A General Model of E-Government service Adoption: Empirical Exploration

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Introduction

Since the mid-nineties, various e-government services have been adopted by state governments in their effort to cut costs in providing services and information, and to improve the quality of services they provide to the citizen. The new systems are perceived to reap efficiencies for the government by generating less paperwork, decreasing the cost of processing routine transactions and lowering the error rate (Fountain, 2001). For citizens, the new technology was perceived to bring the benefits of lowered transaction cost by performing transactions with the government online and also bring the government closer to the citizen.

Currently all 50 states have their own state web portals. Portals that, in their early stage of development, looked more like “dressed-up search engines” have adopted more e-government services over time and many portals are now capable of performing sophisticated online transactions and providing information in greater depth, detail and up-to-date. Although the adoption of e-government services has taken place rapidly, there is significant variation in the range and functionality of e-government services provided through state portals (Fountain 2001)

E-government systems are challenging for government organizations to design, build and implement. E-government systems consist of complex process innovations and reengineering strategies that rely heavily on the systematic integration of old and new information and communication technology components with critical functions of the service delivery system. E-government systems also involve some level of coordination and communication with almost every functional unit of the organization where working relationships among employees are constrained by new and old business processes, and
layers of complex institutional and organizational policies, practices, and norms. Because of these challenges, the extent of adoption among government organizations varies greatly and a pattern is emerging where some states provide a wide range of e-government services and information with high degree of functionality, other states seem to lag behind (Gant and Gant, 2002; West, 2002).

This paper attempts to identify factors that explain why state governments had adopted different e-government services. A sample of e-government services are viewed as a measure of the degree of e-government service adoption, and it is explained in terms of the perceived benefit of adopting e-government services, the government’s organizational propensity in investing in e-government services, and the diffusion effect of e-government service technology.

Theory Overview

This paper develops a theoretical model that explains factors influencing the adoption of e-government services by state governments. We consider that a government organization’s decision to invest in an E-government system is determined by the added value associated with the productivity and quality benefits due the E-government system less the cost of adopting and implementing those systems.

\[ I_{it} = 1 \text{ if } EP_{it} - C_{it} > 0 \]

Adoption of E-government systems by government organization i at time t, or \( I_{it} \), will occur when the expected gains, \( EP_{it} \), exceed the costs of adoption, \( C_{it} \). The costs of E-government systems are the direct costs of the technology and service system and the transition costs that the organization experience as they add online service function in addition to conventional brick and mortar service channels. The expected gains will be a
function of the value added in improving the quality of service to citizens, the economic performance enhancements from generating revenue and reducing costs, and the political advantages derived from deploying resources. We assume that the direct cost of the technology and the service system are roughly equivalent across government organizations. Information and communication technologies are largely a commodity good and as Carr (2003) argues, “The core function of IT – data processing, data storage, and data transport – have become available and affordable to all” (p. 42).

We also assume that the impediment to more extensive adoption of E-government systems lies in the transition costs that government organizations incur in switching from a traditional service system to an E-government system. Much of the transition cost for government organizations is derived from the ability for the organization to understand and overcome the uncertainties of how to transform an existing service system into an IT-enabled service system. Certain kinds of information about the ease or difficulty of implement a technical change will vary. Organizations have different abilities to absorb and make good use of new technical information due to differences in their level of internal expertise, access to financial resources, and heterogeneity of organizational and institutional routines (Cohen and Levinthal, 1990).

We theorize that the adoption of e-government services is viewed as a result of the interaction between the perceived benefit of adoption and the government’s organizational propensity in investing in e-government services. The perceived benefit of adopting e-government services is thought to be influenced by the characteristics of a given state environment, and the government’s propensity in e-government service
adoption is thought to be influenced by the government’s financial abundance and the level of leadership commitment in state IT management. In addition, technology’s role on the likelihood of the adoption of e-government services is studied. In other words, the diffusion effect of e-government service technology through vendors who are involved in state IT management is examined with respect to the adoption of the e-government services. The magnitude of the perceived benefits of adopting e-government services in a given state and the state government’s organizational propensity in adoption are expected to influence the rate of e-government service adoption. (see figure 1 in appendix). Also, the diffusion effect of e-government service technology is also expected to influence the likelihood of the adoption.

The following section illustrates the factors that are expected to influence the e-government service adoption by state governments – perceived benefit, government propensity to adoption, and technology source.

