
Structural Equation Modeling in Motivation Analysis for Millennial Participation Related to General Elections in Indonesia

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Abstract

Structural Equation Modeling (SEM) is a statistical technique used to build and test the statistical models are usually in the form of causal models. SEM is a combination from factor analysis, path analysis, and regression. This method is a statistical approach that serves to test hypotheses about the relationship between observed variables and latent variables. In this paper, SEM is applied to determine the motivation of the millennial generation for the general election 2019 in Indonesia. Data was obtained by distributing questionnaires online according to procedures which were then analyzed using SEM. Millennial's motivation is seen from the knowledge of the millennial generation on voting rights commitments in the 2019 general election in Indonesia. Based on the result, millennial generation is committed to using voting rights in the 2019 general election. All indicator variables from this study are significant to the millennial generation's commitment to use their voting rights.

Keywords: Indonesia General Election, Millennial Participation, Motivation Millennial, Structural Equation Modeling, Voting Rights.

Abstrak

Structural Equation Modeling (SEM) adalah teknik statistik yang digunakan untuk membangun dan menguji model statistik yang biasanya berupa model kausal. SEM merupakan kombinasi dari analisis faktor, analisis jalur, dan regresi. Metode ini merupakan pendekatan statistik yang berfungsi untuk menguji hipotesis tentang hubungan antara variabel yang diamati dan variabel laten. Dalam tulisan ini, SEM diterapkan untuk mengetahui motivasi generasi milenial dalam pemilihan umum 2019 di Indonesia. Data diperoleh dengan menyebarkan kuesioner secara online sesuai prosedur yang kemudian dianalisis menggunakan SEM. Motivasi milenial terlihat dari pengetahuan generasi milenial tentang komitmen hak suara pada Pemilu 2019 di Indonesia. Berdasarkan hasil tersebut, generasi milenial berkomitmen untuk menggunakan hak pilih di Pemilu 2019. Semua variabel indikator dari penelitian ini berpengaruh signifikan terhadap komitmen generasi milenial dalam menggunakan hak pilihnya

Kata Kunci: Hak suara, Partisipasi Milenial, Pemilihan Umum Indonesia, Motivasi Milenial, Structural Equation Modelling.

1. Introduction

The role of citizens in participating politics in elections is very important to determine the future of Indonesia. But, in the reality, many people do not use their voting right or choose abstentions. Based on General Election Commission data, abstentions figures show an increasing trend. Initial abstinence rates were only 8.6% in 1955, then fell 5.2%

to 3.4% in 1971. Then, in the 1977 to 1997 elections, the level of abstentions slowly increased. Based on news issued by Jawa Pos in 2018, simultaneous regional elections the number of participants has not exceeded the General Election Commission's target of 77.5% for example, the number of participants in North Sumatra was only 68.54%, West Java 67.83% and East Java only 62.23% [1].

Based on this fact, it is proven that the number of abstentions continues to increase. The large number of abstentions resulted in the election results not being able to represent the entire vote of the people. Increased abstention is caused by several factors. First, abstentions are related to dissatisfaction with political parties that are considered as power oriented. Second, abstentions are not related to the issue of popular resistance but, are administrative or technical issues such as the names of unregistered voters [2]. Various efforts have been made by several parts. The General Election Commissions has made several efforts to prevent abstentions. The effort is to disseminate information to the public. Whereas on the political side, the effort taken is to invite the public to come to the campaign.

Millennials are generations who are confident, social, innovative, energetic, ambitious, motivated and smart, have high self-esteem, and open-minded [3]. These traits make the millennial generation have a critical mind and high curiosity. Such traits when developed in a positive direction can encourage the role of this generation in changing reliable community apathy habits. As a change booster, it must be known what and how motivated the millennial generation not to do abstention.

Millennial generation's motivational analysis of abstention action aims to get several recommendations to increase the motivation of the millennial generation to realize Indonesia without abstention in elections as an effort to build democracy in the political year of 2019. The analysis is carried out using the Structural Equation Modelling (SEM) to determine the relationship between generation commitment millennial in using voting rights in the 2019 election with indicator variables. This analysis using SEM is not just an ordinary regression analysis, but SEM provides a series of separate regression equations simultaneously [4].

