

A close-up photograph of a person's hand placing a folded ballot into a clear ballot box. The background is a soft, out-of-focus blue. The text is overlaid on the left side of the image.

**A comparative study
on the impact of housing factors on voting behaviors:
evidences from the regional electoral politics
of three north-east Asian countries**

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1. Introduction

- With regard to studies on voting behaviors in Korea, class-related variables have not been paid much attention so far. In common, they produced somewhat mixed outcomes.
- Among them, asset size and subjective class consciousness are likely to influence voting behavior. However, researchers have shed relatively little light on housing-related variables.
- As widely known in Korea, housing-related matter is one of the most important issues in average Korean's daily life and thus housing factors should be taken into consideration in models explaining Korean voting behaviors.
- This study aims 1) to test the possibility of class voting measured in terms of impact of housing-related variables on Korean electoral politics 2) to compare it with Japanese and Taiwanese case which possess similar historical, economic, political and social background.

2. Theoretical Discussion

– (1) Korean voting behavior

- The pattern of voting behavior in Korea has been changed twice both in 1987 and in 2002.
- Before the surge of democratization in 1987, "Yeochon Yado" was a key element explaining Korean voters' voting behavior. Yeochon Yado represents a phenomenon in which electorates of rural areas is likely to support the ruling party while urban voters tends to support opposition party(Lee 2010).
- After the democratization of 1987, regionalism-based voting behavior began to give a rise as the most overwhelming explanatory variable of Korean voting behavior.
- After the 2002 presidential election, the generation effects began to move into the spotlighted position in Korean electoral politics.
- However, despite the rise of the generation effect, regionalism still has a major impact on the nation's election.

2. Theoretical Discussion

- (2) Japanese voting behavior

1972 - 1996 general election

- The older voter's age, the more likely he or she support conservative parties.
- Young voters are more likely to support liberalist parties such as the Democratic Party
- However, the higher the age of liberalist politicians becomes, the older voters who support liberalist parties gets.

* Go(2002)

2000 general election

- The age effect which means older voters is more likely to support conservative parties is once again reassured.
- The Democratic Party is more likely to be supported by students and technical professions.
- Middle income voters tend to support Liberal Democratic Party while low and high income voters are more likely to support the Democratic party

* Lee(2002)

Electoral Volatility

- Electoral volatility has increased since the reform of Japan's electoral system in the mid-1990s. (Yong Bok Kim, 2016)
- Electoral volatility was the most important factor for the electoral victory in 2009 of the Democratic Party and the Liberal Democratic Party's victory in 2012.
- The increase of electoral volatility was caused by independent and swing voters' change of voting preferences(Go 2014; Kim 2016) or of LDP supporters

* Kim(2017)

- In Japanese voting behaviors, age and cohort effect have been consistently found throughout all elections.
- Different voting behavior in between rural and urban area has been witnessed in Japanese electoral politics.

2. Theoretical Discussion

– (3) Taiwanese voting behavior

• IDENTITY

- After the Chinese Civil War, the ethnic conflict between mainland Chinese and Taiwanese aborigines became the mainstay of social conflict, as mainland Chinese monopolized political power. (Min-Hwan Kim, Hyun-Wook Cheng 2014)
- A study conducted during the 1996 general elections shows that the closer voter's ethnic identity to Taiwanese aborigines, the highly likely they support the Democratic Progressive Party(Chen 2016)
- Ethnic identity has a great influence on Taiwanese voter's voting preferences(Lee 2016)

• AGE

- Voters in their 20's and 30's support the Democratic Progressive Party and those in their 40's and older tend to support the Nationalist Party. It shows similar outcomes with the case of national identity.(Chi Eunju 2016)

• CLASS

- Taiwan's economic growth promoted by the top 10 construction projects in the 1970s, has benefited the middle and upper class. For this reason, the middle and upper class provided electoral support for the Pan-Blue Coalition (Wang 2017).
- Farmers and workers in the private sector supported Pan-Green Coalition while workers in the public sector supported Pan-Blue Coalition.(Wang 2017)

- Studies on Taiwanese voting behavior mostly give an emphasis on the import of ethnic group identity.
- By contrast, studies shedding light on such variables as generation and class are rarely presented.

