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Increasing E-Trust in E-Government Services: A Case Study on The Users of Internet Tax Office[1]

E-Devlet Hizmetlerinde E-Güveni Yükseltmek: İnternet Vergi Dairesi Kullanıcıları Üzerine Bir Uygulama

Salih Yıldız [2], Mehmet Hanefi Topal [3]

Abstract

In the last quarter century, governments around the world have been working to capture the vast potential of the Internet to improve government processes. Turkish government has increasingly benefited from information technology to enhance their services, known as electronic government (e-government). However, the success of these efforts depends, to a great extent, on how well the targeted users for such services, citizens in general, make use of them. Electronic tax payment system is one of the critical e-government services, which assists tax payers in paying their tax debts electronically each pay period. Since citizens' acceptance of electronic tax payment system is influenced by their trust to this system, there is a need to understand the factors that predict the users' trust on internet tax office. For this reason, the purpose of the presented study was to identify what factors could affect the citizens' trust in e -government services. The study was conductedby surveying 426 citizens from all Turkish regions. The theoritical and practical implications of the study are discussed in the paper.

Keywords: E-Government, Adoption, E-Trust, Perceived Risk, Internet Tax Office

Öz

Son yıllarda, hükümetler devlet süreçlerini geliştirmek ve iyileştirmek için internetin geniş imkânlarından yararlanmaya çalışmaktadırlar. Türk devleti de elektronik devlet (e-devlet) olarak bilinen hizmetlerini geliştirmek için bilgi teknolojisinden giderek daha fazla faylanmaya başladı. Bununla birlikte, bu gayretlerin başarısı büyük ölçüde bu tür hizmetlerin hedef kullanıcıları olan vatandaşlar tarafından ne kadar iyi kullanıldıklarına da bağlıdır. Elektronik vergi ödeme sistemleri, mükelleflerin vergi borçlarını her ödeme döneminde elektronik olarak ödemelerine yardımcı olan önemli e-devlet hizmetlerinden biridir. Vatandaşların elektornik vergi ödeme sistemlerini benimsemesi onların sisteme olan güveninden etkilendiği için elektronik vergi dairelerine karşı güveni etkileyen faktörlerin belirlenmesi önemlidir. Bundan ötürü, bu çalışmanın amacı, vatandaşların e-devlet hizmetlerine karşı güvenlerini etkileyen faktörlerin belirlenmesidir. Çalışma kapsamında Türkiye genelinde 462 vatandaşa anket uygulanmıştır. Çalışmanın teorik ve pratik sonuçları metinde tartışılmıştır.

Anahtar Kelimeler: E-Devlet, Kabul, E-Güven, Algılanan Risk, İnternet Vergi Dairesi

JEL Codes: C10, H10, L81

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[2]Assist. Prof., Gumushane University, Department of Business Administration, salihyildiz@gumushane.edu.tr

[3] Assist. Prof., Gumushane University, Department of Public Finance, mhanfitopal@gumail.com

Introduction

Since the early 1990s development of information and communication technology (ICT) began to affect people significantly. ICT is at the human center and level of people's dependence on these technologies increased (Yildiz & Ayyildiz, 2014). On the other hand, these developments have been perceived as changes that can be transformed into an opportunity by many actors. In order to exploit these opportunities almost allstates have increased attempt to put into practice online processes and other ICT under e-government. However compliance with these transactions raises a number of difficulties due to some concerns of people. Uncertainty and risks in the electronic network, vulnerabilities such as attacks by fraud software and identity hunting and lack of legal and technical measures taken to safety causes of dissatisfaction to e-government applications. On the other hand this kinds of vulnerabilities are not the only obstacle to compliance with the citizens' e-services. Besides; many factors such as perceived usefulness (Davis, 1989), social and cultural differences, site infrastructure, access to services (Ozkan & Kanat, 2011), trust to public institution offers service and state (Colesca, 2008), privacy, security, ease of use (Papadomichelaki & Mentzas, 2012), transparency (Marche & McNiven, 2003) have effect on citizens' compliance. Many people who use internet actively are still not prefer to use e-government transactions. One of the most important factor acting on this situation is trust. To build trust in the e-services that offered to reduce national and local administrationscosts, improve services andrespond all citizens is an inevitable responsibility. Trust that is an abstract and comprehensive cases has been the subject of many social science research. The aim of this research is to determine the components of the e-trust. Scope is limeted to internet tax office that is one of the e-government services. It is a mandatory civic duty to fulfill tax obligations in the country. But it was left to the personal preferences whether to fulfill these obligations. In this context, determine the factors affect trust to internet tax office is important.