2. Materials and Methods

2.1 Research Sample

The data used is data socio-demographic factors, knowledge of the millennial generation to the General Election in 2019 and the commitment of the votes cast at the General Election of 2019. Generation Y is often called the Millennial Generation, the youth group that was born early 1980 to early 2000 [5]. Millennials is a modern generation of active work, research, and innovative thinking about the organization, have a sense of optimism and a willingness to work with a competitive, open, and flexible.

The research variables are socio-demographic factors, the dependent variable (endogenous variable) and the independent variables (exogenous). Socio-demographic factors consist of age, residence, occupation and education last. Endogenous variables in this study is the commitment of the votes cast at the general election of 2019 is composed of several indicators that is never or not doing abstention, abstention impact on people's lives and reasonableness assessment abstentions. Exogenous variable in this study is the knowledge of the millennial generation to the general election in 2019 consisting of two indicators: the view of the election contestants and knowledge of the election date.

The population of this research is the whole Indonesian people who were on the island of Java were aged between 17 and 35 years, while the sample was 302 persons of the population. The data were obtained through online surveys using google form. The samples in this study using cluster sampling technique. This cluster sampling technique is also known as cluster random sampling. This technique is used if the population does not consist of individuals, but consists of individual groups or clusters. then, a random sample drawn from this cluster sampling technique will be used in the final sample [6].

2.2 Research Instrument

The research variables used were sociodemographic factors, dependent variables (endogenous variables) and independent variables (exogenous variables). Sociodemographic factors consist of age, place of residence, occupation and last education. The endogenous variable in this study is the commitment to use voting rights in the 2019 General Election which consists of several indicators, namely whether or not they have abstained, the impact of golput on people's lives and an assessment of the fairness of golput. The exogenous variable in this study is the knowledge of the millennial generation of the 2019 General Election which consists of two indicators, namely the views of election contestants and knowledge of the election date. The symbols for each variable and indicator used are as follows:

Tabel 1. Variable Definition

Indicators	Notation	Variables Type
Knowledge on 2019 elections	X	Latent Variable
Views of election contestant	X1	Manifest Variable
Knowledge of election dates	X2	Manifest Variable
The commitment of the votes cast at the election in 2019	Y	Latent Variable
Never or not doing abstention	Y1	Manifest Variable
Abstentions impact on people's lives	Y2	Manifest Variable
Assessment of reasonableness abstentions	Y3	Manifest Variable

2.3 Methodology

The method used in this research is to use Structural Equation Modelling. Structural Equation Modelling, or often called SEM is a modelling technique is highly cross-sectional statistics which is linear and general. Moreover, in the SEM also a factor analysis (factor analysis), path analysis (path analysis), regression (regression) and latent

growth curve modelling [7]. Another definition of SEM stated that SEM is a statistical technique used to build and test the statistical models are usually in the form of causal models [8]. SEM is an analysis technique that considers measurement error i. e. handling factors that influence the indicator [9]. Assumptions that used in the method are multivariate normality, non-outlier and non-multicollinearity.

In applications of structural equation modelling (SEM), a critical step is to evaluate the goodness of fit of the proposed model with the data [10]. Goodness-of-Fit statistic (GFI) represents the squared residuals from prediction compared with the actual data. Its value ranges from 0 to 1, lower values indicate a poor fit while higher values indicate better fit [11]. There are three kinds of criterion. Criterion of absolute fit measures which consist of chi-square, significance value, CMIN/DF, RMSEA and GFI. Criterion of incremental fit measures which consist of AGFI and TLI. Criterion of parsimonious fit measures which consist of only CFI as criterion.

