

**Weighing a Shadow:
Toward a Technique for Estimating the Effects of Vote-buying in
Taiwan**

Shelley Rigger, Davidson College

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Like other illicit political behaviors, vote buying is difficult – perhaps impossible – to measure accurately. Even in societies where the practice is widespread, collecting data on its prevalence and effectiveness has proven extremely difficult. Survey research shows that most Taiwanese believe vote buying to be very common in their society. For example, a survey taken in the early 1990s found that 70 percent of Taiwan’s voters – and 80 percent of its politicians – acknowledged the existence vote buying in Taiwan (Chao 1992:49). Still, no one has yet produced a reliable estimate of its occurrence. Researchers using qualitative methods have identified politicians and voters who were willing to describe how votes are bought and sold. However, bridging the gap between the quantitative data available from surveys and the anecdotal information provided by interviews and observation is a difficult task. We still do not have a comprehensive picture of how vote buying functions in Taiwan’s electoral process, either at present or historically.

Because it is so difficult to measure vote buying directly, this paper takes an indirect approach. The paper is based on an assumption: If vote buying affects the behavior of some (or all) Taiwanese voters, then it must produce distortions in electoral results. That is, the results obtained under vote buying conditions must diverge from the results that would appear in the absence of those conditions. The goal of this paper is to suggest an approach that would allow us to discern and even estimate the size of those distortions. The paper also points out ways that such a measure could be used to test

hypotheses about vote buying in Taiwan. The quantitative analysis in this paper is rough and inexperienced; I am not a quantitative political scientist. My goal here is to use my qualitative understanding of Taiwan's political scene to goad my quantitatively-minded colleagues into attacking the puzzle of vote buying in new ways.

Literature Review

Vote buying is a long-standing preoccupation of scholarly work on Taiwan's post-World War II politics, not least because of the central role elections played in the island's political life even before its democratic transition in the 1980s and '90s. The authoritarian party-state that installed itself on the island in the 1940s chose an unusual strategy to secure its legitimacy and deepen its control over Taiwan's society: alongside the standard restrictions on civil liberties and political rights, the KMT-led government held frequent, competitive elections for local political offices. These included township, municipal and provincial representatives and village, township and municipal executives. Even though only one political party – the ruling Kuomintang – was permitted to offer candidates, competition among KMT candidates and between KMT and independent candidates was intense. And while most successful independent politicians were recruited into the KMT (in fact, the ruling party used local elections to identify promising local politicians to add to its ranks), a few independents managed to reach the highest levels of electoral politics. Ultimately, pressures generated by electoral competition at the local level played a key role in breaking down the authoritarian structures that shielded national-level offices from direct election until the early 1990s.

The earliest scholarly discussions of vote buying in Taiwan appear in the English-language literature, primarily because while the island's authoritarian political climate

prevented local researchers from addressing topics that might embarrass its leaders, foreign scholars were relatively free to discuss these issues. In the early accounts, vote buying is explained as a technique for reinforcing a pre-existing relationship between voter and candidate; the notion that vote buying might constitute a straightforward economic transaction between buyer and seller is rejected. In 1966, Bernard Gallin described local elections in which candidates routinely offered small gifts – towels, soap and cigarettes – to citizens whose votes they solicited (Gallin 1966). Three years later, Lawrence Crissman noted a connection between vote buying and the most important rural financial institution in Taiwan, the Farmers Associations (Crissman 1969). He also stated that the price of votes had been rising for a decade. Around this time, vote buying also attracted the attention of Taiwan’s law enforcement officials; the first successful prosecution for vote buying occurred in 1967. In 1980, Bruce Jacobs published a detailed account of the vote buying process in a single Taiwanese township based on anthropological research techniques. He, too, emphasized the importance of relationships in the vote buying process.

As opposition to Taiwan’s single-party authoritarianism grew in the late 1970s and ‘80s, vote buying attracted increasing attention from scholars and political activists. Many supporters of Taiwan’s opposition believed that vote buying was a key factor in the KMT’s overwhelming electoral dominance, and they fought hard to make the government enforce anti-vote buying laws at the same time they sought to make vote buying (and vote selling) socially unacceptable. Figure 1 shows a sticker clean election

activists asked voters to hang on their houses in 1989 to deter vote brokers. The sticker says “My family doesn’t sell votes.”¹

As political scrutiny of vote buying in Taiwan intensified, scholars’ analyses of the phenomenon became more complex. Arthur Lerman’s 1978 book on the Taiwan Provincial Assembly included an extended discussion of vote buying in provincial elections. He quoted a 1968 *United Daily News* article suggesting that the depletion of NT\$10 bills in one county’s bank branches was the result of vote buying (Lerman 1978:111). He also echoed Crissman’s claim that Farmers Associations were involved in vote buying, to the point where Farmers Association cadre who declined to engage in vote buying could lose their jobs (Lerman 1978:127). In 1991, a local scholar, Ma Ch’i-hua, opened the discussion of vote buying in the Chinese-language scholarly press. According to Ma, vote buying was becoming more common due to four factors: increasing electoral competition, growing economic prosperity, increasing willingness of local elites to serve as vote brokers and the absence of social disapproval.

