

# REINVENTING GOVERNMENT THROUGH ON-LINE CITIZEN INVOLVEMENT IN THE DEVELOPING WORLD: A CASE STUDY OF TAIPEI CITY MAYOR'S E-MAIL BOX IN TAIWAN<sup>†</sup>

DON-YUN CHEN\*, TONG-YI HUANG AND NAIYI HSIAO

*National Chengchi University, Taipei, Taiwan*

## SUMMARY

Since the 1980s, a global administrative reform movement is reshaping the relationship between citizens and state. A major concern is how government can be more responsive to the governed through citizen participation. However, the more citizens participate, the more costly it is to govern. And the application of new information and communication technology (ICT) seems to be a cure for this limitation. In this research, authors take the Taipei City Mayor's e-mail-box (TCME) in Taiwan as a case to illustrate the complex relationships among citizen involvement, e-government and public management. After a series of empirical investigations, the authors show that although ICT can reduce the cost of citizen involvement in governing affairs, it cannot increase citizens' satisfaction with government activities without reforming the bureaucratic organisation, regulatory structure, and managerial capacities of the public sector. The results could be helpful to public managers in planning and evaluating online governmental services in the developing countries. Copyright © 2006 John Wiley & Sons, Ltd.

KEY WORDS — public management; e-government; citizen involvement

## INTRODUCTION

In the United Nations Millennium Declaration, continuing human development under a nation state is the unquestionable central theme. The theme reveals the change of the development trajectory from public expenditure-led growth models to those emphasising the importance of accessibility, effectiveness and responsiveness of governing mechanism to improve active involvement of the civil society. Concerning the issue of good governance for human development in the past two decades, two global trends, public management and e-government, are observed. The former offers a substantive rationale for justifying citizens' demand for better service and greater accountability from public service providers. And, the latter provides an instrumental vision of how the new way of transactions between citizens and their government can be realised efficiently through cyberspace. However, according to Jane E. Fountain (2001: 18–30), the partnership between the above two trends, or the slogan of 'reengineering through information technology' from the National Performance Review in the U.S., is nothing more than a political rhetoric. As a result, more issues should be debated and more cases should be systematically evaluated before empirically based frameworks emerge to guide the future efforts of government reinvention through the cyberspace in various states (Kakabadse *et al.*, 2003; Grant and Chau, 2005). Among all the relevant issues, the critical question discussed in this article is how government agencies balance the trade-off between pursuing responsiveness through involving more citizens into the governing affairs and preserving efficient operation of government with the governing environment of growing resource scarcity. Using the relatively cheap to enter and easy to manage digital intermediary is usually thought to be the promising solution for

\*Correspondence to: Dr Chen, Don-Yun, Department of Public Administration, National Chengchi University, 64, Sec. 2, Zhi-nan Rd., Wenshan, Taipei 116, Taiwan, Republic of China.

E-mail: donc@nccu.edu.tw.

<sup>†</sup>Paper originally prepared for the *International Symposium of Digital Divide and Digital Opportunity* on Feb. 20–21, 2004 in Taipei, Taiwan. We would like to thank the anonymous referees for their helpful comments.

this trade-off. As we will see in the article, this optimistic anticipation should be balanced with a practical awareness of the needs for reforming the back office before claiming the success of 'reengineering through information technology' in the public sector. (OECD, 2003)

We selected Taipei City Mayor's e-mail-box (TCME) in Taiwan as a critical case to show the complex relationships among: citizen involvement, e-government, and public management. It is an illustrative case for developing countries to develop projects for enhancing on-line citizen involvement. We begin with a brief literature review on the recent efforts of reinventing government through involving citizens on-line. It will be shown that there is a gap between a great expectation for technological innovation to improve government responsiveness and the lack of solid knowledge on ICT's impact on governing bodies in general. In the next section, we first present a brief historical overview of citizens' complaints handling mechanisms in Taiwan's local government. Then, we take a closer look at the development of the TCME in the city of Taipei. In section four, we present the on-line survey results concerning various managerial problems in operating the TCME. In the next section, we examine the TCME from the public manager's perspective. Through conducting a structural survey and a NGT (nominal group technique) of the so-called 'digital street-level bureaucrats', we want to show the importance of satisfying 'external customers' via satisfying 'internal customers'. Lastly, we will make several conclusions as well as suggestions, which will be useful to public managers in planning and evaluating online governmental services in the future.

### THE MANAGEMENT OF CITIZEN INVOLVEMENT ON-LINE

Since the 1980s, a global public management revolution is reshaping the relationship between citizens and state. In the developed democracies, new relationships between citizens and their state are advocated in order to alleviate the crisis of democratic legitimacy. (Pharr and Putnam, 2000) This is part of the reason that the revolution, with its service-oriented tone, is sweeping across the OECD countries (Kettl, 2005: 60–76). One of the central themes of this revolution is how government can be more responsive to the governed. To establish new strategies and tactics to encourage citizen involvement in public administration is thought to be the way to rebuild responsive linkages between citizens and governments (Kettl, 2005). According to Pateman (1971), there exists a virtuous circle that the more citizens participate, the more legitimate and the higher the quality of democratic processes. However, the constraint on participation is one of *economy* (Berelson, 1954; Dryzek, 2001). That is, under growing scarcity for governing resources, the more citizens participate (or are encouraged to participate) means the more costly it is to govern (Crosby, 2000). The application of new ICT is considered to be a solution for the above limitation (OECD, 2003; Bryan *et al.*, 1998: 1–17). In other words, e-government is the cost-effective means of fostering active partnership between government and the citizenry (OECD, 2001). Doubts are raised by scholars on various grounds, such as the problem of digital divide (Norris, 2001, Compaine, 2001), the possibility of an overloaded administrative system (Neu *et al.*, 1999: 27) and the insufficiency of using 'infrastructure readiness' as an indicator for democratic development on-line (Rodan, 1998; Yang, 2003). Because the managerial problems of implementing e-government is usually anticipated but not well understood, the second challenge to technology optimism is the focus of this study.