2. Theoretical Discussion

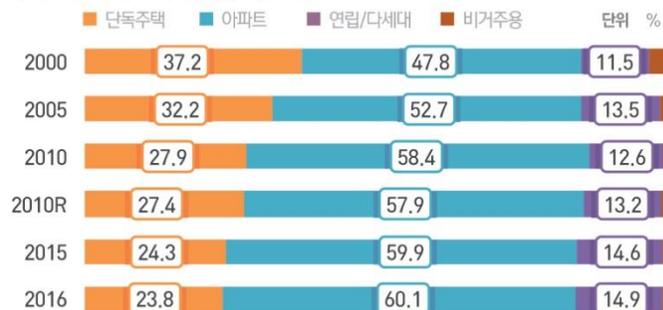
– (4) Housing Characteristics in Korean Voting Behavior

자가 점유 비율



* Source: Trading Economics; Re-approval : Chosun Ilbo

연도별 주택 유형 추이



* Source: news1news1

Value

- Property is recognized as an important tool in the formation of class consciousness in Korean society.
- Due to compressive economic growth, individuals and families have been responsible for their own welfare.
- Savings have been accumulated in the form of real estate and as a result it contributed to the formation of property.

* Lee et I.(2013)

Icon

- Apartment became an icon for distinguishing the middle class from lower classes.
- Traditional class identity had been collapsed in the period of rapid industrialization.
- Apartment provided a symbol of the social awareness of the middle class.

* Lee(2010)

* Gelezeau(2010)

- Housing supply rate in Korea exceeds 100%, but the ratio of self-owned housing has still remained relatively low.
- Real estate remains meaningful as a property value for and thus becomes a means for property increase.
- Living in a large apartment complex became a symbol of the middle class
- Thus not only they prefer to residing in an apartment complex, but also the ratio of residing in an apartment complex also increases

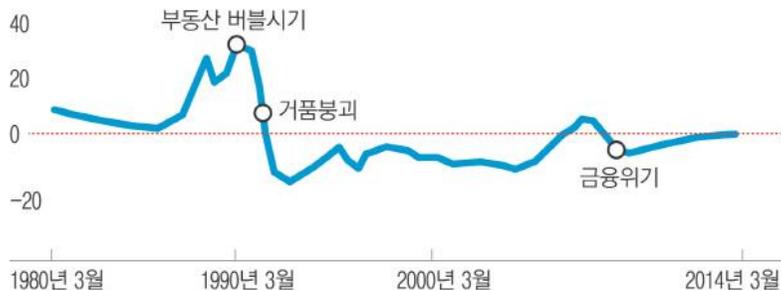
2. Theoretical Discussion

- (5) Housing Characteristics of Japan



* Source: JoongAng Daily

일본 주택가격 상승률 추이 단위: %, 자료: 닛세이치조연연구소



* Source: The Kyunghyang Shinmun

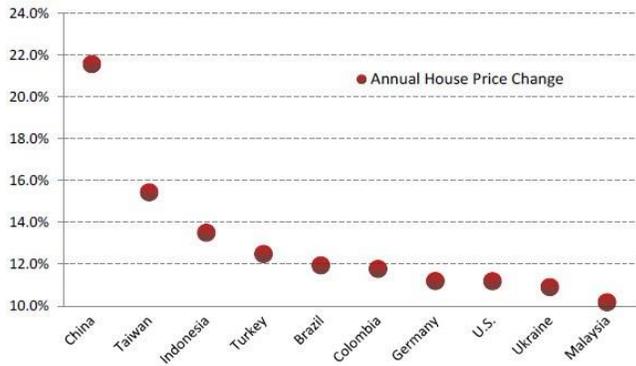
- Apartments are limited primarily for rental purposes.
- High rent income is available for private rental housing. But the direct creation of wealth through the rise in housing prices is not going to work.
- There is a slim basis for housing to be used as a social meaning because of Rental-oriented control of real estate speculation, communalization of the urban neighborhood.
- Housing ownership is less recognized as an external symbol of wealth.

* Park and Hong (2009)

- The housing supply rate exceeded 100% in 1968.
- Since then on, housing supply has continuously increased and reached approximately to 115.2 % as of 2008.
- Oversupply of housing, low birth rate and aging caused the social problem of house vacancy.
- After 'the Period of Lost Decade' , people's preference to home ownership has been reduced.
- From this background, the social meaning of home/apartment ownership and became less meaningful in Japan.