Writing in the 1990s, Bosco and Rigger offered similar portraits of Taiwan’s electoral mobilization that situated vote buying within the context of the island’s overall electoral process (Bosco 1992, Rigger 1994). Their work described an electoral system in which political local factions – elaborate networks of vote brokers knit together by local politicians for the purpose of mobilizing votes – played a central role. Rigger’s work linked the development of local factions and vote buying as tools for electioneering to Taiwan’s unusual electoral formula: single, non-transferable voting in multi-member

¹ Not everyone responded to the sticker the way the activists intended. In 1991 I interviewed an opposition party activist in a southern Taiwanese village who said she wouldn’t dream of using the sticker, which she found embarrassingly self-righteous. She gave me the sticker as an example of how out of touch activists in Taipei were with conditions in the countryside.

districts (SVMM). Under Taiwan's election laws, representative districts follow administrative boundaries. To balance representation, the number of representatives elected from each district varies according to population. As a result, while a few very small towns have single-member districts, most of Taiwan's electoral districts have between two and eight seats. Each voter selects one candidate, and the candidates with the largest vote shares are elected, until all the district's seats are filled. The minimum number of votes required for election (the vote share of the candidate who wins the last seat) is called the quota.

In order to maximize its seat share in these multi-member districts, the KMT encouraged its nominees to divide up the party vote. Relying on estimates of the KMT's potential vote share generated by local factions and party officials, the party tried to nominate exactly as many candidates as it could elect. Once the nominations list was completed, party officials and candidates negotiated a strategy for dividing the party's votes evenly among its candidates. Allocating the votes was designed to avoid an outcome in which the party won fewer seats than its vote share would have allowed because one candidate received more votes than he needed, while a less-popular KMT candidate fell below the quota. Votes were allocated to candidates in two ways. Some candidates were given functional constituencies; for example, a candidate might be assigned to mobilize military personnel throughout his district. More commonly, candidates were assigned to specific precincts.

Each candidate was invited to mobilize the voters within his assigned precincts (recognizing that members of a functional constituency would be assigned to another KMT candidate). Campaigning – and especially buying votes – outside the assigned

precincts was considered foul play, and could lead to party sanctions. Candidates were responsible for securing the votes assigned to them, and to help them do so, they relied on local factions, nearly all of which were affiliated with the KMT.² Local factionalism thus became a mechanism for structuring intra-party competition in a way that supported rather than challenged the party's overall strategy and interests. As the KMT's ability to dominate the electoral arena waned, however, enforcing these arrangements became increasingly difficult.

Research by Ma, Rigger, Bosco and others found Taiwan's vote buyers caught in a dilemma. As Taiwan democratized in the 1980s and '90s, the effectiveness of vote buying waned. However, most candidates, especially KMT nominees, felt compelled to continue the practice. On the one hand, Taiwanese voters were completely habituated to vote buying; many would not consider voting for a candidate from whom they had not received a pay-off. This expectation was especially strong for KMT candidates, since vote buying had been a centerpiece of KMT campaigns since the 1950s. (Opposition candidates could win some votes by maintaining campaigns free of bribery, although some do admit to buying votes.) On the other hand, many voters – especially those in urban areas – no longer felt obliged by personal relationships to choose candidates who had paid for their votes, which undermined the effectiveness of vote buying.

According to Rigger, while politicians throughout the island engaged in vote buying in the 1980s, the technique worked best “when there is a strong affective tie between the voter and the *tiau-a-ka* [vote broker] (Rigger 1994:221).” As Jacobs, Lerman and Crissman had observed decades earlier, “where it is most effective, vote buying is

² After the KMT lost the presidency to Democratic Progressive Party (DPP) member Chen Shui-bian in 2000, the attachment of local factions to the KMT weakened. Some attached themselves to a KMT splinter party, the People First Party (PFP), while a few switched their loyalty to the DPP.

less a technique for persuading voters to select a particular candidate than a tool for ensuring that a given faction's or candidate's natural supporters make it to the polls" (Rigger 1994:221). In the words of Taiwanese political scientist Yang T'ai-shuenn, "Candidates are not so naïve as to believe that votes are guaranteed as money changes hands. But vote-buying helps voters narrow their selection list. The money buys an opportunity of being compared with other candidates" (Yang 1992).

