This is a post-peer-review, pre-copyedit version of an article published in Social Indicators Research. The final authenticated version is available online at: https://doi.org/10.1007/s11205-020-02456-y.

Citizens' Confidence in Government Control of Corruption: An Empirical Analysis

Hanyu XIAO
ORCID: https://orcid.org/0000-0003-0478-241X
Department of Asian and Policy Studies, the Education University of Hong Kong

Ting GONG[1]
ORCID: https://orcid.org/0000-0001-9927-886X
Department of Public Policy, City University of Hong Kong, Hong Kong

Chi-Lik YU
Wen-Jong JUANG
Department of Public Policy and Management, Shih Hsin University

Baishun YUAN
Law School, Hunan University

Abstract

This study provides a nuanced and interactive analysis of institutional confidence in government. It investigates the drivers of institutional confidence by differentiating them into outcome-based and performance-based modes and examining the interaction between the two modes in influencing confidence levels. Drawing on survey data obtained from three Chinese cities, this study extends the two-dimensional analytical framework to examine public confidence in the government's control of corruption. The study has the dual purpose of analyzing how citizens differ in their confidence in the government's anti-corruption efforts and what factors influence their views. The findings indicate that citizens' confidence in government control of corruption is affected by their perceptions of the level of existing corruption and by the extent to which they are

[1] Corresponding author, tgong2@cityu.edu.hk.

satisfied with their government's anti-corruption efforts. The findings also reveal that the public's positive perceptions of anti-corruption performance moderate the negative impact that their perception of corruption has on their confidence in government control of corruption.

Keywords: corruption, confidence in the control of corruption, perception of corruption, institutional performance, China

Acknowledgement

The work described in this article was supported by grants from the Research Grants Council of the Hong Kong Special Administrative Region, China (Projects No. 11603219 & 11605917) and City University of Hong Kong (Project No. 7005144).

Citizens' Confidence in Government Control of Corruption: An Empirical Analysis

1 Introduction

Institutional confidence, defined as public expectations of government effectiveness, has become increasingly important for governance. As Easton (1975) suggests, the possible evaluation of outputs and performance contributes to greater confidence in the authorities. In essence, institutional confidence is an expression of political trust that the government is responsive and will do what is right, with or without constant scrutiny (Miller and Listhaug 1990). Confidence in government, in turn, enhances the legitimacy and stability of a political system (Tolbert and Mossberger 2006), increases the viability of democracy and democratization (Newton and Norris 2000; Mishler and Rose 2001), promotes good governance (Rothstein 2011), inspires policy innovation (Rothstein 2011), and facilitates the prevention of corruption (Seligson 2002; Chang and Chu 2006; Chang and Huang 2016; Rose-Ackerman 2017). Institutional confidence also serves as a bridge that connects citizens and authorities (Schnaudt 2019), encourages compliance with laws and regulations (Tyler 1998), and constitutes the much-needed social capital for civic engagement (Bjørnskov 2003), endorsement of rules (Graeff and Svendsen 2013), and protection of social and natural environments (Pretty and Ward 2001). Thus, public confidence is taken as an essential part of a "new civic culture" (Dalton 2005, p. 150).

Despite the importance that institutional confidence holds for government, its sources remain controversial. What constitutes institutional confidence? Where does it come from? What explains variations in public confidence toward a government? Scholars have debated whether institutional confidence is historically and culturally determined or is built on the basis of the government's performance. Three different sources of institutional confidence are identified: individual-level social psychological factors, the impact of cultural environments, and assessments of governmental performance (Newton and Norris 2000). Studies from a social psychological perspective consider trust and confidence to be character traits at the individual level (Gabriel 1995), whereas social and cultural explanations believe that institutional confidence is cultivated by, and embedded in, social relationships (Sztompka 1996). Both arguments are nonetheless criticized by other scholars. Newton (1999) finds that socially trusting people are not necessarily

politically trusting and that institutional confidence can be more or less randomly distributed among people regardless of their personal characteristics and their socioeconomic status, such as their education, income, religion, age, and gender. Scholars also have found little connection between social relations and institutional confidence, because institutional confidence is often based on knowledge (Pollitt and Chambers 2013) and is more reflective and evidence-based than it is culturally fostered on the basis of shared beliefs and values (Hardin 2006).

The performance-based perspective on confidence contends that public confidence in a government is determined by the extent to which people are satisfied with the services it provides. Judging by survey data from eight Latin American countries, Turner and Martz (1997, p. 80) report that "performance matters" and "if institutional performance improves, confidence in the institutions should rise over time." However, the assumed causal relationship between institutional performance and public confidence has also been challenged. According to Lewellyn et al. (2013, p. 3), "Although trust and confidence are clearly interwoven, it may be possible to maintain value-based trust in a relatively low-performing institution or have confidence in the performance of a less-than-principled public service." For example, as a longitudinal analysis of the survey data of the Independent Commission Against Corruption in Hong Kong indicates, although the public considers the commission to be highly trustworthy, its performance has not always been perceived to be very effective (Scott and Gong 2018).

The scholarly debate outlined above indicates that the origin of institutional confidence is puzzling, and an explanation of the variations in public confidence in government remains lacking. Our research attempts to unpack the complexity in explaining the level of institutional confidence. We agree that the effectiveness of governance is an important source of institutional confidence, but we go farther and distinguish two modes in which confidence in government can arise: outcome-based confidence and performance-based confidence. Outcome-based confidence is built upon the results of government policy; that is, a positive assessment of policy outcomes raises the level of confidence in government, while a less positive or negative assessment reduces institutional confidence. On the other hand, regardless of actual policy outcomes, performance-based confidence is a judgment of the efforts of the institution concerned and the level of satisfaction with those efforts. For example, the public may have positive perceptions of a government's

performance, but those perceptions do not necessarily mean that the government's action has resulted in successful outcomes. Performance-based confidence is an image held by citizens, and it results from the perception that institutional actions meet public expectations (Thomas 1998), with or without a factual basis.

We extend the two-dimensional analytical framework to explain public confidence in government control of corruption, which is a major challenge facing many countries in the world. We define confidence in corruption control as people's perception that an anti-corruption policy meets their expectations of progressing well and succeeding in the future. Thus, how the public perceives the way in which their government handles corruption, and whether its anti-corruption reforms are considered effective, have a significant impact on institutional trust and confidence (Mishler and Rose 2001; Rose-Ackerman 2001; Kang and Zhu 2020). In other words, public confidence often hinges on the belief that the government will be able and willing to control corruption. Institutional confidence, in turn, helps raise the level of social support for anti-corruption policies (Arnold 2012; Perera-Mubarak 2012; Themudo 2013; Yu and Zhuang 2016), for making integrity a social norm (Rimskii 2013), and for civil engagement in controlling corruption (Gong and Xiao 2017).

In this study, we investigate how citizens differ in their confidence in the government's efforts to fight corruption and what factors influence their views about anti-corruption success. We believe that citizens' confidence in controlling corruption may be affected by their perception of corruption levels, so that it is outcome-based, or their confidence may be affected by the degree to which they are satisfied with the government's anti-corruption efforts, which is performance-based. We also posit that satisfaction with anti-corruption performance has a moderating effect on the negative impact that perceived corruption has on people's confidence in corruption control. In other words, among those who consider corruption to be pervasive, when their satisfaction with the government's anti-corruption efforts increases, their confidence in the government's control of corruption also rises.

To test these assumptions, we draw on survey data collected from three Chinese cities – Hong Kong, Changsha, and Taipei – during the period 2015-2016. We chose those cities because of their similarities in sociocultural background, such as the Confucian tradition, and their rapid

socioeconomic development. Equally important for the purpose of this study was the fact that in each of the cities, the authorities had made significant efforts to fight corruption and had achieved some progress in recent decades, albeit to different extents and under different political contexts. A study of the public perceptions of corruption and anti-corruption performance of government in these localities thus provides a nuanced picture of the variations in institutional confidence and the driving factors behind them.