Beginning with the 2003 UN global e-government survey, a new set of indicators, e-participation, is created for measuring government's 'willingness' to encourage citizen involvements on-line. The indicator includes three parts, e-information, e-consultation, and e-decision-making (UN, 2003). This classification parallels not only OECD's three-part connection between citizens and their government (information, consultation, and active participation), but also Arnstein's renowned 'ladder of citizen participation,' where e-information represents the manipulation, therapy, and informing stages, e-consultation represents the consultation, placation, and partnership stages, and e-decision-making represents the delegation of power and citizen control stages (Arnstein, 1969; OECD, 2001). According to various evaluations on the development of e-participation around the world, the current situation is that e-information is making a significant progress to alleviate asymmetric information between citizens and their government, e-consultation is gradually picking up its own path through innovative projects on government websites, and e-decision-making is still underdeveloped (Griffin and Halpin, 2002; Kubicek *et al.*,

2003; UN, 2003; Norris and Moon, 2005). Because the stage of e-information is too basic to be studied and the stage of e-decision-making is still too primitive to be studied, we selected e-consultation as the core stage to be evaluated in this article.

The dual-trend of public management and e-government reforms is not limited to the developed democracies. The issue of governing crisis and impetus for reforming government is global (Norris, 1999). Regardless as to whether they are democratic or not, developing countries are also eager to invest in projects to enhance responsiveness through e-government (China and ASEAN countries, Center for Democracy and Technology, 2002; Holliday, 2002; Holliday and Yep, 2005). As developing countries are investing more and more resources in e-government projects to improve efficiency by reducing manpower and moving into an era of paperless public sector (Kaul, 1997), there is only a weak linkage between e-government and democratisation (Heeks, 2001). E-government is only an instrument, not the will, for democratic development in the developing world. However, under the guidance of citizen-centered public management reforms, e-government projects in the developing world might generate interesting cases for scholars to understand true potentials and challenges of e-government for development.

For a developing and democratising state such as Taiwan, better access, repaid public service deliveries, and prompt reply of citizens' feedback on the content and quality of services are at the top of the political party's reform agenda. It is obvious that these reform efforts are aimed at winning the next election. In the era of democratisation, public managers in Taiwan have experienced great changes in their work environment. They used to be 'internal servants' who were only accountable to their supervisors in the authoritarian regime. Nowadays, they are asked by their supervisors, who are elected by the citizens in general or in regional divisions, to be responsive to the public. With increasing pressure to get the job done, many local governments in Taiwan have established various forms of citizens' complaints handling systems for the government's real 'boss' to raise their complaints over the government's actions.

According to Buchanan and Tullock (1962), democratisation means more citizens' consent for the government's actions via participation. However, the more citizens participate, the more costly it is to govern. By establishing a citizens' complaints system in the democratic era, the government needs to allocate more resources to handle the system well. Without this, public managers in government would be overwhelmed by the workload from the system. The application of new ICT to governing matters, such as citizens' complaints handling, is thought to be the cure for the cost-increase resulting from mounting citizen involvement in governmental affairs. Paradoxically, this application will also decrease citizens' 'entry costs' to various government services and motivate more citizens to participate. Consequently, more resources would need to be re-allocated to handling citizens' participation. In the trade-off between citizens' participation and managing costs via ICT, there is a brand new world for the field of public management to explore.

## CITIZENS' COMPLAINTS HANDLING IN LOCAL GOVERNMENT

### *Citizen involvement and the citizens' complaints handling mechanism*

Engaging citizens for consultation is widely considered a core element of good governance (OECD, 2001). This statement applies to local governments even more than it does to central governments, as a result of government delegating more power to sub-national bodies. At a time when government emphasises 'governance' more than 'government', citizen involvement in local governance is significant in three aspects. First, Osborne and Gaebler (1992), put citizens' needs first. In other words, local government must be responsive to the needs of citizens. Citizen participation is a means to reveal their collective preference to ensure that citizens' needs are appropriately matched by government services and that service quality is satisfactory.

Second, although citizens can reveal their preferences through formal channels such as local elections, recent trends have shown decreasing turnouts for elections at local level. Citizen involvement through direct channels at local level becomes commonplace and this strengthens representative institutions and enhances their democratic legitimacy.

Third, under a unitary system, such as that which exists in the UK and in Taiwan, policy is made by the central government before it is implemented at local level. Wide variations among localities in issues regarding housing, transport, education and health policies and service levels suggest that the local context and local influences must have a significant effect on policy outcomes (Leach and Smith, 2001). But how can the local voice be heard and incorporated into policy? Providing channels for citizen participation constitutes one of the major functions of local governance.

Citizen involvement is so important to good governance that enhanced public participation lies at the heart of the Labour government's modernisation agenda for British local government, as illustrated by the white paper: *Modern Local Government* (Lowndes *et al.*, 2001a). The government not only makes efforts to cultivate a culture of consultation but also encourage local governments to employ a wide range of citizen participation initiatives in their policy processes (Lowndes *et al.*, 2001b). The UK is not alone in utilising public participation initiatives. Countries worldwide have applied these mechanisms to engage citizens in policy regarding local issues, including transportation, environmental protection, budget, education, etc (Renn *et al.*, 1995, 2000; O'Toole and Marshall, 1998; Cheeseman and Smith, 2001; Fung and Wright, 2001).

Among citizens' participation initiatives employed by local governments in western democracies, the citizen complaints mechanism such as ombudsman in Europe is one of the most common practices (Cadeddu, 2004). Research conducted by Lowndes *et al.* (1998, cited by Leach and Smith, 2001) indicates that 92% of British local authorities use complaints/suggestions schemes, the highest of all citizens' participation channels. Although Taiwan's democracy was not established until recently, local government in Taiwan had launched citizen complaints mechanisms in the 1980s, albeit as a democratic façade.

#### *Citizen complaints mechanism in Taipei city government*

As the capital city of Taiwan, Taipei City and its government is always the pioneer in various government reform measures, which include efforts to redesign procedures to facilitate citizen involvement, such as citizen complaints systems. Just as with the complaints systems of other government agencies, the Taipei City Government (TCG) citizen complaints system, however, served without much substantive meaning for years until 1994, when reform-minded Mayor Chen took office. Being the first popularly elected Mayor after the Kuomintang's 27 years long dominance, Mayor Chen took two important steps to strengthen the TCG's responsiveness and effectiveness in handling citizens' complaints. First, in 1994, shortly after Chen's electoral victory, he launched a programme called the 'Meeting with Citizens'.<sup>1</sup> Further, Mayor Chen also took good advantage of new technology to facilitate communication between the TCG and its citizens. On October 12, 1995, Mayor Chen launched an electronic mailbox called the 'A-Bian Mailbox'.<sup>2</sup> It was the very first electronic citizen-participation initiative in Taiwan's government agencies.