2.4 Data Analysis Procedure

The procedure in analysis data that be related to general election in Indonesia using structural equation modelling is given as follows:

1. Define hypotheses to be tested
2. Define latent and manifest variable and relations between variables
3. Create path diagram
4. Perform reliability test on the latent variables
5. Perform significance test against each loading factor (λ)
6. Perform correlation analysis of latent variables to calculate gamma(γ)
7. Evaluate goodness of fit with criterion are CMIN/DF, RMSEA, GFI, AGFI, TLI, PNFI
8. Interpret the results

3. Result and Discussion

The following are described the characteristics of the variables that be used in this study, namely age, place, job, and last education in 2018. Each research variable in each year, taken the highest five provinces and the five provinces lowest. This study uses primary data about the motivation for the millennial generation in General Election 2019 Indonesia without abstention 302 respondents.

Age of millennials generation are grouped into two age from 14 to 25 years who are classified as late teens and 26 to 37 years of age who are classified as mature early. But the theoretical construct of generations judges subjectively, so that the boundaries between generations are not a matter of objective facts.

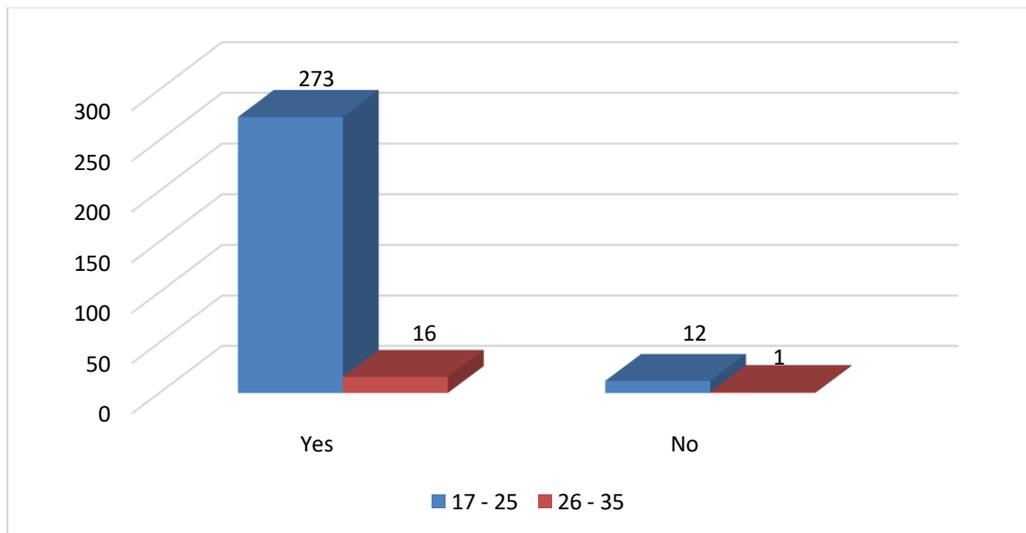


Figure 1. Bar Chart Residents Would Use Voting Rights in Election 2019 by Age

Based on Figure 1. can be seen that out of 285 respondents aged 17-25 years who will use their right to vote and the remaining 273 people will not use. A total of 16 of the total 17 respondents aged 26-35 years will use their right to vote and the rest do not. Age of millennials generation are grouped into two age from 14 to 25 years who are classified as late teens and 26 to 37 years of age who are classified as mature early. But the theoretical construct of generations judges subjectively, so that the boundaries between generations are not a matter of objective facts [12].

The place to stay grouped into two villages and towns with many respondents who reside in the village as much as 35% of respondents who live in the city as much as 65%.



Figure 2. Bar Chart Residents Would Use Voting Rights in Election 2019 by Shelter

Based on Figure 2., respondents who would use the vote and reside in the village of 103 people and the remaining 3 are not interested, while respondents who reside in the city and will use as many as 186 people of voting rights and the rest do not.

Works are grouped into five namely students, civil servants, private, self-employed, and do not work or looking for work. Respondents included a student or students as much as 82%, as much as 2% of civil servants, the private sector as much as 10%, self-employed as much as 1%, it does not work as much as 3% and others 2%.

