

SURVEY ANALYSIS OF VOTER PREFERENCES IN DIRECT AND INDIRECT ELECTIONS

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ABSTRACT

Debates over direct and indirect elections remain an important issue in electoral studies, particularly regarding voter preferences. This study aims to analyze voters' preferences toward both electoral systems through a comparative survey approach and to identify the factors influencing those preferences based on respondents' perceptions using Root Cause Analysis (RCA) with the Fault Tree Analysis (FTA) method. This study employed a quantitative approach using a comparative survey design (within-subject comparison) involving 149 eligible voters. The analysis was conducted by comparing respondents' preferences toward both systems within the same group using a Likert scale to generate a preference index. The findings show that the preference index reached 83%, with a stronger preference for direct elections (85%). Nevertheless, indirect elections also received a relatively high level of approval, indicating that voter preferences are not dichotomous in nature. The FTA results mapped hierarchical cause-and-effect relationships among survey variables and respondents' underlying reasons, showing that preferences were associated with political participation, trust in the electoral process, perceptions of representation, electoral experience, and understanding of electoral mechanisms, all of which interact with one another.

Keywords: direct elections, indirect elections, voter preferences, comparative survey, root cause analysis

INTRODUCTION

In recent years, discourse surrounding changes to the mechanism for electing regional heads has re-emerged in Indonesia's public and constitutional debates, including the possibility of reinstating an indirect election mechanism through representative institutions. Although this discourse has not yet been fully formalized into policy, its re-emergence reflects continuing dynamics in the evaluation of an electoral system that has long been regarded as established in democratic practice. This development indicates that electoral mechanisms remain a strategic issue in debates concerning the direction of democracy and the design of political institutions in Indonesia.

The renewed discourse is closely related to several considerations, including electoral efficiency, political stability, and the quality of political representation. At the same time, changes to electoral mechanisms may also have implications for democratic principles, particularly popular sovereignty, political legitimacy, and the level of public participation in political processes. This condition suggests that the choice of an electoral system is not merely

technical or institutional in nature, but is also connected to the normative values underlying democratic practice (Diamond & Morlino, 2004, p. 22).

In constitutional discourse, debates over the effectiveness of direct and indirect elections are not limited to questions of efficiency or political cost, but also concern legitimacy, the quality of representation, and public trust in democratic institutions (Farrell, 2011; Norris, 2019). In this context, voter preferences constitute an important aspect of democratic studies because voters are the primary actors directly affected by changes in institutional design (Blais, 2006, p. 113). Voter preferences not only reflect individual choices, but also serve as indicators of legitimacy toward the electoral system being implemented (Diamond & Morlino, 2004, p. 23).

Apart from questions of institutional design, debates over electoral systems also reflect the dynamic relationship between procedural and substantive democracy (Diamond & Morlino, 2004, p. 24). Direct elections are often regarded as instruments for strengthening political participation and governmental legitimacy because they provide citizens with direct involvement in selecting political leaders (Dalton, 2017, p. 41). Conversely, indirect elections are frequently associated with the effectiveness of political decision-making through representative mechanisms (Mansbridge et al., 2019, p. 3). These differing orientations demonstrate that electoral systems should not be understood solely as administrative mechanisms, but also as representations of democratic values and orientations developing within society (Diamond & Morlino, 2004, p. 24).

In the Indonesian context, debates concerning electoral mechanisms also possess strong empirical relevance because Indonesia's experience with electoral democracy demonstrates continuing dynamics in participation, public trust, and perceptions of the quality of political representation (Diamond & Morlino, 2004; Norris, 2014). Various evaluations of electoral practices and regional head elections indicate that citizens consider not only the technical aspects of electoral administration, but also the extent to which electoral systems are capable of reflecting public aspirations and producing legitimate governments (Norris, 2014, p. 134). Therefore, understanding voter preferences is important for explaining how society perceives the effectiveness and legitimacy of electoral systems in contemporary democratic practice.

Conceptually, voter preferences cannot be explained through a single framework. From a rational perspective, voter preferences are often understood as the result of utility-based considerations, such as efficiency, political stability, and government effectiveness. In contrast, normative perspective views voter preferences as reflections of democratic values, including popular sovereignty, direct participation, and political legitimacy. These two differing perspectives indicate an ongoing conceptual debate regarding the foundations of voter preferences, particularly in relation to electoral systems.

Theoretically, preferences toward a particular electoral system are influenced by perceptions of electoral integrity, including fairness, transparency, and accountability (Norris, 2014, p. 134). Low electoral integrity may reduce public trust in democratic mechanisms and shape public attitudes toward the electoral system being implemented (Birch, 2011, p. 18). In addition, the concept of political efficacy explains that individuals are more likely to support political mechanisms when they believe their participation can influence political outcomes (Dalton, 2017, p. 42). In this context, the level of political participation is also closely related to trust in institutions and the quality of electoral governance (Stockemer & Sundström, 2019).

