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Citizens' Satisfaction with
the HKSAR Government's Overall Performance
In Post-colonial Hong Kong:
Result of OLS Analysis

Luo YANG

Abstract

Through studying of the impact of the Hong Kong Special Administration Region government's performance in various policy areas upon the level of citizen's satisfaction with the government's overall performance, this paper confirms the general wisdom that economic development is an important source of citizens' satisfaction with the government's performance. It further proves that, government's performance on democratic development and freedom of speech and assembly are also very powerful variables in the model and its partial coefficients are impressive.

Introduction:

This paper is a quantitative study of the impact of the Hong Kong Special Administration Region (HKSAR) government's performance in various policy areas upon the level of citizen's satisfaction with the government's overall performance. The featured research tests whether the political authorities' performance of legislative council and judicial system would influence the Hong Kong citizens' satisfaction with the performance of the Hong Kong government. The study then covers semi-annual survey data from April 1998 to April 2008.

Through evaluating the government's performances, democratization, literature on economic development, as well as other studies, the paper develops the opinions and testable hypotheses about the impact of several variables such as government's performance on matters of (1) economic development, (2) democracy development, (3) freedom of speech and assembly, and (4) anti-corruption efforts. The paper also pays attention to the matter of related political authorities' performance on the levels of citizens' satisfaction with the government's overall performance. An OLS multivariate model based on time series data is developed by employing these variables along with other relevant control variables and a dummy variable. Control variables included the related political authorities' performance of legislative council and judicial system, which are theoretically supposed to be separated from the government's performance in those true democracy countries. These two control variables would be used to test whether there are significant relationships between the control variables and citizens' satisfaction with the government's overall performance. In addition, the dummy variable is to represent the changes of the chief executives (Tung Chee-hwa[0] to Donald Tsang[1]), which is employed to test whether there is structural change about the model between Tung Chee-hwa to Donald Tsang.

The paper tests the models by employing several techniques. The variables are subjected to bivariate and multivariate analysis including bivariate correlations, analysis of variance, Augmented Dickey-Fuller Test (ADF) and Engle-Granger (EG) Test. Based on the EG test on the 5 percent critical values, there is no cointegration between the independent variables and several dependent variables, so this paper focuses on analysis of the short-term equilibrium relationship between the independent variable and dependent variables without using the error correction mechanism.

Data:

Data Resource:

Hong Kong Institute of Asia-Pacific Studies of the Chinese University of Hong Kong

It is necessary to put some explanation to the variable of "citizen's satisfaction with the government's performance in economic development (Ecodt)." There are several reasons why the equations do not include any direct economic or financial factors such as GDP per capita, CPI, and housing prices. One of the reasons is that all these factors have serious collinearity with the variable "Ecodt." This relationship is made evident by the high R-square but few significant t-Ratios. When I drop the variable of "Ecodt," and use the direct economic factors instead, there is no big influence to the models and conclusions. However, the direct economic influence is not the focus of this paper, so I use the variable of "citizen's satisfaction with the SAR government's performance in economic development" to represent all the direct economic factors. And also, based on consequence of Logit Analysis, there are no great differences among the linear models featured in this paper.

- T = time trend: from April 1998 to April 2008 (semi-annually) (1-21)
- St = Citizens' Satisfaction with the SAR Government's Overall Performance
- Ecodt = Citizens' Satisfaction with the SAR Government's Performance in economic development
- Demodt = Citizens' Satisfaction with the SAR Government's Performance in democratic development
- Fret = Citizens' Satisfaction with the SAR Government's Performance in freedom of speech and assembly
- Antict = Citizens' Satisfaction with the SAR Government's Performance in anti-corruption efforts
- Judsyst = Citizens' Satisfaction with the Related Political Authority of judicial system
- Legcot = Citizens' Satisfaction with the Related Political Authority of legislative system
- Ducet = 1 (Donald Tsang); 0 (Tung Chee-hwa)