1. E-Government

The shortest definition of the e-government is the usage of internet applications in public services (Lee et al., 2011). By technological approach, e-government refers to efficient, effective and transparent information sharing between citizens and government. E-government makes it easier for citizens, businesses and also other govenments to participate to public services by internet and wireless technologies (Siau & Long, 2005). E-government aims to strengthen the quality of the relationship between citizens and businessess, to develop by provide better access, to provide quality services and bring out better process and systems (Lean et al., 2009).Online services, cheaper, faster, and in particular to facilitate access to the more remote areas. Also it prevents the occurrence of errors originating from humans when there are accumulation. Online transactions in the taxation process is fast, efficient, and is a service that do it from anywhere (Warkentin et al., 2002). A well-established e-government may also provide all the information via the web to citizens all the information they need like firms do on e-commerce. Citizens have the opportunity to access some of the services via internet for 24 hours like payment of taxes, to look for documents and usage of other services and also they can ask questions and receive answers.

The increase in the use of the Internet has brought various opportunities for the public sector as well as in other areas. Public administrations that use digital access systems offer hierarchical and non-linear, interactive and accessible services to citizens. E-government offers opportunity to citizens to research and gather useful information (Chang et al., 2005). Transactional nature of e-government offer equivalent benefits to citizens and bureaucrats (Schaupp, et al., 2010). Thus, e-government in the economic approach, can defined as a new market and a new

government that distributes public services with a strong interactive channel (EP, 2015).

Table 1: Summary of E-Government Portfolio

EXTERNAL	**G2C** *Objective:* To provide satisfactory service to citizens in order to improve government-customer (citizen) relationship *Activities:* -Information access, such as benefits, policies, loans and educational materials -Individual business, such as social services, grants/loans and taxes	**G2B** Objective: To provide beter services to business, such as eliminating redundant collections of data and reducing transaction costs *Activities:* -Providing a single portal and integrated database -Entering the e-market to gain cost-efficient benefits
INTERNAL	**G2E** *Objective:* To improve internal efficiency and effectiveness of government administration *Activities:* -Reorganizing internal operational processes to adopt the best commercial practices -Providing services to internal employees such as training, payroll, travel and reimbursement	**G2G** *Objective*: To enhance cooperation and collaboration between governments of different levels and various physical locations *Activities:* -Sharing or integrating federal, stage & local government databases, as well as integrating separate systems -Enhancing collaboration or cooperation such as, grants, law enforcement, public safety and emergency management
	INDIVIDUAL	**ORGANIZATION**

Source: Siau & Long (2005)

Importance, applications and strategic views of e-governments can be summarized in three categories; (1) citizen-oriented instead of bureaucracy–oriented, (2) result-oriented and (3) market oriented (Siau & Long, 2005). Strategic views shows itself in four areas of e-government services. These are; government to customer (G2C), government to business (G2B), government to government (G2G) andgovernment to employers (G2E). E-government is an integrated portal that consist of in-house (internal) and external (external) users. Scope of government services is shown in Table 1.

Compared to the traditional understanding of public service processes e-government is characterized as a process that reflects (1) usage of more common communication technology (2) the impersonal nature of the online environment, (3) information sharing that collected, processed and can be able to used by third units (4) the technological structure for handling partially accommodate the uncertainty and (5) the new version of the communication media (Warkentin et al., 2002). Uncertainty in e-government services, risks posed by the use of internet and perception of citizens as the monitoring of themselves causes temporary division between government and citizens and reduce the use of e-government services. On the other hand, the online service displaced by traditional services also leads to the some risks. This risks arise as a result of two processes; (1) information is sent electronically, and (2) the information is stored electronically. These situations may lead to prevent, read and change informations by third units (Horst et al., 2007).

World countries on the one hand try to take measures relating to privacy and security vulnerability that revelas obstacle in the process of adaptation to e-government services, on the other hand they also intented to increase the scope and number of users of e-government services. Economist Intelligence Unit (EIU) calculates an index for the world's countries as Government E-Payment Adoption Rating (GEAR). EIU, makes calculations for 16 important e-government services in 7 categories with the help of 37 indicators.

According to report in 2007, Turkey was on the eighth place among 43 countries with a score of 61.6. According to to a report recently published; United States (93.6), United Kingdom (91.6), Norway (91.0) are the countries that have the best e-government performance in the World. Turkey takes place twenty-fourth

in 62 countries by removing the scores level 74.6 in five years (EIU, 2012). Turkey's place in rankings on the basis of category and level scores for each category are given in Table 2.