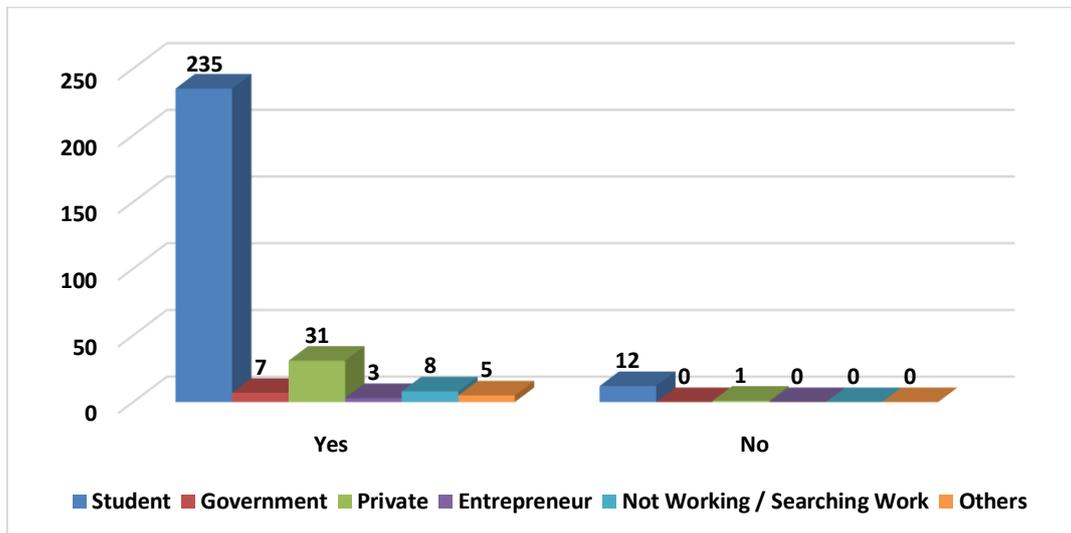


Figure 3. Bar Chart of Respondents Would Use Voting Rights Based on Work for The General Election 2019

Based on Figure 3, of the total 247 respondents were a student / learner as many as 235 of them will use their right to vote and 12 will not, respondents who worked as a civil servant of 7 people and all of them will use their right to vote, respondents with total private employment status 32 respondents and as many as 31 people will use their right to vote and one vote will not, respondents who work as self-employed as many as 3 people and all of them will use their right to vote, respondents with a status of not working or looking for work as many as 8 people and all of them will use their voting rights, while respondents with more job status as much as 5 people and all of them will use their right to vote.

The level of education is divided into four SMP as much as 2%, SMA as much as 69%, 28% Diploma or Degree and Postgraduate 1%. Based on Figure 4., a total of 5 respondents whose education was junior final will all be using the right voice, respondents were education last high school as many as 198 people will use their right to vote and the remaining 10 people will not, respondents to the latest education diploma / undergraduate much as 86 respondents and 83 people will use their right to vote and 3 people will not,

while respondents with education last is graduate as many as 3 people and all of them will use their right to vote.

