7-1-2013

The Importance Of Culture, Trust, And Habitual Patterns - Determinants Of Cross-Cultural Egovernment Adoption

Johana Cabinakova
Goethe University, Frankfurt, Hessen, Germany, johana.cabinakova@gmail.com

Julia Kroenung
Goethe University Frankfurt, Frankfurt am Main, Hessen, Germany, kroenung@wiwi.uni-frankfurt.de

Andreas Eckhardt
Goethe University Frankfurt, Frankfurt am Main, Germany, eckhardt@wiwi.uni-frankfurt.de

Steffen Bernius
Goethe University, Frankfurt, Hessen, Germany, bernius@wiwi.uni-frankfurt.de

THE IMPORTANCE OF CULTURE, TRUST, AND HABITUAL PATTERNS – DETERMINANTS OF CROSS-CULTURAL EGOVERNMENT ADOPTION

Cabinakova, Johana, Goethe University Frankfurt, Campus Westend - Grüneburgplatz 1, 60323 Frankfurt am Main, Germany, johana.cabinakova@stud.uni-frankfurt.de

Kroenung, Julia, Goethe University Frankfurt, Campus Westend - Grüneburgplatz 1, 60323 Frankfurt am Main, Germany, kroenung@wiwi.uni-frankfurt.de

Eckhardt, Andreas, Goethe University Frankfurt, Campus Westend - Grüneburgplatz 1, 60323 Frankfurt am Main, Germany, eckhardt@wiwi.uni-frankfurt.de

Bernius, Steffen, Goethe University Frankfurt, Campus Westend - Grüneburgplatz 1, 60323 Frankfurt am Main, Germany, bernius@wiwi.uni-frankfurt.de

Abstract

The objective of this paper is to examine national cultural factors that may influence citizen adoption of eGovernment websites in two culturally different countries: Germany and Slovakia. In this purpose we developed a behavioural model basing on the three columns: Trust, culture and habitual patterns. We used the Hofstede's national culture dimensions in combination with latest research in IS adoption and eGovernment as theoretical basement. Based on survey data collected from a total of 576 German and Slovak citizens, our research holds the following contributions: The first is, that uncertainty avoidance has a significant impact on citizens' attitude to adopt eGovernment Services, but only in one of the two countries, which emphasizes the importance of cultural differences with respect to development stages in eGovernment in a country. Second, our data indicated that habitual patterns of citizens to personally handle services at government agencies significantly inhibit their eGovernment adoption behavior within both countries. Third, general trust and thus in the public sector and thus a governments reputation positively influences the adoption of eGovernment Services by its citizens.

Keywords: eGovernment adoption, culture, inertia, Germany, Slovakia.

1 Introduction

Over the past decade, the implementation of eGovernment systems has been attracting growing research interest and it is believed to represent one of the most significant IT implementation and organizational transformation challenges of the next decades (Warkentin et al., 2002). According to Dwivedi et al. (2011), the objective of eGovernment is to build a digital state that offers public services and information in a digital format to its citizens. Being in place for over ten years now automating citizens' transactions and interactions with their government, eGovernment has increasingly become a global phenomenon (Dwivedi et al., 2011). Whereas the countries' motives to introduce eGovernment are more or less equal and mostly related to cost-effectiveness, even countries of the same global area differ dramatically as to their approaches to foster eGovernment adoption by citizens (Dwivedi et al., 2011,)

Understanding the citizens' motives and influencing factors to adopt and use eGovernment services thereby remains critical for the success of eGovernment and many theories of IS adoption, success and diffusion research have been applied to this context (see i.e. Dwivedi and Irani, 2009; Dwivedi et al., 2009; Shareef et al., 2011; Williams et al., 2009). Although these theories have provided valuable insights to the understanding of eGovernment adoption, success and diffusion, more specific adoption theories need to account to the specific context and conditions of eGovernment and citizenship (Orlikowski, 2000) instead of blackboxing technology (Dwivedi et al., 2011).

Moreover, the focus of eGovernment services adoption has been predominantly on the driving factors and eGovernment contexts (Bharosa et al., 2008) than on the inhibitors on the individual level. Recent research in IS adoption has indicated that habits to incumbent behaviors inhibit the adoption of new behaviors by means *inertia* (Polites and Karahanna, 2012). To our knowledge, in the context of eGovernment the issue of inhibiting habits has not been investigated so far. However with respect to the improvement of eGovernment services this issue is very important, since non-adoption is not an indicator of system failure but strong individual habits to – in this case – handle government affairs personally and the consequent inertia to change this behaviour.

Thus, within this research we aim at taking up the issues mentioned above and derive the following research objectives: The first one is to extend traditional adoption models by eGovernment specific factors and cultural factors. For this purpose we incorporated two cultural factors of Hofstede (Hofstede, 1997) in our model and used two samples from different countries in order to explore cultural differences as to eGovernment adoption with respect to the country specifics in this context. The second is to integrate the constructs habit and inertia in the model to investigate their inhibiting powers on the adoption of eGovernment in the two countries. And third, the question of how citizens' general trust in their public sector influences their eGovernment adoption behavior.