Our study makes two contributions. First, it provides a scholarly and evidence-based analysis of how institutional confidence in government is generated. We investigate the drivers of public confidence by differentiating it into outcome-based and performance-based confidence and by examining how the interaction between those two modes influences the level of institutional confidence. Our approach is, therefore, nuanced and interactive for understanding public confidence. The second contribution of this research lies in its contextualized analysis. The three cities in this study differ in the scale of corruption and the government's anti-corruption performance, as well as in their political settings. Those differences allow us to highlight the impact of various contexts on public perceptions of corruption, on people's views about their government's anti-corruption efforts, and on citizens' confidence in government control of corruption. The empirical results indicate that there is no one-size-fits-all explanation or remedy for public confidence in government; hence, policy makers should better understand their policy contexts and adopt the most suitable anti-corruption measures for their particular situation.

2 Outcome-based institutional confidence

Corruption is a social malady that denotes the misuse of public power for private gain by those who hold public offices. Corruption distorts the distribution of public resources, hampers social justice, increases inequality, and jeopardizes government performance (Seligson 2002; Johnston 2014; Rose-Ackerman and Palifka 2016). If uncontrolled, corruption will seriously erode public trust and confidence. Studies have documented the negative impact of corruption on people's attitudes toward various government institutions (Catterberg and Moreno 2006; Manzetti and Wilson 2006; Uslaner 2013). Chen (2017) finds that the perceived corruption level is negatively associated with citizens' trust in their government. Drawing on survey data from Australia,

McAllister (2014) discusses how individual experiences with corruption and perceived corruption affects citizens' confidence in government agencies. He observes that higher levels of perceived corruption contribute to lower levels of citizens' confidence in government, and he finds that the perception that politicians are corrupt is the most important factor causing low trust in political institutions. Clausen et al. (2011) reach the same conclusion based on a large-scale cross-country Gallup survey data set. Pellegata and Memoli (2016, p. 395) put it in an even more straightforward way: "[I]nstitutional confidence is rather a support for the institutional outcomes and the results of the political authorities' actions," and corrupt countries tend to have lower levels of confidence in government institutions. Negative perceptions of corruption may also lower citizens' propensities to fight corruption. In a study of 36 African countries, for example, Isbel (2017) reports that the public is less likely to think they can help fight corruption if they perceive elected politicians or government officials to be corrupt. In democratic societies, citizens' voting behavior is negatively affected by perceptions of corruption (Klašnja and Tucker 2013). These studies have demonstrated a strong linkage between corruption perceptions and citizens' attitudes toward government.

Following the same logic, we assume that the outcome of anti-corruption efforts, measured by the perceived or actual scale of corruption, significantly affects public confidence in government. If citizens perceive corruption as being rampant and pervasive, they are more likely to consider anti-corruption efforts to be ineffective and hence to develop low confidence in the government's ability to control corruption. As Persson et al. (2013) report, in societies in which corruption is an expected behavior, such as Kenya and Uganda, few people are willing to fight corruption because their actions will be considered irrational. Conversely, if citizens perceive that the level of corruption in society is low, they may assume that the government's anti-corruption policy has worked and therefore they are likely to maintain a high level of confidence in the control of corruption. This leads to our first hypothesis:

H1: *The more a person perceives corruption to be pervasive, the lower his or her confidence will be in the government's control of corruption.*

3 Performance-based institutional confidence

Institutional confidence is not a direct product of social conditions; rather, it is associated with perceptions of government efforts and actions (Hetherington 1998; Mishler and Rose 2001; Van der Meer and Hakhverdian 2017). Scholars have also warned against the dangers of relying on perceptions of corruption as a proxy for corruption levels, because perceptions can be driven by factors other than corruption itself (Sharafutdinova 2010). Whether citizens trust or have confidence in government depends on the extent to which they appreciate the effort and performance of government institutions. Institutions that perform well are more likely to elicit citizens' confidence than those that perform poorly are (Newton and Norris 2000). Institutional confidence is built upon the evaluation of "whether or not political authorities and institutions are performing in accordance with normative evaluations held by the public," as suggested by Miller and Listhaug (1990, p. 358). Institutional confidence is, thus, "generalized" by what the government has done or is doing (Orren 1997; Rothstein and Stolle 2008). Specifically, institutional confidence is conditioned by both the "input," such as the quality of institutional procedures and processes, and the "output," such as the outcome of governance policies (Foster and Frieden 2017).

The observation just described is applicable to government-led efforts to control corruption. Because the spread of official corruption affects people from all walks of life, the extent to which governments and especially anti-corruption agencies are committed to fighting corruption is a matter of public concern. Unless citizens perceive the government or a particular anti-corruption agency to be effective, they will lose, or never develop, sufficient trust and confidence to give their active support to its efforts to tackle corruption. Negative perceptions of anti-corruption effectiveness, by contrast, have adverse consequences, eroding confidence in government, undermining the legitimacy of the political system, and damaging the social fabric (Rose-Ackerman 2001; Seligson 2002; Rose-Ackerman 2017; Uslaner 2017). Gong and Xiao (2017) find that the government's anti-corruption performance significantly affects citizens' willingness to report corruption. If people believe that the government's efforts at controlling corruption have met their expectations, they will be more inclined to lend their support. In other words, if people are satisfied with the government's performance in tackling corruption, they are more likely to develop a higher level of institutional confidence. Hence, our second hypothesis is as follows:

H2: *The more a person is satisfied with the government's anti-corruption efforts, the stronger his or her confidence will be in its control of corruption.*

Hypotheses 1 and 2 are rather straightforward, positing the respective impacts that citizens' perception of the level of corruption and their satisfaction with the government's anti-corruption performance have on their confidence in the government's control of corruption. However, in reality, the impact of these two explanatory variables may be more complex than what was outlined above, making the interaction between the variables a factor of significant interest. Although the two variables form under separate conditions and are shaped by different factors, they inevitably interact with each other. We assume that the public's perceptions of anti-corruption performance might affect the impact that their corruption perceptions have on their confidence in the government to control corruption. A government can take quick and immediate actions against corruption to demonstrate its short-term anti-corruption performance, but because the level of corruption depends on many factors, of which the government's efforts are just one, the level of corruption may not change quickly. For that reason, when people consider current anti-corruption efforts to be satisfactory, they may develop a higher level of institutional confidence despite still perceiving a very high level of corruption. Peiffer and Alvarez (2016) find that the public's willingness to become engaged in fighting corruption hinges on their perception that the government is working sincerely to tackle corruption. This notion indicates that citizens' satisfaction with ongoing anti-corruption performance is likely to moderate the negative relationship between their perceived corruption and their confidence in the control of corruption. Accordingly, we propose a third hypothesis that reflects the impact of the interaction between two explanatory variables on the dependent variable. It is stated as follows:

H3: *A positive perception of anti-corruption performance may moderate the impact that corruption perception has on a person's confidence in the control of corruption.*

Figure 1 sums up the relationships between the two independent variables and the dependent variable. The three arrows represent the three hypotheses.

Figure 1 about here

4 Data and measurements

4.1 Data

From 2015 to 2016, we conducted surveys in Hong Kong, Taipei, and Changsha, and we received 1,025, 1,069, and 925 valid questionnaires, respectively. In Hong Kong, we first calculated the share of households below the median household income and ranked 412 constituency areas (CAs), based on household income and the number of family members. The ranked list was then divided into 40 intervals, and a CA was selected from each interval to obtain 40 CAs in total. Then, we obtained the information from the 6,744 households within these selected CAs. If more than one family member (over 18 years old) was eligible, the one with the closest birthday was interviewed. The survey was conducted in Hong Kong between June and October 2015.

