Diminishing Democratic Ethos in South Korea by Political Dissatisfaction*

Insights from 2016 Survey Data

Hailey Jang

April 19, 2024

This study explores the impact of globalization on democratic values in South Korea by employing a linear regression model to analyze responses from a nationwide questionnaire on citizens' perceptions. Through the quantitative analysis, the research uncovers a complex relationship between diverse factors and democratic perception, demonstrating how political dissatisfaction can diminish feelings of representation and reduce democratic participation. These findings underscore the importance of addressing economic and political dissatisfaction to foster a more inclusive and participative democratic environment in South Korea, contributing to our broader understanding of how globalization shapes political systems worldwide.

Table of contents

*Code and data are available at: https://github.com/Hailey-Jang/Democracy_Perception_in_South_Korea.git.

1 Introduction

In South Korea, a nation where I was born and raised, the rapid and profound impacts of globalization have redefined the socio-economic and political landscape. As democracy inherently upholds the principle of political equality, ensuring that every citizen has a voice in the political discourse, these global forces present significant challenges. South Korea, characterized by swift economic growth and transformative political shifts, provides a critical context for exploring these challenges. These changes impact more than just the economy; they deeply influence the democratic ethos, raising crucial questions about the sustainability of political equality amidst pervasive transformations (Pelloni 2023). Thus, the citizens of South Korea find themselves navigating an altered political and economic terrain, necessitating a critical reevaluation of democratic values in response to these global dynamics.

This paper delves into the significant question of how economic and political dissatisfaction influence the democratic perceptions of South Korean citizens. To address our understanding of the contemporary democratic ethos in South Korea, this research utilizes data derived from a comprehensive questionnaire distributed to Korean citizens in 2016, capturing their perceptions of economic and political aspects. Employing linear regression models, the analysis focuses on identifying and interpreting the relationships between citizens' economic conditions and political contexts. This methodological approach allows for a detailed exploration of political satisfaction influence perceptions and behaviours related to democracy in South Korea.

The findings of this study are vital for understanding the current state and future trajectory of democracy in regions undergoing rapid globalization. By highlighting how socio-economic dissatisfaction influence democratic engagement, this research offers insights that are crucial for policymakers, scholars, and citizens concerned with fostering a robust democratic society in the face of global changes.

This paper is structured to first provide a detailed literature review that sets the theoretical framework for understanding the impact of globalization on democratic values. Following this, Section 2 and Section 3 describes the survey design and analytical techniques by conducting linear regression model. Section 4 present the analysis results, discuss the findings in the context of existing literature in Section 5 with implications for weakness and suggestions for future research.

2 Data

This project used `R` (R Core Team 2023) throughout its execution. The `tidyverse` (Wickham et al. 2019) package was utilized for data cleaning and manipulation tasks. The creation of fig-

ures and other data visualizations was adeptly handled using `ggplot2` (Wickham 2016), while `knitr` (Xie 2023) and `kableExtra` (Zhu 2021) were used for their excellent data presentation features. File path management was conducted with `readr` (Wickham, Hester, and Bryan 2024), and `rstanarm` (Goodrich et al. 2022) was employed for statistical modeling, along with the `broom` (Robinson 2014) for illustrative purposes.

The data used in this study comes from the "Voter Political Consciousness Survey" conducted in South Korea following the 20th presidential election in 2016, under the auspices of The Comparative Study of Electoral Systems (CSES), a collaborative research project among national election studies worldwide. In this questionnaire, voters disclosed their economic and political perceptions. The raw dataset was large and unwieldy, so it was manually cleaned and renamed for readability. Variables were renamed as follows: E1006_NAM for the country name, E2002 for gender, E2001_Y for birth year, E3023 for satisfaction with democracy, E3007 for corruption, E3009 for political perception, and E3011 for economic perception. Unnecessary rows were deleted from the dataset.