In 1999, with the passage of the Administrative Procedure Act, citizens' rights to complain about governmental actions or inaction were better protected.<sup>3</sup> Citizens could make phone-calls, send letters, faxes, or e-mails to the bureau/department or the bureau chief/deputy director. They could also make their appeals in person or make appointments with the bureau chief/deputy director through other procedures.

Since the TCG citizen complaints system has existed for almost thirty years, the TCG has developed a routine to handle the citizens' complaints it receives. Typically, a complaint, no matter whether it is inputted through a simple

<sup>1</sup>In this program, every Wednesday, Mayor Chen met with citizens to listen to their complaints or suggestions on specific city policies or administrative issues. The Mayor tried to solve the citizens' problems in the meetings. The issues that couldn't be solved by the Mayor were left to relevant agencies of the TCG and were tracked down by the TCG's Commission of Research, Development, and Evaluation. This system is still under operation but with modifications.

<sup>2</sup>'A-Bian' is the nickname of Mayor Chen, the president of Taiwan from 2000 to 2006. See the following section for details about the development of the 'A-Bian Mailbox.'

<sup>3</sup>The system was set up according to guidelines rather than as enacted laws. It is subject to drastic change or abolishment by another elected Mayor. Only in 1999 did the Legislative Yuan (or the Congress) pass the Administrative Procedure Act that obligates government agencies to make operational rules to handle citizen's complaints and dispatch officials to deal with them timely and properly.

phone call, an electronic mail, or handed down to the Mayor himself, would be registered as an official document. It would then be distributed to the appropriate unit. The next step is to process the citizens' complaints. According to TCG's Guidelines to Handle Citizens' Complaints, the TCG officials are allowed to ignore a complaint without any substance.<sup>4</sup> However, the TCG has to respond to anonymous complaints with specific evidence. The process takes several days before the citizens' complaints reach the exact official(s) in charge of the complainant's issues. However, officials are required to complete a case within 15 days and within 7 days for cases which are under monitor.<sup>5</sup> After the official from the specific bureau reviews the case or takes any actions, he or she has to reply to the complainant. The case is not cleared until the official who replies informs the related units and the Commission of Research, Development, and Evaluation.

### *Usage of complaints channels*

The TCG pioneers in using the Internet as a media to communicate with citizens and has developed an effective handling system. Compared with more traditional channels, how do citizens use the Mayor's e-mail box? Table 1 illustrates the frequency distribution of the procedures and media which citizens used to file their cases in June 2001. The complaints numbered 12,242 cases in total. On average, there were 400 complaints sent to the TCG each workday. Among all the procedures listed in Table 1, the TCME (Taipei City Mayor's e-mail-box) was the most frequently used channel by citizens. Contact through this channel, together with classified letters to the Mayor's office and meetings with the Mayor, are complaints aimed at reaching the Mayor and they account for 53% of the total in June 2001.

In terms of media usage, about one-third of the complainants sent e-mails to the Mayor, 11% sent e-mails to bureau chiefs or deputy directors. Table 2 and Figure 1 summarise the growing use of TCME since its inception dating back to the second quarter of 1996.<sup>6</sup> It is worth noting that the number seems to have stayed at around 8000 since the first quarter of 2000. That is, the City agencies have to respond to around 2600 e-mails a month, which has caused a serious work overload.

The TCME provides a low-cost and convenient tool for citizens to voice their day-to-day problems and ask for an immediate resolution from the city agencies. Meanwhile, however, the low 'entering cost' at which the city agencies are informed of citizens' complaints also leads to competing use of the limited working hours of the agencies' staff members. Whether the use of the Internet to channel citizens' feedbacks is good or bad for the public managers should be carefully analysed.

### THE INTERNET: A NEW HOPE FOR COMPLAINTS HANDLING?

Based on the previous arguments for citizens' participation and complaints handling mechanisms in public sectors, this section provides empirical results for citizens' complaints handling—TCME as a digital initiative for citizen involvement. The advantages of the Internet and the underlying information and communication technologies have led to improvements in the accessibility and efficiency of citizens' complaints handling in the last decade. One of the most widespread 'e-complaints handling' applications stems from the e-mail interaction between citizens and local governments (Neu *et al.*, 1999). In addition, the increasing emphasis of customer relationship management for public sectors (Hewson Group, 2002), also termed citizen relationship management (CRM), stimulates productive theoretical and empirical implications for digital complaints handling and overall citizens' participation as well.

<sup>4</sup>The Guidelines are an administrative order issued by the TCG according to the Administrative Procedure Act of 1999.

<sup>5</sup>According to the Guidelines for Managing Citizens' complaints for the TCG and Agencies under its Jurisdiction, the citizen s' complaint cases handled by the mayor, vice-mayor, bureau chief or deputy director, and the Commission of Research, Development, and Evaluation should be classified as under monitoring.

<sup>6</sup>Sources from Chen *et al.* (2002).

Table 1. Citizen complaints procedure and media, TCG (June, 2001)

Media Procedures	Letter/fax	Telephone	Visit in person	E-mail	Letter to newspaper	Total (monitored)	Total% (monitored%)
BD <sup>a</sup>	1,156 (1034)	1,236 (51)	111 (5)		82 (5)	2,585 (1095)	21.12% (15.11%)
APPBD <sup>b</sup>			113 (33)			113 (33)	0.92% (0.46%)
EBDMX <sup>c</sup>				1,290 (605)		1,290 (605)	10.54% (8.35%)
EMMX <sup>d</sup>				4,080 (3879)		4,048 (3879)	33.33% (53.54%)
CL <sup>e</sup>	1,169 (740)	571 (113)	94 (18)		77 (1)	1,911 (872)	15.61% (12.04%)
MM <sup>f</sup>			483 (32)			483 (32)	3.95% (0.44%)
ISC <sup>g</sup>	680 (246)	691 (243)	136 (60)		273 (180)	1,780 (729)	14.54% (10.06%)
Total	3,005 (2020)	2,498 (407)	937 (148)	5,370 (4484)	432 (186)	12,242 (7245)	100% (100%)
(monitored)							
Total%	24.55% (27.88%)	20.41% (5.62%)	7.65% (2.04%)	43.87% (61.89%)	3.53% (2.57%)	100% (100%)	Ratio of monitored 59.18%
(monitored%)							

Note:

<sup>a</sup>BD: Bureau/Department.