In Taipei, the survey was conducted by telephone interviews. The respondents were randomly selected from among city residents over 18 years old, and the random digit dialing (RDD) method was used for sampling in the following steps. We first collected telephone numbers from residential phone books and obtained the prefix for all district numbers. Then we used random numbers to generate three numbers to match the collected prefix and produced a complete sampling book of telephone numbers. To ensure that all eligible residents had an equal chance of being chosen, when conducting the telephone interviews, the interviewer selected the interviewee based on a sampling principle for a household after the phone was connected. Finally, a total of 1,069 questionnaires were completed.

In Changsha, we used a multistage random sampling method to randomly select 10 areas in the five city districts. Then, we employed systematic sampling to randomly select 100 households in each district. Finally, we used the Kish grid technique to conduct another round of sampling for adults in the selected households, in order to ensure that the selected sample represented the population. The Changsha survey acquired 925 valid questionnaires.

In Hong Kong and Changsha, the surveys were conducted in households through face-to-face interviews, and in Taipei telephone interviews were used to collect data. This difference should not affect our comparative analysis. In face-to-face interviews, respondents might have more concern about anonymity, but we did not encounter that problem. Because of Hong Kong's generally free social and political environment and success in maintaining a clean society, its people have little concern about expressing their views on corruption. In Changsha, the topic of corruption has become very familiar in recent years, after the government intensified its anti-corruption campaign, and the respondents were not afraid to talk about corruption. Still, to cross check, we compared the perceptions of corruption revealed by our surveys with those reported by the Corruption Perceptions Index of Transparency International, with regard to Hong Kong, Taiwan, and Mainland China, and we found them to be consistent.[2]

4.2 Measurements

The Hong Kong, Taipei, and Changsha surveys used the same question to measure the dependent variable: the respondents' confidence in the control of corruption.[3] Respondents were asked about how they perceive the changes in the corruption level in the coming year. The choices were "significantly increase,"' "slightly increase," "remain the same," "slightly decrease," and "significantly decrease." We coded the answers from 1 to 5, with 5 being the strongest confidence in future anti-corruption success.

To measure our first independent variable – the perception of corruption, we asked the respondents what was the level of corruption that they perceived in their region, with the options being "very common," "common," "neutral," "relatively few," and "very rare."[4] We reverse-coded the options, with a higher score indicating a higher level of perceived corruption.

[2] For example, according to the Corruption Perception Index of Transparency International in 2016, when our surveys were conducted, Mainland China was ranked 77 (scored 41), Taiwan 29 (scored 63), and Hong Kong 13 (scored 77).

[3] In the questionnaire for Changsha, we did not distinguish different levels of government (for example, central government and provincial government) because in Mainland China's political setting, anti-corruption campaigns have always been carried out as a nationwide endeavor.

[4] The questions in Hong Kong and Changsha did not have "neutral" as an option. This may be a limitation for the data analysis. To take neutral as a response between "common" and "relatively few" is reasonable.

For the second independent variable, citizens' views on the government's anti-corruption performance, we asked the following question in Hong Kong and Changsha: "Do you think the government has had effective control over corruption in the past year?" The options were "very effective," "effective," "not very effective," and "not effective at all." We recoded those options from 1 to 4, with 4 being the highest level of satisfaction with the government's anti-corruption efforts in the previous year. In Taipei, we used a slightly different question: "Compared to last year, Taipei is now cleaner, less clean, or almost the same as in the past." The higher the score, the cleaner the city was perceived to be. We treated that as an indicator of people's assessment of the government's performance, because the mayor of Taipei had launched an intensive anti-corruption campaign right after he took office. As we did in the Hong Kong and Changsha surveys, we specified that this question was for one year, which would encourage respondents to consider the government's efforts in controlling corruption. Hence, it would be reasonable to assume that the cleaner the city of Taipei was perceived to be, the more satisfied the public was with the government's efforts.

4.3 Control variables

To test our hypotheses by regression analysis, we controlled for factors such as gender, age, education, and income. In addition to those demographic variables, other corruption-related variables could affect citizens' confidence. For example, the degree to which people tolerate corruption may have an impact on their attitude toward the government's efforts at controlling corruption. Recent studies have found that a higher tolerance level is associated with a lower level of willingness to report corruption (Gong and Wang 2013; Yu and Zhang 2016). This may, in turn, affect people's views about the future success of anti-corruption efforts. Thus, we included corruption tolerance as a control variable. Likewise, personal experience with corruption could influence people's attitudes toward corruption. The regression analysis in Hong Kong and Changsha included as a control variable whether the interviewees had experienced corruption.

Moreover, what citizens perceive as the causes of corruption could also influence their attitudes toward corruption and the government's anti-corruption performance. For example, if corruption is considered to result from individual selfishness, people may not blame the government as much as they would if they considered it a result of the lack of the rule of law, which the government should be held responsible for. In both the Hong Kong and Changsha surveys, we controlled for the four most commonly perceived causes of corruption, whereas the Taipei survey did not have relevant questions. In Taiwan, citizens' party affiliation might have an impact on their corruption perceptions and attitudes toward corruption, so we included it as a control variable. Appendix A reports the descriptive statistics of all of the variables included in the multivariate analysis.

5 Regression results

Because our dependent variable is an ordinal variable, ordered logistic regression is the most appropriate statistical method of analysis. For an easier interpretation of the regression coefficients, we also adopt the ordinary least squares (OLS) regression method.[5]

Some statistical concerns require clarification before we proceed with statistical analysis. First, multicollinearity is a potential problem, particularly when the regression has interaction terms. For that concern, Brambor et al. (2006) point out that scholars tend to overestimate the multicollinearity problem that the interaction term may cause, and they suggest that the parent variables of the interaction term should be kept in the regression model unless there are strong justifications to exclude them. We have followed this suggestion in our analysis.

Second, although endogeneity can be a problem when both the explanatory and dependent variables are subjective variables, it is not a concern in our study. Our explanatory variables – the perceived corruption and the level of satisfaction with anti-corruption performance – are retrospective assessments of respondents' previous experiences, while confidence in future anti-corruption success is a prospective prediction. It is more likely that citizens predict the future based

[5] In Tables 1-3, models 1-4 employ the ordered logistic regression model and model 5 uses OLS regression. Although the Pseudo R^2 values in models 1 through 4 in all tables are quite small, it does not necessarily indicate a low explanatory power of the model, because Pseudo R^2 does not equal to R^2 in OLS regression (Gujarati, 2015). The R^2 values in model 5 across the three cities range from 10% to 39%, suggesting a satisfactory model specification.

on their past experiences and less likely that they use their prospective perspective to make retrospective assessments.

Third, our regression analysis does not combine the three surveys into a single data set. We use those separate data sets to examine the impact of perceived corruption and the satisfaction with anti-corruption performance on institutional confidence in different contexts. We assume that if our hypotheses are consistently proven by the three sets of data, we would then have a higher level of confidence in our findings. This approach provides us with a much broader base for testing our hypotheses and enhances the validity of the empirical analysis.

Tables 1 through 3 report the regression results of the surveys in Hong Kong, Changsha, and Taipei, respectively. In these tables, columns 1 and 2 introduce the variable of corruption perception (corruption) and that of satisfaction with anti-corruption performance (performance), and column 3 includes both variables. Columns 1 through 3 give the test results for Hypotheses 1 and 2. As we can see from column 1 in each of the three tables, the coefficients of corruption perception are all negative and significant at the 1% level, thus indicating that negative perception of corruption reduces confidence in the control of corruption. The coefficients of anti-corruption performance in column 2 are also consistently positive and significant at the 1% level, thus suggesting that a higher level of satisfaction with anti-corruption performance results in higher confidence in corruption control. When both variables are included in the regression models in column 3 of the tables, their coefficients show no substantive change.[6] The results confirm that Hypotheses 1 and 2 are supported in all three localities – Hong Kong, Changsha, and Taipei.[7]

Tables 1-3 about here

[6] It should be noted that these two explanatory variables were measured at the ordinal level and the coefficients should be interpreted with caution. We reran models 1 and 2 in Tables 1 through 3 and got similar results supporting Hypotheses 1 and 2.