2.1 Data Summary

As show in Table 1, the dependent variable will be based on the question, "On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the way democracy works in South Korea?" The responses are coded on a four-point scale: 1. very satisfied, 2. fairly satisfied, 3. not very satisfied, and 4. not at all satisfied. For the independent variables, key variables on economic satisfaction will include responses to the question, "Would you say that over the past twelve months, the state of the economy in South Korea has gotten much better, gotten somewhat better, stayed about the same, gotten somewhat worse, or gotten much worse?" Answers are coded as 1. Gotten better, 2. stayed the same, 3. gotten worse, 4. don't know. Additionally, perceptions of corruption will be assessed with the question, "Most politicians are trustworthy." Responses are coded as 1. Strongly agree, 2. Somewhat agree, 3. Neither, 4. Somewhat disagree, 5. Strongly disagree. Lastly, data on political changes will be obtained from the question regarding the performance of President Geun-hye Park's government in 2016: "Now thinking about the performance of the government of Geun-hye Park president in general, how good or bad a job do you think the government of Geun-hye Park president did over the past three years? Has she done a very good job?" Political satisfaction responses are coded as 1. Very good job, 2. Good job, 3. Bad job, 4. Very bad job.

Table 1: Summary of Variables

Types	Variables	Criterion
The dependent variable	Dissatisfaction with democracy	1. Very satisfied, 2. Fairly satisfied, 3. Not very satisfied, 4. Not at all satisfied

The independent variables	Dissatisfaction with economy	1. Gotten better, 2. Stayed the same, 3. Gotten worse, 4. Don't know
	Distrust level agianst politicians	1. Strongly agree, 2. Somewhat agree, 3. Neither, 4. Somewhat disagree, 5. Strongly disagree
	Dissatisfaction with politics	1. Very good job, 2. Good job, 3. Bad job, 4. Very bad job

2.2 Data Analysis

To further explore the variables, summary statistics will be presented to describe the relationships among them. Figure 1 will show how men and women in South Korea perceive the state of the economy, corruption, and political state. Figure 2 will show how different generational layers in South Korea perceive the state of the economy, corruption, and political state.

In the Figure 1, we have a set of three bar graphs, each representing a different type of distrust level agianst Korean politicians, dissatisfaction of economy and politics. The bars are divided by gender, with one colour representing male respondents (labelled as '1') and another color representing female respondents (labelled as '2'). The y-axis shows the average perception score, which likely corresponds to a survey response scale. Each bar's height indicates the average score for that perception type among the respective gender group. Both genders have similar average scores for economic dissatisfaction, while there may be slight differences in distrust against politicians and political dissatisfaction.

In the Figure 2, the same three types of perceptions are displayed. This time, however, they are categorized by birth year, which are shown on the x-axis and range from 1931 to 1997. The darkness of the bars corresponds to age, with darker shades representing older age groups.The Figure 2 suggest a view of generational sentiments: while economic and political dissatisfaction remain relatively consistent across age groups, there is a notable divergence when it comes to distrust in politicians. The younger generations who exhibit higher levels of distrust indicates a growing skepticism about political figures among newer generations compared to their older counterparts. This shift could reflect the evolving political landscape and the impact of recent events on the trust levels of different age groups.

These figures collectively aim to shed light on the distribution of attitudes towards different aspects of democratic society among different demographic groups in South Korea. The variation in average scores across different genders and age groups may suggest underlying social or cultural factors that influence how different groups perceive economic conditions and political performance. Next, we will explore how these factors relate to their democratic perception through linear regression model.