<sup>b</sup>APPBD: Meeting with Bureau Chiefs/ Deputy Director.

<sup>c</sup>BDBM: Bureau Chief/Deputy Directors E-Mail Box.

<sup>d</sup>TCME: Taipei Mayor's E-Mail Box.

<sup>e</sup>CL: Classified Letters of the Mayor's Office.

<sup>f</sup>MM: Meeting with the Mayor.

<sup>g</sup>ISC: Integrated Services Center.



Table 2. Numbers and Types of TCME Processed E-mails

TCME E-mails (Time)	Type I and II	Type III	Sum	Type III Ratio
Q2/1996	594	133	727	18%
Q3/1996	868	212	1,080	20%
Q4/1996	1,116	227	1,343	17%
Q1/1997	1,074	251	1,325	19%
Q2/1997	1,534	327	1,861	18%
July–Aug/1997	1,095	213	1,308	16%
Sep–Nov/1997	1,891	642	2,533	25%
Dec/1997–Feb/1998	1,492	597	2,089	29%
Mar–May/1998	3,546	1,341	4,887	27%
June–Aug/1998	3,706	1,505	5,211	29%
Sep–Nov/1998	3,424	2,219	5,643	39%
Dec/1998–Mar/1999	5,014	1,105	6,119	18%
Q2/1999	6,258	1,817	8,075	23%
Q3/1999	6,887	2,076	8,963	23%
Q4/1999	5,867	2,212	8,079	27%
Q1/2000	7,032	1,303	8,335	16%
Q2/2000	8,406	827	9,233	9%
Q3/2000	10,217	567	10,784	5%
Q4/2000	9,342	668	10,010	7%
Q1/2001	7,632	562	8,194	7%
Q2/2001	10,863	1,645	12,508	13%
Q3/2001	9,654	1,377	11,031	12%
Q4/2001	10,045	1,644	11,689	14%
Q1/2002	9,079	1,198	10,277	12%
Q2/2002	11,354	1,334	12,688	11%
Q3/2002	12,365	1,095	13,460	8%
Q4/2002	11,886	1,049	12,935	8%
Q1/2003	10,045	798	10,843	7%
Q2/2003	13,599	1,868	15,467	12%
Q3/2003	11,885	928	12,813	7%
Q4/2003	12,007	1,121	13,128	9%

Source: Taipei City Government Information Technology Office.

### *Citizens' satisfaction with digital complaints handling*

Figure 1 summarises the fast development of TCME since its establishment under the former Mayor, Shou-Bian Chen, the current President of Taiwan, since October 1995 (from data available since the second quarter of 1996). Up to the fourth quarter of 2003, there were over 12,000 e-mails with citizens' complaints flowing into the city agency via TCME, mounting to 4,000 e-mails a month on average. In June 2001, TCME accounted for one-third of the total number of citizens' complaints through all possible channels, such as telephone calls and letters in addition to TCME as discussed above. This growth is expected to be maintained due to the increasing numbers of the Internet population.

The types of citizens' complaints via TCME reflect the low-cost nature of the digitised channel of citizens' complaints. For example, in the second quarter of 2001 there were 1,700 (around 13% of the total e-mail complaints) which gave emotional blame without specific details, with the result that they could not be further processed. Of those e-mail complaints that have actually been processed, the authors conducted a series of empirical investigations to measure the citizens' evaluations, as shown in Table 3.

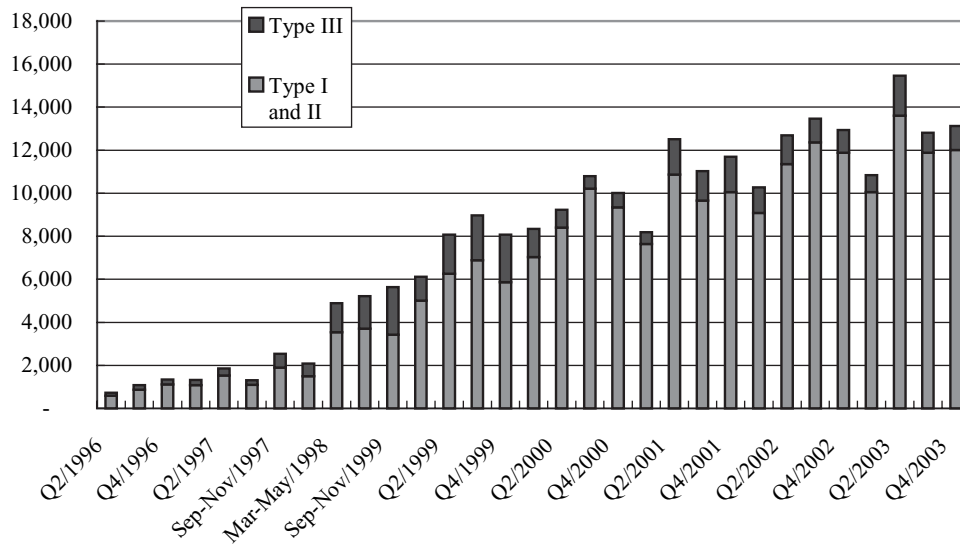


Figure 1. TCME Processed e-mails and Trends

Notes: Type I e-mails are those complaints with specific indications. Type II email's are those complaints with general suggestions for improving public affairs despite containing no specific indications. Type III are those complaints with pure blame that cannot be processed, based on the agency staffs' judgment.

Source: Hsiao *et al.*, 2002 and acquired from the Commission of Research, Development, and Evaluation, TCG.

