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How To Increase Public E-Services Usage In Governments - A Case Study Of The German Federal Employment Agency

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HOW TO INCREASE PUBLIC E-SERVICES USAGE IN
GOVERNMENTS – A CASE STUDY OF THE GERMAN
FEDERAL EMPLOYMENT AGENCY

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Abstract

E-services have been gaining increasing importance in the public sector over recent years. But even
though e-services help governments in many ways – for example by increasing agency efficiency or
enabling citizens to participate in democratic processes – citizen e-services usage rates still lag
behind expectations in many countries to date. This article analyzes the reasons why citizens do not
use e-government services more extensive and investigates how governments could increase usage. In
a case study with the German Federal Employment Agency, we find that public institutions and their
employees underestimate the willingness among citizens to use e-services, that citizens lack
information about e-services, and that usability problems prevent citizens to use e-services more
extensive. Furthermore, we evaluate three actions that have to be addressed to increase e-services
usage among citizens.

Keywords: E-Services, E-Government, Public Sector, Case Study, German Federal Employment
Agency.
1 Introduction

Over recent years, governments have been harnessing the power of information and communication technology to deliver an increasing number of public e-services. According to the United Nations E-Government Survey in 2012, online service delivery continues to progress in most countries around the world. Many public sector agencies worldwide have launched e-government initiatives to further enhance public sector effectiveness, efficiency and to enable citizens to participate in democratic processes (Asgarkhani, 2005). From 2005 to 2010, public e-services grew from 23 to 32 percent in the EU 27 countries (United Nations, 2012). Thereby the European region “has the highest level of e-government development, which is around 50 percent higher than that of the world as a whole” (United Nations, 2012, p. 29). Different examples from various countries show which benefits can be realized by using public e-services. The Netherlands, for example, sees the digital channel as a key to coping with the challenge that arises from the fact that the public employment services budget will be cut in half by 2015, and the number of offices will be reduced from 100 to 30 by 2014 (Murray, 2011). Germany provides an example of how to reduce administrative costs: Implementing an e-filing system is expected to generate savings of EUR 30 million each year in this country (Rauch and Muschter, 2012). Another example in the United States: the “Apps for Democracy” competition – a contest to encourage developers and users to design applications. Ultimately, 47 applications were created in 30 days at the mere cost of USD 50,000 for running the contest. Hiring contract developers, in contrast, would have cost approximately USD 2.6 million (Baumgarten and Chui, 2009).

To fully realize e-government effectiveness, efficiencies, and other benefits, citizens and businesses have to use public e-services on a regular basis. Recent studies, however, indicate that the level of uptake for public e-services currently remains low compared with service availability (United Nations, 2012; OECD, 2009). In particular, this holds true for citizen e-services. The European Commission (2011), for example, states that “the use by citizens remains low and this poses questions and challenges to European policymakers” (European Commission, 2011, p. 123). A similar statement comes from the United Nations (2012), mentioning that “low usage and user uptake indicates that e-services up-take has untapped potential for the improvement of service delivery in line with citizen demand” (United Nations, 2012, p. 7). First countries launch media campaigns to spread awareness of e-services to their citizens. However, Cross (2007), for example reports that a five million pound campaign to persuade citizens to use e-services has had little effect in the UK.

In this context, the focus of our research is on the questions: What are reasons for non-use of citizens’ e-services? How can governments increase citizens’ e-services usage rates? To answer these questions, we conducted a case study of the German Federal Employment Agency. Our research is intended to help public sector institutions in their strive to increase e-services usage, allowing them to identify concrete design-oriented actions. It is anticipated that this research will stimulate discussion among the e-government research community, particularly in Germany, and provide some pointers to practitioners and policy makers for improving e-government adoption.

The remainder of this paper is structured as follows: In the next section, we review the existing literature. Section 3 briefly describes the case and the data collection process, while Section 4 presents our findings based on the German Federal Employment Agency case study. After that, we discuss the results and derive managerial and research implications in Section 5. We conclude with a brief summary of our research in Section 6.
2 Background Literature