Table 2: Turkish Government E-Payment Adoption Rating

Category and Indicators	Rank	Score	*Category and Indicators*	Rank	Score
CITIZEN TO GOVERNMENT (C2G)			**INFRASTRUCTURE**		
Income tax payment			Number of ATMs per 10,000 people		
Social security contributions	**12**	**80.0**	Number of POS terminals per 10,000 people		
Obtaining/paying for an ID card			Diffusion of broadband		
Automotive costs: tolls and fi nes			Public-access terminals per capita	**28**	**49.9**
Public transit payments			Mobile subscriptions per 100 people		
GOVERNMENT TO CITIZEN (G2C)	**Rank**	**Score**	Level of development of stored value cards		
Income tax refunds			Level of development of 3G and other technologies		
Social security benefi ts	**14**	**87.5**	Level of development of contactless and mobile payments		
Unemployment, workers' comp and welfare benefi ts			**SOCIAL AND ECONOMIC CONTEXT**	**Rank**	**Score**
Government health benefits			Literacy level		
BUSINESS TO GOVERNMENT (B2G)	**Rank**	**Score**	Educational level		
Income tax payments			Internet/technology savviness		
VAT/sales tax payments			Percentage of population using banks/other fi nancial institutions		
Social security and other contributions	**14**	**93.8**	Percentage of businesses using banks/other fi nancial institutions	**42**	**50.7**
Company registration and payment of fees			Provision of fi nancial education		
GOVERNMENT TO BUSINESS (G2B)	**Rank**	**Score**	Proportion of businesses placing orders via the Internet		
Income tax refunds			Proportion of consumer orders of goods via the Internet		
VAT/sales tax refunds	**6**	**93.8**	Percentage of population with payment card(s)		
Payments for goods and services			**POLICY CONTEXT**	**Rank**	**Score**
Disbursement of loans			Government commitment to e-payment security		
			Government commitment to integrating the informal economy	**40**	**66.7**
OVERALL SCORE	**Rank**	**Score**	Government commitment to the Financial Action Task Force (FATF)		
	24	**74.6**			

Economist Intelligence Unit (2012)

In this study it is focused on electronic tax payment system. Fulfillment of tax obligations with internet tax office system is so important. Because tax revenues have the highest share of public revenues. Internet tax office application in Turkey (https://intvd.gib.gov.tr) started in 1999 and it is the first and one of the most important step taken in the field of implementation of e-government and services and transparency in the public administration. With this application ıt is aimed to make the process much faster and more accurate over the internet and as such provide both taxpayers and tax office save time and resources. Taxpayers can

benefit from all services offered by internet tax office by taking password and user number from tax office they depend on.

2. Trust

Trust is a phenomenon shaped by human and social relations. Confidence, abstract and complex concepts, are used in different meanings in each discipline.Trust give opportunity to people to live in life where there are risks and uncertainties (Deutsch, 1962; Mayers et al., 1995). Trust concept is related to risk perception and acceptance: trust is used as opposed to the risk but also the trust itself produces a risk (Colesca, 2008). Trust avoid the confusion by reducing the options to be considered in the complex life (Lewis & Weigert, 1985). Trust provide work sharing and cooperation between people by acting like a social capital. Trust in business, is a key for successful process and long-term relationships. Trust acts as a conrol mechanism as an alternative to authority and cost. Also trust is important in economic relations, because it reduces the risk of harm posed by the opportunistic strategic behavior (Guerra et al., 2003).

Table 3: Some Definitions of Trust

Philosophy	Trust is a view of human nature Trust is to feed love and sympathy to others for more peace and cooperation Trust is to accept that others unprotected Trust is the social capital charges
Psychology	Trust is a component of personal development, institutional collaboration and social life Trust is a view of personal characteristics, early experience and interpersonal relationships Trust i,s result of written acceptance between people and groups
Management Science	Trust, is an indicator of corporate decision-making process Trust is a control mechanism that allows employees work more efficient and productive Trust is a phenomenon that enhances the business performance Trust is an informal management structure that increase the relations in the market and management
Marketing	Trust is a phenomenon that provide producers and distributors fulfill their responsibilities and increase their potential Trust ensures the safety of exchange of goods and services between supplier and customer

There are basically two reasons for making a lot of different definitions of trust. First, trust is abstract phenomenon and frequently confused with other similar concepts scuh as credibility, reliability and confidence. It is because of that it is difficult to define trust and describe the differences between concepts related to trust. Second, trust is a multifaceted concept with cognitive, emotional and behavioral content. In general If other units acting safely as expected, it can be said that people fulfill their social responsibilities and do what must be done. Therefore, trust is a phenomenon that reduces social complexity. On the oher hand It enhances the interaction between people, reducing the risk and uncertainties.