Overall, the responding citizens expressed very positive evaluations for TCME as an effective communication channel across three quarters of our survey periods. According to the percentage of satisfied citizens in terms of overall satisfaction and the three sub-indicators (the extent to which the complaints had been resolved, time efficiency and service attitude), citizen's satisfaction appears to improve steadily through each quarter. This should be accounted for by the constantly emphasised monitoring activities, particularly from the current Mayor Ma, inside TCG.

Based on the detailed measures of complaints handling, however, the citizens showed only mixed attitudes towards the overall performance. For instance, only in the third quarter of 2002 did the percentage of satisfied citizens exceed that of dissatisfied citizens (39.3 vs. 34.7%). Among the three sub-indicators, the performance of time efficiency and service attitudes attached to the public employees' resolution for citizen complaints evidently received a more positive evaluation from the citizens being served. The extent to which the complaints had been resolved accounted for the main source of overall dissatisfaction although the gap between satisfied and dissatisfied citizens became smaller each quarter.

Also explored were the factors that significantly ( $p < 0.05$ ) affected overall satisfaction with the TCME from the surveyed citizens' responses. As a result, the TCME users tended to have more overall satisfaction when (1) they had a higher evaluation of the current Mayor Ma, (2) they expected less difficulty for the city agency handling their complaints, (3) they were female, (4) they had a higher evaluation of the overall living quality of Taipei and (5) they had prior experience of TCME.

Based on the preceding exploration, what can the City Government do for improving satisfaction with the TCME? It appears that nothing can be done about the gender. The current Mayor Ma has been attracting political support from females since the start of his political career. However, the other four factors relating to TCME satisfaction shed light on how this citizens' participation through e-mail communication may be improved. The overall evaluation for the current Mayor and the City's living quality is a good place to start with. This means that any improvement promoting the Mayor's political support will enhance the perceived satisfaction of the TCME users.



Table 3. TCME performance measures from citizens perspectives

TCME performance measures	2nd Quarter of 2001				2nd Quarter of 2002				3rd Quarter of 2002			
	Satisfied/ very satisfied	Dissatisfied/ very dissatisfied	Neutral		Satisfied/ very satisfied	Dissatisfied/ very dissatisfied	Neutral		Satisfied/ very satisfied	Dissatisfied/ very dissatisfied	Neutral	
As an effective communication channel	82.2% (208)	8.7% (22)	9.1% (23)		77.6% (548)	13.7% (87)	8.6% (61)		82.4% (365)	10.1% (45)	7.4% (33)	
Overall satisfaction	32.8% (83)	41.1% (104)	26.1% (66)		37% (261)	38.9% (275)	23.9% (169)		39.3% (274)	34.7% (154)	26% (115)	
(1) Extent of complaints resolved	32.9% (79)	55.4% (133)	11.7% (28)		33.3% (241)	47.3% (313)	15.4% (109)		41% (171)	44.1% (184)	14.9% (62)	
(2) Time efficiency to be resolved	59.4% (149)	22.3% (46)	18.3% (56)		61.2% (432)	17.8% (126)	20.9% (148)		65% (288)	17.3% (77)	17.6% (78)	
(3) Service attitudes	64.7% (163)	19.5% (49)	15.8% (40)		66.8% (471)	20.1% (142)	13% (92)		68.5% (304)	17.6% (78)	14% (62)	
Valid N		253				707				444		

Source: Chen and Hsiao, 2001; Hsiao *et al.*, 2002.

Secondly, the nature of the citizens' complaints definitely counts. When the citizens file complaints which are tough to be resolved, low satisfaction with the complaints handling usually occurs. For public officials in the City agencies, this implies they should not expect that all complaints can be resolved. Further, the complaints should be analysed and categorised based on their nature. For example, for those repeated complaints (especially Type I and II e-mails), they should be well grouped according to (1) which should be easy to resolve in the City's governance, (2) which may be resolved but will take a longer time, such as cross-agency issues, (3) which could never be fully resolved in a limited time due to their complexity, such as those involving rectification of the current law beyond the City's jurisdiction. Some tools for knowledge management, such as FAQ (frequently asked questions) discussed below, may also be considered in this regard.

Lastly, the citizens with prior experience of using TCME tended to have more overall satisfaction. This could be interpreted as a positive sign that the TCME users become more satisfied as they continue to utilise TCME as one of the tools of democratic participation. The city agencies, based on this argument, should then promote the broader use of TCME.

### KNOWLEDGE MANAGEMENT OF CITIZEN'S COMPLAINTS

Accordingly, improving the performance of citizens' complaints handling lies in further analyses of the complaints ill-resolved by public agencies. The first step in this direction is to extract useful information from citizens' complaints, the agencies' responses and the citizen evaluations. One of the most prevailing products embedded in knowledge management and citizen relationship management solutions for public management (Hewson Group, 2002) is to display the web-based interface through which general citizens can have access to termed FAQ (frequently asked questions). Taipei City Government has had this webpage attached to the TCME website starting from the first quarter of 2002 and received attention from the Web-enabled citizens, as shown in Table 4.

According to the third indicator for evaluating FAQ usage, the citizens tended to approve the user friendliness of the Web-based interface attached to the TCME website. Also positively evaluated was the extent to which FAQ helps the surveyed citizens to understand public affairs in general. This implies that FAQ at least achieves a basic level of what the CRM service intends to achieve, enhancing the customers' general understanding and perception. The least satisfying evaluation was the extent to which FAQ actually helps citizens to resolve their complaints. The result seemed to predict that the number of e-mails would decrease due to increasing attention to FAQ by the citizens. It also indicates the necessity for public staff to look into the content of the e-mail complaints in order to further improve citizen's satisfaction.