In order to meet these objectives, the paper is structured as follows: In the next section, we will briefly summarize the present research on eGovernment and technology adoption. For reasons of clarity, we separated the sections into adoption models in eGovernment in general, the importance of trust, effects of habit and inertia as well as the cultural factors. Within each section, hypotheses with respect to the research objectives will be derived. Hereinafter, we will give a short introduction to eGovernment initiatives in the two countries at focus, highlighting the differences as to cultural impacts on eGovernment adoption. Subsequently the research model is presented followed by methodology, results,discussion, conclusion and limitations.

2 Drivers and inhibitors of citizens adoption of eGovernment Services

A rich body of research is dealing with IT adoption behavior in organizations. According to Williams et al. (2009), before 2009, more than 360 articles have been published in major journals within this field. Similarly, the topic of eGovernment adoption on the individual level is focused in many articles. According to Rana et al. (2012), a number of 112 articles were published in this field before 2012.

In the following the four adoption determinants that are central to this research, behavioural beliefs, trust, habit and inertia, and cultural factors are thematized and reviewed separately with reference to our research model.

2.1 Influence of attitude, perceived ease of use and perceived usefulness on eGovernment service adoption

Many studies found significant relationships between the typical TAM constructs perceived ease of use, perceived usefulness, and attitude and the intention of an individual to use eGovernment services (Rana et al., 2012).

Investigating the adoption of eGovernment services in Qatar, Al-Shafi and Weerakkody (2009) surveyed 1179 citizens based on the UTAUT model. The authors found that intention is positively influenced by perceived usefulness. These results are in line with the findings of Tang et al. (2009), Lean et al. (2009), Carter and Belanger (2005) and Carter (2008). Comparing popular adoption constructs with the use of a survey, the latter identified perceived usefulness as the most important factor in predicting eGovernment adoption, but also identified a positive effect of perceived ease of use on intention. Those findings are similar to the results of a previous study by Phang et al. (2006), who investigated senior citizens' acceptance of information systems in the context of eGovernment services.

Studying the adoption of broadband adoption of citizens in various countries, Dwivedi and colleagues found a positive relation between perceived ease of use and intention to use, too (Dwivedi et al., 2007a; Khoumbati et al., 2007), as well as a correlation between attitude and intention (Dwivedi et al., 2007b).

Finally, a couple of studies that describe a significant relationship between attitude and intention identify perceived usefulness as a significant predictor of attitude. For instance, Hung and colleagues surveyed users of an online tax filing and payment system (Hung et al., 2009) as well as users of an electronic document management system (Hung et al., 2009), and in both cases identified attitude as most important factor of the intention to use those services.

Based on the above-mentioned assumptions of the previous studies, the following hypotheses are proposed in this study:

H1: Perceived ease of use toward using eGovernment services positively influences citizen's attitude towards eGovernment Services

H2: Perceived usefulness of eGovernment services positively influences citizen's attitude towards eGovernment Services.

2.2 Trust in public sector and Trust in Online services

Trust is an ambiguous concept that covers a wide range of relationships, conjoining a variety of subjects. It is the belief that the other party will behave as expected in a socially responsible manner, and in doing so, it will fulfil the trusting party's expectations (Gefen, 2000). It generally exists, when one party has confidence in another´s reliability and integrity (Morgan and Hunt, 1994).

The concept of trust is intimately linked to risk and expectations (Bouckaert and Van der Walle, 2001). It covers general and systemic factors, such as the legitimacy accorded to the political-administrative system, but also more specific experiences with the government and its services and the dynamic interaction between the two (Bouckaert and Van der Walle, 2001).

It has been suggested, that there are two dimensions of the citizen´s trust leading to adoption and the use of eGovernment. These are trust on the government and trust on the internet (Warkentin et al., 2002; Carter and Bélanger, 2005).

Several studies considered that higher levels of the first dimension of trust – general trust in government is correlated with more intensive eService use (Belanger and Carter, 2008; Carter and Belanger, 2005b; Carter and Weerahhody 2008; Welch et a., 2005; Yazci and Cengiz 2010) and according to Gefen et al. (2005) the trust in the agency has a strong impact on the adoption of a technology.

Therefore trusting to government is a crucial step towards the adoption of such paradigm. For adopting eGovernment processes, citizens must intent to "engage in eGovernment" which contain the intention to receive and provide information through on-line channels (Warkentin et al., 2002; Gefen et al., 2005; Rose, 2002). Citizen´s trust in government agencies posses the acumen and technical resources necessary to implement and secure the eServices is crucial for endorsing eGovernment initiatives (Bélanger and Carter 2000).

Several studies examined and identified the significant impact of the second trust dimension – trust on the Internet on eServices adoption (Carter and Bélanger, 2005; McKnight et al., 2002; Warkentin et al., 2002; Welch et al., 2005). Issues such as privacy and security are often found to be barriers to citizen´s adoption of online applications (McKnight et al.; 2002). According to Lee, Kim, and Ahn (2011), users might face uncertainty related to the use of the Internet technology. If citizens feel that privacy and security is low in the technology used they will not trust in eGovernment website (Abu-Shanab and Al-Azzam 2012). Therefore the following hypotheses were tested:

H3: Citizens' trust of public sector will positively influence their attitude towards eGovernment services.