Based on the consequences of ADF Test to the variables, they are Non-stationary processes; by means of taking the first differences of the variables, their unit roots disappear. The following are the new stationary processes. And also based on the EG test on the 5 percent critical values, there is no cointegration between the independent variables and the several dependent variables, so this paper focuses on analyzing the short-term equilibrium relationship between the independent variable and the dependent variables without using the error correction mechanism.

$$\begin{aligned} \Delta St &= St - St-1 & \Delta Antict &= Antict - Antict-1 \\ \Delta Ecodt &= Ecodt - Ecodt-1 & \Delta Judsyst &= Judsyst - Judsyst-1 \\ \Delta Demodt &= Demodt - Demodt-1 & \Delta Legcot &= Legcot - Legcot-1 \\ \Delta Fret &= Fret - Fret-1 \end{aligned}$$

Multivariate analysis and tests:

- (1) $\Delta St = C + \beta_1 * \Delta Ecodt + \mu$
- (2) $\Delta St = C + \beta_1 * \Delta Ecodt + Ducet + \mu$
- (3) $\Delta St = C + \beta_1 * \Delta Ecodt + \beta_2 * \Delta Ecodt * Ducet + \mu$

Regressors	(1)	(2)	(3)
$\Delta Ecodt$	0.767*** (4.421)	0.772*** (4.832)	0.676*** (3.007)
Ducet		0.044** (2.059)	
$\Delta Ecodt * Ducet$			0.236 (0.657)
R-squared	0.493	0.571	0.477
* indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.			

Analysis:

The table reveals a positive relationship between citizen's satisfaction with the government's performance in economic development and satisfaction with the government's overall performance. The correlation of 0.767 is both strong and significant at the 0.01 significance levels. And the relationship suggests that the increase of satisfaction with government's performance in economic development accounts for 49% (R-squared) of the increase of overall satisfaction. In addition, the coefficient of the dummy variable in equation (2) is 0.044 which is significant at the 0.05 significance levels, which means people have a slight increase of satisfaction with the Donald Tsang government based on better economic performance.

However, the coefficient of the dummy variable in equation (3) is not significant which proves the structural stability of equation (1), and also, people maintain their marginal attitude to government's performance in economic development from Tung Chee-hwa to Donald Tsang.

$$(1) \Delta St = C + \beta_1 * \Delta Fret + \mu$$

$$(2) \Delta St = C + \beta_1 * \Delta Fret + \text{Ducet} + \mu$$

$$(3) \Delta St = C + \beta_1 * \Delta Fret + \beta_2 * \Delta Fret * \text{Ducet} + \mu$$

Regressors	(1)	(2)	(3)
$\Delta Fret$	0.516** (2.409)	0.470** (4.832)	0.488* (1.809)
Ducet		0.029 (0.962)	
$\Delta Fret * \text{Ducet}$			0.085 (0.179)
R-squared	0.201	0.198	0.156

*indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.

Analysis:

The table reveals a positive relationship between citizen's satisfaction with the government's performance in freedom of speech and assembly, and satisfaction with the government's overall performance. The correlation of 0.516 is significant at the 0.05 significance levels. And the relationship suggests that the increase of satisfaction with government's performance in freedom of speech accounts for 20% (R-squared) of the increase in overall satisfaction.

However, this R-value is much lower than the R-values of economic equation. This reveals that, comparable to the factor of economic development, the single factor of freedom of speech contributes much less to peoples' satisfaction with government's overall performance. But, the coefficients of the dummy variables in equation (2) and equation (3) are not significant. This proves that there is no increase of people's satisfaction with government's performance of improving freedom of speech and assembly. It also suggests that people did not change their marginal attitudes towards government's performance of improving freedom of speech from Tung Chee-hwa to Donald Tsang.

- (1) $\Delta St = C + \beta_1 * \Delta Demodt + \mu$
- (2) $\Delta St = C + \beta_1 * \Delta Demodt + Ducet + \mu$
- (3) $\Delta St = C + \beta_1 * \Delta Demodt + \beta_2 * \Delta Demodt * Ducet + \mu$

Regressors	(1)	(2)	(3)
$\Delta Demodt$	1.104*** (4.446)	1.055*** (4.151)	0.959*** (3.147)
Ducet		0.022 (0.957)	
$\Delta Demodt * Ducet$			0.459 (0.832)
R-squared	0.496	0.494	0.488
*indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.			