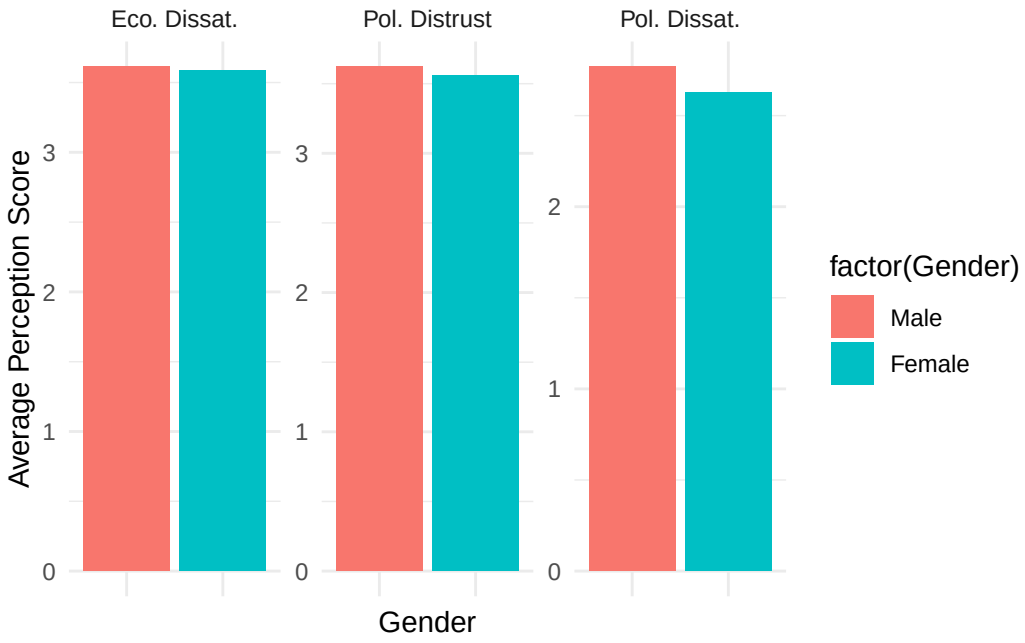

Figure 1: Perceptions by Gender

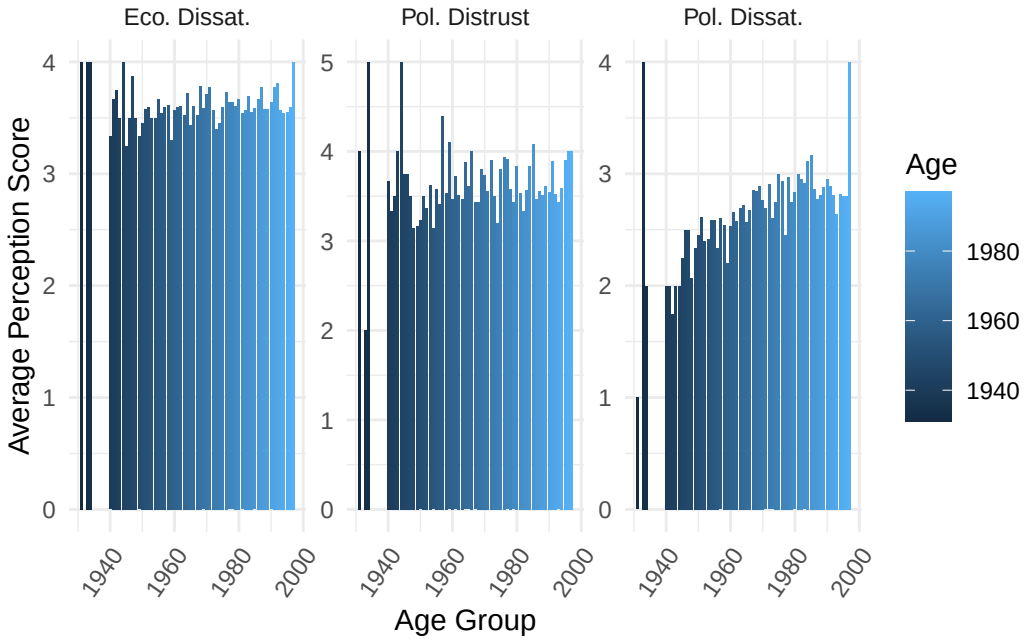

Figure 2: Perceptions by Age Group

3 Model

3.1 Model set-up

In the Bayesian linear rewgression model(Goodrich et al. 2022), we attempt to predict $Dissatisfaction\_With\_Democracy$ (the dependent variable, denoted as y_i for each observation i) using $Distrust\_level\_against\_politicians$, $Dissatisfaction\_with\_economy$, and $Dissatisfaction\_with\_politics$ as independent variables. The y_i values are assumed to be normally distributed with a mean of μ_i and a common standard deviation σ. The mean μ_i is a linear combination of the independent variables, represented by the equation $\mu_i = \beta_0 + \beta_1 \cdot Dissatisfaction\_with\_economy_i + \beta_2 \cdot Distrust\_level\_against\_politicians_i + \beta_3 \cdot Dissatisfaction\_with\_politics_i$. Here, β_0 is the intercept, the expected value of $Dissatisfaction\_with\_politics$ when all independent variables are at zero, reflecting a baseline level of satisfaction without the influence of the predictors. The coefficients β_1, β_2, and β_3 are the slopes that measure the expected change in $Dissatisfaction\_with\_politics$ for a one-unit change in their respective independent variables, assuming other variables are held constant. These regression coefficients are assumed to follow normal distributions with means of zero and standard deviations of 2.5, indicating that before observing the data, we believe it is equally likely that the variables could have a positive or negative association with satisfaction, with a moderate level of certainty. The standard deviation σ of the dependent variable's distribution captures the variability of $Dissatisfaction\_with\_politics$ around its mean that is not explained by the independent variables. An Exponential prior with a rate of 1 is assigned to σ, which suggests we expect smaller values of σ (indicating less noise) to be more likely than larger ones. This setup of priors and the model framework allow us to incorporate prior beliefs and uncertainties about the parameters, which are then updated with the data to provide a posterior distribution reflecting our updated beliefs.

$$
\begin{aligned}
y_i &\sim \text{Normal}(\mu_i, \sigma) \\
\mu_i &= \beta_0 + \beta_1 x_i \\