H4: Trust in Online services will positively influence citizen´s attitude towards eGovernment Services

2.3 Habit and Inertia

Habits are defined as "learned sequences of acts that have become automatic responses to specific cues, and are functional in obtaining certain goals or end-states" (Verplanken and Aarts, 2011). Many behaviors that social psychologists are interested in may become habits once they have been repeatedly and satisfactorily executed (Verplanken and Aarts, 2011). In the literature, habit and past behavior are often used synonymously. The important difference is that past behaviors may turn into habit once it has been sufficiently and satisfactorily repeated (Ronis et al., 1989).

With respect to technology adoption by individuals, habits have been identified as being a central driver of sustained usage of a system, predominantly with focus on post-adoptive behavior (Limayem and Hirt, 2003; Limayem et al., 2007).

When it comes to the adoption of new technologies, the effect of habit becomes twofold: interesting and inhibiting. A recently published aspect as to the functionality of habits with regard to the adoption of a new technology is the avoidance switching costs (Polites and Karahanna, 2012). Using the concept of Status Quo Bias (Samuelson and Zeckhauser, 1988) which describes the bias of individuals' decisions towards maintaining the status quo, the Polites and Karahanna (2012) develop the construct of individual level *inertia* that is defined as "attachment to, and persistence of, existing behavioral patterns (i.e., the status quo), even if there are better alternatives or incentives to change" (Polites and Karahanna, 2012). Or, in other words, the more individuals are used to a certain behavior, the less is their willingness to change it.

With regards to the adoption of eGovernment by citizens habit and inertia are important to consider for the following reasons. The first is that ever since government services exist, citizens had to handle bureaucratic procedures of all kinds by personally coming to the local agencies. So whatever service is considered, before the emergence of the internet in the 90s, citizens had no other option than to make use of government services personally on site. Thus, adopting eGovernment services as the "new" behavior in this respect is in competition with the "incumbent" behaviour to personally go to local agencies. Therefore the inhibiting effect of habit and inertia should be taken into account when eGovernment adoption is at stake. A second aspect is that the described habitual patterns can provide an explanation for citizens' lack to use eGovernment services which would falsely be accounted to a lack of the service itself. Thus, we derive the following hypothesis:

H5: Habit towards using government services on site positively influences inertia towards eGovernment services

H6a: Inertia negatively influences attitude towards eGovernment services

H6b: Inertia negatively influences intention to adopt eGovernment services

2.4 The importance of national culture on the adoption of eGovernment

One of the most well-known studies on cultural differences has been conducted by Geert Hofstede. According to Hofstede (1997), culture is "the collective programming of the mind which distinguishes the members in one human group from another". His original taxonomy describing culture along five dimensions, indentified in the 1980ies, belongs to the most popular conceptualization of national culture (Leidner and Kayworth, 2006). These five dimensions are: Power Distance (PDI): the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally; Uncertainty Avoidance (UAI): the extent to which the members of group or society feel threatened by unknown situations; Individualism vs. Collectivism (IDV): the extent to which individuals are integrated into groups; Masculinity vs. Feminity (MAS): the extent to which gender roles are assigned in a culture; Long-Term vs. Short Term Orientation (LTO): a society´s preference to be more forward looking or future oriented.

Recent studies have investigated the importance of the culture and its relation to success of IS/IT adoption (Erumban and Jong, 2006; Leidner and Kayworth, 2006; Twati 2006). Twati examined the influence of four cultural factors on the adoption of MIS and ascertained that by all four factors power distance and uncertainty avoidance have the most influential role on its adoption (Twati, 2006). Similarly Erumban and Jong (2006) and Warkentin et al. (2002) found a significant relationship between two cultural factors, PDI and UAI, and the adoption decisions of new technologies across countries.

Srite and Karahanna (2006) who, however, draw their data from students attending the same university and not directly from the specific country examined the relationships between subjective norms and behavioural intentions by integrating espoused national cultural values into the extended technology acceptance model (Srite and Karahanna, 2006). Their study showed that social norms are stronger determinants of intended behaviour for individuals who espouse feminine and high UAI cultural values (Srite and Karahanna, 2006). Al-Hujran et al. used the Hofstede's theoretical framework of national culture dimensions to investigate the impact of the cultural factors at the eGovernment adoption in Jordan (Al-Hujran et al., 2011). Again, the two cultural dimensions, power distance and uncertainty avoidance had significant impacts on citizens' eGovernment adoption behavior.

With respect to results of earlier studies and the actuality of Al-Hujran et al. research as well as the similarity in the model construction we also decided to integrate these two factors (PD and UAI) into our research model. Still, the theoretical question remains how and to what extent these cultural factors influence citizens' behavior. Basing on Fishbein and Ajzen (1975) and their work on the mediating effect of attitude on intention as well as Eagly and Chaiken (1993) and Cao and Everard

(2007) who have investigated the impact of cultural factors on attitude and its mediation of cultural factors on adoption decisions, we derive the following hypotheses:

H7: Uncertainty Avoidance (UAI) negatively impacts citizens' attitude towards eGovernment Services (for both countries).