2.1 Empirical evidence on technology adoption

The field of technology adoption in general has fostered different studies, theories, and models in recent years. These models seek to explain individual adoption of technology. The perhaps most prominent model to explain user adoption of information systems (IS) is the technology acceptance model (TAM) by Davis (1989). TAM is based on the theory of reasoned actions, which states that beliefs influence intentions, and intentions influence one’s actions (Ajzen and Fishbein, 1972). According to TAM, there are two major constructs that influence one’s intention to use a system: perceived usefulness and perceived ease of use. The model predicts that higher perceptions of usefulness and ease of use will increase one’s intention to use a system. In the same vein as TAM, Venkatesh et al. (2003) introduced the unified theory of acceptance and use of technology (UTAUT). This theory combines different behavioral models for technology adoption (e.g., the theory of reasoned actions or the motivational model). According to UTAUT, four behavioral intentions are reasonable for usage intention and actual usage: performance expectancy, effort expectancy, social influence, and facilitating conditions. Another popular model used in information systems research is Rogers’ diffusion of innovation theory (DOI), which seeks to explain how an innovation (new concepts or technology) spreads through society (Rogers, 2003). Unlike TAM, the model conceptualizes a generic theory of adoption and does not refer specifically to technology adoption. The model identifies five relevant constructs (relative advantage, complexity, compatibility, trialability, and observability) that influence an adopter’s decision. Two constructs of TAM (perceived usefulness and perceived ease of use) are also included in the DOI model captured by relative advantage and complexity (Plouffe et al., 2001; Carter and Weerakkody, 2008). Beyond the models illustrated, there are a plethora of further models and constructs used to describe technology adoption and to identify the most important constructs (e.g., Benbasat and Barki, 2007). Although these models deliver relevant constructs which influence use intention and are able to explain technology adoption in general from a behavioral perspective, they lack practical applicability in the way that they don’t propose concrete design-oriented actions to increase technology usage.

2.2 E-services adoption in the public sector

Beyond technology adoption in general, there are numerous studies that analyze e-services adoption in the public sector specifically. The following section gives a short literature review of some of the latest findings within this research field. The findings indicate that many studies focus either on analyzing the level of e-services usage in general, on investigating the reasons for low public e-services up-take, or on explaining e-services adoption from a behavioral perspective. Scientific research that evaluates concrete design-oriented actions to increase public e-services usage by citizens has mostly been neglected so far.

One stream of research investigates the level of e-services usage, for instance, among and within countries, from a supply and demand side, and for different types of e-services used. The United Nations E-Government Survey 2012, for example, recently stated that usage of e-services worldwide is generally low and that there is a huge gap between e-services availability (~90 percent of 20 analyzed basic services) and usage (~30 percent). The OECD (2009) showed that this especially holds true for citizens e-services (OECD, 2009). Further studies pointed out differences between and within countries (e.g., Lee et al., 2005; Rocheleau and Wù, 2005). According to the United Nations E-Government Survey 2012, the Republic of Korea is the world leader followed by the Netherlands, the United Kingdom, and Denmark, with the United States, Canada, France, Norway, Singapore, and Sweden close behind (United Nations, 2012). Further studies analyze e-services usage from a supply side (e.g., Moon, 2002), which examines e-government offerings, and a few from a demand side,
which refers to citizen interaction with e-government (e.g., Reddick, 2005; Thomas and Streib, 2003; Gauld et al., 2010). However, although “citizen usage of e-government services (‘demand-side’) has also become a priority issue” (United Nations, 2012, p. 103), most of the existing work has explored e-services usage from a supply-side perspective so far.

Based on the low level of e-services up-take, a further research stream explores the reasons for this (e.g., Ray, 2011) and seeks to explain constructs for e-services adoption in the public sector. Scholars generally believe that amongst others the lack of access to e-services (OECD, 2009), lack of trust (European Commission, 2011), the need for a sensory experience (Barth and Veit, 2011), and the existence of digital divide (Bélanger and Carter, 2006) hinder e-government usage. With respect to the technology adoption models, several studies of e-government adoption illustrate that perceived usefulness is an important construct that is able to explain a large percentage of the variance in intention to use (Carter and Belanger, 2005; Gefen et al., 2005; Wang and Lo, 2010; Lin et al., 2011). Carter and Weerakkody (2008) found that relative advantage and trust both have a significant impact on citizens’ intention to use e-government services. Gilbert et al. (2004) highlighted that relative benefits (less time, cost, and avoiding interaction) are factors that influence one’s willingness to use e-services. Furthermore, recent studies indicate that social media can help to increase e-services adoption in the public sector (e.g., Shah and Lim, 2011).