**Factors Influencing the Adoption of E-Government Service**

*Perceived benefit:*

One of the factors that are expected to influence the likelihood of state government’s adoption of e-government services is thought to be the degree of perceived benefit from adopting online services. The perceived benefit of adopting e-government services are thought to be influenced by the number of potential users of online services because, as the number of potential users increase, the possibility of materializing the benefits of adoption is expected to increase. The number of potential users of online
services is thought to have two benefit implications for the government. They are administrative benefit and political benefit.

First, the number of potential users is expected to influence the degree of administrative benefit. Administrative benefit with respect to e-government services is the extent to which the government can reduce the operating costs and workloads in its conventional service channels and the extent to which the government can generate revenues in a cost effective manner by adopting e-government services. If more citizens are expected to use e-government services once they are adopted, the government would better be able to exploit the advantages of providing online services.

Second, the number of potential online service users has a political implication as well. A state portal can be an effective tool to perform political marketing and it can provide an easy and valuable medium for the elected officials to access the state constituents. In addition, having a state portal with highly functioning e-government services may have a positive influence on the elected official’s political position as it can be used to mirror the performance of the official. So, if there are more users or potential users of e-government services, adopting these services would have higher political value.

The potential users of e-government services are expected to differ from a state to state and they are expected to be influenced by the environmental characteristics of each state.

*Government propensity to adoption*

Government propensity to adoption refers to the elements of government organization that would influence the propensity or the likelihood of the government in
engaging in new initiatives and programs. In this research context, the term refers to the elements of the government that influences the likelihood of the government in investing and initiating e-government services. The elements of a state government that are expected to influence the propensity to adopting online services are the abundance of the state government’s financial resources and the level of attention and involvement that the positions of leadership in the government has in its IT management. These elements are viewed to influence the propensity of the government in initiating e-government service provision and influence the likelihood of e-government service adoption.

**Technology source:**

Technology source refers to the channels through which the diffusion of e-government service technology takes place. Apart from the perceived benefits and government propensity, technology source focuses on the influence of the technology itself on the likelihood of e-government service adoption. In other words, we are trying to see if technology diffuses itself through private vendors and influence the level of e-government adoption on state portals.

Technology diffusion may take place through imitation as the government’s decision to adopt certain e-government services is influenced by what other governments are adopting. That is, it is conceivable that many states are imitating what other states are doing in their e-government efforts. A state could have heard about, observed other states adopting, or had a chance to see a demonstration of certain e-government services, and this could influence their decisions toward adoption. For example, if state A,
realizing that other states are adopting online tax filing service, could move toward adopting the same online service its decision to adopt the online tax service.

Technology necessary for online services is generally developed and implemented by private vendors, and they act as the channels of the diffusion of e-government service technology. If a state relies heavily on vendors in its IT management, the technology’s role in the level of e-government service adoption may become more visible. That is, if the role of vendors increases in the management of state IT, the role of technology diffusion may render the rate of e-government service adoption among states somewhat homogenous. So, the relationship between the degree of vendor involvement in state government’s IT management and the degree of e-government service adoption is examined.

In summary, the following equation represents the theoretical model regarding e-government service adoption.

\[ \text{E-Government Service Adoption} = f(\text{Perceived Benefit, Government Propensity to Adoption, Technology Source}) \]

Measurement of Variables

Dependent variable

There are currently numerous e-government services that are provided through state web portals. Among various e-government services, we have selected 5 services that represent five broad aspects of e-government services.

They are:

1) Online Tax Filing
2) Online Voter Registration
3) Online Procurement
4) Online Auto Registration Renewal
5) Online Park Reservation

These five services, whether online or offline, represent five different aspects of governmental services. Tax filing relates to services generating revenues for the government; voter registration relates to services enabling citizens to participate in governance; procurement relates to government’s internal operations (in this case with business entities); auto registration renewal relates to administrative services conferring rights to the citizen; and park reservation relates to administrative services allocating scarce resources to the citizen.