[7] The results also demonstrate that multicollinearity is not serious between corruption perception and anti-corruption performance.

We further test the extent to which people's satisfaction with anti-corruption endeavors moderates the negative impact of their perception of corruption. It is worth noting that in the regression model with an interaction term, the coefficient of one parent variable indicates the impact of that parent variable on the dependent variable, when the value of another parent variable is equal to 0; therefore, the coefficient does not have much practical implication (Brambor et al. 2006). Column 4 shows the results of our use of the ordered logistic regression model to examine whether the moderating effect is significant in our three regions. The coefficients of interaction terms in Tables 1 through 3 are all significant and positive. In particular, corruption perception*anti-corruption performance is significant at the 5% level for Hong Kong and Taipei, and it is significant at the 10% level for Changsha. For an easy interpretation, column 5 lists the results of OLS regression analysis to duplicate the model reported in column 4, and the results in column 5 are almost the same. Following the common practice of interpreting the interaction term (Brambor et al. 2006), Appendix B presents the plot of the marginal effects for column 5 in the three cities. The three charts consistently show that the perceived anti-corruption performance negatively moderates the impact of corruption perceptions. As citizens' satisfaction with the government's anti-corruption performance increases, the negative impact of their corruption perceptions decreases and eventually becomes nonsignificant. Thus, Hypothesis 3, concerning the moderating effect exerted by satisfaction with anti-corruption performance, is confirmed; that is, a positive assessment of anti-corruption performance significantly reduces the negative impact of perceived corruption on the respondents' institutional confidence. In other words, with everything else being equal, the negative impact that people's perception of corruption has on their confidence in the government's success in controlling corruption tends to decrease if they hold a favorable view of the government's anti-corruption effort. That effect reflects the current situation of the anti-corruption campaign in Mainland China, where the government has significantly intensified its anti-corruption efforts in recent years – efforts that have been considered effective because a large number of officials have been charged with and convicted of corruption. Although corruption is still perceived to be serious, it does not seem to impair citizens' confidence in the government's ability to substantially control corruption in the future.

The regression results also suggest that certain control variables have a significant impact on institutional confidence. In Hong Kong, the effect of education is significant. High levels of

education are associated with low confidence in the control of corruption. It may be that people with a high level of educational attainment have more channels by which to access information about corruption, and that such access enables them to better understand its complexity and detrimental consequences. In addition, the variable for tolerance of corruption has a positive impact on confidence in the control of corruption, which is in line with our expectation that when people have a high level of tolerance for corruption, they are more likely to be satisfied with the government's anti-corruption efforts. Again as expected, personal experiences with corruption erode the respondents' confidence in government. Furthermore, respondents tend to have low confidence in the control of corruption if they believe that collusion between politicians and businessmen is a major cause of corruption.

In Changsha, older respondents tend to have stronger institutional confidence in the government's ability to fight corruption, and men appear to be less confident than women are. Respondents also show a reduced level of confidence if they consider weak anti-corruption enforcement to be a major reason for the spread of corruption.

In Taipei, gender has a significant impact: men are more confident than women about government efforts toward controlling corruption. This finding is consistent with the analysis by Su and Hu (2013). Women may have a relatively lower tolerance for corruption and, hence, they may feel less confident in the success of fighting corruption. Older respondents also tend to have lower confidence in the control of corruption. Support for political parties is another important factor influencing people's institutional confidence in Taiwan, where political polarization has increased with the bitter contention between the Nationalist Party (or the pan-blue camp) and the Democratic Progressive Party (or the pan-green camp). Consequently, people's assessments of government performance may vary with their political affiliations or ideological preferences, depending on who or which parties are in power. When the Taipei survey was conducted, the incumbent mayor, Ko Wen-je, was from the pan-green camp, whereas his two predecessors both had come from the pan-blue camp. As a result, we see from the survey results that the pan-green respondents tend to show more confidence in the government's anti-corruption efforts than the pan-blue respondents did. After Ko took office, he vowed to crack down on major "scandals" that had taken place during

his predecessor's term,[8] and that may have contributed to the increased confidence that pan-green supporters exhibited for corruption control, whereas the pan-blue supporters may have perceived the mayor's declaration as merely a political gesture.

6 Discussion

Our empirical analysis first confirms the importance of two factors in influencing citizens' institutional confidence: the respondents' perceived level of corruption and their satisfaction with the government's anti-corruption efforts. When the respondents have a high level of perceived corruption, that perception has a significant negative impact on their confidence in corruption control. Conversely, their degree of satisfaction with anti-corruption performance demonstrates a positive impact on their confidence in corruption control. Furthermore, our findings confirm that the respondents' positive views of the government's anti-corruption effort significantly dilute the negative impact that their perception of corruption has on their confidence level. These findings are confirmed in each of the three cities of our survey, thus increasing the study's validity.

However, the survey also reveals some paradoxical findings. Figure 2 reports the three important indicators, grouped by city.[9] Because Hong Kong is regarded worldwide as a clean society (Transparency International 2017; Peh 2018), we expected that among the three cities, its citizens should have had the highest level of confidence in the future success of their government' anti-corruption efforts. However, the survey results show otherwise. Among the three cities, Hong Kong respondents have the lowest confidence, with an average score of 43.7, which is far below the score of 61.5 in Changsha and the score of 62.3 in Taipei. Although the respondents in Changsha report the highest perceived level of corruption in their locality (71.7), followed by Taipei (54.0) and Hong Kong (49.0), the respondents in Changsha are most satisfied with their government's anti-corruption performance, with an average score of 65.0, followed by Taipei

[8] After the mayor of Taipei City, Ko Wen-je, took office, he launched an investigation into his predecessor's BOT development plan, which included the case of Yuanxiong big egg construction, the development case of Meihe City, the development case of Gemini, the development case of the Songyan cultural creative park, and the case of development for SYNTREND. Those cases have been referred to as "five major cases." "Are five major cases serious? Ko rectify the five cases," *China Times*, May 15, 2015.

[9] For a better comparison, we transformed the original means into standardized ones, ranging from 0-100.

(60.5) and then by Hong Kong (50.7). In Hong Kong, although the respondents perceive a very low level of corruption in their society, they nevertheless lack confidence in corruption prevention in the future. In contrast, in Changsha and Taipei, where people have seen serious corruption problems, the respondents express higher levels of confidence in their government's efforts to control corruption.

Figure 2 about here

Hong Kong established the Independent Commission against Corruption in the 1970s, and it has had a history of very effective anti-corruption performance. As a result, Hong Kong has long been immune to pervasive corruption, and its experience in controlling corruption is widely regarded by governments worldwide as a successful model. The findings from our study nevertheless indicate some challenges facing Hong Kong and perhaps other relatively clean societies: Past success in controlling corruption appears to have raised people's expectations for future performance. Even a minor corruption case or suspected scandal may significantly erode citizens' confidence and trust in the government (Linde and Erlingsson 2013). At the time when our survey was conducted, Hong Kong had witnessed several major corruption cases involving former high-level officials. For example, the former Chief Secretary for Administration, Rafael Hui Si-yan, was convicted on charges of misconduct in public office and bribery in 2014. Two years later, the former Chief Executive, Donald Tsang Yam-kuen, also faced allegations of misconduct in public office. After being widely reported, these high-profile cases concerning former senior government officials had a considerably negative impact on citizens' satisfaction with their government's performance in controlling corruption, and that impact adversely affected public confidence in the future success of anti-corruption efforts.