2. Theoretical Discussion

– (6) Housing Characteristics of Taiwan

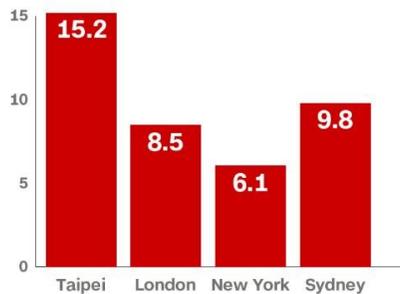


Source: Bloomberg, Knight Frank

BloombergBriefs.com

* Source: Bloomberg, Knight Frank

HOUSING-TO-INCOME RATIOS



Sources: Taiwan Construction and Planning Agency (CPAMI); Demographia

* sources: taiwan Construction and Planning Agency (CPAMI); Demographia ;CNN

- From Q4 2008 to Q1 2014, housing prices in Taiwan's capital city leapt 91.6%.

* Bank of America Merrill Lynch

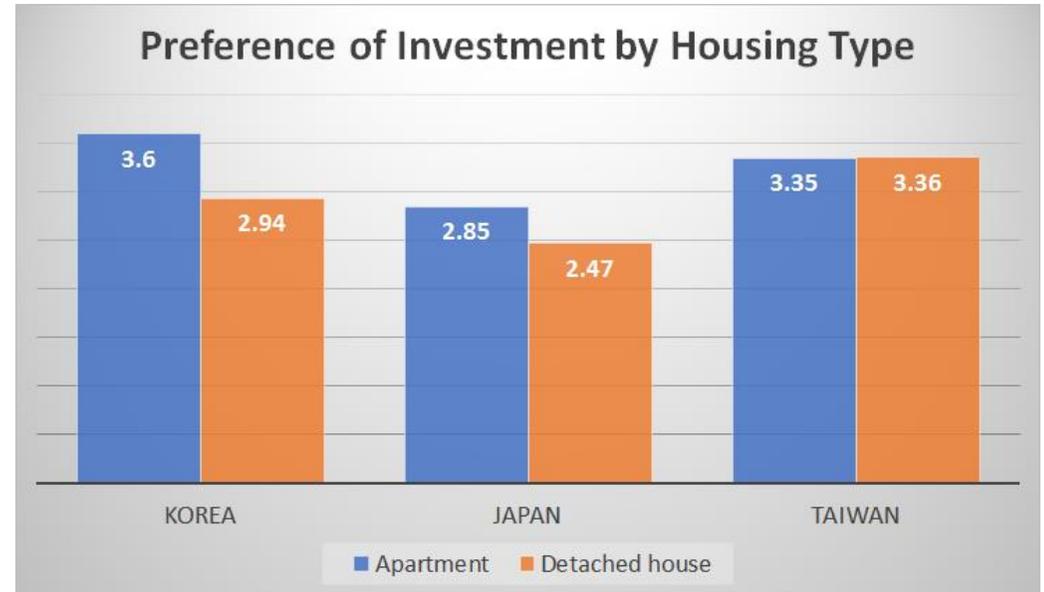
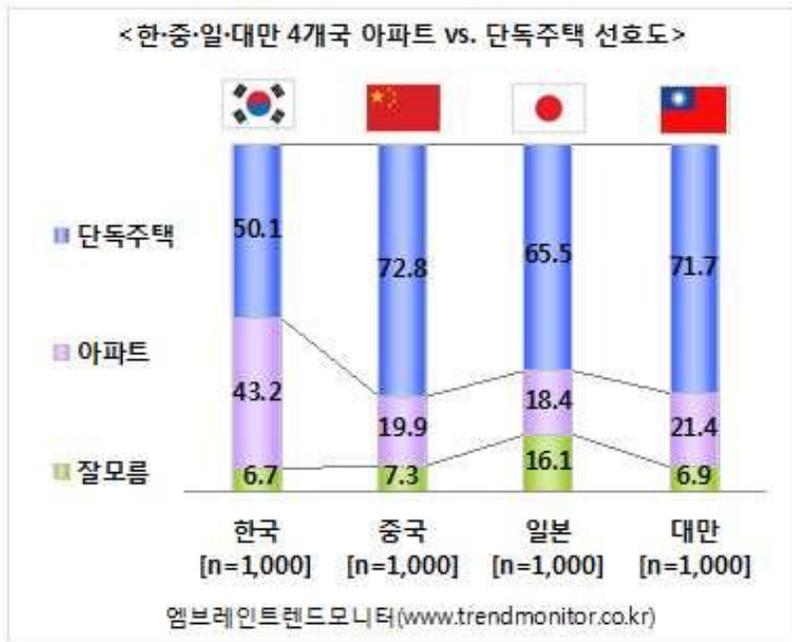
- Taipei's housing problem can be described as 'Three Highs and Three lows'. 'three highs' are real estate prices, housing supply and vacancy rates. 'three lows' are the ratio of real estate taxes, quality of residence and public housing.