\beta_0 &\sim \text{Normal}(0, 2.5) \\
\beta_1 &\sim \text{Normal}(0, 2.5) \\
\sigma &\sim \text{Exponential}(1)
\end{aligned}
$$

4 Result

By examining the statistical analysis of Table 2, we can explore the impact of economic and political dissatisfaction changes on the formation of citizens' perceptions. The results of the two models indicate that perceptions of politicians and economics do not significantly influence the formation of perceptions regarding the realization of democracy. However, it was observed

Table 2: Explanatory models of flight time based on wing width and wing length

	First model	Second model
(Intercept)	0.67	0.68
	(0.21)	(0.21)
Distrust_level_agianst_politicians	0.13	0.13
	(0.03)	(0.03)
Dissatisfaction_with_economy	0.07	0.06
	(0.06)	(0.06)
Dissatisfaction_with_politics	0.66	0.66
	(0.04)	(0.04)
Num.Obs.	1182	1182
R2	0.219	0.218
R2 Adj.	0.215	0.215
Log.Lik.	−1640.329	−1640.363
ELPD	−1644.6	−1644.5
ELPD s.e.	19.2	19.1
LOOIC	3289.1	3289.0
LOOIC s.e.	38.3	38.2
WAIC	3289.1	3289.0
RMSE	0.97	0.97

that political dissatisfaction does have a meaningful effect on the formation of democratic realization perceptions. Considering that political perception has a positive relationship with the perception of democratic realization, it can be interpreted that people who perceive a high level of political dissatisfaction have a negative perception of democracy.

4.1 Democracy Perception by Different Variables

Figure 3 is a scatter plot overlaid with a linear regression trend line, depicting the relationship between Economic dissatisfaction and dissatisfaction with Democracy.

The outcome of the graph suggests that there is a positive association between dissatisfaction with economics and dissatisfaction with democracy, as indicated by the upward slope of the trend line. Points on the graph tend to shift from lighter to darker as they move right, suggesting that increased economic dissatisfaction correlates with a higher dissatisfaction with democracy, particularly as age increases. This could imply that older individuals, who potentially have more experience with economic fluctuations and political systems, might perceive a stronger link between economic and democratic dissatisfaction.

Figure 4 shows a correlation between mistrust in politicians and dissatisfaction with democracy,