H8: Power Distance (PD) negatively impacts citizen´s attitude towards eGovernment Services (for both countries).

Hypothesis 9 combines two theoretical arguments from technology adoption research with research on culture: From a logical point of view, to personally speak with government representatives to handle a service, provides the possibility of asking questions and being helped in time, and if uncertainties occur, to reassure oneself. Even if eGovernment services are understandable and easy to use, it's impersonal nature and the fact that any transaction takes place without personal reassurance, concerns and uncertainties are in direction higher compared with personal contact (Chen and Dhillon, 2003). Thus, we derive the following hypothesis 9:

H9: UAI positively influences habit toward using government services on site (for both countries)

According to the latest Benchmark measurement for the European Commission (Capegemini et al., 2010) Slovakia's full online availability is with 68% below the EU average of 82% and ranks 28th out of the 32 measured countries. Germany's full online availability with 95% is high above the EU average and is ranked on 11th place. Despite this, the Slovakian government has been making significant attempts to develop a proper framework for the development of eGovernment. In the last two years it has become one of the fastest growing countries with respect to eGovernment (Capegemini et al., 2010). Due to the differences between Germany and Slovakia as to eGovernment development, national historic background and governmental structure, we chose them for our cross-cultural study.

One of the most important documents for the development of Slovakia eGovernment has been the "Strategy and Action Plan for the Development of the Information Society" set in 2004, were the main strategic objectives of Public Administration computerisation, such as the ease and augment of citizens' participation in public affairs have been set. In 2004 the Ministry of Finance of SR adopted the "Competitiveness Strategy for the Slovak Republic until 2010", where the role of eGovernment for increasing country´s competitiveness has been stressed. In this purpose an eGovernment portal-www.portal.gov.sk was launched. In the latest strategic document for the implementation of eGovernment set in 2008, "eGovernment Strategy of the Slovak Republic" several strategic objectives have been put forward for the period until 2013.

In comparison to the relatively early stage of eGovernment development in Slovakia and still facing much progress, Germany's eGovernment development is closer to maturity and consequently facing less progress (Capegemini et al., 2010). Based upon the political structure in Germany eGovernment comprises three basic dimensions, focusing on federal, county, and municipal level. Launching the BundOnline2005 initiative the concept of eGovernment became popular in Germany. The main target of this concept was to modernise the administration by making all federal public services capable of electronic delivery by the end of the year 2005. This initiative achieved a total of more than 440 Internet services to be made available online. One of the latest eGovernment milestones has been the implementation of the new article 91c of the German Constitution (2009) improving the IT governance between federal government and federal sates.

As stated in the Services' sophistication ranking 2009-2010 (Capegemini et al., 2010) assessing service delivery against a 5-stage maturity model: information, one-way interaction, two-way interaction, transaction, and targetisation Germany achieved a high maturity level and ranked closely to the four top performers. In contrast do Germany Slovakia ranked under the EU27 average and positioned the lowest places. The Full Online Availability Ranking 2009-2010 (Capegemini et al., 2010) shows similar results. While Germany achieved higher value compared to the EU27 average, Slovakia occupied one of the last five placements in the ranking.

According to the different Sophistication Maturity Levels and Online Availability Ranking and considering the former studies examining the cultural factors (Al Hujran et al. 2012, Erumban and Jong 2006) following hypothesis has been tested:

H10: The extent to which PD and UAI negatively influence citizens' attitude towards eGovernment adoption is stronger in Slovakia.

3 Methodology and Results

We tested our hypothesis by means of an online and paper questionnaire in Germany and Slovakia. The first section of the questionnaire contained construct questions to measure citizen´s perception on different attributes of eGovernment system as perceived usefulness, perceived ease of use, trust in eServices, trust in public sector, Infrastructure&Knowledge and inertia. A list of the items used is provided within the Appendix. In the second part of the survey questions to measure the cultural factors by Hofstede have been asked. The third sections consisted of demographics as to age, gender, educational background etc. In order to make the two samples homogenous in the point that computer self-efficacy due to age is minimal we focused our analyses on digital natives, people born after 1980 (Palfrey and Gasser, 2008).Therefore all participants older than 30 years were excluded from the research. The final sample in Slovakia counted 323 respondents, the German 253.

77% of the participants were between 21 and 30 years old, the remaining 23% were under 21 years old. 62% of the respondents were women. Due to the young age of the participants, the education level of 55% of the sample was the high school diploma. 21% had a technical diploma and 19% had a university degree. The remaining 5% of our sample had a lower or no educational achievement. 63% of all participants disposed of an average yearly gross income no higher than 5,000 euros. The second income group, 18%, didn't exceed a yearly income of 10,000 euros. The other 19% of respondents had incomes irregularly distributed across the higher income groups. The income distribution within the sample depended on the country. The size of the lowest income group of our sample (under 5,000 euros) was 18% higher in Slovakia than in Germany, despite the fact that the German sample was on average younger.

As to the structural model, the results of the path coefficients and t-test are depicted in the following Figure 1. The R^2s of intention and attitude were satisfying and in case of the Slovakian sample surprisingly high with 0,47. To test for significance, we used the bootstrapping procedure incorporated in SmartPLS.