Given that these services are already provided through the government’s conventional service channels, adding online capability for these services have implications in enhancing the government’s capacity in these areas. Online tax file service or adopting online tax file service has an implication for enhancing the government’s capacity in collecting revenues; online voter registration for enhancing political participation of the state constituents; online procurement for enhancing the internal operation of the government (in this case, with business entities); online auto registration renewal for enhancing the government’s administrative capacity in conferring rights to citizens; and online park reservation services for enhancing the government’s administrative capacity in allocating scarce resources to the citizen. Factors influencing the e-government service adoption would be tested against these five aspects of e-government services.
Two sources of data are used for these dependent variables. Data for online auto registration renewal, tax filing, and voter registration came from a survey of state web portals conducted during the summer of 2002 by researchers at Syracuse University under the direction of Dr. Jon Gant. The researchers surveyed 50 state web portals where they examined various aspects of state portal quality including the service availability of these three dependent variables. The survey data for these variables are coded as 0 or 1 where 1 denotes adoption while 0 denotes non-adoption. While auto registration renewal and tax filing used high degree of functionality as a criterion for adoption/non-adoption (That is, can these services be started and completed online?), online voter registration used lower degree of functionality as an adoption criterion, since there are only two states (FL and CA) that have online voter registration service available. We assigned value of 1 if the state portal provides online voter registration service or at least provide information regarding voter registration, and 0 if no service or information is provided regarding voter registration.

Data for online procurement and park reservation came from a publication called, “Compendium of digital government in the states” by National Association of State Chief Information Officers (NASCIO). In this publication, state CIOs reported whether their online e-government services in the areas of E-benefits transfer, e-bill payment, e-funds transfer, e-procurement, GIS, interactive voice-response, online permitting, online park reservation, online tax filing are 1) in planning; 2) in production; 3) in enhancing stage. The variables for online procurement and online park reservation are coded 1 if states reported that these services are in 2) production or 3) enhancing stage, and 0 if 1) in planning stage. Data regarding e-procurement and park reservation are picked since there
is more variation in the data. Other categories are dropped since there wasn’t much variation in the data. For example, E-fund transfer, there are only three non-adopters (0s) and forty four adopters (1s).

Dependent variables displayed the following distribution of adopter/non-adopter.

<table>
<thead>
<tr>
<th>Service</th>
<th># Non-adopter</th>
<th># Adopter</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Tax Filing</td>
<td>12</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>Online Voter Registration</td>
<td>16</td>
<td>34</td>
<td>50</td>
</tr>
<tr>
<td>Online Procurement</td>
<td>23</td>
<td>24</td>
<td>47*</td>
</tr>
<tr>
<td>Online Vehicle Registration</td>
<td>17</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>Online Park Reservation</td>
<td>18</td>
<td>29</td>
<td>47*</td>
</tr>
</tbody>
</table>

* Compendium data is missing information on three states – AK, FL, OR

**Independent Variables**

**Perceived Benefit**

Variables that are expected to influence the potential number of e-government service users are used as the constructs of perceived benefit. They are state population, percentage of state population with Internet access, education (measured by the percentage of population over 25 years with bachelor degree or higher) and state median income. 2000 Census data is used for state population, the percentage of population with Internet access, the level of education, and 1999 Census data is used for state median income.

These variables are expected to influence the expected benefit of adopting e-government services as when the values for these variables increase, the more potential users of the e-government services are expected, which in turn increases the value or the perceived benefit of the e-government services for administrative and political reasons.
Government propensity to adoption

Government propensity variables include the financial capacity and the level of attention and involvement of the positions of leadership has on state IT management.

Annual state expenditure from 2001 Census data is used to assess the degree of the government’s financial capacity, and we identified the legislature, the governor’s office, and state CIO to be the leadership positions that would have influence on the adoption propensity. The data used to assess the degree of attention and involvement by these actors comes from “the Government Performance Project” conducted by researchers at Syracuse University’s Maxwell School under the direction of Dr. Patricia Ingraham. Researchers gathered information regarding the involvement of these actors in 1) making policy about the design and use of IT systems; 2) developing IT strategic plans; 3) designing and developing IT systems and projects; 4) approving the procurement of IT systems and hardware; 5) implementing IT systems and projects; 6) overseeing the implementation of IT systems and projects. They rated these categories with a Likert-type scale of 1-5 where 1 indicates not being involved while 5 indicates that the actors are very involved. The measure used in this research is the percentage of the aggregate sum of each actor in these six categories out of the possible total. We summed all the values in these six categories by each actor and divided the sum by the possible total (5*6=30).

Technology source

Technology source variable include the degree of involvement of private vendors in state government’s IT management. The GPP data which assessed the level of
attention and involvement of governor’s office, legislature, and CIO, also assessed the involvement of private vendors on these six categories above. With an assumption that private vendors are the sources of e-government service technology, the data from GPP measuring the involvement of vendors in state IT management is used as a proxy for the technology diffusion effect on the likelihood of e-government service adoption.