However, despite a plethora of articles analyzing different perspectives of e-services usage, few studies have evaluated concrete design-oriented actions to increase e-services usage by citizens in the public sector. One of the few field studies is the work of Teerlinga and Pieterson (2010) that shows that channel marketing can be effectively used to lead citizens to the digital channel. Nevertheless, Reddick (2005) stated that citizen research on e-government is sparse in the literature and highlighted the need for studies that investigate how to increase public e-services usage. In this context, the study described in the following attempts to fill this gap especially by evaluating different design-oriented actions to increase e-services usage by citizens.

3 Research Method

3.1 Case description

The Federal Employment Agency (Bundesagentur für Arbeit) is the largest provider of labour market services in Germany with more than 120,000 employees. It has a network of 176 employment agencies and about 610 branch offices nationwide. The most important tasks are job and training placement, career counseling, and providing benefits that substitute for employment income, such as unemployment benefits and insolvency payments. In 2003, the Federal Employment Agency launched different e-services for citizens and businesses bundled into the digital job portal JOBBÖRSE (http://jobboerse.arbeitsagentur.de). JOBBÖRSE includes, for example, online job seeker registration or an online job account. Via the online job account which is the most important e-service between job seekers and placement advisor, job seekers have the opportunity to collaborate with the staff online – for example to publish applicant profiles, to create applications, to activate a job search assistant, to respond to placement suggestion, or to communicate with advisors. Similar online processes are available to employers (e.g., online registration of workforce demand). Given the demand of citizens and employers along with increasing cost pressure, the Federal Employment Agency steadily developed these e-services further in recent years. In November 2012, JOBBÖRSE comprised about 2.93 million job seeker applicant profiles and 750,000 jobs from employers.

Despite huge investments to optimize the various public e-services in recent years, e-services usage rates have lagged far behind expectations, and these have remained at a low level (especially for citizens): Less than 8 percent of job seekers used the online account to communicate with their placement advisors in 2011; only around 1 percent of those seeking employment used online registration. To address this situation, the Federal Employment Agency management decided to launch
a project (named Kontakt+) with the objective of first analyzing the reasons why public e-services usage remains low, and second, of evaluating how e-services usage could be increased based on different actions. In this specific study, we focus on public e-services for citizens and consider the online job account as well as the online jobseeker registration when referring to e-services. During the project, different data collection and analysis methods were used to analyze the central questions of the study. We briefly describe these in the following.

3.2 Data collection and preparation

Mainly, our research follows the case study approach by Yin (2009). First, we planned and designed our research in December 2010. To obtain the necessary data (with respect to data preparation and collection phase), we followed a two-step approach. In the first step, our objective was to determine why the Federal Employment Agency’s online services and offers are experiencing low levels of use. To that end, we conducted a representative survey of 500 job seekers respectively unemployed individuals (referred to as “customers” in the following) by telephone in January 2011, and inquired about their online behavior, particularly with regard to the Federal Employment Agency's online offers.

Beyond this, in January 2011, an online survey of 794 employees and 128 managers from various departments in the Federal Employment Agency was conducted to obtain their assessments of the Agency's online offers (e.g., regarding customer willingness to use these offerings). Additionally, six workshops with an average of eleven participants (employees and managers) were held in February 2011 at six local employment agencies across Germany to ask follow-up questions on the insights gained from the online surveys.

In a second step, information obtained from the surveys and workshops was then used to evaluate different actions to increase the use of online services by citizens. In this context, a six-month field study was carried out from July to December 2011 at four employment agencies across Germany (in the southern, northern, eastern and western part of Germany). The basic population in each agency in June 2011, which was used as base line, was between 2,000 and 4,000 (potential e-services user). In each agency, we evaluated one action in the mentioned timeframe. This study presents the effect of an action on the usage rate of the online job account as the most important e-service instrument for collaboration between the job seekers and advisors. To ensure valid results, an additional and statistically similar agency was identified for each agency to facilitate comparison (referred to as “statistical neighbor” in the following). This allowed for the general elimination of (for example) seasonal effects or regional characteristics. The results of the analysis are presented in the following section.

4 Findings

4.1 Reasons for low e-services usage of citizens

Based on the customer and the employee survey, we identified several reasons for low e-services usage at the German Federal Employment Agency. In the following, we describe the three most important. These findings were also underpinned by qualitative interviews in the six workshops conducted at six local agencies in February 2011.