Furthermore, political trust plays an important role in shaping voter preferences toward democratic systems. Studies show that trust in political institutions correlates with levels of participation and support for electoral mechanisms perceived as legitimate (Devine, 2024, p. 2245). Public perceptions of government quality and the integrity of political institutions also influence attitudes toward democracy and electoral mechanisms (Anderson & Tverdova, 2003, p. 95). Public support for democratic systems therefore becomes an important factor in maintaining democratic stability and sustainability (Claassen, 2020, p. 120). Other empirical findings further indicate that trust in the electoral process significantly influences support for democratic systems and voters' political preferences (Carreras & Īrepoġlu Carreras, 2013; Van der Meer & Hakhverdian, 2017).

On the other hand, representation theory emphasizes that the quality of democracy is also determined by the capacity of representative institutions to perform deliberative and policy accountability functions (Mansbridge et al., 2019, p. 3). Within this framework, indirect election mechanisms can be understood as part of an institutional design that emphasizes political deliberation through representative institutions. However, the effectiveness of such mechanisms depends heavily on the level of public trust in representative institutions (Bowler & Donovan, 2013, p. 5).

Several empirical studies also show that electoral experience, voting motivation, and levels of political literacy contribute to shaping citizens' preferences toward democratic systems (Blais & Daoust, 2020; Solijonov, 2016). Voter preferences are influenced not only by the technical aspects of electoral systems, but also by political experience and normative perceptions of democracy. This condition indicates that preferences toward electoral systems are formed through the interaction between voters' empirical experiences and their evaluations of the quality of democracy being practiced (Blais & Daoust, 2020; Solijonov, 2016).

Nevertheless, most electoral studies still focus on descriptive or simple correlational analyses in explaining voter preferences. Studies that explicitly compare preferences toward two electoral systems within the same group of respondents remain relatively limited. In addition, research that seeks to

examine more deeply the root causes underlying the formation of voter preferences is still relatively scarce. This limitation indicates the need to develop an analytical approach that is not only comparative, but also capable of identifying the underlying factors shaping voter preferences.

Root Cause Analysis (RCA) is a systematic approach used to identify the underlying factors contributing to the emergence of a particular phenomenon (Okes, 2019; Stamatis, 2019). In this study, RCA is employed to complement the comparative analysis by tracing the factors underlying voter preferences toward electoral systems. Therefore, this study aims to analyze voter preferences toward direct and indirect election systems through a comparative survey approach, while also identifying the factors influencing those preferences using RCA (Okes, 2019; Stamatis, 2019).

RESEARCH METHOD

This study employed a quantitative approach with a comparative survey design to analyze voter preferences toward direct and indirect election systems within the same group of respondents (within-subject comparison). This design allows respondents to evaluate both systems simultaneously, enabling differences in preference tendencies to be identified more consistently within a controlled analytical framework (Creswell & Creswell, 2018, p. 162). This approach was selected because the study focuses on comparing respondents' preferences toward two electoral mechanisms within the same context.

The study population consisted of citizens who possessed voting rights in accordance with prevailing laws and regulations. The sampling technique used was non-probability sampling with a purposive sampling approach, in which respondents were selected based on criteria determined by the researcher, namely individuals who already possessed voting rights (Sugiyono, 2019, p. 85). This technique was chosen due to the relevance of the respondents to the focus of the study, as well as limitations related to time and access during the data collection process (Sekaran & Bougie, 2016, p. 248). To minimize potential bias, variations in respondent characteristics, such as age and electoral experience, were still taken into consideration.

The research instrument consisted of a structured questionnaire developed based on several variables, including political participation, trust in the electoral process, perceptions of political representation, electoral experience, understanding of electoral mechanisms, and final preferences. Measurements were conducted using a five-point Likert scale (1–5) to convert respondents' perceptions into quantitative data (Likert, 1932, p. 1). The questionnaire also included open-ended questions to capture respondents' reasons for determining their preferences, as well as demographic questions covering age, educational background, voting experience, and frequency of electoral participation. The open-ended questions nevertheless remained positioned as part of the quantitative survey instrument.

Data were collected online through Google Forms between February 24 and March 3, 2026, and distributed via social media platforms. A total of 149 respondents met the criteria and were included in the analysis. Respondent validity was maintained through a screening mechanism in which only respondents with voting rights were included in the analysis. In addition, response consistency was examined through the completeness and appropriateness of questionnaire responses, ensuring that all analyzed data had undergone an initial verification process.

