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American Tax Systems as Examples of Successful e-Government

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What is e-Government? Broadly speaking, it is a government's use of information technologies (IT) to promote citizen participation, to publish information, to provide services, and to administer governmental systems. The promise of e-Government is that it will be able to improve government through citizen empowerment and participation, better delivery of government services, more efficient management, less corruption, more transparency, greater convenience, increased revenue, and reduced costs.

To accomplish their purposes, governments need revenue. A primary source of revenue for governments is taxation. Accordingly, IT has a substantial role to play in the administration of tax systems. Although taxpayers do not view the payment of taxes as a service that the government provides to them, taxpayers very much prefer a tax system that is convenient, fair, and efficient and that does not create high compliance costs for them. How effective are American tax systems as forms of e-Government? This paper attempts to answer that question by looking at the federal income tax system and the income tax system of two states, Minnesota and New Mexico.

Evaluation of e-Government

Many methods of evaluating e-Government are available. For the sake of brevity, I have chosen three models from three distinct sources: 1) Brown University (USA), 2) Accenture (US-based multi-national IT consulting business), and 3) Bertelsmann Foundation (a charitable foundation in Germany that is the majority stockholder of the multi-national, Germany-based, media giant Bertelsmann Corporation).

1. Brown University

The Center for Public Policy of Brown University has begun conducting e-Government studies. One such study is "Global E-Government, 2002" by Darrell M. West, which can be found at: http://www.insidepolitics.org/egovt02int.html. This is one of several reports the Center has done on e-Government. Access to the other reports can be found at: http://www.brown.edu/Departments/Taubman_Center/policyreports.html.

For this and its other studies, the Center evaluated the success of e-Government based on three broad categories: information, services, and responsiveness. The study attempted to evaluate the quality and accessibility of the information and considered privacy and security, disability access, foreign language access, commercial annoyances (ads, user fees, and premium fees), restricted areas, and public outreach. The Center used 25 separate criteria (converted to a 100 point scale) and applied

these criteria to all the national government websites within each of the 198 countries studied. The score for each site then was put into the country average.

Each country then received a score based on this average. These were the top ten scoring countries:

1. Taiwan 72.5
2. Canada 61.1
3. Chile 60.0
4. China 56.3
5. UK 54.8
6. Germany 52.6
7. Bahrain 52.0
8. South Korea 64.0
9. USA 60.1
10. Australia 58.3

On responsiveness, the scoring was quite simple. The evaluators sent an email to the contact person on the website and asked "I would like to know what hours your agency is open during the week. Thanks for your help." Of the 1,197 websites evaluated, 6% had no email address or a broken link, 75% did not respond, only 12% responded within one day, and the remaining 7% took two or more days to respond.

In terms of services, the study found that only 12% of the websites offered services that were fully executable online. The most common services were ordering publications, making travel reservations, searching for and applying for jobs, applying for passports, and renewing vehicle licenses. Only 14% of the websites offered a single one-stop portal for all of its services. This study replicated a study done a year before and found that all countries and all regions showed some or substantial improvement in almost all of the evaluation criteria.

2. Accenture

Accenture, a multi-national consulting firm that separated from Arthur Anderson in 2000, has released an assessment of e-Government in a publication entitled "eGovernment Leadership— Realizing the Vision." This study, completed in 2002, can be found at: http://www.accenture.com/xdoc/en/industries/government/eGov_April2002_3.pdf. The Accenture study begins with the assumption that e-Government should be offering services across all major governmental sectors (human services, justice and public safety, revenue, education, transport and motor vehicles, regulation and democracy, procurement, and postal). According to the Accenture study, successful e-Government occurs when it can publish, interact, and transact. An e-Government that can do all three has service maturity. In addition, the Accenture study looks at customer relationship management (CRM). CRM asks whether the e-Government website is user centered and user friendly. Service maturity and CRM were combined to evaluate and determine the degree of success of government websites.