Pulling together all these factors, the following propositions are tested through a statistical analysis using a logit model.

**Propositions**

**Proposition 1: Perceived Benefit**

We suggest that states with high degree of perceived benefit are likely to have high likelihood of adopting e-government services. We used the state population, percentage of state constituent with an access to Internet, level of education and state median income as measures of the perceived benefit as when the values for these factors increase, the potential users of e-government services are expected to increase. The increased potential users are expected to increase the perceived benefit of e-government service adoption, and increase the likelihood of the actual adoption. Consequently, the reverse effect is expected when these environmental factors score low.

First, higher state population is thought to have significant influence on adoption since it implies higher number of potential pool of users for e-government services once adopted. Higher potential users may increase the likelihood of adopting e-government services as adopting e-government services increase the perceived administrative benefit as well as political benefit.
Although state population provides a broad potential pool of people who may use e-government services, or create a perception of the benefit of adopting e-government services from the state government, having a large state population does not necessarily mean the state constituents would have the access to Internet and use e-government services if adopted - it merely provides a large potential pool of people who may use e-government service. So, the data regarding the percentage of state population who has an access to Internet is used to capture the Internet savvyness of state constituents, which then would have a more direct influence on degree of potential users for e-government services.

State average education and median income are also included to measure the degree of perceived benefit of e-government service adoption since state constituents with higher educational attainment and income are more likely to utilize e-government services and influence the number of potential online service users.

**Proposition 2: Government Propensity to Adoption**

The financial capacity and the level of attention and involvement from positions of leadership in the state government are tested as factors influencing the adoption of e-government services. We expect that states with greater financial capacity and greater attention and involvement of to its IT management from the positions of leadership would lead to greater government propensity to adopting e-government services and increase the likelihood of the adoption.

**Proposition 3: Technology source**
We hypothesize that the greater the involvement of vendors in the management of state Information Technology, the greater the likelihood of the adoption of e-government services is expected as the e-government service technology diffuses itself through vendors who manage state IT system and make the degree of e-government service adoption among state governments relatively homogenous.

**Statistical Analysis**

The five dependent variables representing different aspects of e-government services are tested with a series of independent variables that are the constructs of perceived benefit, government propensity to adoption and technology source. Given the characteristics of the dependent variables having a value of either 0 or 1, a logit model is used to test our propositions. Log values of population, median income, and annual state expenditure are used in order to adjust scaling issues regarding these variables as they tend to have very large values inappropriate for analysis. See Table 1 in the appendix for the results of our statistical analysis. Examining the results of the statistics reveal that our model does not produce a consistent result except for the effect of the variable measuring the degree of attention and involvement of the governor’s office in state IT management. In addition, the likelihood ratio indicate that the adoption of online tax registration and online voter registration is not explained with our model as the overall fit of model is not significant at 0.10.

State environmental factors that are thought to influence the level of perceived benefit of the e-government service adoption don’t seem to have significant effect on the likelihood of e-government service adoption. Percentage of population with an access to
Internet did not produce any statistically significant coefficient. Log value of state median income produced one statistically significant coefficient on the adoption of online tax file service. However, the sign of the coefficient was negative contrary to our expectation. The variable doesn’t seem to have any significant influence on the adoption of other e-government services.

State education level produced statistically significant coefficients on auto registration renewal service and online tax file service. The former displayed a coefficient with a negative sign, and the latter a positive sign, both statistically significant at 0.1, and 0.05 level accordingly.

These inconsistencies in the sign of these coefficients are difficult to explain. The positive influence of education on the adoption of online tax-file service is consistent with our expectation. Yet, it is difficult to explain how a higher level of education would increase the likelihood of adoption on online tax-file service while decreasing the likelihood of adoption on online auto registration renewal. In addition, it is confusing to see the negative influence of state median income on the likelihood of online auto registration renewal service.

Among variables representing capacity, the variable measuring the level of governor’s attention and involvement in state IT management show statistically significant coefficients that are consistent with our expectation. Log-value of state expenditure shows significantly positive influence on the adoption of auto registration renewal service, again consistent with our theory. However, the expenditure variable doesn’t show any significant influence in other e-government services where it displays statistically insignificant coefficients with changing signs.
One variable is used to measure the diffusion effect of e-government service technology. Contrary to our expectation, it consistently shows negative influence on the adoption of e-government services. It shows statistically significant negative influence on adoption of auto registration renewal and online procurement service, the former at 0.02 and the latter at 0.09 level of significance. The variable is not statistically significant on adoption of other e-government services, but it all displays negative signs.