In Mainland China, the central authorities have intensified anti-corruption efforts and convicted a large number of officials, including some at the top levels of the government, in recent years. The strong political will to fight corruption seems to have enhanced public support for, and confidence in, the war against corruption, although corruption is still perceived to be pervasive. Figure 2 shows

that the Changsha respondents' level of confidence in the control of corruption is almost as high as that in Taipei, and their strong confidence may have benefitted from the short-term impact of their government's intensified anti-corruption efforts. The rampant corruption in Mainland China may have caused people in Changsha to encounter more corruption than their counterparts in Hong Kong and Taipei, and thus they may have been more likely to have relatively low expectations for the government's anti-corruption performance. In that context, the unusually strong political will to fight corruption and the extremely high number of corruption convictions presumably exceeded people's expectations and boosted their confidence in the future success of anti-corruption endeavors.

However, the way(s) that a current anti-corruption campaign enhances citizens' institutional confidence deserves investigation. The existing literature has not yet provided sufficient evidence to show how anti-corruption performance boosts citizens' confidence. It is likely that a government's strong anti-corruption efforts increase its citizens' confidence (Kang and Zhu 2020), but a manipulated interpretation of information about corruption and anti-corruption efforts may also play an important role in influencing people's confidence. For example, the extensive exposure of corruption cases may be interpreted as evidence of a strong political commitment to fight corruption (Zhu et al. 2013). In recent years, by publicly reporting corruption cases online or through other channels, the Chinese government has significantly intensified its anti-corruption campaign and, at the same time, enhanced the transparency of its investigation and punishment of corrupt officials. Such measures may have, to some extent, contributed to the increase in institutional confidence.

Taipei is the political center of Taiwan, and the Taipei government is always widely reported on and discussed by the media and the public. Particularly in recent years, after Ko Wen-je took office as a nonpartisan mayor, Taipei residents have developed a high expectation that he will crack down on the collusion between business people and politicians. Ko's investigations of five major cases in 2014 were taken as an illustration of his determination to fight corruption. Although those investigations have not found any major scandal, they still may help enhance citizens' confidence in the government's efforts to control corruption.

7 Conclusions

This study uses empirical data from three Chinese cities – Hong Kong, Taipei, and Changsha – to identify two important factors that explain the variations in the level of confidence in the government's control of corruption among the public: the citizens' perceived level of existing corruption and the degree of their satisfaction with the government's anti-corruption efforts. Our findings have showed that respondents' perceived level of corruption has a negative impact on their confidence in the control of corruption, whereas their degree of satisfaction is positively correlated with their confidence level. Our analysis has also provided evidence that if people are satisfied with their government's anti-corruption performance, their institutional confidence is less likely to be affected by a high level of perceived corruption.

The findings of this study elucidate the importance of institutional performance in boosting the public's confidence in government. Our results support the argument that institutional confidence provides a good measure of the quality of governance by indicating the extent to which citizens are satisfied with their government's performance. A high level of public satisfaction may even reduce the impact of negative images that people have of their government, such as perceived or actual corruption.

These findings have both theoretical and practical implications for controlling and preventing corruption. First, a government's performance, whether perceived or actual, is vital for boosting citizens' confidence in its governance. As the case of Changsha shows, the government's intensified anti-corruption efforts in recent years may have significantly raised citizens' confidence in their government's willingness and ability to contain corruption. Even though the level of corruption is still perceived to be very high, as long as people appreciate the government's efforts, they are likely to develop strong confidence in the government. In other words, making an extra institutional effort appears to be very important for raising citizens' confidence in their government's ability to control corruption, regardless of the actual achievements. That being said, there is also no guarantee that such confidence will last long. In Hong Kong's case, despite the

fact that it is a clean society, recent high-profile cases of official misconduct have eroded the citizens' level of confidence in the future success of their government's ability to control corruption.

The study's second contribution is its revelation of the various challenges that different societies face in fighting corruption. Clearly, there is no one-size-fits-all solution to the problem of corruption. In this study, we have used three different sets of data from three localities to test our hypotheses. That approach provides a broad basis for our empirical analysis and enhances the validity of our findings. Although the study uses individual-level data and makes no attempt to pull the data from different social contexts into a single data set, the statistical results allow us to engage in some preliminary comparative analyses to determine how individual perceptions are affected by social and political factors. For example, Hong Kong's past success with anti-corruption has led its citizens to develop high expectations and standards for the government's integrity and, as a consequence, recent scandals implicating high-level officials have seriously eroded citizens' confidence in future anti-corruption success. In Taipei, although Major Ko's popularity peaked at approximately 80% on roughly the 100th day after he had assumed office and remained mostly stable at about 70% in 2015, his support rating nonetheless took a major dip in 2016, partly because of his probe's slow progress in investigating five alleged scandals. This finding suggests that if corruption accusations cannot be substantiated, public confidence in corruption control will decrease.

Our research has limitations. The comparative study tests three hypotheses against three sets of survey data, instead of pooling all observations together to run the regression analysis. This strategy is beneficial because it helps control for political factors that could affect people's confidence in their government's control of corruption. Although all hypotheses are empirically confirmed in the three regions, whether the findings can be applied to a broader context beyond the original settings requires further investigation. Furthermore, our conclusions should not be applied to other regions without caveats. Changsha is the capital city of Hunan in Mainland China, and it may not be a perfect representative of all Chinese cities. The educational level of citizens in Taipei is relatively high, and the sample's respondents from Taipei do not represent the whole

population in Taiwan. In addition, the questions we used to measure anti-corruption performance are not entirely identical across the three cities, and we should be cautious when comparing them. Finally, the questionnaires we used in the three cities have only one question to measure each of the three major variables – citizens' confidence in their government's control of corruption, people's perception of the existing level of corruption, and citizens' satisfaction with anti-corruption efforts – and that fact may have weakened the validity of the measurements. More studies are needed, but our research can serve as a strong starting point.

References

Arnold, J. R. (2012). Political awareness, corruption perceptions and democratic accountability in Latin America. *Acta Politica*, *47*, 67-90.

Bjørnskov, C. (2003). The happy few: Cross-country evidence on social capital and life satisfaction. *Kyklos*, *56*, 3-16.

Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, *14*, 63-82.

Catterberg, G., & Moreno, A. (2006). The individual bases of political trust: Trends in new and established democracies. *International Journal of Public Opinion Research*, *18*, 31-48.

Chang, E. C., & Chu, Y. H. (2006). Corruption and trust: Exceptionalism in Asian democracies? *The Journal of Politics*, *68*, 259-271.

Chang, E. C., & Huang, S. H. (2016). Corruption experience, corruption tolerance, and institutional trust in East Asian democracies. *Taiwan Journal of Democracy* (Chinese), *12*, 27-44.

Chen, D. (2017). Local distrust and regime support: Sources and effects of political trust in China. *Political Research Quarterly*, *70*, 314-326.

Clausen, B., Kraay, A., & Nyiri, Z. (2011). Corruption and confidence in public institutions: Evidence from a global survey. *The World Bank Economic Review*, *25*, 212-249.

Easton, D. (1975). A re-assessment of the concept of political support. *British Journal of Political Science*, *5*, 435-457.

Foster, C., & Frieden, J. (2017). Crisis of trust: Socio-economic determinants of Europeans' confidence in government. *European Union Politics*, *18*, 511-535.

Gabriel, O. W. (1995). Political efficacy and trust. In J. W. Van Deth & E. Scarbrough (Eds.), *The impact of values* (pp. 358-388). Oxford, UK: Oxford University Press.

Gong, T., & Wang, S. (2013). Indicators and implications of zero tolerance of corruption: The case of Hong Kong. *Social Indicators Research*, *112*, 569-586.

Gong, T., & Xiao, H. (2017). Socially embedded anti-corruption governance: Evidence from Hong Kong. *Public Administration and Development*, *37*, 176-190.