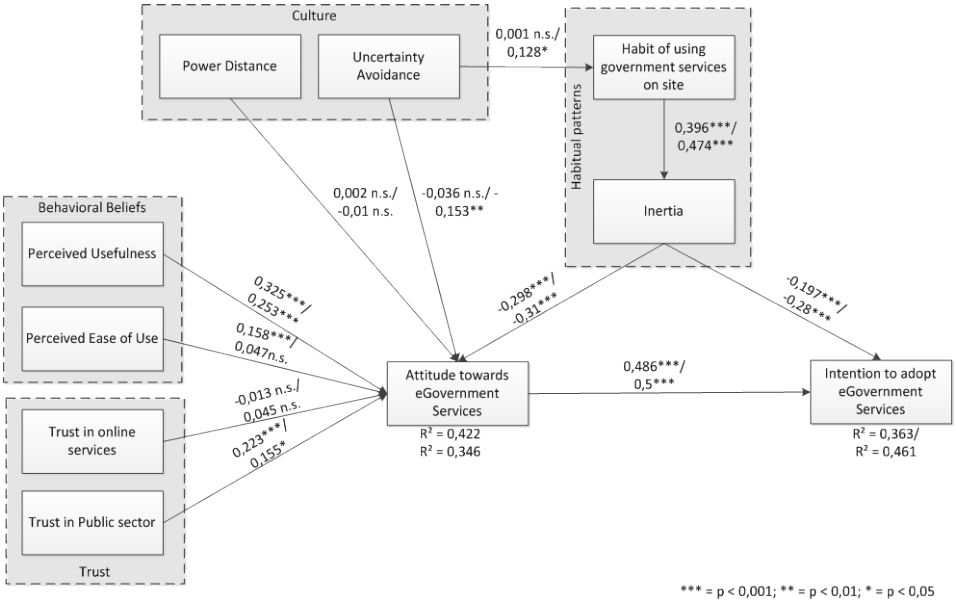

Figure 1. The Results of structural model

With respect to the hypothesis 1 to 9 can draw the conclusion that the hypotheses 2, 3, 5, 6 and 9 hold for both samples. Hypothesis 1 turned out to be insignificant within the Slovakian sample. In contrast to this, the hypotheses 8 and 4 have to be rejected for both samples. The hypotheses 7 and 9 represent a very interesting case in combination with hypothesis 10. While for the German sample, UAI has no significant effect at all, it is a significant determinant of habit and attitude for the Slovakian sample as hypothesized. This effect supports the hypothesis 10 as to the difference regarding UAI between the two countries. In order to further confirm this difference and investigate the reason we conducted two t-tests, one testing for differences within trust in the public sector and the other for the difference regarding UAI. Both tests were significant and confirmed hypothesis 10.

For the analysis of the structural model we used Partial Least Squares (SmartPLS Version 2.0) (Ringle et al., 2005). As to the measurement model, we tested for construct validity, convergent and discriminant validity. For construct validity we estimated the composite reliability of the constructs which exceeded the threshold of 0,7 in all cases (Hair et al. 1998). For convergent validity we estimated the average variance extracted (AVE) which also exceeded the threshold of 0,5 in all cases in both samples (Fornell and Larcker, 1981). To test for discriminant validity we used the Fornell Larcker Criterion (Fornell and Larcker, 1981) that implies that the square root of the AVE should be higher than the correlation with other latent variables. The criterion was fulfilled for both samples.

The following Table 1 summarizes the results of the measurement model:

PLS results Germany/ Slovakia										
	Composite Reliability	***AVE***	***A***	***EOU***	***H***	***I***	***IN***	***TO***	***TP***	***UAI***
Attitude (A)	0,92/ 0,91	0,67/ 0,64	0,82/ 0,80							
Ease of Use (EOU)	0,90/ 0,89	0,75/ 0,73	0,36/ 0,23	0,87/ 0,85						
Habit (H)	0,91/ 0,91	0,78/ 0,77	-0,12/ -0,15	-0,12/ -0,10	0,88/ 0,88					
Inertia (I)	0,88/ 0,91	0,60/ 0,66	-0,45/ -0,45	-0,32/ -0,10	0,36/ 0,47	0,93/ 0,81				
Intention (IN)	0,86/ 0,90	0,76/ 0,82	0,57/ 0,63	0,24/ 0,23	-0,20/ -0,26	-0,42/ -0,50	0,93/ 0,91			
Trust in online services (TO)	0,90/ 0,93	0,76/ 0,82	0,13/ 0,22	0,10/ 0,33	-0,11/ -0,02	-0,03/ -0,09	0,14/ 0,18	0,87/ 0,91		
Trust in public sector (TP)	0,84/ 0,90	0,63/ 0,74	0,34/ 0,24	0,15/ 0,41	0,03/ -0,04	-0,14/ -0,01	0,23/ 0,19	0,36/ 0,54	0,79/ 0,86	
Uncertainty Avoidance (UAI)	0,73/ 0,84	0,60/ 0,73	-0,11/ -0,24	-0,09/ 0,12	0,01/ 0,12	0,20/ 0,35	-0,08/ -0,15	-0,01/ 0,06	-0,08/ 0,13	0,77/ 0,85
Usefulness (U)	0,91/ 0,90	0,78/ 0,75	0,46/ 0,41	0,22/ 0,37	-0,15/ -0,20	-0,22/ -0,27	0,17/ 0,32	0,13/ 0,21	0,16/ 0,27	0,05/