Instrument validity was tested using item-total correlation, while reliability was assessed using Cronbach's alpha coefficient with a threshold of $\geq .70$. These tests were conducted to ensure the reliability and appropriateness of the instrument in measuring the research variables. Data analysis was conducted in two stages. The first stage employed descriptive and comparative analyses by calculating actual scores and comparing them with maximum scores to generate a percentage index. The index was interpreted using the following operational criteria: $\geq 70\%$ (high), 50–69% (moderate), and $< 50\%$ (low).

The comparative approach was employed to compare respondents' preference levels toward both systems using the same measurement scale. The comparison focused on levels of support and final preferences as the basis for identifying respondents' preference tendencies (Creswell & Creswell, 2018, p. 162). Conclusions were drawn descriptively and comparatively based on differences in levels of agreement and the overall direction of voter preferences.

To deepen the analysis, this study also employed Root Cause Analysis (RCA) to identify the factors shaping voter preferences (Okes, 2019). RCA was operationalized through Fault Tree Analysis (FTA), a technique used to map hierarchical cause-and-effect relationships (Vesely et al., 1981, p. 2). In this framework, FTA functions as an analytical tool within the broader RCA approach. The analytical stages consisted of: (1) determining the top event in the form of voter preferences; (2) identifying intermediate events based on variables derived from the quantitative analysis; and (3) identifying basic events through the categorization of respondents' open-ended responses. Relationships among factors were then structured using AND gate logic, a mechanism that combines multiple conditions simultaneously, indicating that preferences are formed through combinations of mutually reinforcing factors. The use of this logic was intended to explain the relationships among factors rather than to measure the separate causal contribution of each factor individually.

Throughout the research process, respondent anonymity was maintained in accordance with social research ethics principles. Supporting data and instrument testing results were provided in the supplementary materials to ensure research transparency and replicability. This step was intended to

improve transparency in the research process and support the academic validity of the findings.

RESULTS AND DISCUSSION

Questionnaire Data Recapitulation

Following the completion of the data collection process, all responses obtained from 149 respondents who met the research criteria were recapitulated. The collected data were subsequently grouped into six main variables: political participation, trust in the electoral process, perceptions of political representation, electoral experience, understanding of electoral mechanisms, and final preferences toward electoral systems. Respondents' identifying information was not included in the quantitative recapitulation process, but was instead used descriptively to present respondents' demographic characteristics. Meanwhile, responses to the open-ended questions were analyzed separately within the Root Cause Analysis (RCA) framework and were not included in the calculation of the quantitative index. To maintain transparency, the complete questionnaire data recapitulation is provided in the supplementary materials. The characteristics of respondents in this study are summarized in Table 1.

Table 1.
Respondent Characteristics

Characteristics	Category	Frequency (n)	Percentage (%)
Age	17-25	21	14.1
	26-35	72	48.3
	36-45	37	24.8
	46-55	14	9.4
	>55	5	3.4
Education Level	Elementary School	1	0.7
	Junior High School	1	0.7
	Senior High School/ Vocational High School	28	18.8
	Diploma	11	7.4
	S1	84	56.4
	S2/S3	24	16.1
Voting Experience	Yes	148	99.3
	No	1	0.7
Frequency of Participating in Elections	Always	112	75.2
	Often	27	18.1
	Rarely	9	6
	Never	1	0.7

Source : Primary data processed by the author

Based on Table 1, respondents were predominantly drawn from the productive age group, particularly those aged 26–35 years. In terms of educational background, most respondents held a bachelor's degree, indicating a relatively adequate level of literacy in understanding electoral issues. In addition, nearly all respondents had prior voting experience, with relatively high levels of electoral participation.

These characteristics indicate that the respondents possessed sufficient electoral experience and an active level of engagement in democratic processes. This is relevant because the preferences measured in this study do not merely reflect normative judgments, but are also grounded in respondents' empirical experiences in participating in elections and democratic processes (Blais & Daoust, 2020; Dalton, 2017). The questionnaire instrument used in this study was designed to measure the research variables in a structured manner, including political participation, trust in the electoral process, perceptions of political representation, electoral experience, understanding of electoral mechanisms, and final preferences toward electoral systems. Measurements were conducted using a five-point Likert scale to capture the intensity of respondents' attitudes. In addition to closed-ended questions, the questionnaire also included open-ended questions used to support the Root Cause Analysis (RCA).

Instrument Validity and Reliability Test

As explained in the methodology section, validity and reliability tests were conducted prior to the data analysis. These tests were carried out to ensure that each questionnaire item was able to measure the research variables accurately and consistently. Therefore, the instrument used in this study was considered appropriate to support the analytical process and the formulation of research conclusions.

The validity test was conducted using Pearson's Product Moment correlation between each item score and the total variable score. The testing criterion was based on a comparison between the calculated r -value and the r -table value at a significance level of .05. An item was considered valid when the calculated r -value exceeded the r -table value (Sugiyono, 2019, p. 183). The validity test results showed that all questionnaire items met the validity criteria after adjustments were made to reverse items. These adjustments were carried out using reverse scoring to maintain consistency in the direction of variable measurement, ensuring that all items had a uniform orientation in measuring the construct under study (DeVellis, 2017, p. 134).