Graeff, P., & Svendsen, G. T. (2013). Trust and corruption: The influence of positive and negative social capital on the economic development in the European Union. *Quality & Quantity*, *47*, 2829-2846.

Gujarati, D. (2015). *Econometrics by example* (second edition). London, UK: Red Globe Press.

Hardin, R. (2006). *Trust*. Cambridge, UK: Polity Press.

Hetherington, M. J. (1998). The political relevance of political trust. *American Political Science Review*, *92*, 791-808.

Isbell, T. (2017). Efficacy for fighting corruption: Evidence from 36 African countries. *Afrobarometer Policy Paper*, 41, 1-21.

Johnston, M. (2014). *Corruption, contention and reform: The power of deep democratization*.

Cambridge, UK: Cambridge University Press.

Kang, S., & Zhu, J. (2020). Do people trust the government more? Unpacking the distinct impacts of anticorruption policies on political trust. *Political Research Quarterly,* DOI: https://doi.org/10.1177/1065912920912016

Klašnja, M., & Tucker, J. A. (2013). The economy, corruption, and the vote: Evidence from experiments in Sweden and Moldova. *Electoral Studies*, *32*, 536-543.

Li, J., & Raine, J. W. (2014). The time trend of life satisfaction in China. *Social Indicators Research*, *116*, 409-427.

Linde, J., & Erlingsson, G. Ó. (2013). The eroding effect of corruption on system support in Sweden. *Governance*, *26*, 585-603.

Llewellyn, S., Brookes, S., & Mahon, A. (2013). Trust and confidence in government and public services. In S. Llewellyn, S. Brookes, & A. Mahon (Eds.), *Trust and confidence in government and public services* (pp. 3). New York, NY: Routledge.

Manzetti, L., & Wilson, C. J. (2006). Corruption, economic satisfaction, and confidence in government: Evidence from Argentina. *The Latin Americanist*, *49*, 131-139.

McAllister, I. (2014). Corruption and confidence in Australian political institutions. *Australian Journal of Political Science*, *49*, 174-185.

Miller, A. H., & Listhaug, O. (1990). Political parties and confidence in government: A comparison of Norway, Sweden and the United States. *British Journal of Political Science*, *20*, 357-386.

Mishler, W., & Rose, R. (2001). What are the origins of political trust? Testing institutional and cultural theories in post-communist societies. *Comparative Political Studies*, *34*, 30-62.

Newton, K. (1999). Social and political trust. In P. Norris (Ed.), *Critical citizens: Global support for democratic government* (pp. 170-187). Oxford, UK: Oxford University Press.

Newton, K., & Norris, P. (2000). Confidence in public institutions: Faith, culture or performance? In S. J. Pharr and R. D. Putnam (Eds.), *Disaffected democracies: What's troubling the trilateral countries?* (pp. 52-73). Princeton, NJ: Princeton University Press.

Orren, G. (1997). Fall from grace: The public's loss of faith in government. In J. S. Nye, P. Zelikow, & D. C. King, (Eds.), *Why people don't trust government* (pp. 77-108). Cambridge, MA: Harvard University Press.

Peiffer, C., & Alvarez, L. (2016). Who will be the "principled-principals"? Perceptions of corruption and willingness to engage in anticorruption activism. *Governance*, *29*, 351-369.

Peh, Y L S. (2018). Toward 45 years of anti-grate work. https://www.icac.org.hk/icac/c_online/en/201803/index.html. Accessed 10 September 2018.

Pellegata, A., & Memoli, V. (2016). Can corruption erode confidence in political institutions among European countries? Comparing the effects of different measures of perceived corruption. *Social Indicators Research*, *128*, 391-412.

Perera-Mubarak, K. N. (2012). Reading 'stories' of corruption: Practices and perceptions of everyday corruption in post-tsunami Sri Lanka. *Political Geography*, *31*, 368-378.

Persson, A., Rothstein, B., & Teorell, J. (2013). Why anticorruption reforms fail – systemic corruption as a collective action problem. *Governance*, *26*, 449-471.

Pollitt, C., & Chambers, N. (2013). *Evidence-based trust: A contradiction in terms.* New York, NY: Routledge.

Pretty, J., & Ward, H. (2001). Social capital and the environment. *World Development*, *29*, 209-227.

Rimskii, V. (2013). Bribery as a norm for citizens settling problems in government and budget-funded organizations. *Russian Social Science Review*, *54*, 23-39.

Rose-Ackerman, S. (2001). Trust, honesty and corruption: Reflection on the state-building process. *European Journal of Sociology/Archives Européennes de Sociologie*, *42*, 526-570.

Rose-Ackerman, S. (2017). Corruption in Asia: Trust and Economic Development. In T. Gong & I. Scott (Eds.), *Routledge handbook of corruption in Asia* (pp. 85-112). London: Routledge.

Rose-Ackerman, S., & Palifka, B. J. (2016). *Corruption and government: Causes, consequences, and reform*. Cambridge, UK: Cambridge University Press.

Rothstein, B. (2011). *The quality of government: Corruption, social trust, and inequality in international perspective*. Chicago, IL: University of Chicago Press.

Rothstein, B., & Stolle, D. (2008). The state and social capital: An institutional theory of generalized trust. *Comparative Politics*, *40*, 441-459.

Schnaudt, C. (2019). *Political confidence and democracy in Europe: Antecedents and consequences of citizens' confidence in representative and regulative institutions and authorities*. New York, NY: Springer International Publishing.

Scott, I., & Gong, T. (2018). *Corruption prevention and governance in Hong Kong*. London, UK: Routledge.

Seligson, M. A. (2002). The impact of corruption on regime legitimacy: A comparative study of four Latin American countries. *The Journal of Politics*, *64*, 408-433.

Sharafutdinova, G. (2010). What explains corruption perceptions? The dark side of political competition in Russia's regions. *Comparative Politics*, *42*, 147-166.

Su, Y. & Hu, L. (2013). Who can afford to tolerate corruption? *Taiwan Journal of Democracy* (Chinese), 10, 1-38.

Sztompka, P. (1996). Trust and emerging democracy: Lessons from Poland. *International Sociology*, *11*, 37-62.

Themudo, N. S. (2013). Reassessing the impact of civil society: Nonprofit sector, press freedom, and corruption. *Governance*, *26*, 63-89.

Thomas, C. W. (1998). Maintaining and restoring public trust in government agencies and their employees. *Administration & Society*, *30*, 166-193.

Tolbert, C. J., & Mossberger, K. (2006). The effects of e-government on trust and confidence in government. *Public Administration Review*, *66*, 354-369.

Transparency International. (2017). Corruption Perceptions Index. https://www.transparency.org/news/feature/corruption_perceptions_index_2017. Accessed

13 November 2018.

Turner, F. C., & Martz, J. D. (1997). Institutional confidence and democratic consolidation in Latin America. *Studies in Comparative International Development, 32*, 65-84.

Tyler T. R. (1998). Trust and democratic government. In V. Braichwaite & M. Levi (Eds.), *Trust and governance* (pp. 269-294). New York, NY: Russell Sage Foundation.

Uslaner, E. M. (2013). Trust and corruption revisited: How and why trust and corruption shape each other. *Quality & Quantity*, *47*, 3603-3608.

Uslaner, E. M. (2017). Political trust, corruption and inequality. In S. Zermli and T. W. Van der Meer (Eds.), *Handbook on political trust* (pp. 302-315). Chicago, IL: University of Chicago Press.

Van der Meer, T., & Hakhverdian, A. (2017). Political trust as the evaluation of process and performance: A cross-national study of 42 European countries. *Political Studies*, *65*, 81-102.

Yu, Z., & Zhuang, W. (2016). Measuring and explaining public perception of corruption: An empirical analysis of Taipei and Kaohsiung cities. *Journal of Public Administration*, 4.