#### *Issue of digital divide in e-complaints handling*

As the issue of digital divide penetrates all aspects of e-governance, the empirical results concerning TCME reported above should be carefully interpreted. In the first place, the City agencies have to note that the e-mailed

Table 4. Perceived usefulness of FAQ from the TCME users

	2nd Quarter of 2002			3rd Quarter of 2002		
	Satisfied/ very satisfied	Dissatisfied/very dissatisfied	Neutral	Satisfied/very satisfied	Dissatisfied/very dissatisfied	Neutral
(1) Extent to which FAQ helps to resolve complaints	31.3% (21)	20.9% (14)	47.8% (32)	36.7% (18)	18.3% (9)	44.9% (22)
(2) Extent to which FAQ helps understanding of public affairs	45.1% (101)	8.1% (20)	46.7% (115)	52.1% (86)	9.1% (15)	38.8% (64)
(3) Friendliness of FAQ Web-based interface	47.2% (116)	5.3% (13)	47.6% (117)	43.9% (72)	7.3% (12)	48.8% (80)

Source: Hsiao *et al.*, 2002.

complaints come from those citizens who are capable of and have access to the Internet and e-mail applications. This group of 'netizens' only accounts for around one third of all complaints to Taipei City Government as reported in the last section. In addition, some demographics such as age and education have been demonstrated to have an impact on internet capability and accessibility, therefore ensuring selection bias in the composition of the empirical results concerning TCME as reported above.

At least two aspects of policy implications should be noted considering the digital divide issue here. Firstly, public agencies should avoid unfairly allocating administrative resources in dealing with e-mail complaints versus another channel of citizens' complaints such as letters, faxes, telephones, and so on. Although more and more citizens' complaints will be expected to come through the Internet in the future, public agencies should continue improving efficiency and effectiveness for those traditional channels as they have been doing for the Internet channel.

Secondly, public agencies should further strive to digitise and even integrate all channels of citizens' complaints. For example, citizens' complaints coming from all channels may be digitised before they are processed inside public agencies. It is believed that better citizen involvement and public management in general will be enhanced through this comprehensive improvement of the digital toolkit.

## PUBLIC MANAGEMENT: ELECTED POLITICIANS VS. PUBLIC MANAGERS

### *The public manager's perspective*

As we have seen in the above discussion, responsiveness seems to have been the key issue in the Mayor's mind both in constructing and reforming the TCME. However, elected politicians and public managers have long been standing on different viewpoints toward serving the public.<sup>7</sup> Levine *et al.* (1990) depict a complicated working environment for public managers, where responsiveness, accountability, and responsibility are often conflicting with each other. Aberbach *et al.* (1981) have found that bureaucrats and politicians play different roles, which bring distinctive perspectives and competencies to policy-making and implementation. Of course, distrust of this relationship is gradually built up as public choice theorists raise the problem of information asymmetry between politicians and bureaucrats in Niskanen's 'bureaucratic budget-maximization model' (Niskanen, 1971). How to 'drive' the bureaucrats toward the politician's intention has been central in the field of the political control of bureaucracy in political science (McCubbins *et al.*, 1987, 1989).

In the field of public administration, the issue of serving the public is more complicated (Frederickson and Smith, 2003). Since civil servants have a responsibility to uphold the public interest under the structure of the law, they are usually delegated with regulatory power to 'force citizens to be free,' rephrasing Rousseau's famous sentence in his *Social Contract*. In the view of public managers, the response that politicians want from the TCME, users' satisfaction toward the handling process and result, can never transgress the boundaries of the law. Unfortunately, serving the public with this limitation in mind will always be a source of citizen's dissatisfaction with the problem-solving function of the TCME, which is shown in the survey in the last section. As a result, if politicians use the users' survey as a tool to review the public manager's performance in TCME, we expect that there will be great dissatisfaction with the job from the public manager's viewpoint. Two factors will make things even worse. First, as the Internet decreases citizens' 'entry cost' to file complaints, there will be a great increase in the workload of public managers. We can see the trend in Figure 1. Second, it is usually those street-level bureaucrats who are actually responding to citizens complaints<sup>8</sup>, because they know the issue better than their supervisors. However, these street-level bureaucrats actually have less discretionary power to deal with complicated problems in order to make citizens satisfied. For example, they do not have the proper authority to handle boundary-spanning issues (Radin, 1996; Bardach, 1998), which usually need coordination between department heads to solve the problem. In the following section, we present the results of a NGT (nominal group

<sup>7</sup>In this article, the term 'public manager' is used interchangeably with terms such as 'bureaucrats' or 'civil (public) servants.'

<sup>8</sup>See Lipsky (1980).

technique; Delbecq *et al.*, 1975) conducted for digital street-level bureaucrats who handle citizens' complaints in the TCME.

#### *NGT for digital street-level bureaucrats*

On October 8th, 2002, the TCG held a one-day training session for TCME digital street-level bureaucrats in Taipei. A total of 180 bureaucrats joined the session. We conducted a structural questionnaire and a NGT on these participants. From the questionnaire, we found that 42% of the respondents felt that the TCME had raised "unrealistic expectations" on the part of the citizenry toward the ability of city government to solve problems. Also, about two-thirds (66.5%) of the respondents expressed that the TCME had increased their workload. About 55% of the respondents felt the TCME not only increased the workload of the department, but also that the workloads were unequally distributed within the department. However, there were still 58.8% of the respondents who thought that the TCME is a good channel to help citizens to deal with their problems.

On the part of the NGT, because of time constraint and the adequate group size for discussion, we randomly assigned these participants to three groups. Then we asked each group to discuss and eventually vote on answers for two of the following six questions:

1. What are the major problems encountered in handling e-mails in the TCME?
2. What suggestions do you have for handling e-mails in the TCME?
3. TCME users usually complain about the system not solving the problem; what are the reasons behind these complaints?
4. What are the benefits for the TCG to collect citizens' complaints?
5. Digital street level bureaucrats usually complain about being overworked, what are the reasons behind these complaints?
6. What suggestions do you have to solve the problem of work overload?

Let's examine closely the results of the first, third and fifth questions. In Table 5, about 80% (adding up the votes for answers 1 and 2) of NGT group participants voted citizens' misconception toward the TCME, either for legal or operational reasons, as the major problem of the mechanism. When asking the reasons behind users' dissatisfaction with the TCME, the first four answers of question three in Table 6 are all related to citizens' misconceptions toward the TCME or the legal environment. This factor gained nearly 80% of support from the group participants. Still, when the participants discussed the reasons for their heavy work-load in the TCME, compared with one third choosing the answer 'too many e-mails,' another one-third revealed that their job burdens were from legal constraints preventing them from handling complaints filed satisfactorily in Table 7. As a result, we can see that dissatisfaction with the TCME from digital street-level bureaucrats is deeply rooted in the role conflict in having to achieve responsiveness and responsibility at the same time in the TCME.

