

EGOVERNMENT: CARROT OR STICK?

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ABSTRACT

More and more companies are adopting eGovernment services but it is not clear if they are really using them. In an attempt to encourage businesses, an increasing number of Government agencies have decided to liaise with client groups to improve the quality of eGovernment services. Businesses consider speed and convenience of service delivery to be important added values; however, they expect electronic services to have relatively less impact on the reduction of their administrative burden. In order to increase businesses' use of eGovernment services, we need to recognize the different needs of various target groups. A tailor-made approach could include using various electronic channels. But should governments develop a carrot or a stick policy to persuade businesses to sign up for eGovernment services?

KEYWORDS

eGovernment services, SME and administrative burden.

1. INTRODUCTION

The establishment of an electronic government (eGovernment) is an ongoing and complex innovation process. Businesses are considered as potential and important clients of the electronic services provided by government agencies. In the Netherlands, the percentage of government services provided to businesses on the Internet grew from 19 to 56 percent between 2000 and 2005 (Advies Overheid.nl, 2006). But the provision of electronic services does not guarantee that target groups actually use these services frequently. Some prerequisites have to be fulfilled. Not only must businesses have access to the Internet, they must also use it and develop Internet skills. Furthermore, businesses should know how to look for and be able to find and register with Government services easily. Ultimately eGovernment services must provide some kind of added value compared to non-electronic government services. One question that pops up regularly is how government agencies can persuade businesses to use eGovernment services. They can decide whether to adopt a "carrot" or a "stick" policy - a carrot policy invites businesses to use eGovernment services, whereas a stick policy compels them to do so.

In this article we will look at what businesses think of eGovernment services. We expect that by taking their views into consideration, we can increase the success of these services. Consultations with businesses will help government agencies to design eGovernment services that are not only efficient or effective from a government's point of view. Success indicators are for example frequency of use, business satisfaction, and increasing use of electronic services for handling all government services.

Our investigation was based on four questions:

1. According to businesses, do eGovernment services help or hinder service delivery? And do they replace or add to existing services?
2. What do businesses consider the most important added values of eGovernment services?

3. Which eGovernment channels do businesses prefer?
4. According to businesses, do eGovernment services reduce the administrative burden

In order to answer these questions, the Dutch Program Bureau ICT and Administrative Load (ICTAL) commissioned a survey to collate the opinions, needs and experiences of small and medium-sized enterprises (SME) with regard to eGovernment services. The Program Bureau is an agency of the Dutch Ministry of Economic Affairs and it supports the development of nation-wide electronic services for businesses. Examples of these services are a nation-wide Business Web Portal (www.bedrijvenloket.nl) and a Government Gateway.

The survey we conducted consisted of a telephone questionnaire carried out in January 2005 among 503 SME (Dialogic, 2005). The questionnaire was based on previous demand side consultations about eGovernment among citizens (Dialogic, 2004; 2001; Holland et. al, 2005; Bongers et. al 2004). We focussed on topics related to (electronic) service delivery such as: use, added value, satisfaction, alternative channels, administrative burden, strategies to stimulate use of eGovernment services, and familiarity with specific eGovernment projects.

The response (503 firms) is based on a representative sample among SME. In general, the response is equally representative of various business sectors and sizes, with a slight bias towards very small firms: 62 percent of the respondents work in a company with fewer than ten employees.

The telephone questionnaire is insufficient to gather all the information required to determine the preferences of businesses with regard to eGovernment services. Ideally, we would like to discuss these preferences more thoroughly, for example by actually meeting with SME. And although we acknowledge the methodological shortcomings of this questionnaire, we consider it a valuable tool for obtaining information from a large number of businesses. Furthermore, the Dutch government has recently organised meetings with SME to discuss e-services, however the results are not reported here.

In this article we will focus on the four research questions. The final section is a conclusion in which we summarize the most important research results. We will also discuss how governments can stimulate businesses to sign up to eGovernment services.