* Zhan Yujie, Hankyoreh 21, no, 1064

- Taiwan has been suffering from serious social problems such as social polarization, and thus housing-related problems have become a big issue among them. Especially since the influx of Chinese capital, this trend has been getting worse.
- In this context, housing factors has great social meaning in Taiwanese electoral politics.

2. Theoretical Discussion

– (7) comparison of residential characteristics



* Source: embrain trendmonitor

- In Korea, people's preference to apartment has remained relatively high compared to the other two countries.
- Japanese people is less likely to be aware of value of investment in real estate for housing than the other two peoples .
- Taiwanese people tend to regard real estate for housing as valuable for their investment regardless of housing type.
- These differences in perception and social meaning of housing are likely to be reflected in their voting behaviors.

3. Data – (1) Variable

Variable		KOREA	JAPAN	TAIWAN
Dependent variable	Ratio of votes	Ratio of votes on the 19th presidential election by city, county and district	Ratio of votes on the 49th House of Representatives election by city, county and district	Ratio of votes on 14th presidential election by city, county and district
independent variable	Income	Average log value of per capita health insurance premium by region	Taxable income log value per levier	Per capita income log value
	Ratio of self-owned housing	Ratio of Self-owned housing by region		
	Ratio of residence in apartment	Ratio of residence in apartment	Ratio of residence in apartment	Ratio of residence living in over five-stories building
	Job	Ratio of white collar workers		
	Gender	Ratio of male voters		
	Age	Ratio of over 60s	Ratio of age 2030	Ratio of over 60s
	Academic background	Ratio of population having over college degree		
	Local/Ethnic Identity	Yeongnam/Honam Dummy	City type Dummy	Ratio of indigenous people
	Ratio of voters turnout	Ratio of voters turnout on the 19th presidential election by city, county and district	-	Ratio of voters turnout on 14th presidential election by city, county and district

3. Data – (2) Hypothesis

- 1-1. In Korea, ratio of residence in apartment will have a positive impact on ratio of votes earned by conservative candidates and parties.
- 1-2. In Japan, ratio of residence in apartment will have a negative impact on ratio of votes earned by conservative candidates and parties.
- 1-3. In Taiwan, ratio of residence living in over five-stories building will have a positive impact on ration of votes earned by conservative parties.
2. In Korea/Japan/Taiwan, ratio of self-owned housing will have a positive impact on ratio of votes earned by conservative candidates and parties.

$$y_i = a_i + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 \\ + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \epsilon_i$$