4.1.1 Reason 1: Customers are not aware of the e-services

First and foremost, results reveal that around 40 percent of agency customers are not aware of the e-services that Germany's Federal Employment Agency offers. This seems to be a major reason for low level of usage, since knowledge of these services is a fundamental prerequisite for usage. It could be
argued that those customers do not use the Internet at all. However, our findings show that 60 percent of those customers who are not aware of these e-services still use the Internet on a daily basis or at least occasionally. Moreover, the findings demonstrate that of those survey respondents who use the Internet on a daily basis or at least occasionally, around 50 percent use the Internet for online banking and 50 percent to shop online.

4.1.2 Reason 2: Agency employees do not offer the e-services to their customers

A second reason for low e-services usage seems to have a high correlation with the first one. The customer survey reveals that agency employees are the main channel to communicate public e-services to customers (at around 70 percent). Yet the survey results show that e-services only play a role in about 15 percent of today’s relationships between employment advisors and job seekers. An analysis based on the employee survey indicates two reasons in particular that employment advisors do not proactively offer e-services to their customers: On the one hand, local employees often underestimate citizens’ interest in and willingness to use e-services. In line with this, 73 percent of responding German Federal Employment Agency employees assessed the online affinity of their customers as low (only 27 percent stated that customers are willing to use e-services) – of customers surveyed in parallel, 73 percent claimed that the opposite was true (see Figure 1).

![Figure 1. Customers’ willingness to use e-services and employee assessment.](image)

On the other hand, the survey reveals that employees feel that their training is insufficient to communicate the advantages and use of the offerings to their customers (around 40 percent); thus, they fear collaboration issues and duplicate work (also around 40 percent). This seems to be a second important reason as to why agency employees offer e-services to their customers on such a limited scale.

4.1.3 Reason 3: (Technical) usability of e-services is inadequate

Finally, a third reason for the low level of e-services usage is that customers frequently have difficulties with the technical usability of the e-services. Among those who are either not familiar with the e-services or have not yet used them, around 10 percent indicated that they do not use them due to their poor usability and general lack of user-friendliness. But this holds true among those who already use the e-services as well. Almost 80 percent responded qualitatively to the question on what needed to change so that they as customers would use e-services more intensely with the statement that better user-friendliness and better handling of e-services would contribute to increased usage. A similar indicator for this is the finding that almost 50 percent of customers gave the Federal Employment Agency's e-services a rating of 3 (1 = very good and 6 = very poor). These results suggest that the German Federal Employment Agency has offered its customers too little intuitive usability in their e-services to date.

One interesting point is that beyond the three key reasons for not using the e-services, only around 1 percent of respondents stated that they did not use the e-services due to concerns regarding data security. This is especially interesting as other studies reveal the opposite (e.g., Asgarkhani, 2005).
4.2 Evaluation of actions to increase e-services usage

Based on insights into the reasons behind low usage rates of e-services, the subsequent objective was to evaluate various actions targeting an increase in e-services in four local employment agencies. In order to reveal the impact of the actions, the online job account was used, since this is the most important e-service for collaborations between customers and advisors. In other words, the impact of an action on the usage of the online job account was investigated ceterus paribus over a six-month period in each of the four employment agencies. At the same time, we observed the usage rates at the four statistical neighbors. The account was then considered active if the customer had logged onto it over the past 84 days and activated at least one of three specified functions (application portfolio, job search assistant, and respond to placement suggestion). The results from this six-month field study are presented in the following.

4.2.1 Action 1: Strengthen awareness of e-services based on external marketing

Based on the fact that numerous customers are not aware of e-services, the objective of the first action was to assess to what extent marketing activities could raise external awareness for this e-service. For this purpose, numerous marketing activities were conducted at two local agencies (Agency 1 and Agency 2). Activities in the employment agency itself included for example distributing flyers and displaying posters promoting the e-service online job account. Beyond this, various other activities were conducted, such as reports in local newspapers, magazines, on local radio and television stations, and at events.

The results show that the usage rate of the e-service online job account could be increased by 53 percent at Agency 1 and 46 percent at Agency 2 based on these efforts during the period from June (base line) to December 2011 (see Figure 2). This means that the usage rate is around 30 percent higher at Agency 1 and around 36 percent at Agency 2 compared with their statistical neighbors (black line in Figure 2). Overall, this indicates that marketing efforts to raise awareness show impact in increasing the online job account usage rates.