Table 1. The Results of Measurement Model

4 Discussion

With reference to our research objectives, the results of our study hold the following implications. The first, little surprising, implication is that traditional behavioral determinants used in the IS adoption literature, such as perceived usefulness, ease of use, attitude and intention also determine citizens' adoption behavior with respect to eGovernment. Although within our Slovakian sample, ease of use turned out to be insignificant. These results are in line with the findings of Lucas and Spitler (1999) who found out that social norms and one's job requirements are more important in predicting use than workers' perceptions about ease of use and usefulness. But, the relatively high impact of attitude and perceived usefulness shows that the cognitive perceptions towards the respective service as well as general affect should not be neglected when it comes to convincing citizens to adopt eGovernment Services.

With respect to trust, the results of our study show a uniform effect across both countries. The hypothesis that general trust in online services positively influences citizens' attitude towards eGovernment services had to be rejected for the German and Slovakian citizens. Trust in the public sector by contrast, thus in the own executive power, significantly impacts the attitude towards eGovernment in both countries. Thus, a government's positive reputation positively affects the usage of its provided online services. One of the two most important findings of our study that provides an important implication for future research on eGovernment is the following. Our results show, that citizens' habitual patterns towards handling government affairs personally at government agencies significantly impact citizens' attitude and intentions to adopt eGovernment services to a relatively high

and negative extent for both countries. This implies that citizens' non-adoption of eGovernment services does not necessarily refer to a general failure or poor usability of the service itself, but to the strong habit of handling things personally on site. The other important implication refers to culture: Al-Hujran et al. found that two cultural dimensions, power distance and uncertainty avoidance had significant impacts on citizens' eGovernment adoption behaviour. Our results extend this view as we found that UAI is highly relevant for the Slovakian citizens and it is not for the Germans. Therefore our study and comparison of Germany and Slovakia shows that countries hold differences within cultural factors in the sense that they affect eGovernment adoption in one case and can be completely neglected in the other.

5 Conclusion

In the case of Slovakia and Germany we draw the conclusion that there are two major reasons for different impact of cultural factors on adoption of eGovernment services. The first, which we could confirm by means of a t-test, is that Germans have a higher general trust level in their public sector. The second reason results from the fact, that Germany's eGovernment development status is closer to maturity compared to Slovakia.

In general this research holds the conclusion that although well-known adoption models and factors provide a high explanatory power, factors related to culture, trust and habitual patterns are important and should definitely be regarded with respect to adoption research on eGovernment. Since, although eGovernment is an international phenomenon (Dwivedi et al. 2011), countries and citizens differ.

6 Limitations

The specific orientation on two countries Slovakia and Germany can be understand as one limitation of this examination so consequently a transfer of the findings into other cultures might be difficult due to possible cultural differences.

Furthermore, in order to make the two samples homogenous, considering that computer proficiency is often age-related, the analyses focused on respondents belonging to the group of so-called digital natives. The majority of subjects were between 20 and 30 years old, which can be counted as a limitation, as well.

References

Abu-Shanab, E. and Al-Azzam, A. (2012). Trust Dimensions and the adoption of EGovernment in Jordan. International Journal of Information Communication Technologies and Human Development, 4 (1), 39-51.

Al-Hujran, O., Al-dalahmeh, M. and Aloudat, A. (2011). The Role of National Culture on Citizen Adoption of eGovernment Services: An empirical Study. Electronic Journal of eGovernment, 9 (2), 93-106.

Al-Shafi, S. and Weerakkody, V. (2009). Implementing Free Wi-Fi in Public Parks: An Empirical Study in Qatar. International Journal of Electronic Government, 5 (3), 21-35.

Bélanger, F., and Carter, L. (2008). Trust and risk in eGovernment adoption. Journal of Strategic Information Systems, 17 (2), 165-76.

Bharosa, N., Feenstra, R., Gortmaker, J., Klievink, B. and Janssen, M. (2008). Rethinking Serviceoriented Government: is it really about services? H. Bouwman, R. Bons, M. Hoogeweegen, M. Janssen, and H. Pronk et al. (eds.). Let A thousand Flowers Bloom. Essays in commemoration of Prof.dr. René Wagenaar, IOS Press.

Bouckaert, G. and Van der Walle, S. (2001). Government Performance and Trust in Government. Paper for the Permanent Study Group of Productivity and Quality in the Public Sector, EGPA Annual Conference, Vaasa, Finnland, 5-8

Cao, J., and Everard, A. (2007). Influence of Culture on Attitude Towards Instant Messaging: A Balance Between Awareness and Privacy. Human-Computer Interaction, 4551, 236-240.