The Accenture study involved 23 countries and the results, in part because the study involved just 23 countries instead of 198, were very different from the Brown study. The top ten from the study are:

1. Canada
2. Singapore
3. USA
4. Australia
5. Denmark
6. UK
7. Finland
8. Hong Kong

9. Germany
10. Ireland

The Accenture study, by focusing on service and user friendliness, was actually measuring characteristics that are similar to those found in the Brown University criteria. The Accenture study, however, placed much more weight on service than did the Brown University study. The Accenture study also measured both breadth and depth of services. On the breadth measure, the USA and Canada were first and tenth, respectively. And on the depth measure, the USA and Canada were second and fourth respectively. In contrast, the Brown University study's measure of services counted the number of websites that offered online services that could be concluded online. Under the Brown University measure, the US and Canada did not do nearly so well: they ranked ninth and eighteenth, respectively.

3. Bertelsmann Foundation

The Bertelsmann Foundation, a charitable organization based in Germany and the majority shareholder of Bertelsmann AG, in conjunction with Booz Allen Hamilton, a USA-based consulting firm, undertook an ambitious study of e-Government entitled "E-Government—Connecting Efficient Administration and Responsive Democracy." An executive summary of this study can be found at: http://www.begix.de/en/index.html. To extract the document, the reader will need to provide his or her name, institutional affiliation, and email address.

The Bertelsmann Foundation study tries to undertake a balanced approach in which it evaluates benefits, efficiency, transparency, and participation. The study also looks at how governmental institutions cope with the changes required to become an electronic service provider. Points are awarded to reward balance. A government will receive more points if it makes some showing in all four areas. The Bertelsmann study places much greater emphasis on e-Government efforts that promote e-Democracy through transparency and participation. Neither the Brown University nor the Accenture study considers transparency or participation as critical factors. The Bertelsmann study also looks at all government websites whether national, state, or local. As a result, it identifies specific websites along a range of governmental levels.

Based on its ratings, the study finds the following to be the top ten governmental websites:

1. UK Online
2. Seattle (city in USA)
3. Ontario (Province in Canada)
4. Fairfax (county in Virginia, USA)
5. Canada
6. Virginia (state in USA)
7. Lewisham (London borough)
8. Estonia
9. Sweden
10. Tameside (Greater Manchester, UK)

These specific sites are worthy of additional attention because they do indeed achieve a balance between service and participation. In addition, the Bertelsmann study looks in detail at specific sites that can then serve as models for others to follow. The Brown University and the Accenture studies, in contrast, focus more on national trends. By using specific criteria, those studies are helpful in giving governments baseline criteria.

Tax Administration

This paper looks at US tax systems as examples of successful e-Government. The evaluation criteria used by the Brown University, Accenture, and Bertelsmann studies are all helpful. In the end, they

all focus on usability and functionality with specific areas of emphasis. For example, the Brown University study tends to reward the quality of information access, while the Accenture study focuses on customer service in the context of providing services. The Bertelsmann study brings in citizen participation as a critical ingredient, a factor lacking in the other two studies.

To take the strengths of each study into account, I will look at the quality of the information, the ability to complete transactions, and the ability of citizens to participate. This paper evaluates the Internal Revenue Service, the agency that administers the federal income tax. This paper also looks briefly at two state government tax sites, Minnesota and New Mexico.

1). Internal Revenue Service: http://www.irs.gov/index.html

The Internal Revenue Service (IRS) is the federal agency that administers the individual federal income tax, which is the largest single source of revenue for the federal government. For the 2001 fiscal year, the individual income tax raised $1.178 trillion. See Tax Stats at a glance at: http://www.irs.gov/taxstats/article/0,,id=102886,00.html. The IRS processed almost 130 million individual returns during the same fiscal year. One of the major income support programs within the United States is the earned income tax credit. This is a negative income tax that provides the working poor with a refundable credit of up to $4,140 for the taxable year 2002. The amount is indexed for inflation. For the fiscal year 2003, the Joint Committee on Taxation estimates that low-income taxpayers will receive about $34 billion in payments through the credit. See Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 2003-2007 (2002) at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi? dbname=2002_joint_committee_on_taxation&docid=f:83132.pdf.