**Discussion and Conclusion**

The result of statistics seems to point to the relative importance of the attention and involvement of the governor on the likelihood of e-government service adoption. The perceived benefit and technology source don’t seem to have consistently significant influence on adoption.

The first puzzle is the minimal effect of the perceived benefit on adoption of e-government services. Why doesn’t it matter in adoption of e-government services? Contrary to our research findings, a similar research conducted by Weare and others have found positive effects of environmental factors such as population, education, income, and the level of internet accessibility on adoption of municipal websites in California (Weare and others, 1999 #8). But the same environmental variables in state level don’t seem to influence the likelihood of the adoption. The difference is that while Weare and others looked at the adoption of government websites on municipal level, we look at the adoption of e-government services on web portals on state level. This has led us to speculate that environmental factors and their consequent level of perceived benefit may
exercise significant influence on adoption on smaller governmental units while they don’t influence the adoption on larger governmental units.

We suggest that the size or jurisdiction of governmental unit might matter because it is directly related to the government’s financial capacity. The differences in financial capacities of governmental units of varying size affect the magnitude of perceived benefit of adopting e-government services in a relative sense. That is, the cost of adopting e-government services is relatively large for smaller governmental units as they have smaller environmental boundary to draw their financial resources from. Increased cost of adoption then has an effect of increasing the relative significance of the perceived benefit, and, for this reason, governments of smaller size or jurisdiction may consider the perceived benefit more carefully than the larger governmental units, making environmental factors significant in the former, but not the latter.

Another possibility is that when the size of a governmental unit and its environmental boundary reaches that of a state, the number of potential users exceeds the level where adopting these services would guarantee positive administrative benefit. In this case, the decision to adoption may not be influenced by the level of perceived administrative benefit but more significantly by the perceived political benefit. The underlying assumption in our model that the administrative and political benefits are identical depending on the number of potential users could be flawed. Some services when given the added online capacity may have negative effect for one of the two benefits (for example, political benefit), while they have positive effect on the other (administrative benefit). For example, adopting online voter registration service may benefit the government in terms of administrative benefit, but this may have negative
impact on the elected officials (political benefit) as inviting a new pool of voters in
addition to the constituents who have voted for the elected officials may introduce
uncertainties for their reelection. This may accounted for low level of online voter
registration adoption throughout the sample states.

Given the minimal influence of the perceived benefit on adoption, we now turn
our attention to the government propensity to adoption and technology source as
explaining factors of adoption. We examined the role of state expenditure, the level of
attention and involvement of the legislature, governor’s office, CIO, and the level of
involvement of private vendors in state IT management.

The negative influence of technology source maybe due to poor operationalization
of the concept of technology source. The GPP data on the private vendor measures the
degree of involvement of these actors in state IT management. The data may not
correctly measure the role of technology diffusion on adoption since the involvement of
vendors in state IT management may in fact reflect the level of attention and involvement
of the state government leadership as it is conceivable that states with less attention and
commitment in IT management are more likely to turn to private vendors for their IT
management. That is, this variable may measure an aspect of governmental propensity to
adoption rather than technology diffusion aspect. Negative influence of the level of
involvement of vendors in state IT management and the likelihood of e-government
service adoption may explain such aspect instead.

Among the elements of capacity, the role of governor shows consistently positive
influence on the adoption of e-government services consistent to our expectation. This
can indicate the fact that the likelihood of e-government service adoption is most likely to
be influenced by the attention and involvement of the elected officials. Furthermore, considering that perceived benefit and technology source factors do not exercise significant influence on the adoption of online services and considering our speculation that the size and jurisdiction of the governmental unit may contribute to their insignificance, we speculate that as the governmental unit increases in size and jurisdiction, the role of the perceived benefit on adoption decreases and the role of political actors on adoption increase. However given that this is an exploratory study, our conclusions are speculative at this point. Further study would be necessary to confirm our conclusions.
# TABLE1 – Logit regression, assessing the factors of adoption on five e-government services.