Most recently, political scientist Wang Chin-shou has used participant-observation of campaigns in southern Taiwan to uncover the intricacies of the vote buying process. He, too, identifies local factions as the decisive players in the vote buying game. Wang argues that without the networks of vote brokers organized by local factions, buying votes would be surpassingly difficult and costly (Wang 2001). He writes, "the broker organization [local faction] was carefully and deliberately built by patrons with much energy, time, money and personnel and excellent political skills" (Wang 2001:27). In a research report from 2002, Wang argues that local factions are disintegrating, and implies that vote buying may soon disappear (Wang 2002). And, says Wang, "The dissolution of local factions will have a major impact on the KMT" (Wang 2002:8).

The literature on vote buying in Taiwan includes several common themes, three of which are important to my argument here. First, vote buying is integrally-related to the electoral mobilization efforts of Taiwan's long-time dominant party, the Kuomintang (KMT). In essence, it is a tactic, or technique, for mobilizing votes to support the party's electoral strategy. Members of Taiwan's main opposition party, the Democratic Progressive Party (DPP) are far less reliant on vote buying for support, and the DPP does

not use vote buying as a tool for allocating votes among its candidates. Some non-KMT candidates do buy votes, especially in grassroots elections, but they do so because voters expect payment. It is only in the past few years – five at the most – that any other party has been able to field and elect enough candidates that dividing the vote is necessary.

Second, researchers agree that vote buying, along with the mobilization system in which it is imbedded, is most effective when and where social ties are strong. Where personal ties are weak, candidates may continue to buy votes, but with little expectation that the votes they have paid for will actually be delivered. In such cases, I would argue, vote buying is an artifact or anachronism; it is not a meaningful feature of the electoral process, except perhaps insofar as the inability to pay the “insurance” poses a barrier to entry for some candidates. In any case, it does not affect the outcome of elections. Vote buying is believed to be effective in rural areas, among older voters and those with less education, and in southern Taiwan, especially where local factions are strong. Because these characteristics all have diminished in Taiwan over the past 40 years, the effectiveness of vote buying is believed to be declining steadily. These expectations echo findings in other countries.

Third, for a number of reasons, vote buying is most effective in grassroots elections. Grassroots elections (which I will define here as those below the level of county or city executive) involve relatively few voters in each district. With few voters to mobilize, candidates are able to develop close the personal relationships with vote brokers that facilitate successful vote buying. Also, the cost of buying votes is lower if the number of potential vote sellers is small, and grassroots elections tend to involve few substantive policy issues. Local governments in Taiwan have very little authority or

autonomy, so voters have little meaningful basis on which to select one candidate over another. In the absence of issues and platforms, elections are more likely to turn on personalities, relationships and vote buying.

Vote buying in Taiwan remains a topic of qualitative research; I have not found any efforts to research the topic quantitatively in the literature. However, there have been attempts to quantify other aspects of the political system that are related to vote buying. One such study, in particular, offers a starting point for the current attempt to measure the shadow vote buying casts on Taiwan's elections.

In 1990, Liu I-chou completed a dissertation at the University of Michigan in which he presented quantitative evidence that the KMT's effort to mobilize votes strategically through the allocation of precincts to particular KMT candidates was effective. To support his argument, Liu looked at election results in a small number of legislative districts. He identified which candidates were parties to the KMT's allocation strategy, and he learned which precincts had been assigned to each of those candidates. He then compared these "zoned" candidates' performance inside and outside of their assigned territories to the performance of candidates who had not been assigned to "zones." Liu stressed that vote buying was one mechanism, although not the only one, for carrying out this strategy.

Liu's hypothesis predicted that zoned candidates' vote shares would be more concentrated than those of non-zoned candidates, and that their votes would be concentrated within their assigned zones. To measure the amount of concentration he looked at the "standard deviation of the percentage of the vote for each candidate across all [precincts]" (Liu 1990:93). His findings were clear: "While some concentration of

votes is apparent for non-zoned candidates as well, they attain neither the degree of concentration nor the relative peaks of support of the zoned candidates” (Liu 1990:96). In addition, Liu used a difference of means test to assess whether zoned candidates did better inside than outside their zones. These results also offered strong support for his hypothesis. Other interesting conclusions from Liu’s study include his findings that the concentration of votes in zones diminished over time and that the stronger a voter’s self-reported connection to the precinct boss, the more likely that voter was to vote for the KMT candidate assigned to his precinct. Both of these findings are consistent with the literature on vote buying.