2. DUTCH EGOVERNMENT POLICIES

The establishment of an eGovernment is part of an all-embracing government policy focussing on the improvement of public service delivery to businesses and citizens as a whole. A few years ago, the Dutch government published a white paper called *The Other Government* (Home Office, 2003). This white paper announced measures to improve both the quality of public service delivery and client satisfaction. These goals can be achieved by involving businesses and citizens in the development of (eGovernment) services. Better (eGovernment) services also can improve business climate and entrepreneurship. For example, eGovernment services can reduce the number of days required to start up a new company or stimulate e-sales and e-procurement. Furthermore, the government can set an example by becoming an intensive and innovative user of the Internet. Unfortunately this is hampered by the fact that Dutch eGovernment policies are fragmented across various government agencies. Various government institutions at national (ministries) and local level (local councils, Chambers of Commerce) create separate eGovernment policies, ICT projects and web portals. There seems to be a lack of coordination and cooperation. However, this situation is improving gradually. A guiding principle in the development of eGovernment services is the improved standard of the services. Initially most services were aimed at the provision of information, whereas nowadays, services have been introduced that support 'one stop shopping' and electronic transactions. These new services often also require the organisational transformation of government agencies (cooperation, integration of back and front offices, etc.).

A major goal of eGovernment policy is that by the end of 2007 nearly 65 percent of all government services must be provided on the Internet. Another public policy goal is a 25 percent reduction of administrative burden for businesses by the end of 2006. ICT must help to achieve this goal.

In recent years, the Dutch government has initiated projects which enable and improve eGovernment service delivery to businesses. Examples are electronic identification and authentication of businesses. Other examples involve search engines, unique labelling of eGovernment services and electronic data exchange on

businesses between different government agencies. As a result, businesses do not have to provide the same information more than once to government agencies. Usually businesses can choose which channel they prefer for handling public services (multi channelling), while governments can only try to persuade businesses to use electronic channels (carrot policy). On the other hand the Dutch government also uses policies that oblige businesses to use an electronic channel. An example is the annual tax return, which businesses must complete and return electronically.

3. IMPROVEMENT AND REPLACEMENT OF EXISTING SERVICES

Before we answer the first research question - *“Do eGovernment services help or hinder service delivery, do these services replace or add to existing services?”* - we will provide some information about Internet access and use in Dutch companies. Most Dutch companies including SME have access to computers and the Internet. In fact approximately ninety percent of Dutch companies use computers and the Internet. This percentage has been very stable during recent years. The number of companies that use broadband Internet is growing rapidly. Large companies use computers and the Internet more often than SME do. The penetration rate of computers and the Internet in the latter group is approximately eighty percent (Statistics Netherlands, 2005).

In the twelve months prior to the questionnaire, 38 percent of the SME respondents used at least one eGovernment service. Most services used are Tax Administration (55 percent), Ministries (23 percent), Chambers of Commerce (19 percent), other government agencies (17 percent) and local councils (16 percent). (Respondents can select more than one government institution.) The respondents rate their satisfaction with the electronic service with an average of 6.8 on a 10 point scale (compared with 6.7 for non-electronic services). Figure 1 shows to what extent businesses consider eGovernment services an improvement or deterioration compared to non-electronic government services. Businesses that consider eGovernment services an improvement can distinguish between two kinds of improvement, namely eGovernment services *replace* or *add to* other non-electronic services. Nearly seven out of ten firms (69 percent) consider eGovernment services an improvement compared to normal non-electronic services. Within this group, the majority says that these services replace non-electronic services, whereas the other group sees eGovernment services as an extension of existing non-electronic services.

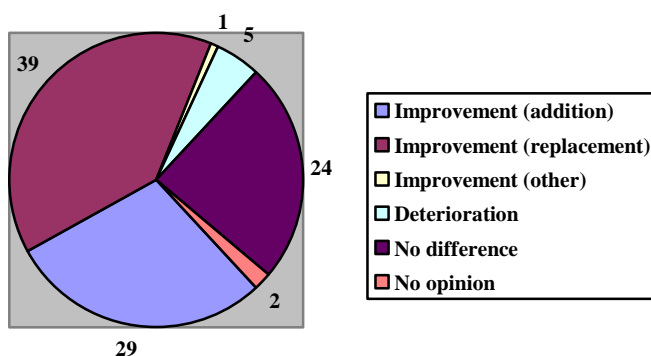


Figure 1. eGovernment services. An improvement or deterioration? (n=190; %)

4. SPEED AND COMFORT CONSIDERED ADDED VALUES

What do businesses consider the most important added values of eGovernment services? is the question posed in this section. The advantages of electronic services for governments seem to be evident. The digital entry of standardized requests, licences and declarations does away with manual processing of forms, and leads – especially in the case of large numbers – to cost savings and a significant reduction in errors. And so

Government agencies such as the Tax Administration and Statistics Netherlands have propagated the use of EDI applications (Electronic Data Interchange) for several years (the carrot policy). This has yielded varying success. In 2004, the Dutch Tax Administration obliged businesses to complete and return tax declarations electronically (the stick policy).