Analysis:

The table reveals a positive relationship between citizen's satisfaction with the government's performance in democratic development and satisfaction with the government's overall performance. The correlation of 1.104 is both strong and significant at the 0.01 significance levels. This relationship suggests that the increase of satisfaction with government's performance in democratic development accounts for 49% (R-squared) of the increase of overall satisfaction. However, the coefficients of dummy variables in equation (2) and equation (3) are not significant. Once again this proves that there is no increase of people's satisfaction with government's performance in democratic development. It also proves that people did not change their marginal attitude towards government's performance in democratic development from Tung Chee-hwa to Donald Tsang.

$$\Delta St = C + \beta_1 * \Delta Antict + \mu$$

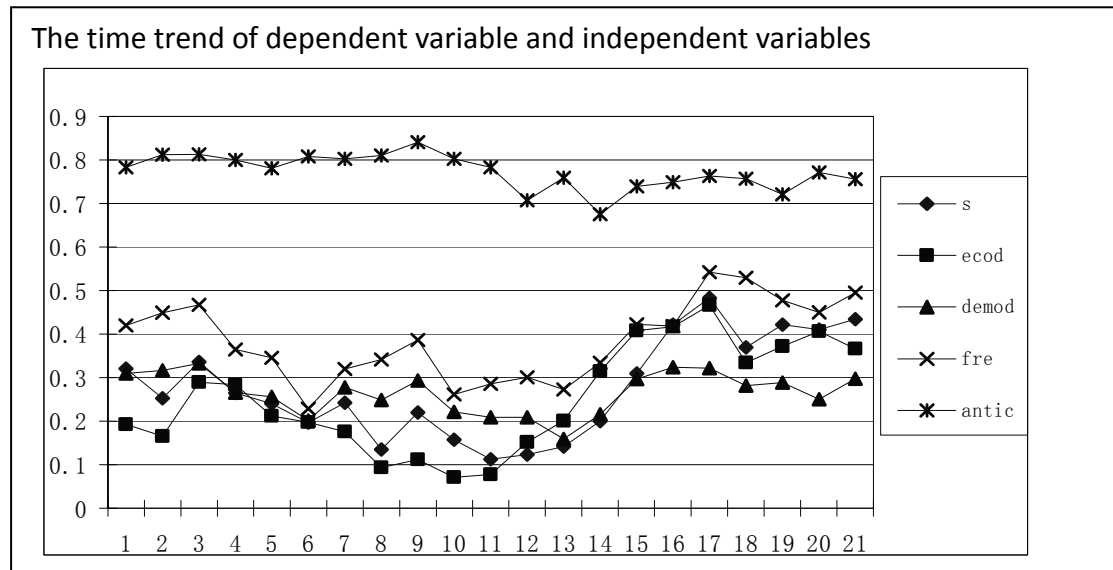
Regressors	
constant	0.005 (0.371)
$\Delta Antict$	0.190 (0.453)
R-squared	0.011
*indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.	

Analysis:

The correlation between Citizens' Satisfaction with the government's performance in anti-corruption efforts and satisfaction with the government's overall performance is not significant as the table reveals, and the R-value is very low, which, however does not mean that people did not care about the government's performance in anti-corruption.

Because Hong Kong citizens really have high and stable satisfaction with government performance in anti-corruption matters, the average value of citizens' satisfaction towards the HKSAR government's performance in anti-corruption matters was always very close to 0.8 from 1998 to 2008. The high and stable satisfaction of

citizens in this area reveals that the HKSAR government did well in addressing matters of anti-corruption during this time period.



Regressors	
constant	0.005 (0.352)
Δ Legcot	0.083 (0.156)
R-squared	0.001

*indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.

