

The Relations and Interactions of E-Government and E-Commerce

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Abstract—E-government (EG) and e-commerce (EC) are the most important fields of the applications of Information Highway in days of global informationization, so the development in harmony with each other is especially important. This thesis discusses the relations and interactions between E-government & e-commerce from the leading role of E-government and its link with e-commerce.

Keywords—Internet; e-government; e-commerce; e-tax; government procurement credit

I. INTRODUCTION

Information Highway has five applications: e-government, e-commerce, remote education, remote medical treatment and electronic entertainment. e-government is the most important part of the information construction. As well as e-commerce, e-government is based upon the transaction management mode of information network. Nowadays e-government becomes more and more outstanding in political and economic living and gradually becomes the key factor to enhance the competitive power of a nation or an area. At the same time, the cooperation of e-government and e-commerce becomes more and more significant.

II. THE INHERENT RELATIONSHIP BETWEEN E-GOVERNMENT AND E-COMMERCE.

E-government is a management and service activity what includes interior OA and government affairs mutual transaction online. E-commerce is a merchandises business via electronic way which comprises four parts: B2C、B2B、B2G、C2C. E-government comprise four parts as well as e-commerce: 1. interior OA of a government; 2ed, information share and real time communication online between governments (G2G); 3. bidirectional information communication online between governments and enterprises (G2B); 4. bidirectional information communication online between government and public (G2C). An integrated e-government system should be combined with four mentioned parts. We can see clear that the junction of e-government and e-commerce is B2G or G2B.

The ultimate aim of e-government is to improve governmental administration and service quality、efficiency and social benefit via electronic way. Compared with e-commerce, the main body of e-government is government. The core of e-government is not business but service. Both of e-government and e-commerce have a same substance basic—the application of modern information technology. They are the results from applications of modern information technology in two different fields. Just as the e-government exemplar white house governmental website

(WhiteHouse.Gov) declares: “Our long-term goal is to provide electronic approach to develop and promote business with federal government for US public”. It is obvious that e-government and e-commerce have countless ties and many common grounds.

TABLE 1 THE RELATIONS AND DIFFERENCES OF E-GOVERNMENT AND E-COMMERCE

ITEM	E-government	E-commerce
Main Function	Public management and government affairs	Enterprise management and business affairs
Composing Parts	G2G, G2C, G2G, Governmental Interiors	B2B, B2CB, B2G, C2C
Technology Background	Information technology and Internet	Information technology and Internet
Supporting Framework	GRM, GPR, GRP, GSCM	CRM, BPR, ERP, ESCM
Credit Foundation	Government credit system, law environment and security strategy	Enterprise credit system, law environment and security strategy
Main Application	GIP, government information portal	EIP, enterprise information portal
Evolution Trend	Co-government, one-stop service	Co-commerce, one-stop service

(1) E-government and E-commerce depend on the same information foundation. Both of them need to increase web users and improve personal IT ability.

(2) E-government and E-commerce serves each other especially in B2G and G2B fields. For instance, Electronic tax and government purchase online are the governmental business as well as EC.

(3) E-government and E-commerce have a similar supporting framework which includes Process Reengineering, Resource Programming, Relationship Management and Supply Chain Management.

(4) E-government and E-commerce should establish respective information door website for convenient mutual communication with outside. Enterprises set up economic information and commercial door website and governments set up governmental door website.

(5) E-government and E-commerce have many relative information technologies and the same secure strategy. Both of them need to use electronic money, payment online and electronic signature. Also both need to strengthen the construction of PKI, CA and law environment.

Thus it can be seen e-government and e-commerce is impartibility. They come into being a harmonious whole by flourishing progress and interaction in many fields.