The advantages described above are less obvious for many businesses. They say that eGovernment services definitely result in fast and comfortable service delivery (43 en 23 percent). Other perceived advantages are transparency of service delivery and tailor-made services (both six percent). This confirms that businesses expect eGovernment services can help to overcome a significant irritation concerning government services delivery in general, namely slow delivery and accessibility of services (also reported in this survey).

One out of four businesses (24 percent) needs more electronic service delivery. A larger part of the response (71 percent) does not support this statement. When we distinguish in terms of company size, it becomes clear that smaller firms require significantly fewer eGovernment services compared to larger firms (see Figure 2).

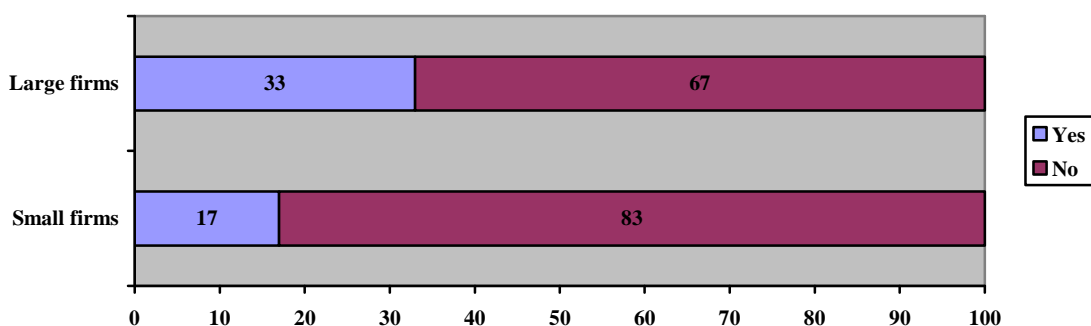


Figure 2. Does your company need (more) eGovernment services (n=503; %).
 * Small firms = 50 percent of the smallest firms in the sample and large firms = 50 percent of the largest firms

Companies that actually used eGovernment services in the twelve months before this survey (the 38 percent mentioned previously) express that they need electronic services more often than companies which did not use any eGovernment service at all during the period (34 versus 17 percent). This indicates that the use of eGovernment services increases the demand for these services (in other words: perceived added value of eGovernment services creates more need).

The survey results demonstrate that eGovernment services provided by ministries, provinces, local councils and other government institutions do not provide added values to everyone's satisfaction. The digitalisation of existing paper flows by governments will not make businesses switch to eGovernment services automatically. Other research, for example, shows that a significant portion of the electronic information flows only substitute paper flows (Arendsen & Van Engers, 2003). Thus, electronic information flows can hardly be labelled as added values in terms of speed and comfort. Completing an electronic form takes at least the same amount of time as completing a paper form. Governments have not (yet) succeeded in developing 'smart' eGovernment services, for example, by providing electronic forms that are already almost completed so that companies only have to verify, sign and return them electronically. (The Dutch Tax Administration is planning to have pre-filled tax files for businesses in 2008.) These types of services can be provided when governments are able to store and exchange all kinds of information about a company. And the information exchange prevents one government agency such as Tax Administration asking a company to deliver information it has already provided to another government agency such as the Chamber of Commerce. However, this implies that government agencies will have to fine-tune working processes, share databases and cooperate at technical and organizational levels.

5. PREFERENCES IN EGOVERNMENT CHANNELS

This section focuses on the third research question: *Which eGovernment channels do businesses prefer?* eGovernment services to citizens are normally provided using web interfaces such as electronic forms. Companies can often choose between various types of eGovernment channels. Besides web forms that support occasional transactions, companies can for example use automated links between their information management system (IMS) and a government agency's management information system via a central government gateway. Software providers implement these links in software tools. Outsourcing information delivery to government agencies, for example to tax consultants and accountants, is also often used by companies. In the Netherlands many firms use outsourcing, for example tax returns: 40 percent (turnover tax), 60 percent (income tax) en 85 percent (corporate tax).