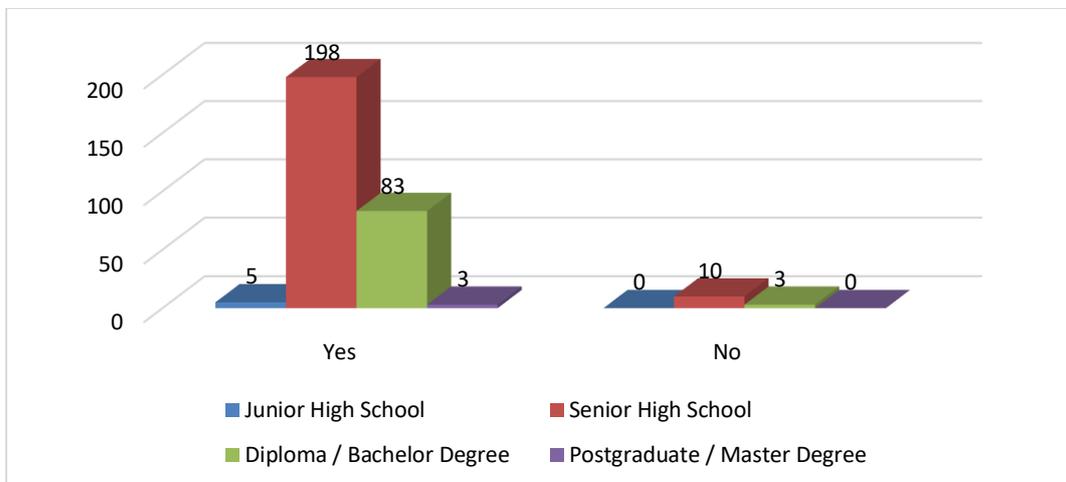


Figure 4. Bar Chart Residents Would Use in Election 2019 Voting Rights Based on Latest Education

The results of the parameter significance test that be calculated to Analysis of Moment Structure (AMOS) software version 16 was used for SEM to determine the fit of the hypothesized model [13]. using training data are presented in the following Table 2.

Table 2. Result of parameter significance test

Relation	P - Value	Conclusion	Explanation
Relation of X to Y	0,037	Reject H ₀ in Hypotheses 1	Significant
Relation of Y3 to Y	0,0096	Reject H ₀ in Hypotheses 2	Significant
Relation of Y2 to Y	0,00074	Reject H ₀ in Hypotheses 3	Significant
Relation of Y1 to Y	0,00032	Reject H ₀ in Hypotheses 4	Significant
Relation of X to X2	0,083	Reject H ₀ in Hypotheses 5	Significant
Relation of X to X1	0,045	Reject H ₀ in Hypotheses 6	Significant

From the results of the analysis in Table 2, the H₀ decision was rejected because all P values obtained were less than the 0.05 significance level so it can be concluded that there was an influence of voting rights in the 2019 election on the normality of abstentions, the impact of abstentions on people's lives and whether or not they were abstained As well as the influence of knowledge in the 2019 election on the commitment to use voting rights in the 2019 election, knowledge of the date of election implementation and views of election contestants.

Based on all the criterion in Table 3., the decision taken is received H₀ because the value χ^2 count $< \chi^2$ table. In addition, the decision is supported by the results obtained at AMOS output which have a good overall evaluation result. This means that the

conceptual model developed and based on theory has been supported by facts (empirical data).

Table 3. Result of goodness of fit criterion

Criterion	Results	Cut Off Value	Model Evaluation
χ^2	7,433	11,07	Appropriate
Probability	0,190	$\geq 0,05$	Appropriate
RMSEA	0,040	$\leq 0,08$	Appropriate
GFI	0,990	$\geq 0,90$	Appropriate
AGFI	0,971	$\geq 0,90$	Appropriate
TLI	0,963	$\geq 0,90$	Appropriate
PNFI	0,981	$\geq 0,90$	Appropriate

In this study, the authors give an opportunity to the respondent to provide advice on how to reduce the number of abstentions. Based on survey results, the majority of respondents give advice that is equitable socialization and the vision and mission of the contestants had been carried out by the commission but not yet optimal. In this case the commission is expected to maximize the socialization of the importance of using voting rights on the election in the whole society. The introduction of the vision and mission of the contestant must be accompanied by a guarantee that can restore public confidence that the implementation is not just a campaign promise. One final suggestion of sanctions is giving warnings to abstainers.

4. Conclusion

Based on the results can be concluded in this research are the description of the data described using the bar chart shows that the millennial generation's commitment to using voting rights in the 2019 election was based on socio-demographic factors. With considerable commitment it can be interpreted that the motivation of the millennial generation for the 2019 election is also quite large; knowledge of the 2019 election and its indicators affect the millennial generation's commitment to using voting rights.

Millennials have great motivation in elections, so the motivation must be optimized by General Election Commission, political parts or related parts to reduce abstentions in the 2019 election. Researchers suggest that the General Election Commission can improve the activity system a series of democratic parties that were carried out before, namely equalization of anti-abstention and introduction of the contestant's vision and mission and warning to abstentions. Hopefully the next researcher can take a larger population so that conclusions can represent the opinions of all the people of Indonesia.

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