y_i : Ratio of votes

a_i : Constant

$\beta_1 \sim \beta_9$: independent variable's $x_1 \sim x_8$ slope factor

x_1 : Age

x_2 : Ratio of population having over college degree

x_3 : Ratio of white collar workers

x_4 : Ratio of male voters

x_5 : Ratio of residence in apartment

x_6 : Ratio of Self-owned housing

x_7 : Income

x_8 : voters turnout rate

x_9 : Local/Ethnic identity

ϵ_i : Error terms

3. Data – (4) Descriptive statistics

Descriptive statistics – Korea(Nationwide)					
	N	Minimum value	Maximum value	Average	Standard deviation
Ratio of self-owned housing	250	29.38	91.48	63.98	14.22
Ratio of residence in apartment	250	.09	94.79	47.13	25.32
Ratio of white collar workers	250	12.74	69.89	32.43	12.56
Ratio of male voters	250	47.64	56.94	50.11	1.29
Ratio of over 60s	250	8.93	47.73	25.28	9.24
Ratio of population having over college degree	250	16.92	79.89	40.83	13.20
Ratio of votes for Moon	250	12.77	67.56	39.25	12.24
Ratio of votes for Hong	250	1.45	66.10	26.53	15.38
Ratio of voters turnout	250	69.07	83.89	76.50	3.11
Average log value of per capita health insurance premium	250	4.75	5.23	4.93	.09
Yeongnam Dummy	250	0	1	0.30	0.46
Honam Dummy	250	0	1	0.17	0.37

Descriptive statistics – Korea(With out Yeongnam/Honam)					
	N	Minimum value	Maximum value	Average	Standard deviation
Ratio self-owned housing	133	29.38	86.84	57.3571	12.81098
Ratio of residence in apartment house	133	2.99	94.79	52.6028	22.70985
Ratio of white collar workers	133	15.63	69.89	36.8763	13.03205
Ratio of male voters	133	47.86	56.94	50.3607	1.33674
Ratio of over 60s	133	8.93	40.94	22.1431	7.45561
Ratio of population having over college degree	133	21.61	79.89	45.0553	13.01229
Ratio of votes for Moon	133	26.68	50.89	38.6702	5.43136
Ratio of votes for Hong	133	15.14	39.69	24.6344	6.21517
Ratio of voters turnout	133	69.07	83.89	75.6626	3.47306
Average log value of per capita health insurance premium	133	4.82	5.23	4.9542	0.08412

3. Data – (4) Descriptive statistics

Descriptive statistics – Japan(Nationwide)					
	N	Minimum value	Maximum value	Average	Standard deviation
Ration of age 2030	1113	9.91	32.92	19.6364	3.41478
Ratio of male voters	1113	44.90	53.94	48.4242	1.37957
Ratio of white collar workers	1113	18.62	57.79	33.6566	5.97705
Ratio of population having over college degree	1113	3.60	40.95	13.6491	6.17937
Ratio of residence in apartment house	1113	0.00	39.03	4.3933	4.48008
Ratio of Self-housing occupancy by region	1113	35.60	98.23	73.1702	12.77408
Taxable income log value per levier	1113	3.08	3.96	3.4509	.06761
Ratio of votes on Liberal Democratic Party	1113	18.12	63.43	34.9013	5.53710
Ratio of votes on Komeito	1113	3.97	33.13	13.0690	3.63900
Ratio of votes on The Constitutional Democratic Party of Japan	1113	2.87	36.39	17.4718	5.16688
Ratio of votes on Japanese Communist Party	1113	2.61	31.34	7.8331	3.54889
Ratio of votes on Party of hope	1113	4.70	49.08	18.5157	5.10804
Ratio of votes on coalition ruling party	1113	30.94	76.25	47.9704	5.95558
City Dummy	1113	0.00	1.00	.7296	.44439

3. Data – (4) Descriptive statistics

Descriptive statistics – Japan(City)					
	N	Minimum value	Maximum value	Average	Standard deviation
Ration of age 2030	812	10.73	32.92	19.9082	3.42706
Ratio of male voters	812	44.90	53.94	48.4273	1.38545
Ratio of white collar workers	812	18.62	57.79	34.3378	5.89113
Ratio of population having over college degree	812	3.60	40.95	14.2780	6.35838
Ratio of residence in apartment house	812	.14	39.03	5.0192	4.81455
Ratio of Self-housing occupancy by region	812	35.60	95.76	70.5793	12.02521
Taxable income log value per levier	812	3.08	3.96	3.4583	.07132
Ratio of votes on Liberal Democratic Party	812	18.12	63.43	34.7694	5.49695
Ratio of votes on Komeito	812	3.97	31.69	12.9095	3.54862
Ratio of votes on The Constitutional Democratic Party of Japan	812	3.74	36.39	17.7946	5.36134
Ratio of votes on Japanese Communist Party	812	3.00	31.34	7.9647	3.54825
Ratio of votes on Party of hope	812	5.05	49.08	18.3841	5.17222
Ratio of votes on coalition ruling party	812	32.86	76.25	47.6787	5.83662