4.2.2 Action 2: Activate and train employees

Given the fact that employees have only been promoting e-services to customers at a very low level to date, the objective of action 2 was to evaluate to what extent more intensive activation and involvement of agency employees (advisors) in e-services would lead to increased usage. To achieve this, efforts were made by Agency 3 to provide intensive follow-up training on e-services, where e-
services content and advantages were again explained to agency employees first (one day product training) and then targeted interactive training (one day) was conducted in which the employees assumed the customer perspective. The classic employee training up to that point frequently portrayed the e-services too much from the perspective of the internal placement advisor. Beyond this, employees were asked to proactively use the online job account within the scope of their placement activities with customers.

The results show that based on action 2 at Agency 3, the usage rates for the e-service online job account could be increased by 321 percent from 6.7 percent to 21.5 percent during the period from June to December 2011 (see Figure 3). With this, the usage rate in Agency 3 was around 250 percent higher than its statistical neighbor. Thus, extremely clear impact on the usage rate of the online job account is apparent as a result of activating and training employees.

![Figure 3. Impact of action 2 on the online job account usage rate.](image)

### 4.2.3 Action 3: Improve technical usability and user-friendliness of e-services

The objective of action 3 was to evaluate to what extent selectively improving the usability and user-friendliness of e-services would lead to increased usage. Since short-term, technical optimization of online job account usability proved difficult at one agency, the online job seeker registration for data entry devices (self-service zone) was used instead at one agency in Germany. Although data entry by a customer (including personal data, information on CV and mobility, and personal capabilities) are predominantly handled by agency employees within the context of a personal meeting, customers have had the option of entering their own data themselves using data entry devices in the agency for several years. Analyzing this e-service on-site in the agency also had the advantage of being able to observe in detail which problems customers encountered during online registration (since the rationale behind this e-service was similar to other Federal Employment Agency e-services, this fundamentally ensured that insights were transferrable). In concrete terms for the assessment of action 3 at Agency 4, the improvements by the project team for customers included the entry process initiation for online registration (e.g., simpler password entry, more intuitive keyboard) along with simple instructions for registration that leads customers through the process step by step. People providing customers at entry devices with assistance also proved to remove usage hurdles for customers. This made it possible for customers to ask ad-hoc questions, preventing customers from aborting the process before completion.

The results show that it was possible to convince around 20 percent of Agency 4 customers of the benefits of online job seeker registration during the period from June to December 2011 based on these relatively simple actions (see Figure 4). Compared with nationwide usage rates in Germany for local online registration of less than 1 percent, an increase in usage of many times over could be achieved.
5 Discussion, Limitations and Future Research

5.1 Research implications

This study has investigated reasons for non-use of citizens’ e-services and has evaluated three concrete actions intended to increase e-services usage among citizens. One notable finding from the case study on the German Federal Employment Agency is that activating and training employees has a positive impact on increasing citizens’ e-services usage. Prior technology adoption models in the context of e-government found that especially perceived usefulness, or rather relative advantage are important constructs to explain citizens’ intention to use e-government services (e.g., Carter and Belanger, 2005; Gefen et al., 2005; Carter and Weerakkody, 2008). Thus, the results of this study complement existing knowledge in this research field and contribute to a better understanding of which actions to take to increase citizens’ e-services usage. This is all the more important as an increasing number of countries aim to provide their services online to a greater extent. As findings indicate, awareness of e-services is a fundamental prerequisite for usage. Further studies should be conducted to seek ways of increasing citizens’ awareness in an efficient and successful manner. This seems to be a challenging undertaking, as different press articles highlight the failure of marketing awareness campaigns (e.g., Cross, 2007). One interesting research question in that context is how social media can be used to expand awareness as a new communication channel. In the context of social media’s growing importance around the world, the United Nations E-Government Survey stated that “Social media holds much potential for generally increasing citizen usage of e-services” (United Nations, 2012, p. 109). First studies indicate that social media can help to increase e-services adoption in the public sector (Shah and Lim, 2011). Beyond social media, there are further promising ideas (e.g., the use of existing portals as concentration points for users or the use of mobile devices) to increase awareness for e-services which offer interesting further research opportunities. Moreover, as we evaluated only a limited number of actions, future research should look at further actions to increase citizens’ e-services uptake (especially for transactional e-services). For example, it would be interesting to see how special incentives affect the usage of e-services. In Germany, for instance, people using the electronic tax declaration (https://www.elster.de) had the chance to win a car in 2009. With respect to the research method, it makes sense for further studies to use field study experiments, as they are able to identify effective actions to help policymakers increase e-services usage. Finally, research should focus on measuring the impact of e-services for citizens. In line with Asgarkhani (2005) there is a need for performance metrics to assess effectiveness and to ensure that e-services are efficient in realizing the anticipated benefits.
5.2 Implications for practice

