

On E-government Construction based on Customer Relationship Management

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Abstract — Customer relationship management is an enterprise organization to improve the core competitiveness, the use of information technology, especially Internet technology to promote marketing, service and innovation in the interaction between the enterprise and the customer. This will enhance general management and provide customers with personalized product customization and service processes. The ultimate goal is to retain old customers and attract new customers, also to transfer existing customers into loyal customers, and increase market share and profit in line with management theory, method and technology. The theory, method and technology of customer relationship management are the trend of improving the overall efficiency in general and efficiency of public organization in particular. This paper uses comparative methods to use the similarities and differences of the customer relationship management of enterprise organizations and public organizations. We aim is to promote public organizations, especially government organizations in the construction of e-government in line with established customer relationship management theory, methods and technology. We then discuss the necessity and feasibility of applying customer relationship management to e-government as well as key problems in the application process.

Keywords - E-government; Customer Relationship Management; Information Technology

I. INTRODUCTION

The e-government construction is an inevitable choice for the government management innovation in the 21st century. It has a great and profound significance in promoting the government competitiveness, boosting the coordinated development of economy, society and many other aspects. However, whether the e-government construction can really reach its ideal management and service objectives will be closely interrelated to its management concepts and management methods. The world's leading management and information technology consultant firm Accenture has pointed out in its e-government report that, "To further improve both the e-government level and the management efficiency, it's crucial to use CRM (Customer Relationship Management) to effectively strengthen the e-government and seek new breakthrough". How to apply the idea, technology and methods of customer relationship management in the e-government construction in our country has become one of the problems to be urgently settled.

II. CUSTOMER RELATIONSHIP MANAGEMENT

As to the early use of Customer Relationship Management (CRM) in enterprise management, it refers to that enterprises deepen the relationship with customers by adopting positive measures and methods, so as to master the customer information and customize different business models and strategy applications with such information to "meet" the customer's individual demands. The core of it is regarding customer resources as enterprises' precious external resources and adopting WEB technology, database technology as well as other methods to incorporate it into enterprises' control range, thus to efficiently improve the

customer relationship and enhance the market competitiveness of enterprises.

The relationship between enterprises and customers is concerned in customer relationship management, while that between governments and citizens as well as between governments and enterprises is concerned in the e-government. Contents of the services provided by both are different, but the spirits and modes of their services are just the same. The former is relatively in a microcosmic, local and short-term view, while the latter is in a macroscopic, global and long-term view. For the enterprise, the customer is god and also is the service object; while for the government, the citizen is the master and the service object of e-government. Though the enterprises and governments belong to different service provider, they are isomorphic and portable. The aim of applying CRM in the e-government construction of our country is to actively deepen the interactive relationship between governments and citizens, master the citizen information and demands and simultaneously determine the directions and scopes of services to be provided by governments and customize different service modes by applying the citizen information mastered by the governments, so as to meet the citizen's individual demands. The application of CRM needs the government's comprehensive adjustment on their mindsets and the government shall really take the citizen's demands as the guidance for e-government construction. Specifically, applying CRM in the e-government construction is just efficiently managing its long-term and good relationship with citizens in the e-government construction. In order to achieve such a goal, the government can finally realize the e-government centering on citizen customers by establishing complete citizen customer data, analyzing and integrating

the information of citizen customers, providing customized public information and service, managing the citizens efficiently in multiple channels as well as other systems.

III. NECESSITY OF APPLYING CRM IN E-GOVERNMENT CONSTRUCTION

CRM Both the transformation of government functions and the construction of e-government urgently need the introduction of CRM. As the national administrative organizations, the governments undertake massive public administration and service functions. In our country, government organs at all levels not only play an important role as administrators and coordinators in the social, economic and cultural life, but also play a increasingly important role in the service for citizens, enterprises and the society. On the one hand, governments at all levels own huge and valuable information resources; on the other hand, the citizens, enterprises and society have a rising demands on obtaining the government’s information related to policies and regulations, statistics, job placement and social security; have an increasing requirements on the work efficiency and service level of government departments and also have an increasingly strengthened requirements on the supervision of government departments. To a large extent, the information level of government organizations can influence the coordinated development of social economy and the process of social information. This requires that the governments shall not only accommodate themselves to the requirements of economic and network times, but also accelerate the e-government construction centring on citizens. Implementing the customer relationship management in e-government construction can promote the communications between government departments and all sectors of the society. In the customer-oriented age, good interaction between citizens and governments in the network is just a fascinating part in the electronic government.