Furthermore, the reliability test was conducted using Cronbach's alpha coefficient to measure the instrument's internal consistency. The results showed that all variables had Cronbach's alpha values above .70, indicating that the research instrument possessed good reliability (Hair et al., 2019, p. 137). Therefore, all items in the research instrument were considered valid

and reliable, making them suitable for use in the subsequent stage of data analysis. Detailed results of the validity and reliability tests are provided in the supplementary materials as part of the study’s methodological transparency.

Descriptive Analysis of Voter Preferences

The results of the data processing show the distribution of respondents’ attitudinal tendencies across each research variable as represented through a percentage index. This index illustrates the level of respondents’ agreement with each variable based on the aggregation of questionnaire scores, thereby providing a quantitative overview of respondents’ attitudes toward the aspects examined in this study. Accordingly, the resulting index not only reflects the general level of agreement, but also functions as an indicator for assessing variations in the strength of attitudes across variables within the same measurement framework. Based on data from 149 respondents, the index values for each variable are presented in Table 2 as the basis for identifying patterns of voter preference tendencies descriptively.

Table 2. Recapitulation of Research Variable Indices

Research Variables	Number of Questions	Actual Score	Maximum Score	Index (%)
Political Participation	5	2945	3725	79%
Trust in the Electoral Process	5	2658	3725	71%
Perception of Political Representation	5	2817	3725	76%
Electoral Experience	5	2749	3725	74%
Understanding of Election Mechanisms	5	3023	3725	81%
Final Preference	3	1848	2235	83%

Source : Primary data processed by the author

Overall, based on the operational criteria used in this study, the index values for all variables fall within the high category. Political participation obtained an index value of 79%, indicating that respondents were actively involved in democratic processes. This finding suggests that respondents possess a relatively high participatory orientation in politics, which may strengthen their preference for electoral mechanisms that provide direct voter participation.

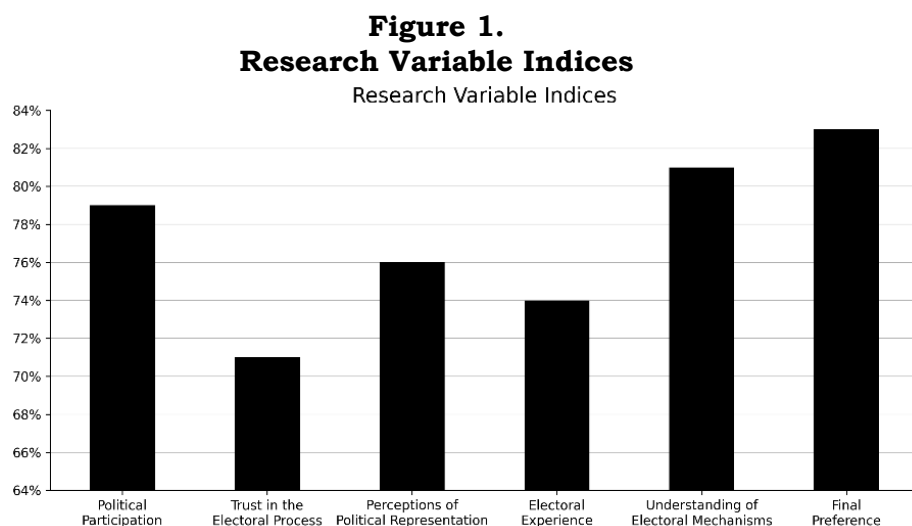
Trust in the electoral process recorded an index value of 71%. This indicates a relatively high level of public trust, although it also suggests that there remains room for improvement in public perceptions regarding the quality of electoral administration. Such trust is important because perceptions of electoral integrity and legitimacy may influence public evaluations of the effectiveness of the electoral system being implemented.

The political representation variable obtained an index value of 76%. This indicates that most respondents still perceive the electoral system as a viable channel for political representation. These findings suggest that representation remains an important consideration in shaping voter preferences toward electoral systems, regardless of the specific institutional mechanisms connecting citizens to political institutions.

The electoral experience variable recorded an index value of 74%. This indicates that most respondents possessed sufficient electoral experience, which may influence their evaluation of the effectiveness of electoral systems through their direct participation in democratic processes.

Meanwhile, the variable measuring understanding of electoral mechanisms obtained an index value of 81%. This reflects a relatively high level of public understanding regarding electoral systems. The findings also suggest that respondents' preferences are shaped not only by general perceptions, but also by their understanding of how electoral systems operate and the implications arising from their implementation.