#### *The 'internal customer' and the complaints handling mechanism*

A former CEO of UPS, Kent Nelson, once said 'employee satisfaction equals customer satisfaction at UPS'. The purpose of establishing the TCME in TCG is to try to increase the responsiveness of the bureaucracy through

Table 5. Participants' vote on question one

Question one: What are the major problems encountered in handling e-mail in the TCME?

Rank	Answers	Vote (N)	Vote (%)
1	Citizens with 'unrealistic expectations'	25	44.6%
2	Citizens with illegal demands	20	35.7%
3	Boundary-spanning issues, time-consuming	9	16.1%
4	Lack of delegation	2	3.6%
5	Not enough time	0	0.0%
Total		56	100.0%

Table 6. Participants' vote on question three

Question three: TCME users usually complain about the system not solving the problem; what are the reasons behind these complaints?

Rank	Answers	Vote (N)	Vote (%)
1	Citizens with illegal demands	20	37.7%
2	Citizens with "unrealistic expectations"	10	18.9%
3	Citizens not understanding the situation well	10	18.9%
4	Cannot alter the government's policies	9	17.1%
5	Respondents are not front-line law enforcers	2	3.7%
6	Effecting people's interest	2	3.7%
7	Unclear contents, hard to reply	0	0.0%
Total		53	100.0%

Table 7. Participants' vote on question five

Question five: Digital street-level bureaucrats usually complain about being overworked; what are the reasons behind these complaints?

Rank	Answers	Vote (N)	Vote (%)
1	Too many e-mails to respond to	20	35.7%
2	Heavy legal constraints on responding to an e-mail	18	32.2%
3	Becoming the citizen's target to express anger	5	8.9%
4	Hard to balance responsibility and satisfaction	5	8.9%
5	Certain issues exceed time constraints	4	7.1%
6	Dealing with redundant issues	2	3.6%
7	Unclear contents, hard to reply	2	3.6%
Total		56	100.0%

Source: Hsiao N, Chen D, and Huang T. (2002).

handling citizens' complaints more efficiently. However, an increase in workload and the role conflict in fulfilling responsiveness and responsibility have made these digital street-level bureaucrats dissatisfied 'internal customers.' According to the logic raised by Kent Nelson, without satisfying these 'internal customers', the TCG cannot have a TCME which could satisfy 'external customers'. As a result, there would be a 'ceiling' in citizens' satisfaction toward the TCME, when performance indicators for the TCME only concern issues such as reply promptness and service attitude, as revealed from the wording of e-mails. Without reorganising the bureaucratic structure and reforming the legal environment at the same time, the TCG cannot increase external customers' satisfaction by simply asking internal customers to reply promptly and use 'nice words' in writing e-mails.

## CONCLUSION

Citizen involvement is the key issue for public managers to deal with in the era of public management reforms. However, the more citizens participate, the more costly it is to govern. It is usually believed that the application of new ICT to governing matters can reduce the costs of governing and furthermore support deeper democratisation. After a series of empirical investigations in the case of the TCME, the authors make the following three conclusions.

First, after utilising ICT to construct a citizen complaints mechanism in TCG, citizens are more willing to file their complaints through the TCME as compared with other channels. Paradoxically, public managers need to devote more resources to process mounting e-mails through the system. This pressure pushes the TCG to reform its organisational and managerial capacities concerning the TCME. We have also found that establishing the FAQ function of the TCME does not reduce complaints filers' intentions to send an e-mail to their Mayor.

Second, we found that the TCME complaints-filers are generally satisfied with the reply, promptness and service attitude (the wording of replies by email). However, the degree of satisfaction is continuously lower than for the two items mentioned above, when the survey respondents are asked about the 'problem-solving' aspect of the TCME. As a result, it is crucial for the TCG to utilise knowledge management techniques, such as the data mining technique, to establish a 'knowledge-based' feedback mechanism to transform complaints into governing knowledge and eventually to solve citizens' problems.

Third, from the public managers' perspective, the existence of a 'ceiling' on citizens' satisfaction toward the TCME is caused by the role conflict between responsiveness and responsibility on the part of the digital street-level bureaucrats. As a result, without reorganising the bureaucratic structure and simultaneously reforming the legal environments, the TCG cannot increase external customers' satisfaction by simply asking internal customers to reply promptly and use 'nice words' in writing e-mails. And, without internal customers' satisfaction with the TCME's working environment, the TCG cannot gain the satisfaction of its external customers.