To introduce CRM in the e-government construction in our country, we shall first introduce the concept “citizen customer”, i.e. the government shall regard the citizen, enterprise and society as its customers and implement administration and provide services for them. The

government mastered relatively more information in the past, but now the citizen can easily get sufficient information from the network as their reference to engage in the political life; and the government faced a single government management and service mode, but now it must face the test from network and multiple channels as well as the accompanying reforms in public administration and service concepts. The implementation key for e-government is to make the government affairs public, while its operation philosophy is to regard the citizens as its customers. Therefore, the full implementation of CRM is also a specific and profound reflection of “serve the people wholeheartedly” under the network environment.

CRM can make the e-government construction play the efficiency and role to a greater limit. The starting point and destination of e-government construction is to provide highly efficient, convenient and complete services for the citizens, enterprises and society. Consequently, the main body to evaluate e-government construction shall be citizen customers, and the application of customer relationship management will be favorable to the improvement in work efficiency of the government, so as to make the e-government really play its role in serving the society, enterprises and citizens. The lack in citizen customer orientation concept has led to a low success ratio which was 20% (OECD, 2000) for e-government construction in various countries. Neglecting the importance of citizen customer demands is a common fault in the e-government construction in various countries. Both the demands from our own citizens and foreign citizens shall be the emphasis to be considered during the e-government construction. Because without the participation and support of citizens, no one will applaud for the e-government construction, and the pursuing for the success in e-government construction will be impossible just like climbing a tree to catch a fish.

IV. FEASIBILITY OF APPLYING CRM IN E-GOVERNMENT CONSTRUCTION

We can see from the comparison between e-government and traditional government that the CRM has a very strong feasibility in e-government construction.

TABLE 1: TABLE OF COMPARISON BETWEEN E-GOVERNMENT AND TRADITIONAL GOVERNMENT

	Past	Future
1	The government mastered all.	The citizens own voting option.
2	The government mastered most of the important information.	The network information is readily available.
3	Entity Branches (Brick-and-Mortar)	Unification of the Friction and Reality (Click-and-Mortar)
4	The government affairs were not public.	The government affairs are transparent and public.
5	Implementing the management for all the common people	One-to-one management (service)
6	Mandatory access to the citizen information	Information gathering with the approval of citizens
7	Response to the citizen demands with single standard	Citizen customization and tailor made
8	Myopic and unidirectional view in citizen demands	360-degree view in citizen demands
9	Management mode with government organizations as its center	Management mode with citizen customers as its center
10	Serving the citizens only in working hours	All-weather service
11	Serving the citizen by single channel	Serving the citizen by multiple channels

When applying customer relationship management in the e-government construction in our country, we shall first understand demands from citizens and establish a -lasting relationship with citizens. Therefore, we shall know the world of citizen customers from the citizen's viewpoints and develop a CRM plan based on the citizen's experience with these viewpoints. However, as to the gathering of citizen customer information, the government has unique advantages: traditional household registration system, ID card system, personal file system, etc. All of these can help to provide substantial and reliable citizen customer information.

Furthermore, the government website possesses advantages in the gathering of citizen customer information:

Gathering of personal information of citizen customers – The website self-registration and Cookie application are the two information sources for government websites to gather the personal preference data of citizen customers.

Website Self-Registration – The website can gather the user information through the registration questionnaires filled by users. During the registration process, the user will enter his/her name, address, telephone, e-mail address and even the interests and hobbies as well as other private information. Then he/she will get a password to give comments, BBS posting and receive information.