<table>
<thead>
<tr>
<th>MODEL Name</th>
<th>Auto Registration Renewal</th>
<th>Online Tax file</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Observations</td>
<td>Chi-Square</td>
</tr>
<tr>
<td>N=48</td>
<td></td>
<td>26.9094</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interception</td>
<td>-121.3</td>
<td>69.2463</td>
</tr>
<tr>
<td>% population with Internet access</td>
<td>-0.00502</td>
<td>0.1102</td>
</tr>
<tr>
<td>Log income</td>
<td>8.2507</td>
<td>6.3049</td>
</tr>
<tr>
<td>Log population</td>
<td>-7.0967</td>
<td>3.2054</td>
</tr>
<tr>
<td>Education</td>
<td>-0.3827</td>
<td>0.2263</td>
</tr>
<tr>
<td>Log state expenditure</td>
<td>9.2491</td>
<td>3.7386</td>
</tr>
<tr>
<td>Attention and commitment of legislature</td>
<td>2.2238</td>
<td>3.4402</td>
</tr>
<tr>
<td>Attention and commitment of governor</td>
<td>1.4379</td>
<td>3.3838</td>
</tr>
<tr>
<td>Attention and commitment of CIO</td>
<td>2.9171</td>
<td>2.416</td>
</tr>
<tr>
<td>Vendor involvement in state IT management</td>
<td>-12.1738</td>
<td>5.5833</td>
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</table>

<table>
<thead>
<tr>
<th>MODEL Name</th>
<th>Online Procurement</th>
<th>Online Park Reservation</th>
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<tbody>
<tr>
<td></td>
<td># Observations</td>
<td>Chi-Square</td>
</tr>
<tr>
<td>N=46</td>
<td>21.22</td>
<td>0.0117**</td>
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<tr>
<td>Likelihood Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interception</td>
<td>33.4202</td>
<td>48.817</td>
</tr>
<tr>
<td>% population with Internet access</td>
<td>-0.00822</td>
<td>0.0977</td>
</tr>
<tr>
<td>Log income</td>
<td>-5.0816</td>
<td>5.068</td>
</tr>
<tr>
<td>Log population</td>
<td>-0.812</td>
<td>2.4218</td>
</tr>
<tr>
<td>Education</td>
<td>0.2195</td>
<td>0.1719</td>
</tr>
<tr>
<td>Log state expenditure</td>
<td>1.3406</td>
<td>2.3899</td>
</tr>
<tr>
<td>Attention and commitment of legislature</td>
<td>3.905</td>
<td>3.501</td>
</tr>
<tr>
<td>legislature Attention and commitment of governor</td>
<td>5.2425</td>
<td>3.1273</td>
</tr>
<tr>
<td>Attention and commitment of CIO</td>
<td>5.7993</td>
<td>3.9347</td>
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<tr>
<td>Vendor involvement in state IT management</td>
<td>-7.7481</td>
<td>4.6494</td>
</tr>
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</table>

**MODEL Name**: Online Voter Registration

<table>
<thead>
<tr>
<th># Observations</th>
<th>Chi-Square</th>
<th>Pr &gt; ChiSq</th>
</tr>
</thead>
<tbody>
<tr>
<td>N= 48</td>
<td>4.9964</td>
<td>0.8346</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std Error</th>
<th>Pr &gt; ChiSq</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>16.127</td>
<td>35.8872</td>
</tr>
<tr>
<td>% population with Internet access</td>
<td>0.0463</td>
<td>0.0789</td>
</tr>
<tr>
<td>Log income</td>
<td>-1.7463</td>
<td>3.7272</td>
</tr>
<tr>
<td>Log population</td>
<td>1.0458</td>
<td>1.3519</td>
</tr>
<tr>
<td>Education</td>
<td>-0.0104</td>
<td>0.124</td>
</tr>
<tr>
<td>Log state expenditure</td>
<td>-0.9183</td>
<td>1.3498</td>
</tr>
<tr>
<td>Attention and commitment of legislature</td>
<td>-1.413</td>
<td>3.0878</td>
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<td>Attention and commitment of governor</td>
<td>5.0116</td>
<td>2.9197</td>
</tr>
<tr>
<td>Attention and commitment of CIO</td>
<td>-0.9089</td>
<td>1.6643</td>
</tr>
<tr>
<td>Vendor involvement in state IT management</td>
<td>-0.9668</td>
<td>3.113</td>
</tr>
</tbody>
</table>
Figure 1 – General model of e-government service adoption diagram
References