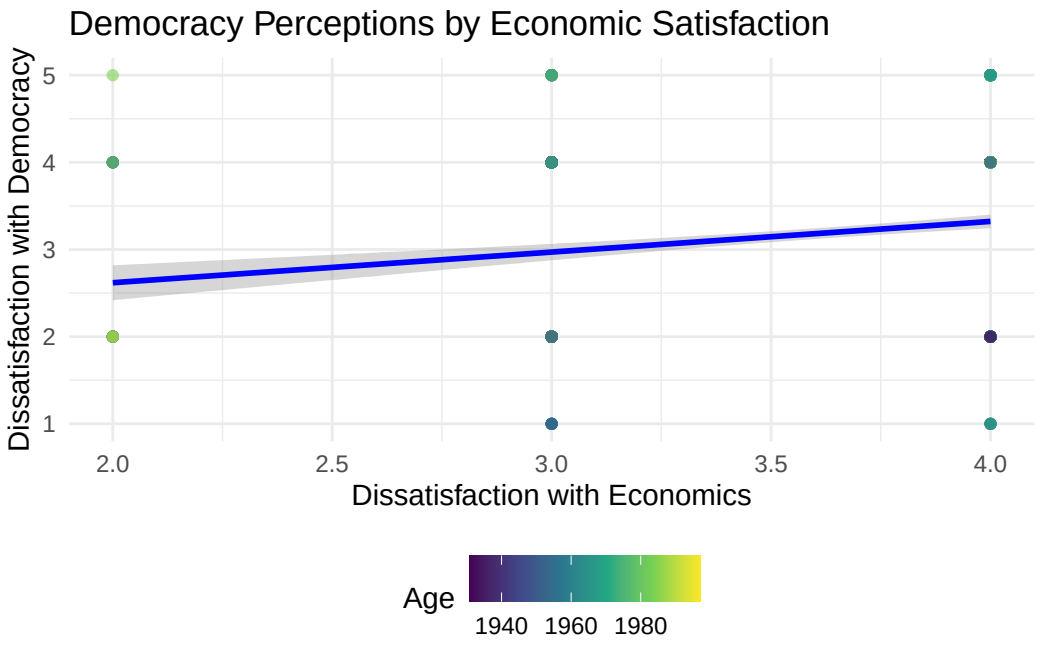

Figure 3: Democracy Perceptions by Economic Satisfaction

with a gradual upward trend line signifying that as mistrust against politicians increases, so does dissatisfaction with democracy. Notably, the younger age groups (lighter colors) seem to be concentrated at higher levels of mistrust, suggesting that younger individuals may be more inclined to distrust politicians and consequently feel more dissatisfied with democracy.

The Figure 5 displays a clear positive correlation between dissatisfaction with politics and dissatisfaction with democracy, indicated by the ascending trend line. As political dissatisfaction increases, so does dissatisfaction with democracy, suggesting that negative feelings towards the political system are closely linked with negative perceptions of democratic governance. The gradient color, representing age groups from older (darker) to younger (lighter), reveals a relatively even distribution across the spectrum of political dissatisfaction, signifying that these sentiments are pervasive across different ages without a visible age-related trend in the data. This indicates a general consensus across generations regarding the relationship between political dissatisfaction and democratic discontent.

4.2 Democracy Perception

The Figure 6 illustrates the estimated slopes of three different regression models, each representing the impact of a specific type of dissatisfaction—economic, political, and distrust against politicians—on dissatisfaction with democracy. The plot reveals that all three factors have a positive relationship with dissatisfaction with democracy, as indicated by the fact that all the