Zhu, J., Lu, J., & Shi, T. (2013). When grapevine news meets mass media: Different information sources and popular perceptions of government corruption in Mainland China. *Comparative Political Studies*, *46*, 920-946.

Appendix A Descriptive statistics from the surveys in Hong Kong, Changsha, and Taipei

Variable name	Variable code	Observations	Mean*	S.D.	Min	Max
Hong Kong						
Confidence in government control of corruption	Confidence_fu	911	2.73	0.97	1	5
Perceived corruption level	Corruption	950	2.47	0.74	1	4
Anti-corruption performance	Performance	933	2.52	0.77	1	4
Corruption experience	Co_experience	1,025	0.15	0.44	0	2
Collaboration between government and business	Connection	949	0.56	0.50	0	1
Lack of anti-corruption effort	La_anticorruption	949	0.34	0.47	0	1
Lack of transparency	La_transparency	949	0.39	0.49	0	1
Individual greed	Greed	949	0.51	0.49	0	1
General level of tolerance for corruption	Tolerance	1,022	1.24	2.32	0	10

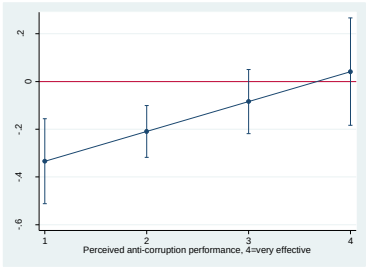
Variable name	**Variable code**	**Observations**	**Mean***	**S.D.**	**Min**	**Max**
Justifiability of corruption in a hypothetical situation	Justifiable	995	1.79	1.09	1	5
Age	Age	1,006	52.02	17.32	18	93
Gender	Gender	1,025	0.46	0.50	0	1
Level of education	Edu	1,023	3.04	1.74	1	6
Income level	Income	990	2.89	2.15	1	7
Changsha						
Confidence in government control of corruption	Confidence_fu	794	3.46	1.13	1	5
Perceived corruption level	Corruption	734	2.15	0.67	1	3
Anti-corruption performance	Performance	881	2.95	0.69	1	4
Corruption experience	Co_experience	925	0.63	0.81	0	2
Lack of rule of law	La_law	904	0.44	0.50	0	1
Lack of anti-corruption effort	La_anticorruption	904	0.42	0.49	0	1
Culture of connection	Culture	904	0.38	0.48	0	1

Variable name	**Variable code**	**Observations**	**Mean***	**S.D.**	**Min**	**Max**
Lack of transparency	La_transparency	904	0.39	0.49	0	1
Level of tolerance for general corruption	Tolerance	918	1.18	2.06	0	10
Justifiability of corruption in a hypothetical situation	Justifiable	925	2.01	1.25	1	5
Age	Age	870	40.56	14.02	18	69
Gender	Gender	925	0.48	0.50	0	1
Level of education	Edu	890	3.45	1.32	1	6
Income level	Income	811	2.93	1.03	1	5
Taipei						
Confidence in government control of corruption	Confidence_fu	875	3.49	0.97	1	5
Perceived corruption level	Corruption	773	3.16	1.25	1	5
Anti-corruption performance	Performance	930	3.42	0.72	1	5

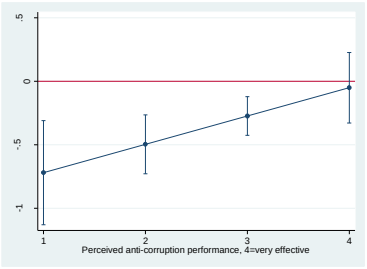
Variable name	**Variable code**	**Observations**	**Mean***	**S.D.**	**Min**	**Max**
General level of tolerance for corruption	Tolerance	1,030	1.82	2.21	0	10
Age	Age	1,021	50.34	15.83	18	84
Gender	Gender	1,069	0.43	0.50	0	1
Level of education	Edu	1,051	4.95	1.48	1	7
Income level	Income	937	4.82	2.67	1	9
Party affiliation	Party	1,069	0.64	0.91	0	2
Sources: Authors' surveys in Hong Kong, Changsha, and Taipei.						

This is a post-peer-review, pre-copyedit version of an article published in Social Indicators Research. The final authenticated version is available online at: https://doi.org/10.1007/s11205-020-02456-y.

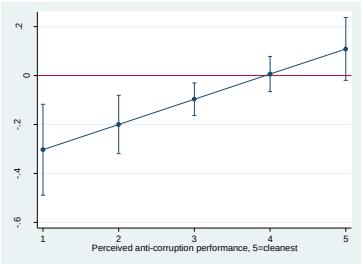
Appendix B The marginal effects that perceived corruption exerted on anti-corruption confidence in Hong Kong, Changsha, and Taipei, with a 95% confidence interval



Hong Kong



Changsha



Taipei

Note: The marginal effects are based on columns 5 of Tables 1 through 3.

Table 1 Perceived corruption, perception of anti-corruption performance, and confidence in government control of corruption in Hong Kong

	DV: confidence in the control of corruption				
	(1)	(2)	(3)	(4)	(5)
Corruption	-0.603***		-0.373***	-1.127***	-0.459***
	(0.114)		(0.125)	(0.342)	(0.142)
Performance		0.876***	0.747***	-0.083	0.021
		(0.103)	(0.112)	(0.362)	(0.161)
Corruption *Performance				0.321**	0.125**
				(0.138)	(0.058)
Tolerance	0.025	0.018	0.015	0.010	0.007
	(0.034)	(0.033)	(0.035)	(0.034)	(0.015)
Justifiable	0.220***	0.198***	0.197***	0.191***	0.088***
	(0.066)	(0.072)	(0.073)	(0.072)	(0.031)
Co_experience	-0.352**	-0.379**	-0.305*	-0.268	-0.134*
	(0.150)	(0.152)	(0.159)	(0.163)	(0.072)
Connection	-0.390***	-0.270*	-0.293*	-0.302*	-0.117*
	(0.150)	(0.155)	(0.156)	(0.156)	(0.069)
La_anticorruption	0.009	0.049	0.100	0.058	0.029
	(0.161)	(0.165)	(0.169)	(0.170)	(0.075)
La_transparency	0.162	0.107	0.148	0.128	0.068
	(0.153)	(0.159)	(0.161)	(0.162)	(0.071)
Greed	0.468***	0.340**	0.327**	0.306*	0.128*
	(0.155)	(0.160)	(0.165)	(0.165)	(0.073)
Age	0.001	0.002	0.001	0.000	-1.17e-05
	(0.005)	(0.005)	(0.005)	(0.005)	(0.002)
Gender	0.017	-0.045	-0.010	0.020	-0.008
	(0.139)	(0.143)	(0.145)	(0.145)	(0.065)
Edu	-0.243***	-0.228***	-0.248***	-0.260***	-0.114***

	(0.049)	(0.053)	(0.053)	(0.054)	(0.024)
Income	-0.023	-0.009	-0.008	-0.012	-0.005
	(0.035)	(0.036)	(0.036)	(0.036)	(0.016)
Constant					3.243***
					(0.491)
Prob>chi2	0.000	0.000	0.000	0.000	0.000
Pseudo R2/ R-squared	0.058	0.086	0.091	0.095	0.229
Observations	768	756	734	734	734

Note: Models 1-4 are ordered logistic regressions. Model 5 is an OLS regression. The robust standard error is in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 2 Perceived corruption, perception of anti-corruption performance, and confidence in government control of corruption in Changsha