3. E-Trust

E-trust (online trust) is defined as reliabilty to electronic service marketers and obey them in integrating with them. E-trust has similar characteristics with offline trust because trust is with the offline media. In both risk, fear, complexity and cost reduction changes are shared. In offline life trust allows work sharing and collaboration between people as a social capital. This is also similar to the online environment (Corritore et al., 2003). But online environment has some different properties. These are (Wang & Emurian, 2005);

- There are two parts as confident and trusted in both. But parts are seperate in oflline trust. In online trust confident is the service user, trusted is web site where the service is provided. Therefore, some authors admit the trusted directly as technology (Corritore et al., 2003).
- Due to the high sensitivity in the online environment, people are more difficult to build trust. Because people think that after transactions they do their information will collect, change and captured by others. Threfore they afraid to face with a number of casualities.
- While trust provide to people to take more risk in offline environments, two experiences revealed in the online environment (1) using credit card and/or indvidual informations in transactions (2) controlling web interface. These experiences strengthens the willingness of people to use the e-services.
- Trust in online environments is affected by indidividual characteristics as well as in offline environments. Effectiveness of these characteristics varies from person to person. Because people are in different positions against the machines and technology.

With the development of e-government dimensions of trust in the government's online services have increased. Trust is an important factor in e-services. E-service customers are more dependent. Potential risk and uncertainties affect transaction processing behavior, inquiry trends and personal information sharing. Privacy and contolling information are the most important dimensions to command the trust (Fu et al., 2006). Also, perceived usefulness, perceived quality, trust in government and internet, trust trends and internet experience affect e-trust. E-trust directly affect the citizens tend to use e-government services (Parent et al., 2005).

4. The Components of E-Trust and Research Hypotheses

4.1. Privacy Concerns (PC)

In online environment individuals need to share personal informations to make transactions. In this situation privacy is related to retention, store and reuse of informations by service providers. Privacy concern is related to the user of websites are in confidence that they are protected from threat and risk of e-service processes (Belanger et al, 2002).For protecting privacy some assurance in e-government services must be provided on the website. These are; (1) not sharing personal information with third parties, (2) submission of warranty identity protection, (3) blocking access to personal information and (4) requesting informed consent during process. According to the belief of the citizens, e-government in the fulfillment of the public service e-government strengthen the interaction process. But citizens are concerned about the sharing of personal information with the state via internet and also they are afraid that the information collected will be abused and their privacy will be revealed. This concerns weaken e-trust. (Belanger et al, 2002; Pavlou, 2003; Carter & Belanger, 2005; Fu et al, 2006)

H_1: Privacy concerns affect Trust in E-government negatively

4.2. Perceived Risk (PR)

Perceived risk is an attitude towards outcomes revealed by uncertainty. Perceived risk is defined as a concern that citizens are faced with a loss if they allow to act (Featherman & Pavlou, 2003). Perceived risk level is in inverse relationship with the perceived benefit. The increase in the perceived risk level reduces the perceived usefulness of technology. It is believed that the risk is reduced in the case where the trust is. Risk is an important dimension of trust. Person must take risk to commit an act. On the other hand risk is to control the behavior situation includes (1) economic losses, (2) emergence of personal information and (3) unfair inquiry. Risk is both icludes uncertainty and vulnerability. Risk awareness of individuals affected by many factors. These factors are perceived risk level, potential benefit related to perceived importance and sanctions. Commercial sense, the primarily risk of process is financial losses.

Internet service is beyond the control of the consumer (Pavlou, 2003). Hence, the perceived risk is depicted along with behavioral and environmental uncertainty. Behavioral uncertainty arises from the nature of the internet. Online service providers may allow opportunistic behaviour such as open to remote access and can take away the user's benefit. Environmental uncertainty raised by the unpredictable nature of Internet-based technologies. According to researchs perceived risk weaken e-trust, exchange of information and transaction processing trends (Pavlou, 2003; Fu et al., 2006; Schaupp et al., 2010; Beldad et al., 2011).