3. Data – (4) Descriptive statistics

Descriptive statistics – Japan(County and district)					
	N	Minimum value	Maximum value	Average	Standard deviation
Ratio of age 2030	301	9.91	28.10	18.9028	3.27578
Ratio of male voters	301	45.29	53.27	48.4161	1.36556
Ratio of white collar workers	301	19.15	52.76	31.8194	5.82779
Ratio of population having over college degree	301	3.74	34.25	11.9528	5.31826
Ratio of residence in apartment house	301	0.00	19.00	2.7051	2.79555
Ratio of Self-housing occupancy by region	301	43.85	98.23	80.1590	12.11421
Taxable income log value per levier	301	3.33	3.63	3.4315	.05237
Ratio of votes on Liberal Democratic Party	301	18.98	50.56	35.2574	5.63785
Ratio of votes on Komeito	301	6.63	33.13	13.4999	3.84601
Ratio of votes on The Constitutional Democratic Party of Japan	301	2.87	29.82	16.6011	4.49551
Ratio of votes on Japanese Communist Party	301	2.61	29.21	7.4782	3.53205
Ratio of votes on Party of hope	301	4.70	36.49	18.8709	4.92113
Ratio of votes on coalition ruling party	301	30.94	65.24	48.7569	6.20684

3. Data – (4) Descriptive statistics

Descriptive statistics – Taiwan(Nationwide)						
			Maximum value	Minimum value	Average	Standard deviation
	Effective value	Missing value				
Ratio of votes on Joo(Con)	168	0	30.05	10.28	14.84	69.31
Ratio of votes on Cha(Pro)	168	0	57.63	12.41	14.35	78.10
Ratio of male voters	168	0	51.01	1.98	46.64	56.10
Ratio of over 60s	168	0	28.73	3.098	18.67	35.77
Ratio of population having over college degree	168	0	37.23	11.28	15.38	71.34
Ratio of indigenous people	168	0	21.34	31.07	.11	96.18
Ratio of Self-owned housing	167	1	79.59	5.78	62.20	97.92
Ratio of residence living in over five-stories building	168	0	14.84	19.90	0.00	68.39
Per capita income log value	168	0	5.86	.12	5.71	6.00
Ratio of voters turnout	168	0	64.54	4.51	49.11	73.76

4. Analysis Outcome– (1) Korea

Results of the 19th Presidential election				
	Nationwide model		Exclusion for Youngnam/Honam Model	
	Moon Jae In (Democratic Party)	Hong Jun Pyo (Liberty Korea Party)	Jane Moon (Democratic Party)	Hong Jun Pyo (Liberty Korea Party)
Constant	28.753(49.459)	-12.179(50.659)	150.907(42.834)***	-136.996(42.925)***
Income	11.123(9.790)	-3.735(10.028)	-9.137(8.319)	16.170(8.337)*
Ratio of Self-owned housing	-.038(.055)	-.001(.057)	-.027(.038)	.042(.038)
Ratio of residence in apartment	-.023(.036)	.059(.037)	-.059(.025)***	.080(.025)***
Job	.273(.132)**	-.330(.136)**	.151(.109)	-.080(.109)
Academic background	-.431(.117)***	.336(.119)***	-.182(.086)**	.100(.086)
Local(Youngnam)	-7.488(.912)***	14.342(.934)***	-	-
Local(Honam)	24.858(1.312)***	-28.216(1.344)***	-	-
Gender	-.811(.378)**	.592(.387)	-1.289(.316)***	1.433(.317)***
Age	-.643(.122)***	.851(.125)***	-.704(.090)***	.900(.090)***
voters turnout rate	.300(.172)*	.009(.176)	.275(.159)*	-.247(.159)
R2	0.8514895	.901	.755	.812
adjusted r2	0.565	.897	.739	.800
Durbin-Watson	.715	.787	1.356	1.093
N	250		133	

4. Analysis Outcome- (1) Korea

- **Outcome seems to confirm the impact of regionalism and age on voting.**
- **White collar workers and college graduates seem to be more likely to vote for Moon in the 19th presidential election.**
- **However, if Yeongnam and honam excluded, these variables do not remain statistically significant in the non-regionalism model.**
- **In the non-regionalism model excluding Yeongnam/honam areas, the ratio of residence in apartment has a negative impact on the candidate for the Democratic Party and positive impact on the candidate for the Liberty Korea Party.**
- **Ratio of self-owned housing produces almost same results with ratio of residence in apartment, but without statistical significance in both models.**