	DV: confidence in the control of corruption				
	(1)	(2)	(3)	(4)	(5)
Corruption	-0.598***		-0.470***	-1.367***	-0.943***
	(0.133)		(0.136)	(0.523)	(0.309)
Performance		0.712***	0.618***	-0.051	-0.206
		(0.130)	(0.147)	(0.404)	(0.231)
Corruption* Performance				0.307*	0.223**
				(0.184)	(0.105)
Tolerance	-0.046	-0.008	-0.020	-0.026	-0.014
	(0.040)	(0.037)	(0.040)	(0.040)	(0.024)
Justifiable	0.024	0.050	0.034	0.042	0.029
	(0.060)	(0.056)	(0.061)	(0.062)	(0.036)
Co_experience	0.054	0.029	0.133	0.148	0.063
	(0.102)	(0.095)	(0.103)	(0.105)	(0.058)
La_law	-0.182	-0.215	-0.275	-0.279	-0.127
	(0.170)	(0.158)	(0.174)	(0.174)	(0.100)
La_anticorruption	-0.392**	-0.310*	-0.450**	-0.476**	-0.250**
	(0.188)	(0.169)	(0.189)	(0.189)	(0.108)
Culture	-0.240	0.002	-0.242	-0.262	-0.123
	(0.184)	(0.167)	(0.189)	(0.190)	(0.107)
La_transparency	-0.008	0.059	-0.050	-0.047	-0.034
	(0.184)	(0.164)	(0.184)	(0.185)	(0.105)
Age	0.012*	0.011*	0.012*	0.013*	0.007*
	(0.007)	(0.006)	(0.007)	(0.007)	(0.004)
Gender	-0.293*	-0.305*	-0.336*	-0.339*	-0.200**
	(0.171)	(0.158)	(0.175)	(0.176)	(0.099)
Edu	0.025	0.075	0.036	0.044	0.019

	(0.078)	(0.072)	(0.078)	(0.079)	(0.047)
Income	-0.075	-0.048	-0.059	-0.057	-0.026
	(0.088)	(0.078)	(0.088)	(0.087)	(0.052)
Constant					4.629***
					(0.754)
Prob>chi2	0.001	0.000	0.000	0.000	0.000
Pseudo R2/ R-squared	0.024	0.028	0.040	0.042	0.098
Observations	530	625	522	522	522

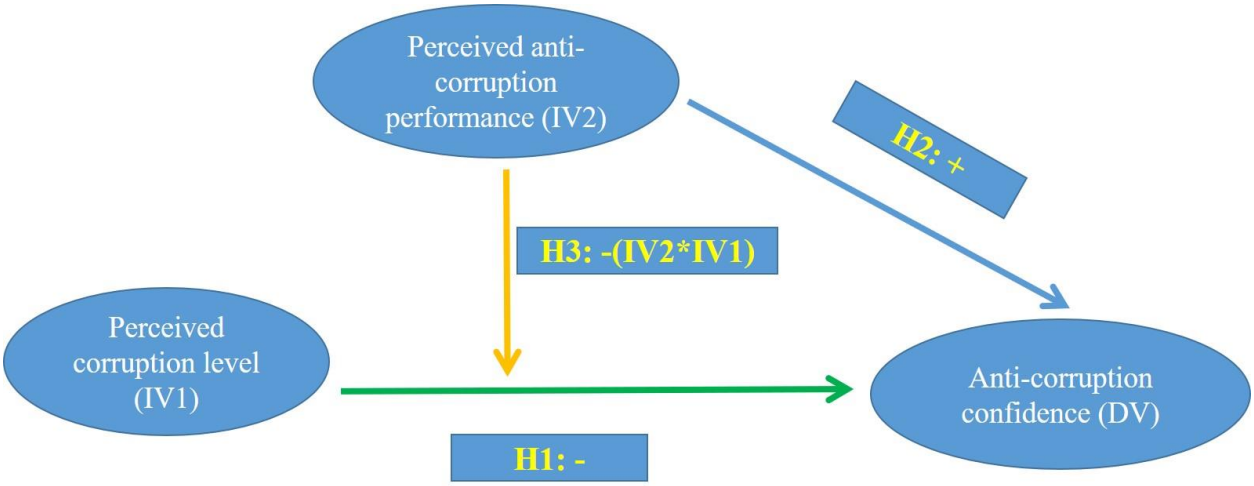
Note: Models 1-4 are ordered logistic regressions. Model 5 is an OLS regression. The robust standard error is in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 3 Perceived corruption, perception of anti-corruption performance, and confidence in government control of corruption in Taipei

	DV: confidence in the control of corruption				
	(1)	(2)	(3)	(4)	(5)
Corruption	-0.309***		-0.128*	-1.084***	-0.406***
	(0.073)		(0.076)	(0.378)	(0.130)
Performance		1.891***	1.784***	0.900**	0.302**
		(0.166)	(0.181)	(0.378)	(0.138)
Corruption* Performance				0.273**	0.103***
				(0.107)	(0.037)
Age	-0.013**	-0.011**	-0.010	-0.010	-0.005*
	(0.006)	(0.006)	(0.006)	(0.006)	(0.003)
Gender	0.371**	0.375***	0.411***	0.396**	0.160**
	(0.156)	(0.144)	(0.159)	(0.158)	(0.068)
Edu	0.073	-0.084	-0.050	-0.051	-0.017
	(0.076)	(0.065)	(0.075)	(0.074)	(0.031)
Income	-0.029	0.011	0.013	0.011	0.004
	(0.031)	(0.028)	(0.033)	(0.032)	(0.013)
Tolerance	-0.029	0.014	-0.006	-0.011	0.000
	(0.040)	(0.036)	(0.042)	(0.041)	(0.017)
Party (contrast: neutral)					
1.pan-blue party	-0.998***	-0.622***	-0.594***	-0.624***	-0.283***
	(0.189)	(0.172)	(0.183)	(0.183)	(0.079)
2.pan-green party	1.179***	0.780***	0.823***	0.814***	0.331***
	(0.197)	(0.193)	(0.209)	(0.208)	(0.089)
Constant					2.804***
					(0.512)
Prob>chi2	0.000	0.000	0.000	0.000	0.000

Pseudo R2/ R-squared	0.074	0.188	0.189	0.194	0.385
Observations	620	715	596	596	596

Note: Models 1-4 are ordered logistic regressions. Model 5 is an OLS regression. The robust standard error is in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.



IV = explanatory variables
DV= dependent variable
"-"= negative relationship
"+"= positive relationship

Fig. 1 Relationships among the three variables in this study

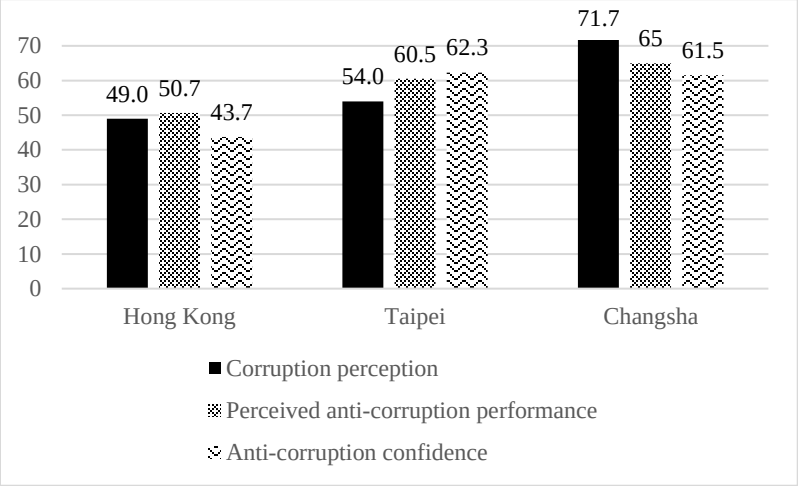


Fig. 2 Perceived corruption, perception of anti-corruption performance, and confidence in government control of corruption in three cities

Sources: Authors' surveys in Hong Kong, Taipei, and Changsha.

Notes: For better comparison, all indicators in the three cities are standardized, ranging from 0 to 100, based on the transformation formula: (mean-minimum)/(maximum-minimum) *100. For more information about the transformation method, see Li and Raine's study (2014).