This study has several implications for practice. First of all, as many people are not aware of e-government services, there is a need to market online services that governments offer to their citizens. Specifically, governments should conduct more effective marketing campaigns for their online transaction-based services. Presumably, making citizens aware of these e-services as alternative instrument of conducting transactions should facilitate more demand for transaction-based e-services and increase adoption (Reddick, 2005). Secondly, as e-government is “not a technical exercise” (Asgarkhani, 2005) but rather an attempt to drive a fundamental change in the way governments work, governments should prepare their whole organizations for a shift toward online. In particular, this means that employees have to be trained and activated by their managers to use e-services. This will enable them to competently offer these services to citizens and have the necessary skills in the digital age. A third recommendation in practice is to increase the usability and user-friendliness of e-services. It is important to develop e-services from a citizen-centric perspective. Ways to do this are, for example, having smooth processes rather than isolated offerings, intuitive user navigation that is designed and tested with users as well as security technologies that do not set up insurmountable hurdles. These types of design principles will enable implementation of attractive e-services. This is currently being done by the German Federal Employment Agency. In addition, data protection should be seen as a necessary condition but not as a central design feature. In addition, legislators should ensure that they do not create insurmountable hurdles, especially for transactional e-services. In Germany, for instance, it is still necessary for customers to appear in person at their local agency to register as unemployed. Finally, the field study shows that running pilots can generate key insights such as how to increase the usage rate for citizen e-services. In 2013, the German Federal Employment Agency will roll out these actions to 176 agencies throughout Germany. In this context, further public sector institutions should be encouraged to also adopt this practically oriented yet sound methodological approach to further e-services. This would help increase the usage rate of citizen e-services long-term to the benefit of society as a whole.

Overall, current studies, including the study by the German Federal Employment Agency, show that citizens want e-government. Their willingness to use e-services in principle is very high. Expectations on administrative bodies are growing and well thought-through e-services ensure high customer satisfaction. Administrations should therefore consider usage rates a challenge to become better rather than as a sign of disinterest on the part of citizens.

5.3 Limitations

There are several limitations in this study. First, we only considered a single case study from one country. However, the German Federal Employment Agency is one of the largest public sector institutions in Europe. Thus, we can assume that results have certain significance. Nevertheless, future studies should consider further cases in other (European) countries to validate the results. Secondly, in our case study we observed the impact of an action to increase the usage rate of a limited number of e-services. Although the online job account considered is the most important e-service between customer and employment advisor in Germany, future studies should also especially focus on further types of e-services (e.g., transactional e-services). Finally, we only evaluated a limited number of actions. Bearing in mind that we tested the actions in a field-study experiment, this was a time-consuming and extensive task. However, future research should evaluate further actions for example with respect to social media that can help governments to increase e-services usage. Here, the constructs of the technology adoption models deliver initial starting points.
6 Conclusion

In the age of Internet and “digital natives”, many governments have been harnessing the power of information and communication technology to deliver an increasing number of public e-services. These services “increase the convenience and accessibility of government services and information to citizens” (Carter and Bélanger, 2005, p. 5). However, despite the benefits of e-services – for instance, greater public access to information and a more efficient, cost-effective government – the acceptance and usage rates of e-services initiatives for citizens still lag behind expectations in many countries so far. In order to develop ‘citizen-centric’ public e-services or to improve existing ones that provide users with accessible, relevant information and “quality services that are more expedient than traditional ‘brick and mortar’ transactions” (Carter and Bélanger, 2005, p. 5), governments must understand the reasons for citizens’ non-use of these services and need to know which actions to take. This study analyzes the reasons why citizens do not use e-government services and evaluates different actions governments could deploy to increase e-services usage rates. In a case study with the German Federal Employment Agency, we found that public institutions and their employees underestimate citizens' willingness to use e-services and that citizens lack information about e-services; also, usability problems prevent citizens from using e-services in a more extended way. Based on a six-month field study, the findings indicate that strengthened awareness of e-services based on external marketing, employee activation and training, and improving technical usability and user-friendliness of e-services are significant actions to increase citizens’ e-services usage. The study also highlights the importance of conducting design-oriented field research to help governments to identify concrete actions. As e-government grows in importance all over the world to government agencies and local citizens (United Nations, 2012), it is an imperative that we have a clear understanding of how to improve the adoption of these services in order to fully realize e-government effectiveness, efficiency, and other benefits.

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