4. Analysis Outcome – (2) Japan

Results of the 49th House of Representatives election –Nationwide model						
	Coalition ruling party	Liberal Democratic Party	Komeito	The Constitutional Democratic Party of Japan	Japanese Communist Party	Party of Hope
Constant	61.109*** (17.125)	12.546 (16.570)	48.563*** (11.035)	-31.013** (15.703)	19.943* (10.810)	.310 (15.487)
Age 20-30	.029 (.091)	.073 (.088)	-.043 (.058)	-.062 (.083)	-.439*** (.057)	.154* (.082)
Gender	-.598*** (.159)	-.346** (.154)	-.252** (.103)	.648*** (.146)	.345*** (.101)	.889*** (.144)
Job	-.158** (.063)	-.152** (.061)	-.006 (.041)	.054 (.058)	.102** (.040)	-.042 (.057)
Academic background	-.217*** (.071)	-.061 (.068)	-.156*** (.046)	.108* (.065)	.169*** (.045)	-.076(.064)
Ratio of residence in apartment	-.193*** (.070)	-.010 (.068)	-.183*** (.045)	.132** (.064)	.156*** (.044)	.256*** (.063)
Ratio of self-owned housing	.036 (.023)	.162*** (.022)	-.125*** (.015)	-.015 (.021)	-.049*** (.014)	.180*** (.021)
Income	6.198 (5.153)	8.951* (4.986)	-2.753 (3.321)	4.446 (4.725)	-6.591** (3.253)	-11.736** (4.660)
Local	.429 (.375)	1.301*** (.363)	-.872*** (.242)	.296 (.344)	-.382 (.237)	1.078*** (.339)
R2	.251	.189	.167	.164	.160	.168
ADJUSTED R2	.246	.183	.161	.158	.154	.162

4. Analysis Outcome– (2) Japan

Results of the 49th House of Representatives election – city model						
	Coalition ruling party	Liberal Democratic Party	Komeito	The Constitutional Democratic Party of Japan	Japanese Communist Party	Party of Hope
Constant	47.594** (19.120)	1.378 (18.667)	46.239*** (12.157)	-15.708 (18.712)	30.374*** (12.505)	-13.127 (17.977)
Age 20-30	0.100 (0.110)	0.188* (0.108)	-0.088 (0.07)	-0.163 (0.108)	-0.405*** (0.072)	0.153 (0.104)
Gender	-0.722*** (0.182)	-0.399** (0.178)	-0.323*** (0.116)	0.753*** (0.178)	0.385*** (0.119)	0.998*** (0.171)
Job	-0.156** (0.079)	-0.054 (0.077)	-0.102** (0.05)	0.055 (0.077)	0.128** (0.052)	0.049 (0.074)
Academic background	-0.258*** (0.082)	-0.157* (0.081)	-0.101* (0.052)	0.178** (0.081)	0.155*** (0.054)	-0.146* (0.078)
Ratio of residence in apartment	-0.142* (0.076)	0.085 (0.075)	-0.226*** (0.049)	0.140* (0.075)	0.160*** (0.05)	0.268*** (0.072)
Ratio of self-owned housing	0.068** (0.027)	0.232*** (0.027)	-0.164*** (0.017)	-0.035 (0.027)	-0.050*** (0.018)	0.208*** (0.026)
Income	10.990** (5.712)	10.490* (5.577)	0.495 (3.632)	-0.687 (5.591)	-10.671*** (3.736)	-10.256*** (5.371)
Local	.272	.217	.203	.173	.157	.180
ADJUSTED R2	.265	.211	.196	.166	.150	.173