Analysis:

The correlation between citizens' satisfactions with Related Political Authority of legislative system and their satisfaction with the government's overall performance is not significant as the table reveals, and the R-value is also very low, which proves that most people think the legislative system is independent from the governments performance.

$$\Delta St = C + \beta 1 * \Delta Judsyst + \mu$$

Regressors	
constant	0.005 (0.356)
Δ Judsyst	0.040 (-0.124)
R-squared	0.0008

*indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.

Analysis:

The correlation between citizens' satisfactions with related political authority of the judicial system and satisfaction with the government's overall performance is not significant, as the table reveals, and the R-value is also very low. This proves that

most people think the judicial system is independent from the government's performance.

$$(1) \Delta St = C + \beta_1 * \Delta Ecodt + \beta_2 * \Delta Demodt + \beta_3 * \Delta Fret + Ducet + \mu$$

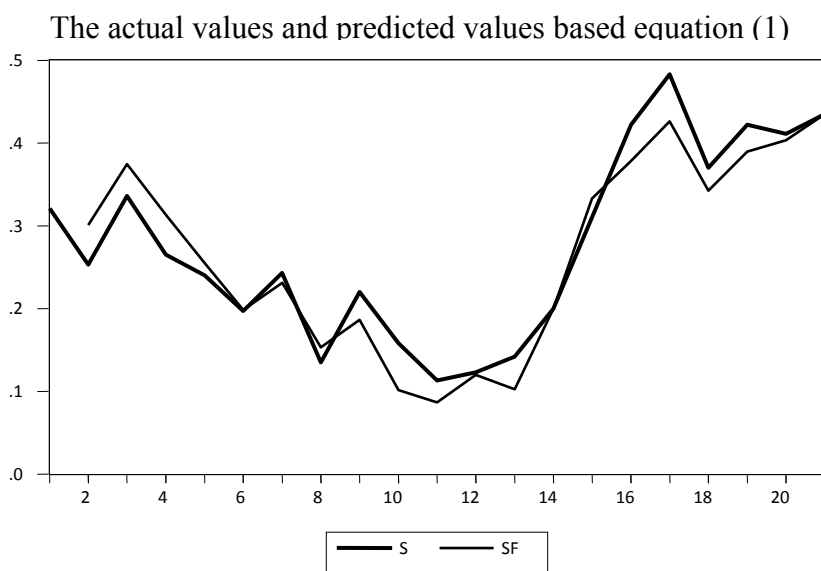
$$(2) \Delta St = C + \beta_1 * \Delta Ecodt + \beta_2 * \Delta Demodt + \beta_3 * \Delta Fret + \beta_4 * \Delta Judsyst + \beta_5 * \Delta Legcot + Ducet + \mu$$

Regressors	(1)	(2)
$\Delta Ecodt$	0.577*** (4.461)	0.596*** (3.815)
$\Delta Demodt$	0.964*** (3.393)	0.967*** (3.031)
$\Delta Fret$	0.217** (2.154)	0.245** (2.013)
$\Delta Judsyst$		0.040 (0.187)
$\Delta Legcot$		0.046 (0.154)
Ducet	0.032* (1.945)	0.032* (1.825)
R-squared	0.763	0.728

*indicates rejection of the null hypotheses at the 10 percent significance level, ** indicates 5 percent significance level, *** indicates 1 percent significance level.

Analysis:

The equation (1) consists of three variables and the dummy variable, which are the significant factors based on the above study. The equation (2) includes all the variables including the control variables of the related political authorities' performance on legislative and judicial systems. The data featured in the table above is consistent with the bivariate analysis and shows that the contribution of government's performance in economic development, democratic development, freedom of speech and Donald Tsang's economic performance to citizen's satisfaction with the government's overall performance is statistically significant (there is an interesting phenomenon based on the equations: the partial coefficient [0.964] of government's performance in democratic development is bigger than the partial coefficient [0.577] of government's performance in economic development. I guess that comparable to government's performance in economic development, its performance in democratic development would have a higher elastic contribution to citizen's overall satisfaction, because Hong Kong is a mature economic society, but not a true democracy). Adding two control variables of related political authorities' performance on legislative and judicial systems does not add significant explanatory power to the model, because there is no obvious change about the R-value from equation (1) to equation (2). This further proves the opinion that most citizens think that the legislative and judicial systems are independent from the government's performance.