Cookie – Cookie is a piece of information that allows the website to record tracks of users. CookieIt can help the website to maintain the situations of users. This means that the website can “memorize” the information about users and make responses in particular websites according to the preferences of users, such as shielding the user passwords. Cookie. The Cookie can be regarded as a temporary identity card. Generally, every time the user enters the website will just like that he/she browses the website for the first time. Cookie allows the website to retain the information of a certain customer through HTTP links, or rather it allows the website (server) to send some simple data to the customer (user) and request the customer to save this information and return the information to the website under certain circumstances. The application of Cookie in government website will make the information demands individualized, improve online services, simplify the links to popular government departments, simplify the user distribution statistics and maintain the freshness of sites, so as to meet the interests of citizens.

After knowing the personal information of citizen customers, how to customize and provide individual

services in connection with the user preferences? The e-government has tools to provide “citizen customer service”:

Citizen Customer Service Tools – There are many web-based tools which can be used to enhance the customer service.

Personalized Web Page – There are web pages that provide targeted information and service arrangement according to individual circumstances of citizen customers.

Frequently Asked Question (FAQ) is the simplest and cheapest tool to handle the repeated questions from citizen customers. Citizens can use this tool in the government website in a self-service way, so the cost of it is low. However, FAQ can't solve all the problems from citizens, and the unstructured problems can be replied by E-mail.

Chart Room – The chart room is another effective tool that can provide services for citizen customers and attract them for their loyalty to the government website.

E-mail and Auto-answer – The most popular online customer service toll is e-mail. It can bring low cost and rapid speed, so it is used to send messages (such as confirmation letter), provide policy information and answer various problems (most of them are enquiries from citizens). However, conveniences of e-mails have made the use of the citizen e-mails so rampant. Tens of thousands of e-mails may be received by some government websites within a week even a day. Manual reply for so many e-mails is expensive and time-consuming, but the citizens always hope their questions can be answered within 24 hours (this is also the commitment made by certain government websites to their citizens). Thereby, some suppliers abroad provide e-mail auto-responders and these responders can provide answers for common problems. Taking E-gain system for example, it can search for characteristic vocabularies (such as “complaint” or “information about a given policy”) and reply with the help of knowledge base. If a staff's help is needed, then this inquiry can be submitted to the citizen customer agent for reply with an identification number added on it.

Citizens database and citizen information collection, analysis system is to enhance the level of public service is the basis and premise, only in this way, the government can better understand needs of citizens, for citizens to provide suitable and high quality public products and public services. As shown in Figure 1.

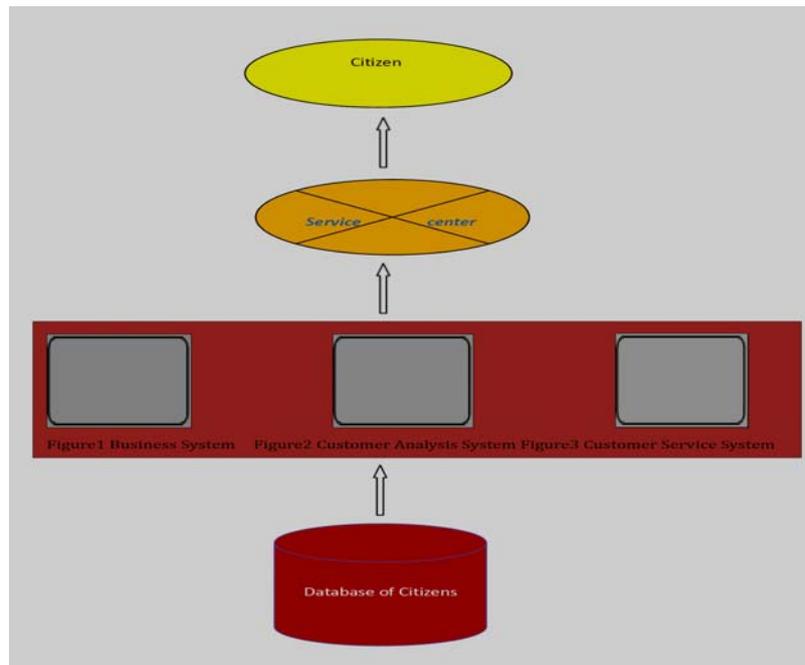


Figure 1 government customer relationship management model chart

Problem Solving Tool – If the citizens can solve problems by themselves, then both the governments and citizens can save a lot of time. The government website can offer web-based problem solving software to help citizens to achieve this.