Capgemini (2010). Digitizing Public Services in Europe: Putting ambition into action (9th Measurement, December 2010). Retrieved from link: http://www.capgemini.com/insights-and-resources/by-publication/2010-egovernment-benchmark/

Carter, L. (2008). EGovernment diffusion: a comparison of adoption constructs. Transforming Government: People, Process and Policy, 2(3), 147 – 161.

Carter, L. and Bélanger, F. (2005). The utilization of eGovernment services: citizen trust, innovation and acceptance factors. Information Systems Journal, 15 (1), 5-25.

Carter, L. and Bélanger, F. (2005b). The utilisation of eGovernment services: Citizen trust, innovation ad acceptance factors. Informations Systems Journal, 15 (1), 5-25.

Carter, L., and Weerakkody, V. (2008). EGovernment adoption: A cultural comparison. Information Systems Frontier, 10 (4), 473-82.

Chen, S. and Dhillon, G. (2003). Interpreting Dimensions of Consumer Trust in E-Commerce. Information Technology and Management, 4, 303-318.

Dwivedi Y.K., Lal, B. and Williams, M.D. (2009). Managing Consumer Adoption of Broadband: Examining Drivers and Barriers. Industrial Management and Data Systems, 109 (3), 357- 369.

Dwivedi, Y. K., Khan, N. and Papazafeiropoulou, A. (2007b). Consumer adoption and usage of broadband in Bangladesh. Electronic Government, an International Journal, 4 (3), 299-313.

Dwivedi, Y. K., Khoumbati, K., Williams, M. D. and Lal, B. (2007a). Factors affecting consumer's behavioral intention to adopt broadband in Pakistan. Transforming Government: People, Process and Policy, 1 (3), 285-297.

Dwivedi, Y.K. and Irani, Z. (2009). Understanding the Adopters and Non-adopters of Broadband. Communications of the ACM, 52 (1), 122-125.

Eagly, A. and Chaiken, S. (1993). The Psychology of Attitudes, Belmont USA: Wadsworth**.**

Erumban, A. and Jong, S. (2006). Cross-country differences in ICT adoption: A consequence of Culture?. Journal of World Business, 41 (4), 302–314.

Fishbein, M.and Ajzen, 1. (1975) Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison, Wesley.

Fornell, C. and D. F. Larcker (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18 (2), 39-50.

Gefen D., Rose G., Warkentin, M. and Pavlou P. (2005). Cultural diversity and trust in IT adoption: A comparison of potential e-voters in the USA and South Africa. Journal of Global Information Management, 13 (1), 54-78.

Gefen, D. and Straub, D. (2000). The Relative Importance of Perceived Ease-of-Use in IS Adoption: A Study of e-Commerce Adoption. JAIS, 1 (8), 1–20.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Thatham, R.L. (2005), Multivariate data analysis, 6th edition, Pearson Prentice Hall, Upper saddle River, NJ, 2005.

Hofstede, G. (1997). Cultures and Organizations: Software of the Mind. McGraw-Hill, New York.

Hung, S. Y., Tang, K. Z., Chang, C. M. and Ke, C. D. (2009). User acceptance of intergovernmental services: An example of electronic document management system. Government Information Quarterly, 26 (2), 387-397.

Khoumbati, K., Dwivedi, Y.K., Lal, B. and Chen, H. (2007). Broadband adoption in Pakistan. Electronic Government, an International Journal, 4 (4), 451–465.

Lean, O. K., Zailani, S., Ramayah, T. and Fernando, Y. (2009). Factors influencing intention to use egovernment services among citizens in Malaysia. International Journal of Information Management, 29 (6), 458-475.

Leidner, D. and Kayworth, T. (2006). A Review of Culture in Information Systems Research: Toward A Theory of Information Technology Culture Conflict. MIS Quarterly,30 (2), 357-399.

Limayem, M., and Hirt, S. G. (2003). Force of Habit and Information Systems Usage: Theory and Initial Validation. Journal of the Association for Information Systems, 4 (3), 65-97.

Limayem, M., Hirt, S., and Cheung, C. M. (2007). How Habit Limits the Predictive Power of Intention: The Case of Information Systems Continuance. MIS Quarterly, 31 (4), 705-737.

Lucas, H.C., Spitler, V.K. (1999). Technology Use and Performance: A Field Study of Broker Workstations. A Journal of the Decision Sciences Institute, 30(2), 291-311.

McKnight, D. H., Choudhury, V. and Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. Information Systems Research, 13 (3), 334-359.

Morgan, R.M. and Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. Journal of Marketing, 58 (3), 20-38.

Orlikowski, J.W. (2000). Using Technology and Constituting Structures: A practice Lens for Studying Technology in Organizations. Organization Science, 11 (4), 404-428.

Palfrey, J. and Gasser, U. (2008) Born Digital: Understanding the First Generation of Digital Natives. New York: Basic Books.

Phang, C. W., Sutanto, J., Kankanhalli, A., Li, Y., Tan, B. C. Y. and Teo, H. H. (2006). Senior citizens' acceptance of information systems: A study in the context of eGovernment services. IEEE Transactions on Engineering Management, 53 (4), 555-569.