Liu I-chou’s research shows that the KMT mobilization strategy described in the vote buying literature exists, works and can be measured. The qualitative literature on vote buying shows that vote buying is a central technique or mechanism through which KMT candidates traditionally have carried out this strategy. I do not claim that vote buying is the only such mechanism; party loyalty and simple persuasion also inspire some Taiwanese to vote as instructed. Still, while the efficacy of the mobilization strategy is not a direct measurement of vote buying, because vote buying is one of the factors contributing to its effectiveness (and I would argue that for most of the post-war period it was the most important of these factors), the extent to which this strategy works reflects the influence of vote buying on elections. In other words, the KMT’s strategy of concentrating its candidates’ votes in particular precincts casts a measurable shadow. And because vote buying is a central determinant of the size of this shadow, measuring the shadow can give us some insight into the degree to which vote buying affects electoral outcomes in Taiwan.

Data

Liu I-chou's method is a highly sensitive and reliable test of the effectiveness of the KMT's strategy of allocating votes by assigning candidates to particular precincts. However, his method is not very useful for testing hypotheses in multiple districts and over the course of many elections. To use his method one must know exactly which precincts were assigned to each KMT candidate in each election. This information is not public (in my interviews in Taiwan, some KMT officials and candidates denied that vote allocation even occurs), and obtaining enough of it to apply Liu's method on a large scale would be prohibitively difficult.

To overcome this difficulty, the method I propose in this paper does not differentiate between zoned and non-zoned candidates, nor does it compare candidates' performance inside and outside their zones. Rather, I take the existence of zoning and vote allocation as given, and try to measure their extent in multiple elections over time. My method simply measures the degree to which candidates' votes were concentrated in particular precincts and compares the degree of concentration across various candidate characteristics. Clearly, candidates' votes might be concentrated for other reasons than KMT strategy (for example, we would expect candidates to do especially well in the precincts in which they live). However, if all candidates experience vote concentration for the same reasons, no group of candidates will have a vote shares that are consistently more concentrated than those of other groups. Thus, I contend, if we find a group of candidates whose vote shares more concentrated than others', we can conclude that this group is engaging in a successful allocation strategy – a strategy whose effectiveness I would argue reflects the influence of vote buying.

To measure the degree of concentration, I follow Liu's lead, looking at the standard deviation of each candidate's vote across all precincts. For this paper, I have assembled a small data base including precinct-level election results from three municipalities – Hsinchu City, Hsinchu County and Kaohsiung County. Data from Hsinchu City include two elections, the city council elections of 1990 and 1998; data from Hsinchu County include the county council elections of 1998; and data from Kaohsiung County includes the legislative elections of 1995 and 2001. These municipalities and elections were selected to provide some variation across the rural-urban dimension – the two counties are relatively rural, while Hsinchu City is urban – as well as election type (local versus national) and time.

It is important to emphasize that this data set is too small to reach any conclusions. We know that the strength of local factions and their ability to mobilize voters varies across municipalities, so including only one or two of each "type" in the data set is insufficient. Also, the rural-urban contrast is limited; Hsinchu City and County are both fairly urbanized, and only parts of Kaohsiung County are truly rural. Finally, because it covers elections over less than a decade, the time dimension is not captured well in the data set. Ideally, we would want to compare election results over a period of twenty years or more, since the qualitative literature describes the deterioration of local factions and the declining efficacy are vote buying as slow, uneven processes. The limitations of the data set are due to two factors: the difficulty of obtaining data from before 1990 and limitations on the author's time. The results would be more interesting and conclusive if more elections in more municipalities and districts were included.

One finding that emerges clearly from the data is that the degree to which a candidate can concentrate his votes is an important determinant of his electoral success. I assigned a concentration score to each candidate by calculating the standard deviation of a candidate's vote share across all precincts in his district. Overall, the mean concentration score for successful candidates is 9.93, more than twice that of unsuccessful candidates, whose mean concentration value is 4.77 [Table 1]. A difference of means test shows that this difference is highly significant ($p < .001$). Following up on this finding, I conducted a simple least squares regression analysis with the candidate's success or failure as the dependent variable and concentration value, political party and vote share as the independent variables. While vote share was the most influential of the independent variables, concentration value also showed a small but significant ($p < .05$) positive effect on a candidate's chances of winning [Table 2]. (Vote share and concentration value are highly correlated with one another (correlation coefficient = .700), so the independent effects of these two variables is higher than the regression equation suggests.) It is also interesting to note that the concentration of votes contributes more to a candidate's chances of winning than the candidate's party affiliation.