V. MEASURES FOR PUBLIC SERVICE IN GOVERNMENT WEBSITES

Providing the content required by citizen customers: Perform the citizen customer demand survey well and provide the content required by citizen customers, but not only the content that governments wish the customer to see.

Regularly maintaining and updating the content: The content must be regularly updated to keep continuous access and browse of citizen customers, and the old content can be arranged into thematic database according to the demands for reference and inquiry of users.

Letting the citizen customers conveniently search the required information: Let the citizen customers perform the search and inquiry simply and conveniently, so as to consult the information required by them.

Considering problems from the standpoints of citizen customers: Beautiful and fancy web page is admittedly enjoyable, but the citizen customer who is restricted to the bandwidth may not tolerate the long download time. However, as to certain web pages those require registration, membership and login entering, it is better to simplify their registration and login procedures and let the users easily inquire or add/delete relevant personal data.

Making good use of the citizen customer data (user profile): The future network visitors will only select the information that meets their personalized customization requirements, rather than any garbage information that is

unrelated to the visitors themselves. How to gather the citizen customer data from the network and understand the citizen customers so as to provide the best services for them in their most needed time will be the key to success in e-government online customer services. The e-government strictly protects the citizen customer data and the citizen shall be consulted for consent in prior to any use. In addition, the citizen customer shall have the right to request for modification or deletion of the relevant personal data registered in the government website. Disrespect to citizen customers will lead to the loss of their loyalty to e-government.

Avoiding becoming the advertising media by all means: The advertisements in e-commerce website is too flooding, which has made the net users very sick and tired, so the e-government websites shall avoid the arising of rampant advertisements.

VI. KEY TO SUCCESSFUL APPLICATION OF CRM IN E-GOVERNMENT CONSTRUCTION

The CRM application requires continuous work process improvement within the e-government and can not be reached in one step in a short term. The establishment of the citizen customer service center or call center is feasible in a short term, but it can not be finished in a day to make it really become an e-government with citizen customer as its center. Therein, the quality of public servants and the overall structures of civil services, government process reengineering as well as full use of information technology in government management and service activities are all the most important key factors to achieve success in the e-government construction. Basic steps to successfully apply CRM in e-government construction:

Step One: Obtaining the understanding and identification on CRM from the government's executive leaders: In order to successfully apply CRM in the e-government, identifications from the government power and policy makers including the people's congress at all levels must be obtained. It is not enough to only allege the construction of an e-government centering on citizen customers, but also the transfer on focus of organizational structures from the government organizations to citizen customers is needed. It's unable to obtain substantive effect in case of lacking the understanding, identification and support from government executive leaders.

Step Two: Gestating the government organization cultures centering on customer services: Whether the governments own the organization culture based on which the high-quality citizen customer service and wholehearted service for the people can be provided? Review the e-government construction in your organization seriously, and if the answer for the question above is not quite sure, then related government departments need to strive toward this aspect.

Step Three: Cultivating a conception centering on citizens: Establishing the public servant's "citizen customer concept" is crucial for the application of CRM in e-government construction, and without the servant's thorough grasp of citizen customer concept, CRM won't be applied fully and effectively in the e-government construction. Therefore, the public servants shall take the theories, technologies and methods of CRM as one of the important matters.

VII. CONCLUSION

Customer relationship management theory, method and technology using in the field of public management, especially government management can promote the government to service-oriented transformation of government, greatly enhance the government's ability and

level of service, effectively respond to citizen needs, improve society of public service satisfaction.

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