The IRS has a vast task—administering a huge tax system in which 130 million individual taxpayers file returns. And millions of the working poor are entitled to income support payments of which they may be unaware. The tax law is very complicated, and the IRS is responsible for helping taxpayers understand this very complex system. How does IRS do?

a. Quality and Accessibility of Information

The IRS website is a goldmine of high quality information. Unfortunately, the gold is often hard to find. Innumerable forms and publications are available by date or number. Once found, they are available in "pdf" format and easy to print and use. The availability of these documents has made life much more convenient for millions of taxpayers who formerly went to the local IRS office or made requests through the mail. If one knows the form or publication number, searching on the site is quite easy. Otherwise, the task is more difficult.

The IRS homepage does have two search engines. Neither of these is especially good. Results will vary depending on the search. For example, the search for the "earned income credit" in the publications search engine produces many pages of documents, but the most relevant one, IRS Publication 596, is listed as the 55th item and requires scrolling through five and a half pages. A search in the site search engine does fare better. The third item is the most relevant and will quickly produce needed and helpful information. Ironically, the same search with Google provides the most relevant IRS page as its first choice. So Google does better than the IRS search engine.

Information is fairly well organized based on the taxpayer's need. The biggest item on the homepage is a portal for electronic filing. The second biggest is a portal to check on the status of a taxpayer's refund. These two services are very critical to taxpayers and will be discussed shortly as they relate to the quality of services provided. Other prominent items are links to information on two types of scams, on the earned income credit, and on news about the current filing season. The news on the filing season is mostly promotional and does not provide much useful information. To the left side are links to categories of help. There is one link for individuals. This link takes the taxpayer to another page that lists items of likely interest. The items found are of variable interest. Ironically, the

second to the last item is a local phone number, which ought to be of much higher priority. To the left is a list of items of possible but lesser importance to certain taxpayers.

The IRS homepage also contains information of interest to tax professionals. In fact, a substantial portion of the website is dedicated for use by professionals. This part of the site is accessible to everyone, but marked for professionals to warn the "do-it-yourself" taxpayer that the information found there could be highly technical and probably confusing. On balance, the information on the entire website is of high quality but not nearly as accessible as it should be.

Under the Brown University criteria, the IRS site would have received points for having a Spanish language version and for providing multiple formats available to those with disabilities. These features improve the quality of the information for certain populations.

b. The Ability to Complete Transactions

IRS, at the insistence of Congress, has faced pressure to increase electronic filing by taxpayers. The infrastructure for electronic filing has been available for almost ten years, but the participation rate has been low. For the 2002 filing season, only 36% of the taxpayers filed electronically. A high percentage of these were low-income taxpayers who paid an extra fee to receive their refunds more quickly. Many taxpayers have refrained from filing electronically because of the added expense. For the 2003 filing season, IRS has entered into an joint agreement with a large number of tax-software providers to enable a larger number of taxpayers to file for free.

Under this agreement, IRS provides links to the providers who then in turn provide online software and online filing for free for low-income taxpayers. Presumably, these software vendors want a presence on the IRS website so they can sell the software and electronic filing to higher income taxpayers. This initiative is supposed to increase the rate of electronic filing to 60% for the current year. Whether IRS reaches that goal will be pretty clear by April 15, 2003. At the half-way point through the filing season, IRS is already claiming victory because almost 58% of the returns filed were filed electronically. The free-file program increased that category of returns by 27.7% over the preceding year. The number of taxpayers taking advantage of free-file was 2 million. Historically, most electronic filing takes place at the beginning of the filing system. Therefore, IRS is not likely to reach its overall goal of 60% electronic filing.