The final preference variable recorded the highest index value, at 83%, indicating that respondents demonstrated a strong tendency in choosing between electoral systems. The high score on this variable suggests that respondents already possess relatively clear preferences regarding the electoral system they consider most compatible with their democratic perceptions and experiences. Overall, these findings indicate that respondents' preferences toward electoral systems have been formed in a relatively consistent manner. To provide a clearer comparison across variables, the distribution of index values is visualized in Figure 1.



Source : Primary data processed by the author

In general, these findings indicate that respondents' preferences were formed within a context characterized by relatively high levels of participation,

understanding, and electoral experience, as reflected in index values above 70%, along with a relatively adequate level of trust in the electoral process. This condition suggests that voter preferences do not develop in isolation, but are instead connected to various aspects experienced and perceived by respondents. In addition, the pattern of index values across variables indicates that voter preferences are not shaped by a single factor. Rather, these preferences emerge through the interaction of several aspects, including participation, trust, perceptions of representation, electoral experience, and understanding of electoral mechanisms. Thus, the results of this descriptive analysis provide the basis for conducting a comparative analysis of respondents' preferences toward the two electoral systems, while also serving as a foundation for identifying relationships among variables in greater depth through the Root Cause Analysis presented in the following section.

Comparative Analysis of Voter Preferences

Voter preferences were measured through the “final preference” variable. The first three indicators consisted of support for direct elections, support for indirect elections, and respondents' choice of a preferred electoral system. All indicators were measured using a five-point Likert scale. The responses were subsequently converted into actual scores, maximum scores, and preference index values, as presented in Table 3.

Table 3.
Calculation of Electoral System Preference Indices

Indicator	Actual Score	Maximum Score	Index (%)
F1. Support for Direct Elections	633	745	85%
F2. Support for Indirect Elections	580	745	78%
F3. Preferred Electoral System of the Respondents	635	745	85%
Total Preference Index	1848	2235	83%

Source : Primary data processed by the author

The findings indicate differing levels of respondent preference toward the two electoral systems. Support for direct elections (F1) obtained an index value of 85%, while support for indirect elections (F2) recorded an index value of 78%. This difference suggests that respondents generally demonstrate stronger support for mechanisms that allow the direct election of executive leaders.

Nevertheless, the main finding of this analysis lies not merely in the differences in index values, but in the pattern of respondents' attitudes, which are not entirely dichotomous. The 78% index value for indirect elections indicates that this mechanism is still regarded as an acceptable alternative within a democratic system. In other words, respondents do not completely

reject indirect elections, but instead position them as a relatively less preferable option compared with direct elections.

This finding is reinforced by the electoral system choice indicator (F3), which obtained an index value of 85%. When respondents were presented with an exclusive choice between the two systems, their preferences consistently tended toward direct elections. This indicates a distinction between accepting a system and selecting it as a preferred option. A mechanism may therefore be considered normatively acceptable without necessarily becoming the primary choice in practical political preferences.

At the aggregate level, the total preference index reached 83%, indicating that respondents generally demonstrated strong preferences regarding electoral mechanisms. However, the overall direction of those preferences was more strongly oriented toward direct elections, as reflected in indicators F1 and F3. Accordingly, the results of this comparative survey confirm that respondents' preferences are shaped not only by levels of agreement with each system individually, but also by comparative evaluations when both systems are presented simultaneously.

Interpretively, respondents' preferences in this study were formed through multidimensional evaluations involving several factors, including political participation, trust in the electoral process, perceptions of political representation, electoral experience, and understanding of electoral mechanisms. The results presented in the previous subsection showed that these variables were all at relatively high levels, indicating that respondents possessed sufficient evaluative capacity in assessing electoral systems.

The stronger preference for direct elections may be interpreted as a reflection of respondents' perceptions of democratic values, particularly popular sovereignty, direct participation, and leadership legitimacy. Preferences toward democratic systems are also related to levels of satisfaction with democracy and perceptions of the quality of democracy itself (Hernández, 2018; Bol et al., 2021).

These findings are consistent with Norris's (2019) argument that perceptions of the integrity and quality of democratic processes influence public support for electoral mechanisms. When voters feel directly involved in political processes, support for such mechanisms tends to increase. Preferences toward direct elections may also be understood as a form of political participation activation, since systems that provide opportunities for direct involvement tend to strengthen voters' political attachment (Dvořák, Zouhar, & Novák, 2017, p. 434).

Moreover, the relatively high level of political participation identified in this study further reinforces this tendency. Dalton et al. (2010) argue that individuals with higher levels of political engagement tend to prefer political systems that provide broader opportunities for participation. In this context,

direct elections are perceived as mechanisms that offer more tangible opportunities for participation compared with indirect elections.

On the other hand, the relatively high level of agreement toward indirect elections indicates that respondents also considered other aspects within democratic systems, such as efficiency, political stability, and the role of representative institutions. This condition suggests that respondents' preferences are shaped through complex considerations and are not based solely on a single evaluative dimension.