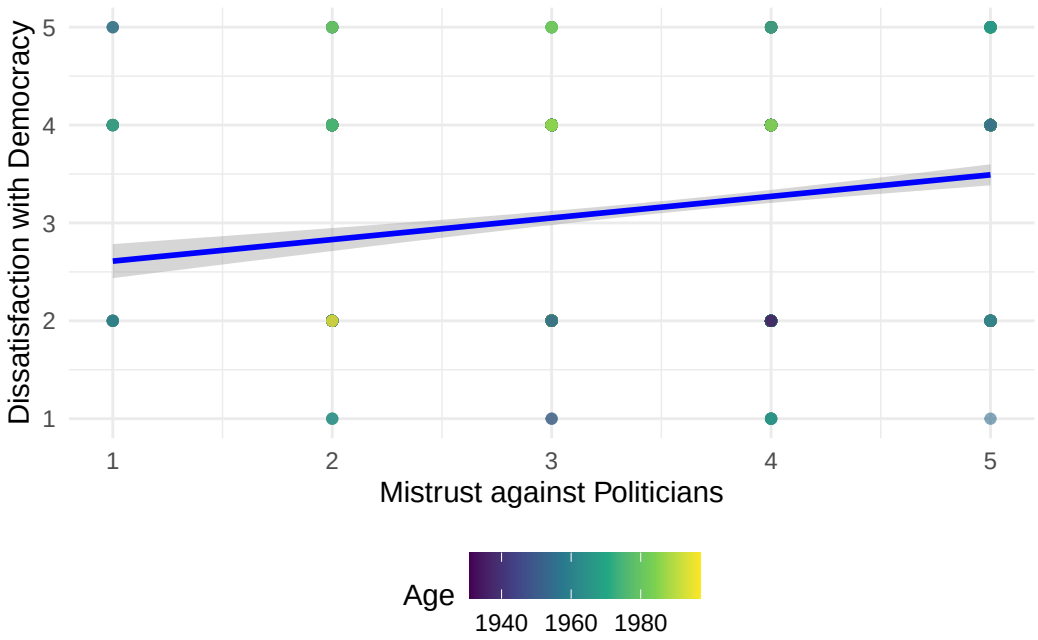

Figure 4: Democracy Perceptions by Corruption Perception

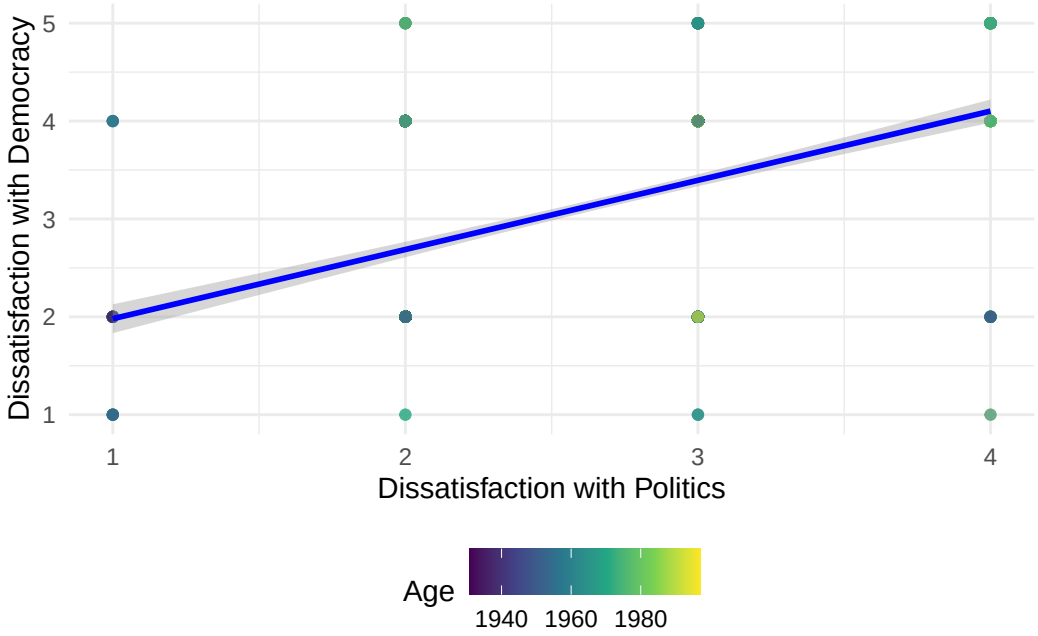

Figure 5: Democracy Perceptions by Political Perception

estimated coefficients are above zero. Economic dissatisfaction has the smallest estimated impact, whereas political dissatisfaction has the highest, with distrust against politicians falling in between. The vertical lines represent the confidence intervals for each estimate, and none of them cross the horizontal line at zero, suggesting that all three relationships are statistically significant. The differences in the lengths of these lines indicate varying degrees of certainty about the estimates, with economic dissatisfaction showing the widest interval, implying the least precision.