4. Analysis Outcome – (2) Japan

Results of the 49th House of Representatives election – town and village model						
	Coalition ruling party	Liberal Democratic Party	Komeito	The Constitutional Democratic Party of Japan	Japanese Communist Party	Party of Hope
Constant	149.382*** (37.245)	89.216** (34.667)	60.174** (24.92)	-77.150*** (29.133)	-26.664 (21.936)	30.553 (31.413)
Age 20-30	-0.025 (0.166)	-0.027 (0.154)	0.002 (0.111)	0.146 (0.130)	-0.493*** (0.098)	0.175 (0.140)
Gender	-0.035 (0.325)	-0.027 (0.302)	-0.008 (0.217)	0.373 (0.254)	0.115 (0.191)	0.609** (0.274)
Job	-0.077 (0.11)	-0.209** (0.103)	0.132* (0.074)	0.046 (0.086)	0.048 (0.065)	-0.186** (0.093)
Academic background	-0.047 (0.143)	0.176 (0.133)	-0.223** (0.096)	-0.081 (0.112)	0.140* (0.084)	0.049 (0.120)
Ratio of residence in apartment	-0.903*** (0.215)	-0.776*** (0.200)	-0.127 (0.144)	0.096 (0.168)	0.299** (0.127)	0.264 (0.182)
Ratio of self-owned housing	-0.096** (0.045)	-0.030 (0.042)	-0.066** (0.03)	0.028 (0.035)	-0.03 (0.027)	0.139*** (0.038)
Income	-24.870** (11.667)	-12.571 (10.86)	-12.305 (7.806)	20.392** (9.126)	10.573 (6.871)	-14.861 (9.840)
Local	.244	.207	.119	.119	.191	.145
ADJUSTED R2	.226	.188	.098	.098	.171	.125

4. Analysis Outcome- (2) Japan

- Residence in apartment has negative impact on the LDP with a statistical significance in the town and village model, while at the same time it has positive impact on the Party of Hope, which is conservative but opposition party, with a statistical significance in both the nation-wide model and the city model. This outcome shows that residence in apartment doesn't seem to back up our hypothesis, but produces somewhat mixed outcome.
- Ratio of self-owned housing has positive effect on the LDP with a statistical significance in the nation-wide model and the city model, but negative impact on the LDP without a statistical significance in the town and village model.

4. Analysis Outcome – (3) Taiwan

Results of the 14th Presidential election		
	Eric Chu Li-luan (Chinese Nationalist Party)	Tsai Ing-wen (Democratic Progressive Party)
Constant	-45.472 (67.977)	168.138** (82.351)
Gender	1.922* (1.001)	-2.361* (1.213)
Age	0.42 (0.301)	-0.814** (0.364)
Academic background	0.084 (0.161)	-0.089 (0.195)
Racial region	0.043 (0.029)	-0.036 (0.035)
ratio of Self-owned housing	-0.096 (0.154)	0.014 (0.187)
Ratio of residence in over five-floors building	0.167*** (0.065)	-0.159** (0.079)
Income	-5.165 (6.434)	6.083 (7.795)
Voters turnout rate	-0.050 (0.192)	0.047 (0.233)
R2	.064	.057
ADJUSTED R2	.017	.009
Durbin-Watson	1.753	1.816
n	168	

4. Analysis Outcome – (3) Taiwan

- In Taiwan, older or male voters are more likely to vote for the conservative party such as Chinese Nationalist Party.
- By contrast, other variables except above two variables don't seem to have statistically significant impact on voter's voting behavior.
- Ratio of self-owned housing has negative impact on the Chinese Nationalist Party and positive impact on the Democratic Progressive Party. Although such outcome seems to reject our hypothesis, however it doesn't show any statistical significance.
- Ratio of residence in over five-stories building has negative impact on the Democratic Progressive Party and positive effect to the Chinese Nationalist Party with a statistical significance. Thus this outcome seems to verify our research hypothesis.

5. Concluding Remarks

- In Korea, residence in apartments symbolizes the status of middle class. Therefore, it can be true that the possibility of class voting is likely to come true through residence in apartment. The analysis outcome successfully shows that our hypotheses are empirically well supported.
- In Japan, ratio of self-owned housing produced the expected outcome by verifying our hypotheses, but ratio of residence in apartment showed somewhat mixed results.
- In Taiwan, residence in apartment verified our hypotheses while ratio of self-owned housing failed to support our hypothesis.
- Overall, our comparative study on three north-east Asian countries seems to confirm that housing factors such as ratio of residence in apartment and ratio of self-owned housing have a statistically significant impact on voting behavior, especially in Korea.



Thanks

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