Accordingly, the results of this comparative survey confirm that respondents' preferences tend to favor direct elections, while still recognizing indirect elections as an acceptable alternative within a democratic system. The complexity of these preferences is further analyzed through the Root Cause Analysis (RCA) approach using the Fault Tree Analysis (FTA) method.

Root Cause Analysis (RCA) Using Fault Tree Analysis (FTA)

In this study, the Root Cause Analysis (RCA) approach was employed to examine the factors underlying respondents' preferences toward electoral systems. As explained in the methodology section, the Fault Tree Analysis (FTA) method was used as an analytical tool to map hierarchical and structured cause-and-effect relationships among factors. Through this approach, the relationships between the research variables and respondents' preferential reasoning could be analyzed more systematically.

Within the context of this study, the top event analyzed was respondents' preference tendency toward the direct election system. This was reflected in the electoral system choice indicator (F3), which obtained an index value of 85%, representing respondents' final choice when confronted with two alternative electoral systems.

The FTA analysis was subsequently developed using two sources of data: the results of the Likert-scale analysis and respondents' open-ended responses. Both types of data were positioned hierarchically within the FTA structure. The Likert-scale results functioned as intermediate events, while the open-ended responses functioned as basic events explaining the specific reasons underlying each variable.

Fault Tree Analysis (FTA) Analysis Based on Likert-Scale Data

The Fault Tree Analysis (FTA) based on Likert-scale data in this study was not intended merely to restate the index values of each variable. Rather, it was designed to explain how these variables form a cause-and-effect structure in shaping respondents' preferences toward the direct election system. This approach allows hierarchical relationships among variables to be identified, thereby providing a more comprehensive explanation of how preferences are formed.

Based on the previous Likert-scale analysis, five main variables contributed to the formation of respondents' preferences: political participation (79%), trust in the electoral process (71%), perceptions of political representation (76%), electoral experience (74%), and understanding of electoral mechanisms (81%). All variables were categorized at relatively high levels, indicating that respondents possessed sufficient evaluative capacity in assessing electoral systems. Within the FTA framework, these variables were positioned as intermediate events, namely intermediary factors that explain how respondents' general conditions contribute to the formation of preferences.

The FTA structure was constructed by positioning respondents' preference toward the direct election system as the top event, represented in this study by respondents' final choice tendency. The intermediate events were then arranged as factors operating beneath the top event, functioning as connectors between respondents' general conditions and more specific underlying factors. Relationships among variables within the FTA structure were represented through the use of the "AND" logic gate, indicating that respondents' preferences were not formed by a single variable, but rather emerged through the interaction of several factors operating simultaneously. In other words, preferences toward the direct election system emerged when multiple supporting conditions were fulfilled concurrently.

Analytically, this structure indicates that respondents with active political participation, accompanied by a strong understanding of electoral mechanisms and prior electoral experience, tended to possess greater evaluative capacity in assessing electoral systems. On the other hand, trust in the electoral process and perceptions of political representation contributed to shaping evaluations regarding the legitimacy and quality of electoral outcomes.

Accordingly, the FTA based on Likert-scale data in this study confirms that respondents' preferences were shaped through the interaction of several interrelated variables rather than by a single factor alone. This approach allows researchers to understand preferences as a multidimensional phenomenon formed through the combination of respondents' experiences, understanding, and perceptions of democratic systems. A separate visualization of the Fault Tree Analysis (FTA) based on Likert-scale data is provided in the appendix/supplementary materials to present a more detailed overview of the analytical structure.

Fault Tree Analysis (FTA) Based on Respondents' Open-Ended Responses

To strengthen the quantitative findings, this study also analyzed respondents' open-ended responses in the questionnaire. This analysis aimed to identify the factors directly expressed by respondents as reasons for determining their preferences toward electoral systems. The analytical process

was conducted in two stages: theme categorization and frequency analysis. The analysis employed a simple descriptive statistical technique in the form of frequency tabulation using Microsoft Excel for data processing.

In the first stage, respondents' answers were categorized into major themes relevant to the research variables. This categorization was conducted by grouping responses with similar meanings into the same thematic category, allowing each theme to represent a factor influencing respondents' preferences. In the second stage, the frequency of occurrence of each theme was calculated to identify the dominant factors shaping respondents' preferences. In this process, a single response could contain more than one theme, resulting in a total frequency that exceeded the number of respondents. This indicates that respondents' preferences were formed through the combination of several considerations operating simultaneously. The results of the theme categorization and frequency analysis of respondents' open-ended responses are summarized in Table 4.