We asked those companies who stated they require more eGovernment services which channel they prefer (See Table 1). The majority of the companies (61 percent) prefer the Internet as *the* eGovernment channel to handle government services. In the case of an automated link between companies and government agencies, companies prefer the option in which it is their initiative to provide information (23 percent); not the government's initiative (3 percent). A small part of the SME prefers outsourcing electronic contacts (8 percent).

Table 1. Preference of eGovernment channel for handling services (%; n=120)

Channel preferred	%
Internet (website, e-mail)	61
Automated link between a firm and a government's IMS in which a firm's IMS sends information to a government's IMS	23
Automated link between a firm and a government's IMS in which a government's IMS collects the information from a firm's IMS.	3
Outsourcing	8

6. REDUCING THE ADMINISTRATIVE BURDEN

Companies suffer from the numerous legal obligations enforcing them to produce, distribute and store large amounts of data. This provision of information is certainly not in the interest of companies but is meant to benefit the government (i.e. public administration responsible for law enforcement). Despite paying the costs for developing and maintaining information systems and administrative procedures to fulfil their obligations, companies perceive no or very little direct added value returns. The legal obligations to provide public administration with information are therefore considered to be an administrative burden.

The annual administrative costs for Dutch SME and large firms are approximately 17 billion euros. We describe the administrative costs as the resources (usually expressed in time and money) that the business sector or an individual company spends to meet information obligations resulting from public rules, legislation and policies. The administrative burden for businesses includes collecting, changing, storing and providing information. In this section we will focus on the fourth research question: *According to businesses, do eGovernment services reduce the administrative burden?* Firstly, we asked firms how much time and money they spend meeting these obligations.

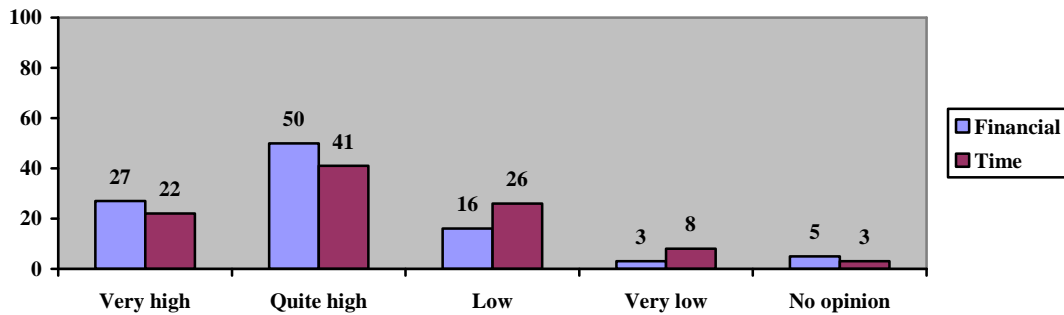


Figure 2. How high (or low) are firms' financial and time investments to fulfil information obligations from public laws, rules and policies (n=503; %).

The majority of the SME experiences an administrative burden resulting from information obligations caused by public rules, laws and policies. The administrative load in finance compared to time load is on average estimated somewhat higher (77 and 63 percent).

The Dutch government addressed the administrative burden in a white paper called *The Other Government* in 2003. This white paper announced various policies that should reduce the administrative burden, such as streamlining and simplifying legislation. The goal of these policies is a 25 percent reduction of administrative burden by the end of 2007. We showed respondents four policy measures derived from the white paper and asked which measure they expect will cause the greatest reduction in administrative burden for companies (see Figure 3).

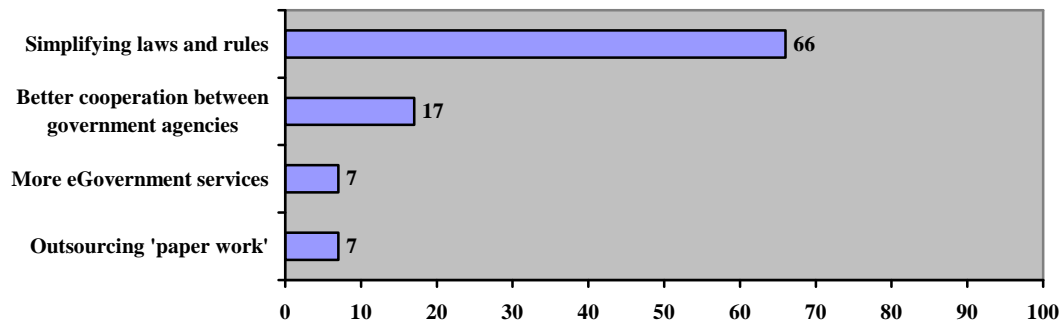


Figure 3. Select the most effective policy measure to reduce administrative burden (n=503; %).