Conclusions and Suggested Further Research

The study confirms the general wisdom that economic development is an important source of citizens' satisfaction with the HKSAR government's performance. It further proves that, government's performance on democratic development and freedom of speech and assembly are also very powerful variables in the model and its partial coefficients are impressive. This means that it is very important to develop true democracy in the pursuit of a better development of the Hong Kong society. In addition, the model indicates that related political authorities' performance of judicial system and legislative council have no significant influence on Hong Kong citizens' satisfaction with the government's performance. Based upon this, we can conclude that most Hong Kong citizens think that there are independent legislative and judicial systems in Hong Kong. The study also proves that the government really did a good job in anti-corruption. And the Hong Kong people were just a slight increase of satisfaction with the Donald Tsang government due to its better economic performance during his leadership, not because of the democracy and freedom progresses. This further validates the opinion that there is also no obvious development in democracy in the first decade after the handover.

Studies to date, however, represent only a first step toward a full understanding of the relationship between Hong Kong citizens' overall satisfaction and government's performance in several areas. The following is a sampling of many possibilities for future research in this area.

Replication of The Analysis From More Disaggregate Data. Since there were sufficient survey data about different areas and based on various time periods in Hong Kong, it is very possible for further research to focus on relationships between direct economic factors (housing price) and citizen's overall satisfaction, or the possible cointegration between citizens' satisfaction and Hong Kong government's performance in several areas.

Assessment of the Importance of Democracy to the Development of Hong Kong Society. There are many explanations about why there was no true democracy in Hong Kong. Based on the above data, in the society with freedom of speech and a

developed legislation system, there was also a lack of effective protection to many poor people because of no true democracy. This opinion could be supported by the deteriorated economic inequality situation in Hong Kong, partially because many low-income people have no effective right to influence the government's economic policies which were more or less in favour of a small number of capitalists.

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Appendix

	<i>s</i>	<i>ecod</i>	<i>demod</i>	<i>fre</i>	<i>antic</i>	<i>legco</i>	<i>judsys</i>	<i>duce</i>
Apr-98	0.321	0.193	0.31	0.42	0.783	0.21	0.539	0
Oct-98	0.253	0.166	0.317	0.449	0.812	0.264	0.591	0
Apr-99	0.336	0.29	0.333	0.467	0.813	0.277	0.474	0
Oct-99	0.265	0.284	0.266	0.365	0.8	0.211	0.437	0
Apr-00	0.24	0.212	0.256	0.346	0.781	0.217	0.456	0
Oct-00	0.197	0.198	0.202	0.229	0.808	0.194	0.394	0
Apr-01	0.243	0.176	0.278	0.32	0.802	0.219	0.382	0
Oct-01	0.135	0.094	0.249	0.342	0.81	0.216	0.433	0
Apr-02	0.22	0.112	0.294	0.387	0.841	0.195	0.485	0
Oct-02	0.158	0.071	0.222	0.262	0.802	0.197	0.461	0
Apr-03	0.113	0.078	0.209	0.286	0.783	0.214	0.437	0
Oct-03	0.123	0.152	0.209	0.301	0.707	0.158	0.404	0
Apr-04	0.142	0.201	0.159	0.273	0.759	0.155	0.437	0
Oct-04	0.2	0.315	0.216	0.335	0.675	0.187	0.523	0
Apr-05	0.31	0.408	0.297	0.423	0.739	0.148	0.513	1
Oct-05	0.422	0.417	0.324	0.419	0.749	0.197	0.507	1
Apr-06	0.483	0.466	0.322	0.542	0.763	0.191	0.585	1
Oct-06	0.37	0.335	0.282	0.529	0.757	0.212	0.595	1
Apr-07	0.422	0.372	0.289	0.477	0.721	0.205	0.542	1
Oct-07	0.411	0.407	0.251	0.45	0.771	0.198	0.521	1
Apr-08	0.435	0.367	0.298	0.495	0.756	0.215	0.564	1