Polites, G.L. and Karahanna, E. (2012). Shackled to the Status Quo: The Inhibiting Effects of incumbent System Habit, Switching Costs, and Inertia on New System Acceptance. MIS Quarterly, 36 (1), 21-42.

Rana, N.P., Williams, M.D. and Dwivedi, Y.K. (2012). EGovernment Adoption Research: A Meta-Analysis of Findings. ECIS 2012 Proceedings.

Ringle C.M., Wende, S., and A. Will, "SmartPLS 2.0 (M3) beta", Hamburg, Germany, (2005), http://www.smartpls.de.

Ronis, D. L., Yates, J. F., and Kirscht, J. P. (1989). Attitudes, decisions, and habits as determinants of repeated behavior, Attitude, Structure and Function. A.R. Pratkanis, S.J. Breckler, and A. Greenwald (Eds), Hillsdale, NJ:Erlbaum.

Samuelson, W. and Zeckhauser, R. (1988). Status Quo Bias in Decision Making. Journal of Risk and Uncertainty, 1 (1), 7-59.

Shareef, M.A., Kumar, V. and Kumar U. (2011). An Empirical Effort to Validate Electronic-Government Adoption Model. IGI Global, 151-183

Srite, M. and Karahanna, E. (2006). The Role of Espoused National Cultural Values in Technology Acceptance. MIS Quarterly, 30(3), 679-704.

Tang, H., Chung, S. H. and Se, C. W. (2009). Examining the impact of possible antecedents on service usage: An empirical study on Macao eGovernment. Electronic Government, an International Journal, 6 (1), 97-109.

Twati, J. (2006). Societal and Organisational Culture and the Adoption of Management Information Systems in Arab Countries. PhD thesis, Griffith University, Brisbane, Australia.

Verplanken, B., and Aarts, H. (2011). Habit, Attitude, and Planned Behaviour: Is Habit an Empty Construct or an Interesting Case of Goal-directed Automaticity?. European Review of Social Psychology, 10 (1), 101-134.

Warkentin, M., Gefen, D., Pavlou, P. and Rose, G. (2002). Encouraging citizen adoption of eGovernment by building trust. Electronic Markets, 12 (3),157-162.

Welch, E.W., Hinnant, C. C. and Moon, M.J. (2005). Linking sitizen satisfaction with eGovernment and trust in government. Journal of Public Administration Research and Teory, 15 (3), 371-91.

Williams, M.D., Dwivedi, Y.K., Lal, B. and Schwarz, A. (2009). Contemporary trends and issues in IT adoption and diffusion research. Journal of Information Technology, 24 (1), 1-10.

Yazci, S. and Cengiz, E. (2010). Towards an eGovernment performance evaluation model from the citizen´s perspective. In Proceedings of the international Conference eGovernment and eGovernence, ICEGEG, Antalya, Turkey.

Appendix

Construct	Items	Source
Attitude (A)	In my opinion, eGovernment services are useful/useless	(Davis et al,. 1989; Fishbein and Ajzen , 1975; Taylor and Todd, 1995a, 1995b)
	I think it is a good idea, that government sets its services online.	
	Using the eGovernment services is practical.	
	Using eGovernment services is unpleasant/pleasant.	
	I feel positive/negative about using eGovernment services	
	Using the eGovernment services gives me a good feeling.	
Ease of Use (EOU)	I think eGovernment services are easy to use.	(Davis, 1989; Davis et al. 1989)
	Learning to operate with the eGovernment services is easy for me.	
	My interaction with the system is clear and understandable.	
Habit (H)	I usually use government services personally.	(Limayem and Hirt, 2003)
	The use of government services in a personal way has become a habit for me.	
	I always go personally to the government office.	
Inertia (I)	I [will] continue using the government services in a personally on site…	(Polites and Karahanna, 2012)
	…simply because to changing it would be to stressful for me.	
	…simply because i think the personal contact to the employees is more comfortable.	
	…simply because I just like this "personal" way.	
	…simply because it is what I have always done.	
	…simply because it is part of my normal routine.	
Intention (IN)	I intend to use the eGovernment systems in the future.	(Venkatesh et al., 2003)
	I intend to use eGovernment systems regularly in the future.	
	I intend to use eGovernment systems in the future just in exceptional cases.	
Trust in online services (TO)	I trust that my anonymity is saved while using the online services.	self developed
	I trust that Internet is a safe and protected area.	
	I trust that the datatransfer on the internet is safe.	
Trust in public sector (TP)	All in all I have trust in the public sector.	self developed
	I think I can trust to the public sector with respect to the electronic services.	
	I think public sector doesn't follow ist self-interest but mine.	
Uncertainity Avoidance (UAI)	People should avoid all changes, if their results are uncertain.	(Hofstede, 1997)
	If I had a choice, I would rather prefere a less ideal alternative with an known result than one with uncertain result.	
Usefulness (U)	The eGovernment services are usefull for me…	(Davis, 1989; Davis et al. 1989)
	…because using these systems enable me to accomplish administer tasks much easier.	
	…because using these systems enable me to accomplish administer tasks more quickly.	
	…because using these systems enable me to accomplish administer tasks more comfortable.	