Simplifying laws and rules is selected as the most effective measure to reduce the administrative burden (66 percent) followed by better cooperation between government agencies (17 percent), eGovernment services and outsourcing (both 7 percent). Answers from companies with and without eGovernment experience hardly differ. Companies expect little effect from ICT on the reduction of their administrative burden.

7. CONCLUSION

Companies assess eGovernment services as moderately positive. Compared with non-electronic government services, they find them an improvement and a good substitute. Above all, companies with eGovernment experience seem to need more eGovernment services than those without this experience. This provides a fruitful ground for ministries, local councils and other government institutions to develop more and better digital services. Companies expect most added values from eGovernment services in the area of fast and convenient service delivery.

A substantial section of businesses states that they do not require (more) eGovernment services, which implies that many companies do not recognize or experience any added value. This is underlined by the fact that many businesses do not consider eGovernment services as a means to reduce their administrative burden. Less and more simple legislation seems to be more effective. Referring to the previously mentioned white paper, we conclude that the *other* government goes before the *electronic* government.

However, the realisation of the other government by simplifying laws and improving cooperation between government agencies goes hand in hand with the development of an eGovernment. This development means that the government will not only have to invest in ICT and ICT based services, it is also very important that civil servants acquire digital skills (Parrado, 2005) and that eGovernment services become known to the target groups. From that perspective it is encouraging that the survey also showed how most SME are at least familiar with some eGovernment services and initiatives for companies such as the nation-wide Business Portal (known to 90 percent) and digital tax returns (known to 98 percent).

The reserved opinions of businesses do however not imply that governments should develop eGovernment services more carefully. They ask for a more tailor-made approach, and one which takes into account the needs of various target groups such as the use of different (eGovernment) channels. Furthermore, the development and use of eGovernment services can be stimulated from an 'inviting to use' (carrot) and a 'compelling to use' (stick) policy.

Firstly we will look at governments obliging companies to use eGovernment services (the stick policy). Debates about eGovernment usually boil down to debates about eGovernment services. Our survey also focuses on these services. But the government is more than just a service organization and this obviously holds for eGovernment as well. Consequently, governments are putting much effort into the digitalization of other tasks such as supervision and law enforcement. From a business point of view on government, (electronic) supervision and enforcement can hardly be labelled as a government *service*. The same applies to the duty to deliver information electronically. For example, tax returns (which Dutch firms must provide electronically) lead to large and tangible cost savings for the government. The cost savings for businesses are less visible (and measurable). If we take the reduction of the total societal costs as a guiding principle, the obligation to use eGovernment seems to be justified. The question remains however whether this measure should be motivated with arguments of improved service delivery and reduction of administrative burden as these so-called "services" are often not services at all (paying tax, inspections, law enforcement) and certainly do not result in a reduced administrative burden. Our survey shows that a potentially positive side effect of this stick policy is that positive experience with eGovernment including electronic supervision, law enforcement, etc. can result in an increased demand for more eGovernment *services*.

Secondly, we will look at how governments can invite businesses to use eGovernment services (the carrot policy). Instead of constraining businesses, inviting them to use eGovernment services is an important instrument. Our survey shows that what motivates businesses to use eGovernment services is speed and comfort of service delivery. The challenge is therefore how to make a connection between (macro) nationwide formulated policy programs (*The Other Government, ICTAL*) and (micro) investment decisions of individual entrepreneurs that result in the use of innovation such as eGovernment service delivery. We refer to the models of adoption and diffusion of innovations (Rogers, 1995). Researchers state that not only do features of innovations such as relative advantage, compatibility and complexity determine the diffusion and adoption; characteristics of the potential user (the firm, the entrepreneur) and their environment also determine success. These characteristics can be firm size, financial position and pressure of competition, and in the case of eGovernment, also digital skills.

Our research also reveals significant differences between various target groups of eGovernment services: between smaller and larger firms, between firms with and without eGovernment experience and firms with different preferences regarding the eGovernment channel to be used.

The government with a stick finds itself on a known path, but the government with a carrot needs to overcome more obstacles. But everyone knows that tempting people is an art.

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