III. THE LEADING AND DRIVING FUNCTION OF E-GOVERNMENT

E-government is the primary application of five applicable fields of "information highway" and its leading function is self-evident. The healthy development of e-commerce depends on the government and the befitting conditions what the government builds for enterprises. And e-government puts the government affairs on the network as possible as it can under the lead of modern governmental service, supervision and guarantee ideas. e-government provides three platforms for e-commerce: technology platform, "soft" platform and security platform. Technology platform means a technology support supplied by government what the information service expansion depends on. "Soft" platform means a social and law environment created by government at the time of its market supervision. Security platform means the safe guarantee supplied by government for the favoring expansion of e-commerce. As far as the above platforms are concerned, the leading and driving function of e-government to the e-commerce mostly exhibits the following aspects:

A. *E-government Provides Credit Security for E-commerce*

The open and circulation of online information needs secure support system. The enhancement of credit system and security construction will bring more credible and effective e-commerce. In order to support the secure generation and distribution of electronic public documents, e-governmental platform implements the basic security services of authentication, integrity, confidentiality and non-repudiation utilizing cryptographic operations on data, including digital signatures, encryption and time stamping. Besides the security platform of e-government, Governments establish a type of enterprise credit network by increasing transparency of administrative actions and uniform criterion of business online. This network can provide enterprises' credit information for public fully, truly and accurately, such as Corporation general, management, tax, production, quality, finance, contract, debit and credit, etc. Credit support system forms credit network with government departments, such as the departments of industry and commerce, taxation, quality inspection, environment security, social security, central bank and commercial bank, under the supervision of the governments. All the enterprises' relative credit information is collected and formed credit reports automatically for assessing credit grade and offering information query. This means decrease the deceiving behaviors and increase the business security. Otherwise, the customer management system of e-commerce gets the customer consultative information automatically from e-government system by the data share between e-government and e-commerce. When the corporations do business, the trade risk is reduced because of the precaution of credit system.

B. *E-government Provides Information Service for E-commerce*

Government is a huge service organization and one of its important responsibilities is serving the enterprises.

Government provides lots of required information for enterprises by the application of e-government. So the government should increase the information on governmental website and realize the "Seamless link". The increase of information on government website will benefit customers to get governmental information conveniently. The "Seamless link" of government departments can avoid the damage of the governmental image and provide customers information service of abundant content, timely update and convenient inquisition. The decision-making model of e-commerce needs to consider governmental policy roundly. Fortunately, e-commerce can get governmental information automatically from e-government. Without e-government, enterprises' EC should track and amend the policy data of e-commerce system artificially. At the same time, government website releases lots of information about foreign capital import and government procurement in time. The e-commerce system of enterprise obtains these new data and reflects the information of policy alteration and business opportunity on the e-commerce system. In other words, governments' e-government can ensure the timing and reality of the enterprise decision.

C. *E-government Builds Social and Operational Conditions for E-commerce*

Government builds the social and law environment for e-commerce in virtue of e-government at the time of marketing supervision by government. The development of e-commerce relies on the condition and ensuring of governmental relevant law system and industrial criterion. Above all, government affairs and business affairs are inseparable originally. Government is e-commerce's supervisor who is the chief designer of general scheme and policy framework of e-commerce. According to the investigation, businesses have more frequent contact with public authorities (at least once a month) than ordinary customers and they are the users benefiting most from online one-stop government. The favorable conditions e-government provided is benefit the development of e-commerce: e-money and e-paying of e-government ensure and promote e-commerce; the "one-stop service" of e-government is e-commerce's direct impetus which drives enterprises to develop international trade conveniently; Enterprises obtain policy and customer information from government online and develop no-paper business results in the decrease of running expenses and the increase of enterprise income. The portrayal of an up-to-date, effective and secure online public administration can also encourage more companies to make queries, download forms, file returns and even tender for government projects online, leading to significant cost savings and efficiency gains for both the government and participating companies. This significance of e-governmental guarantee and promotion to e-commerce presents to the development of e-government in many countries. For example, government procurement bill can be released via Internet and react to enterprises online in US. Also government can impose taxes on enterprises by the way of electronic exchange. From January of 1999, US federal government have accomplished the purchasing tasks

by the use of EDI and canceled the paper-bill ultimately in the year of 1999. With the all-around development of e-government, the driving force of e-government to e-commerce is more and more evident. Regard it with another view, the favoring development of e-commerce realize “serving for people” which is the ultimate tenet of e-government at the same time.

