that the results support the study's third hypothesis, which states that voters reelect the politician regardless of their past performance in office.

5. Conclusion

In a democratic country like the Philippines, the elections are one of the most anticipated events since they show that citizens are rulers of the country. The voters can choose their leaders for the country's future while still recognizing what needs to be addressed in the past. However, the elections in the country have established political norms that cause chaos for the voters. An event where the citizens should be united and have an ideal politician became a situation where the country is stuck and divided from these norms.

The results indicated that the majority of the senators were reelected regardless of their past performance during their first term in office. This shows that the voters do not evaluate the achievements of the senators during their first term, but instead, they use different kinds of criteria to elect the politicians. Their evaluation may be based on the politician's background, platforms, party list, popularity, or even the politician norms that the country is used to. Even if the country's citizens are given a chance to change the system, it is still evident that most voters do not know how to evaluate the politician properly. It shows that the citizens are not able to maximize the system of democracy. Nevertheless, the research objectives were achieved as the study showed that the retrospective voting theory occurred the most, and the researchers were able to evaluate the politicians' performance by computing the value of office to optimal spending ratio during their first term. The study shows that no specific voting theory must occur during the elections. However, the voters must evaluate the politicians by considering their qualifications and credentials that show moral values and can properly unite the country.

5.1 Policy Implication

As previously discussed, the role of the public sector in the country is to produce public goods that must meet society's demands and needs. They provide basic accessible necessities to the citizens, improve their livelihood, and give solutions to the conflicts the country is facing (Sekera, 2019). However, as the government attempts to attend to the country's needs, there is no specific way to know which goods they should provide to citizens to satisfy their desires. There are also instances where the people's demands are inconsistent and are influenced by different irrational and rational political and economic beliefs that make their demands challenging for the politicians. (Caplan, 2008; Huemer, 2013)

The researchers' modification of Reed's performance-based voting model was able to compute the value of the politician's office, which can be used to evaluate their performance. The model can help determine if their performance in office was able to provide and satisfy the needs of the citizens. The model can be used to track the expenditures of the politicians and help determine if the provided budget was allocated well with their projects and policies. Furthermore, since the Commission of Audit (CoA) already provides the list of their yearly expenditures in office, with this model, it can also indicate if their expenditures were used well since it can reflect the value of their office. The study mentioned that information is costly and limited for the citizens; thus, evaluation of the politicians can help provide information and be used to educate about the voting theory that occurs to show the trend of how they vote for the politicians every election.

The authors recommend that future researchers modify the model further such as evaluating the politician's utility. The SALNs that the senators' release may be inaccurate as some do not declare their assets properly. Moreover, some politicians show that their assets doubled during their term in office, thus affecting the value of their office and the optimal spending ratio of their term. The researchers recommend that future studies include other government positions such as the LGUs. The study could evaluate the performance of their respective government units and serve as a benchmark for other LGUs.

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