The electronic filing system in the United States is very much a partnership arrangement between the IRS and the tax software industry. The online tax preparation software is of uniformly high quality and very user friendly in the online context. Most of the programs encourage customer loyalty by retaining the data from the previous year's return to make preparation easier during the next year. Much of the software is smart and helps taxpayers avoid mistakes. Electronic filing has the benefit of diagnosing problems early so they can be fixed quickly. If the return is error free, which is often the case because of the diagnostic features of the software, then the refund is issued that much more quickly—usually within a week or so instead of a month or so.

Payment of any tax due can also be done electronically through a credit card or through an electronic funds transfer. The tax preparation software enables electronic payment. In the case of credit card payments, the credit card companies charge a convenience fee of .5 to 3% of the tax payment.

In summary, electronic filing and payment are important and workable features of the federal tax system primarily because commercial software developers have worked with IRS. It is quite clear that IRS would not have had the capability to develop its own software for mass consumption. IRS did develop telefile on its own. Telefile enables taxpayers with low incomes and very simple returns to file their returns over the telephone by calling a toll free number and entering the relevant numerical information on a touch-tone phone.

c. Citizen Participation

The IRS homepage provides a "contact us" link at the bottom. The link takes the user to a "How to contact us" page that provides twelve different contexts in which a user might want to contact IRS. Each context provides a series of avenues. For example, IRS has a whole page on how to get technical help on using its website. This help feature permits the user to call a toll free number, to send an email, or to go onto a live chat room. IRS also permits users to ask tax law questions through calling a toll free number or via email. To make things efficient, this page first attempts to help the user get self-help through the website.

In general, however, the IRS does not actively solicit input from taxpayers on how it can do its job better. There are some exceptions. For example, the page dealing with accessibility issues does ask users for comments on how accessibility can be improved.

d. Overall Evaluation

On balance, the IRS homepage and its electronic filing initiative are a success as e-Government. On the Brown University scale, IRS would have scored fairly well. Under the Accenture criteria, IRS is publishing, interacting, and transacting at a fairly sophisticated level. This includes the tracking of refunds. Under the Bertelsmann standard, IRS would be criticized for not providing a comfortable avenue for citizen input. It is important to remember that the service function is possible primarily because of a partnership with commercial software providers. Without the help of the private sector, IRS would be unable to provide electronic filing services.

2). Minnesota Department of Revenue: http://www.taxes.state.mn.us/index.html

This homepage contains more initial information than the IRS homepage and also provides more helpful immediate information. The search engine also tends to identify and properly rank the document or publication with the highest relevance. The website is a rich source of high quality information that is more easily accessible than the IRS site. The website links to tax software providers that enable a taxpayer to file and pay electronically. Contact information is readily available. The website does solicit email questions and comments about the quality of the website. Like IRS, the Minnesota Department of Revenue does not ask taxpayers how it can do its job better. Overall, the site would receive relatively high marks under all three standards while receiving criticism under the Bertelsmann standard for not actively soliciting citizen participation.

3). New Mexico Taxation & Revenue Department: http://www.state.nm.us/tax/

This homepage is very confusing and very difficult to navigate in. Initially, the taxpayer does not know where to go, and the page does not organize information based on what is likely to be most important to the taxpayer. Nonetheless, the site does have a direct online filing service hosted by the department. The online filing contains instructions and allows taxpayers to file their returns quickly and to receive refunds promptly. Taxpayers also have the option of filing electronically through using commercial software programs. These are listed and links are provided for taxpayers. The homepage has one phone number and one email address for all questions. Although this page does provide electronic filing service with its very own software, unlike IRS or the Minnesota Department of Revenue, the remainder of the site is much less user friendly and would receive less than glowing marks.

Conclusion

Federal and state tax systems in the United States are examples of successful e-Government. They provide valuable information and allow taxpayers points of contact through email and the phone. They also permit electronic filing, which is generally a more efficient way for the taxpayer to comply with and for the government to administer the tax system. In this sense, the systems are

mature because taxpayers can complete transactions online.