IV. THE HARMONY AND INTERACTION OF E-GOVERNMENT AND E-COMMERCE

E-government and e-commerce supplement each other and their intersection is communication interface of government and enterprise. E-government can't develop successfully without the supports of e-commerce vice versa.

A. Start with the Link of E-government and E-commerce

There are many obvious intersections and joints between e-government and e-commerce. We must start from the link to promote their harmonious development. The main applications based these links are the followings:

(1) Information interface construction

A great number of governmental information is about economic policy, investment and enterprises introduction. Such information is the precondition and valuable resource of the development of e-commerce. At the same time, enterprises release lots of relevant information. One side is the customer information what includes purchase and cooperation of the governments or the public departments. Another is the interior information of the companies what includes income and tax of the companies and even the dispensable information the government supervise. As long as the abundant resource and required links are put on the door website of governments and enterprises, “One-stop Service” can easily realize the “double win” of e-government and e-commerce. This shows the importance of information interface construction to the harmonious development of e-government and e-commerce.

(2) Government procurement online

Government procurement online, which includes G2B and B2G, is an important electronic commercial activity to promote the development of e-commerce directly. It also drives the development of B2B by the function of inducement and demonstration. Considering the fact of the development of e-government, the main reason of the restriction against B2B is the low extent of enterprise informationization and credit standing. Government release related information to activate the purchase online. With the forming of government procurement market, government purchase online benefits the development of the enterprise. On the other hand, government procurement online can resolve the problem of business credit online because of the admirable credit standing and financial guarantee of the government.

(3) Electronic tax. Electronic tax is a means to implement e-commercial tax

A good governmental website should build an e-tax system oriented enterprise and individual. This system provides electronic table online to accomplish enterprise declaring dutiable goods online indoor. With the maturity of

government revenue system, e-tax subsystem can improve administrative visibility and efficiency; on the other hand, it is convenient for enterprise audit and taxation online which results in cost saving.

(4) Credit system construction

Compared with traditional business and government affairs, e-government and e-commerce, which communicates more abroad and promptly, optimizes the mode of traditional business and government affairs and avoids the problem of resource waste and inefficiency in virtue of the mighty flow of information. It is obviously seen that credit system is one of the important link between e-government and e-commerce. Favorable Certificate Authority system and law environment benefit the development of e-government and e-commerce. Governmental credit is the most important part in the field of the social credit system what e-commerce needs. Thanks to the precondition of the establishment of social credit system, such as corporation credit, bank credit, individual credit, is the establishment of governmental credit to public, e-government can ensure the credit of e-commerce by the way of improving administrative transparency and efficiency. All in all, the farther combination of credit system, e-government and e-commerce must bring more scientific e-government and more efficient e-commerce.

B. Governments Cooperate with Enterprises in Building “Government-enterprise Chain” on the Network

The harmonious development of e-government and e-commerce results from social informationization and demands befitting “government-enterprise chain” to join the government and enterprise together. Cooperative government affair is the evolution trend of e-government as well as cooperative business affair of e-commerce. And the influence of harmonious development of e-government and e-commerce is their online cooperation. The online cooperation of e-government and e-commerce realizes the high efficient communication, service and exchange between governments and enterprises for their respective intention in virtue of the application of Internet and IT. This online cooperation needs to set up “government-enterprise chain” which demands the foundation of government interior affair chain (G2G) and its link with business affair chain (B2B). The goal of “government-enterprise chain” is to reach the “One-stop Service”.

The foundation of “government-enterprise chain” realizes the real time communication between governments and enterprises. Because of “government-enterprise chain”, the time of working information transfer is reduced, the visibility of government supervision is improved and the decision of government is scientific. All of this results in the improvement of work efficiency and the economization of human, material and financial resource.

It is obvious that the successful applications of “government-enterprise chain” dominated by e-government can realize “G2B” mode of e-government and its efficient cooperation with e-commerce.

V. CONCLUSIONS

E-government and e-commerce are not only different, but also related. We should make clear their similarities and differences. After that, there can be a chance for us to take effective steps to advance the harmonious development and co-prosperity. Finally, the “double win” of e-government and e-commerce can be realized.

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