Table 4.
Categorization and Frequency of Open-Ended Response Themes

Respondents' Response Themes	Related Variable	Frequency	Percentage
Popular Sovereignty and Democratic Principles	Political Participation	41	27%
Leadership Legitimacy	Political Participation	33	22%
Electoral Transparency	Trust in the Electoral Process	28	19%
Leadership	Leadership	21	14%
Accountability	Accountability	21	14%
Better Representation of Public Aspirations	Perceptions of Political Representation	18	12%
Electoral Participation Experience	Electoral Experience	6	4%
Understanding of Electoral Mechanisms	Understanding of Electoral Mechanisms	4	2%

Source : Primary data processed by the author

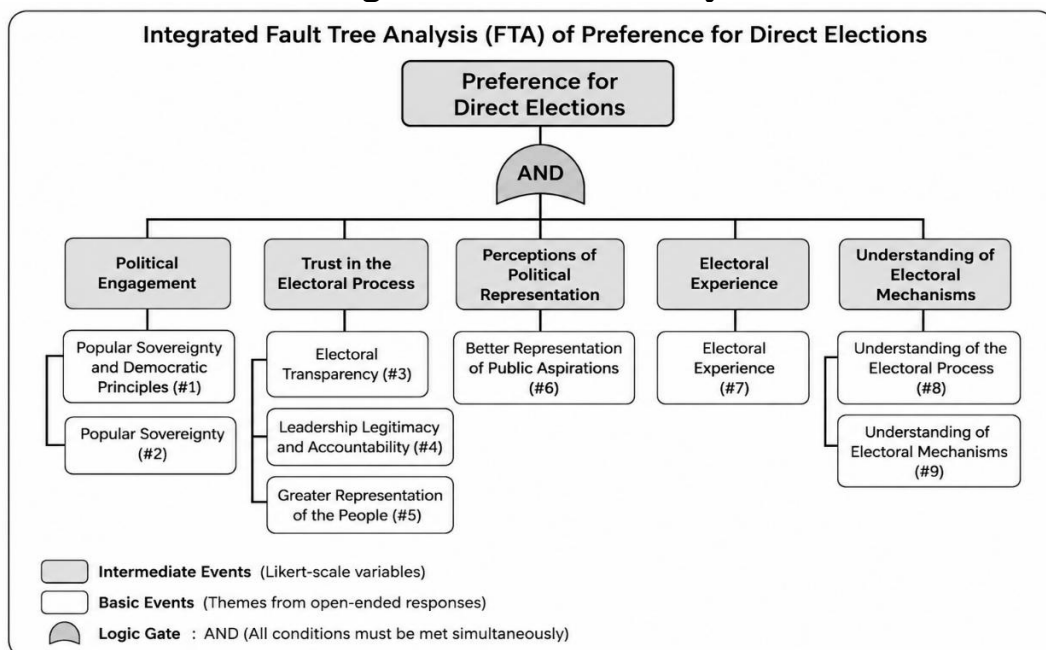
Based on Table 4, the theme of “popular sovereignty and democratic principles” emerged as the most dominant factor influencing respondents' preferences. In addition, electoral transparency, leadership legitimacy and accountability, and representation of public aspirations also appeared as significant factors. These themes were subsequently positioned as basic events, namely the foundational factors located at the lowest level of the analytical structure. The FTA structure was developed by first identifying dominant themes based on frequency, then connecting those themes to the variables derived from the Likert-scale analysis as intermediate events, ultimately forming the top event represented by respondents' preference toward the direct election system.

Accordingly, the FTA structure based on respondents' open-ended responses demonstrates that respondents' preferences were not formed by a single factor, but rather emerged through the interaction of various interconnected considerations. Normative factors such as popular sovereignty, transparency, and leadership legitimacy functioned as the primary foundations strengthening preferences toward the direct election system. To provide a more detailed overview of the relationships among factors within this analysis, visualizations of the FTA structure based on respondents' open-ended responses, together with a recapitulation of those responses, are presented in the supplementary materials.

Fault Tree Analysis (FTA) Integration

Based on the integration of the two approaches, the Fault Tree Analysis (FTA) structure in this study indicates that respondents' preference for a direct election system emerges from the interaction between empirical and normative considerations. Empirical factors relate to respondents' experiences and understanding of the electoral process, whereas normative factors concern perceived democratic values such as popular sovereignty, transparency, and leadership legitimacy. Variables measured through the Likert scale function as intermediate events, while themes derived from open-ended responses operate as basic events that explain the underlying foundations of these preferences. To clarify the relationships among these factors, the integrated Fault Tree Analysis (FTA) structure is presented in Figure 2.

Figure 2.
Integrated Fault Tree Analysis



Source: Primary data processed by the author

Figure 2 illustrates the integrated Fault Tree Analysis (FTA) structure, combining the results of the FTA based on Likert-scale data with those derived from respondents' open-ended responses. Together, these analyses provide an overview of the relationship between respondents' preference for a direct election system as the top event and the contributing factors underlying that preference. The structure is arranged hierarchically, beginning with the top event, followed by intermediate events generated from the Likert-scale analysis, and finally basic events derived from the categorization of respondents' open-ended responses.