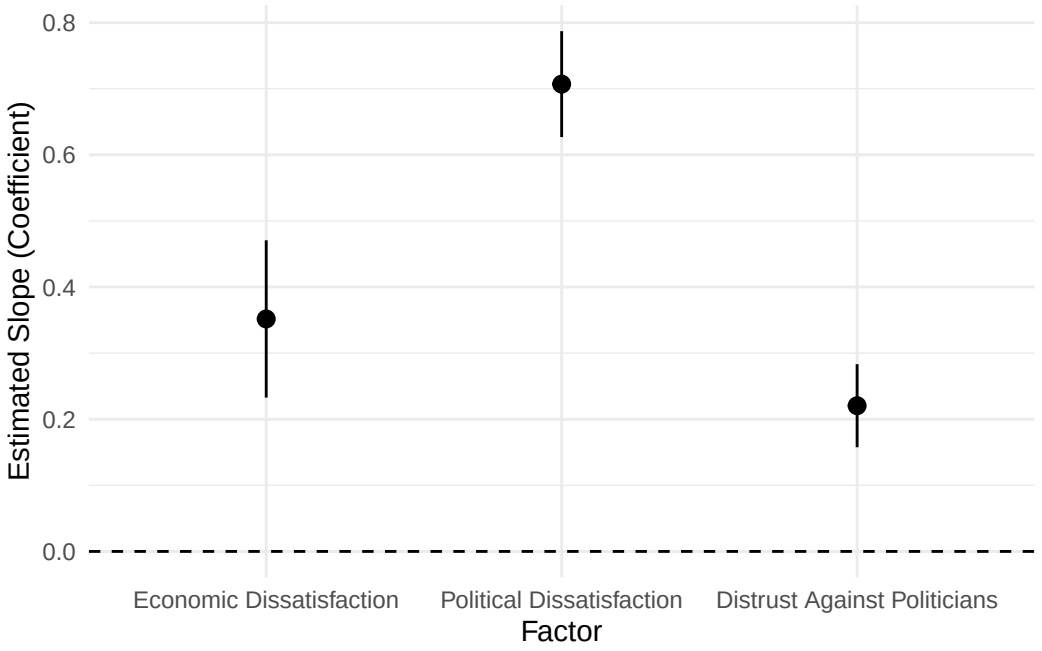

Figure 6: Comparison of Slopes from Different Regression Models

5 Discussion

The study presents an examination of how socio-economic and political dissatisfaction influence the democratic sentiments of South Koreans amidst the multifaceted challenges of globalization. By utilizing linear regression models to parse out the effects of these variables on democratic contentment, it delineates a clear pattern where political dissatisfaction holds the most sway in eroding democratic satisfaction, outpacing the influence of distrust in politicians and economic dissatisfaction. These findings illuminate the critical role of political harmony and economic stability in underpinning the health of a democracy. As South Korea faces the winds of global change, such insights are vital for crafting policies that shore up democratic integrity and public trust.

However, the research is not without limitations. It operates on the assumption that the survey responses accurately reflect the intricate reality of individual perceptions, which may not encapsulate the full spectrum of socio-political nuances. The methodology, while robust, cannot account for unmeasured variables that may confound the relationships explored. Furthermore, the cross-sectional nature of the survey data limits the ability to draw causal inferences. Despite these weaknesses, the study contributes significantly to our understanding of democracy in a rapidly evolving socio-economic landscape. It beckons a call for future research to adopt longitudinal approaches and consider a broader array of variables, thereby enriching the discourse on sustaining democratic values amidst the complexities of the modern world.

References

Goodrich, Ben, Jonah Gabry, Imad Ali, and Sam Brilleman. 2022. "Rstanarm: Bayesian Applied Regression Modeling via Stan." https://mc-stan.org/rstanarm/.

Pelloni, Alessandra. 2023. *Journal of Economics* 141 (August). https://doi.org/10.1007/s00712-023-00839-6.

R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Robinson, David. 2014. "Broom: An r Package for Converting Statistical Analysis Objects into Tidy Data Frames." https://arxiv.org/abs/1412.3565.

Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. https://ggplot2.tidyverse.org.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.

Wickham, Hadley, Jim Hester, and Jennifer Bryan. 2024. *Readr: Read Rectangular Text Data*. https://readr.tidyverse.org.

Xie, Yihui. 2023. *Knitr: A General-Purpose Package for Dynamic Report Generation in r*. https://yihui.org/knitr/.

Zhu, Hao. 2021. *kableExtra: Construct Complex Table with "kable" and Pipe Syntax*. https://CRAN.R-project.org/package=kableExtra.