The fact that candidates whose votes are concentrated in particular precincts are more likely to win than candidates whose votes are scattered supports the supposition that the allocation strategy plays an important role in determining which candidates are most successful. The next step, then is to look for patterns in the data that would show which types of candidates are most able to concentrate their vote shares. In particular, the literature on vote buying suggests three hypotheses:

1. KMT candidates are more able to concentrate their votes than non-KMT candidates.
2. Candidates in rural areas are more able to concentrate their votes than candidates in urban areas.
3. Candidates in local elections are more able to concentrate their votes than candidates in national elections.
4. All candidates' ability to concentrate their votes diminished between 1970 and 2001.

To test each of these hypotheses, I performed difference of means tests on the relevant groups in my data set. For the first hypothesis, I compared the mean concentration scores for KMT and non-KMT candidates [Table 3]. The mean concentration score for KMT candidates was 8.8; for non-KMT candidates it was 6.2, a statistically significant difference ($p < .001$). The finding – that KMT candidates are significantly more able than non-KMT candidates to achieve a concentrated allocation of votes – supports the first hypothesis.

The remaining hypotheses were not supported by my data. The difference of means between rural (7.4) and urban (7.3) candidates' concentration scores was not significant. Nor was the difference of means between concentration scores for candidates in local (7.4) versus national (6.9) elections. In both cases, the pattern was as predicted, but the difference of means was too small to be significant. Perhaps with a data set including more cases, these hypotheses could be confirmed. I did not attempt to test the fourth

hypothesis, given the absence of comparable cases over a meaningful time interval in the data set.

Conclusion

Clearly, the limitations of the data set (and the author's quantitative skills) lead us to largely inconclusive results. A few points do emerge, however. First, how well a party allocates its votes matters. Candidates whose vote shares reflect a successful allocation strategy are more than twice as likely to win as those whose votes are distributed more evenly across precincts. Nor can this difference be attributed entirely to the difference in parties, since the concentration of a candidate's votes has been shown to have an independent effect on that candidate's chances of winning. Second, in the elections studied here, the KMT clearly managed to divide the votes available to it and allocate shares to individual candidates to an extent that non-KMT candidates did not. If we accept the assertion in the qualitative literature that successful allocation of votes reflects successful vote buying, then we can conclude that vote buying helps some candidates win, and it helps KMT candidates more than others. Whether it helps rural candidates more than urban ones, local candidates more than national ones, and earlier candidates more than recent ones I cannot say, but I suspect that a larger, more comprehensive data set might yet bolster these claims.

Above all, however, I offer this exercise as a challenge to others who have better access to data and quantitative expertise than I. If vote buying has no effect on the outcome of elections it is not so deserving of our attention and concern. If vote buying does influence the outcome of elections, then it is important to know all we can about it. And where vote buying influences electoral outcomes, it must cast a shadow over

election results. Weighing a shadow is not easy – perhaps it isn't even possible. However, I think it is a feat worth trying.

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Table 1: Difference of Means Test: Concentration Scores for Winners and Losers

	Won/Lost	N	Mean	Std. Deviation	Std. Error Mean
Concentration	Losers: 0	98	4.7721	3.68475	.37222
	Winners: 1	99	9.9299	5.68183	.57105

Independent Samples Test		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Concentration Score	Equal variances assumed	-7.551	195	.000	-5.1577	.68306
	Equal variances not assumed	-7.567	168.275	.000	-5.1577	.68164

Table 2: Regression: Factors Contributing to Candidate Success

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	8.227E-02	.055		1.506	.134
	Concentration Score	1.554E-02	.008	.168	2.018	.045
	Party (KMT =1)	7.675E-02	.062	.076	1.245	.215
	Vote Share	2.819E-02	.006	.413	4.956	.000

Dependent Variable: Won =1 Lost = 0
R-squared = .323

Table 3: Difference of Means Test: Concentration Scores for KMT and Non-KMT Candidates

	Party	N	Mean	Std. Deviation	Std. Error Mean
Concentration Score	Non-KMT	110	6.2201	4.32160	.41205
	KMT	87	8.8105	6.31463	.67700

Independent Samples Test		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Concentration Score	Equal variances assumed	-3.410	195	.001	-2.5904	.75954
	Equal variances not assumed	-3.269	145.738	.001	-2.5904	.79254