At the intermediate-event level, variables such as political participation, trust in the electoral process, perceptions of political representation, electoral experience, and understanding of electoral mechanisms function as mediating factors linking respondents' general conditions with the more specific reasons underlying their preferences. These variables were obtained through quantitative data analysis reflecting respondents' attitudinal tendencies toward each aspect examined in the study. At the basic-event level, themes emerging from the analysis of open-ended responses—such as popular sovereignty, electoral transparency, leadership legitimacy, and responsiveness to public aspirations—represent more concrete and contextual explanatory factors. These factors reflect the underlying reasons explicitly expressed by respondents when determining their electoral preferences.

The relationships among factors within the FTA structure are represented through the use of the “AND” logic gate. This logic indicates that respondents' preference for direct elections is not shaped by a single determinant, but rather by a combination of factors operating simultaneously. In other words, such preferences tend to emerge when several conditions are fulfilled concurrently, including high levels of political participation, trust in the electoral process, and the perception that the electoral system is capable of representing public aspirations.

Accordingly, the integrated Fault Tree Analysis (FTA) structure functions not only as a visualization tool, but also as an analytical framework for systematically explaining causal relationships. The analysis demonstrates that respondents' preference for a direct election system reflects the interaction of multiple interrelated factors and therefore cannot be adequately explained through a single variable alone. Nevertheless, these findings should be interpreted within the limitations of the study, particularly concerning the characteristics and number of respondents involved. Consequently, the results reflect the preference patterns of the study participants and are not intended to be generalized directly to the broader voting population.

Confirmation of Findings

Based on the results of the Fault Tree Analysis (FTA), it can be concluded that respondents' preferences toward the direct election system in this study were perceived to be influenced by a combination of several factors, namely political participation, trust in the electoral process, perceptions of political representation, electoral experience, and understanding of electoral mechanisms. These findings are limited to the characteristics of the respondents involved in the study and are not intended to be generalized directly to the broader voting population.

Nevertheless, the findings indicate that preferences toward electoral systems are influenced not only by technical considerations, but also by democratic values reflected in respondents' perceptions, such as popular sovereignty, transparency, and leadership legitimacy.

CONCLUSION

This study demonstrates that respondents tend to prefer the direct election system over the indirect election system based on the results of a comparative survey conducted within the same group of respondents. This tendency is reflected in the preference index for direct elections, which reached 85%, compared with 78% for indirect elections, while the overall preference index reached 83%. These findings indicate a tendency among respondents toward a particular electoral system, although their preferences are not entirely dichotomous.

The results of the Likert-scale analysis show that the variables of political participation (79%), trust in the electoral process (71%), perceptions of political representation (76%), electoral experience (74%), and understanding of electoral mechanisms (81%) were all categorized at relatively high levels based on the operational criteria of the study. These findings indicate that respondents possessed relatively good levels of engagement, experience, and understanding regarding democratic processes and electoral systems. These variables were subsequently analyzed using Fault Tree Analysis (FTA) and positioned as intermediate events in shaping respondents' preferences.

In addition to the Likert-scale analysis, Fault Tree Analysis (FTA) was also applied to respondents' open-ended responses. The analysis indicates that respondents associated their preferences with factors such as popular sovereignty, electoral transparency, leadership legitimacy and accountability, and the representation of public aspirations. Within the FTA structure, these factors function as basic events that explain more specifically the factors respondents associated with the formation of their preferences.

The two FTA analyses were then integrated to construct a conceptual overview of the factors shaping respondents' preferences toward the direct election system. This conceptual structure was represented through the "AND"

logic gate, indicating that these factors complement one another in shaping respondents' preferences rather than measuring the separate causal contribution of each variable individually. The integrated FTA analysis demonstrates that respondents' preferences toward the direct election system were shaped through the interaction between empirical and normative factors. These empirical findings contribute to understanding the pattern of respondents' preferences, while remaining within the methodological limitations of this study.

This study employed a non-probability sampling technique using a purposive sampling approach. Therefore, the resulting findings are limited to the characteristics of the respondents examined in this study. Methodologically, this research demonstrates that the integration of comparative surveys with Root Cause Analysis (RCA) through Fault Tree Analysis (FTA) can be used as an analytical approach to systematically map factors associated with voter preferences. At the same time, these findings indicate that the approach has the potential to be further developed in broader studies of political preferences while still taking into account the limitations regarding the generalizability of the research findings.

DISCLOSURE STATEMENT

Generative AI tools were used in a limited capacity for language editing, translation refinement, and proofreading assistance. All scholarly interpretation, argumentation, and final manuscript validation remain the responsibility of the author(s).

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