#### REFERENCES

- Aberbach JD, Putnam RD, Rockman B. 1981. *Bureaucrats and Politicians in Western Democracies*. Harvard University Press: Cambridge, MA.
- Arnstein S. 1969. A ladder of citizen participation. *American Institute of Planners Journal* **35**: 216–224.
- Bardach E. 1998. *Getting Agencies to Work Together: The Practice and Theory of Managerial Craftsmanship*. Brookings Institute Press: Washington, DC.
- Berelson BR. 1954. Democratic theory and democratic practice. In *Voting*, Berelson BR, Lazarsfeld PF, McPhee WN (eds). University of Chicago Press: Chicago.
- Bryan C, Tsagarousianou R, Tambini D. 1998. Electronic democracy and the civic networking movement in context. In *Cyberdemocracy: Technology, Cities and Civic Networks*, Tsagarousianou R, Tambini D, Bryan C (eds). Routledge: London.
- Buchanan JM, Tullock G. 1962. *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. University of Michigan Press: Ann Arbor.
- Cadeddu S. 2004. The proceedings of the European ombudsman. *Law and Contemporary Problems* **68**: 161–180.
- Center for Democracy and Technology, 2002. *The e-Government Handbook for Developing Countries*. Washington, DC: Center for Democracy and Technology.
- Cheeseman G, Smith H. 2001. Public consultation or political choreography? The Howard government's quest for community views on defense policy. *Australian Journal International Affairs* **55**(1): 83–100.
- Chen D, Hsiao N. 2001. *Feedback Mechanism for Citizens Opinions for Taipei City*, A Project Report by the Research, Development and Evaluation Commission, Taipei City Government (in Chinese).
- Chen D, Huang T, Hsiao N. 2003. The management of citizen participation in Taiwan: a case study of Taipei city government's citizen complaints system. *International Journal of Public Administration* **26**(5): 525–547.
- Crosby B (ed.). 2001. *The Digital Divide: Facing a Crisis or Creating a Myth*. The MIT Press: Cambridge, MA.
- Crosby B. 2000. 'Participation Revisited: A Managerial Perspective,' monograph, Center for Democracy and Governance, USAID, Project #936-5470.
- Delbecq AL, Van de Ven AH, Gustafson DH. 1975. *Group Techniques for Program Planning, a Guide to Nominal Group Technique and Delphi Processes*. Scott, Foreman.
- Dryzek JS. 2001. Legitimacy and economy in deliberative democracy. *Political Theory* **29**: 651–669.
- Fountain JE. 2001. *Building the Virtual State: Information Technology and Institutional Change*. Brookings Institution Press: Washington, DC.
- Frederickson HG, Smith KB. 2003. *The Public Administration Theory Primer*. Westview Press: Boulder, CO.
- Fung A, Wright EO. 2001. Deepening democracy: innovations in empowered participatory governance. *Politics & Society* **29**(1): 5–41. <http://pstccoremail.tcg.gov.tw>.
- Grant G, Chau D. 2005. Developing a generic framework for e-government. *Journal of Global Information Management* **13**(1): 1–30.
- Griffin D, Halpin E. 2002. Local government: A digital intermediary for the information age? *Information Polity* **7**: 217–230.
- Heeks R. 2001. *Reinventing Government in the Information Age*. Routledge: New York.
- Hewson Group. 2002. *CRM in the Public Sector*. Hewson Group: UK.
- Holliday I. 2002. Building e-government in East and Southeast Asia: regional rhetoric and national (in)action. *Public Administration and Development* **22**: 323–335.
- Holliday I, Yep R. 2005. E-government in China. *Public Administration and Development* **25**: 239–249.
- Hsiao N, Chen D, Huang T. 2002. *Transforming Citizens Opinions to Administrative Knowledge—Perspectives from Knowledge Management and Data Mining*, A Project Report by the Research, Development and Evaluation Commission, Taipei City Government (in Chinese).
- Kakabadse A, Kakabadse NK, Kouzmin A. 2003. Reinventing the democratic governance project through information technology? A growing agenda for debate. *Public Administration Review* **63**(1): 44–60.
- Kaul M. 1997. The New public administration: Management innovations in government. *Public Administration and Development* **17**: 13–26.
- Kettl DF. 2002. *The Transformation of Governance: Public Administration for Twenty-First Century America*. The Johns Hopkins University Press: Baltimore.
- Kettl DF. 2005. *The Global Public Management Revolution*, 2nd edn. Brookings Institution Press: Washington, DC.



- Kubicek H, Westholm H, Winkler R. 2003. *eDemocracy: Prisma Strategic Guideline 9*. Prisma: Demark, <http://www.prisma-eu.net/deliverables/sg9democracy.pdf>, accessed 8/5/2004.
- Leach R, Janie P-S. 2001. *Local Governance in Britain*. Palgrave: London, UK.
- Levine CH, Peters BG, Thompson FJ. 1990. *Public Administration: Challenges, Choices, Consequences*. Scott, Foresman: Glenview, IL.
- Lipsky M. 1980. *Street-level Bureaucracy*. Russell Sage Foundation: New York.
- Lowndes V, Stoker G, Partchett L, Leach R. 1998. *Enhancing Public Participation in Local Government*. DETR: London, UK.
- Lowndes V, Partchett L, Stoker G. 2001a. Trends in public participation: part1-local government perspectives. *Public Administration* **79**(1): 205–222.
- Lowndes V, Partchett L, Stoker G. 2001b. trends in public participation: part2-citizens' perspectives. *Public Administration* **79**(2): 445–455.
- McCubbins MD, Noll RG, Weingast BR. 1987. Administrative procedures as instruments of political control. *Journal of Law, Economics, and Organization* **3**(2): 243–277.
- McCubbins MD, Noll RG, Weingast BR. 1989. Structure and process, politics and policy: administrative arrangement and the political control of agencies. *Virginia Law Review* **75**: 431–482.
- Neu C, Anderson R, Bikson T. 1999. *Sending Your Government a Message*. RAND Science and Technology: CA.
- Niskanen WA. 1971. *Bureaucracy and Representative Government*. Aldine: Chicago.
- Norris P. 1999. Mapping political support in the 1990s: a global analysis. In *Critical Citizens: Global Support for Democratic Governance*, Norris P (ed). Oxford University Press: New York.
- Norris P. 2001. *Digital Divide? Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge University Press: Cambridge, UK.
- Norris DF, Moon MJ. 2005. Advancing e-government at the grassroots: Tortoise or Hare? *Public Administration Review* **65**(1): 64–75.
- O'Toole DE, Marshall J. 1998. Citizen participation through budgeting. *Bureaucrat* **17**(2): 21–55.
- OECD. 2001. *Citizen as Partners: Information, Consultation and Public Participation in Policy-Making*. OECD: France.
- OECD. 2003. *The e-Government Imperative*. OECD: France, Paris.
- Osborne D, Gaebler T. 1992. *Reinventing Government*. Addison-Wesley: Reading MA.
- Pateman C. 1971. *Participation and Democratic Theory*. Cambridge University Press: Cambridge.
- Pharr SJ, Putnam RD (eds). 2000. *Disaffected Democracies: What's Troubling the Trilateral Countries?* Princeton University Press: Princeton, NJ.
- Radin BA. 1996. Managing Across Boundaries. In *The State of Public Management*, Kettl DF, Milward HB (eds). Johns Hopkins University Press: Baltimore.
- Rodan G. 1998. The internet and political control in Singapore. *Political Science Quarterly* **113**(1): 63–89.
- The Center for Democracy and Technology. 2002. *The E-government Handbook for Developing Countries*. A Project of Information for Development Program, Washington, DC.
- United Nations. 2003. *The UN Global E-government Survey 2003*.
- Yang, Kaifeng. 2003. Neoinstitutionalism and e-government. *Social Science Computer Review* **21**(4): 432–442.