H_2: Perceived risk affect Trust in E-government negatively.

4.3. Propensity to Trust (PT)

To be willing to trust or propensity to trust is a personal trait. Different life experiences, personal characteristics and cultural values have effect on propensity to trust (Mayer et al., 1995). According to the psychological approach propensity to trust is a result of positive experince in early childhood (Glanville & Paxton, 2007). According to the organizational behaviorists in the formation process of propensity to trust institutional factors play a decisive role. The two different approaches lead to different conclusions. If propensity to trust is shaped by personal factors in early childhood, the trust would be restricted by internet or state creation However, if propensity to trust is a phenomenon can be built over time, trust can be created by government or in the internet (Bannister & Connolly, 2011). According to some research high propensity to trust weakens the perceived level of risk (Schaupp et al., 2010). Citizens are aware for the risk of complete electronic transactions, but they are still willing to use electronic services. Propensity to trust is the most effective factor on this situation. (Carter & Belanger, 2005).

H_3: Propensity to trust affect Trust in E-government positively.

4.4. Perceived Usefulness (PU)

When citizens think about their own experiences of being a novelty, they tend to be insensitive to the potential benefits of this innovation. One reason of this trend is that the worst of the perceived usefulness (Ozkan & Kanat, 2011). Perceived usefulness is the judgement of citizens related to obtain benefits after using e-services (Davis, 1989). In general, potential users are aware of the risk of e-services. But perceived usefulness reduces risk perception by increasing the level of trust (Chang vd 2005; Horst et al., 2007; Hung et al., 2013). If web services provides users what they desire, it increases the level of trust (Colesca, 2008).

H_4: Perceived usefulness affect Trust in E-government positively.

4.5. Trust in Government (TTG)

Citizens must trust to government providing e-services. Acceptance is based on the belief that they can use the e-service effectively. According to a definition, trust in government refers to satisfaction level of citizens with the government. The reflection of this satisfaction is that politicians and civil servants are perceived as individuals doing correct, treating as needed and acting to public interest (Barness & Gill, 2000). According to another definition trust in government is perceived as a reliable unit that offers the service. (Belanger & Carter, 2008). From a different context, trust in government is the compliance between preference of citizens and perceived real function of government (Bouckaert & Van de Walle, 2003). Trust to government is affected by three factors; (1) charastaristics of individuals (social-cultural history), (2) professional and ethical standards (institutional trust) and (3) individual experiences (the process of trust). According to Warkentin et al. (2002) trust in public agency offer e-services is related to the guarantees offered by the third unit guarantor. Compared to other services, because this guarantees is higher in e-government services, citizens e-trust is higher in e-government services. The low trust of citizens leads to less trust in transactions over the internet and this exceptional situation may expose in tension against technology as well as the state. Trust in government increases the e-trust in e-government services (Parent et al., 2005; Welch et al., 2005; Carter & Weerakkody, 2008; Ozkan & Kanat, 2011). But, Goldfinch et al (2009) examining Australia and New Zealand in their study

found that individuals that trust less to government prefer to use e-government services more.

H_5: Trust in government affect Trust in E-government positively

4.6. Service Quality (SQ)

Service quality is the subjective assessments of the consistency between the benefits of service quality users are expected and benefit from the services (Parasuraman et al., 1991). Service quality in public services is an important dimension of compliance between citizens and government. Users do not come face to face with public agency in e-government services. Service quality may change attitude of citizens. High satisfaction in e-government services affect e-tust directly. Because service quality provides trust to service users for both the site and service (Gefen & Straub, 2004; Al-Dwairi & Kamala, 2009; Ghane et al., 2011; Islam et al., 2012; Papadomichelaki & Mentzas 2012).

H_6: Service quality affect Trust in E-government positively

4.7. Trust in Internet (TI) and Internet Experince (IE)

Trust to internet related to perception of environmental risks posed by the nature of the Internet. Trust reflection of this environmental factors are structural assurance and situational normality that emerged during the process. Trust in order to be at the desired level, there must be trust in both service provider and technology. (Belanger et al, 2002). Past experiences are so important in the confidence building and the consolidation process. Invididuals control on the results of internet experience and risk affect risk perception. The greater the experience, accepting the risk of those levels also increased. In this context, in the process of usage of e-government services individual's experiences of coping with risk and benefit from internet must be increased. Sharing of personal information in the Internet increases with the internet experience (George, 2002). It is believed that there is a positive relationship between the high internet experience and risk taking to make transactions on the internet (Warkentin et al., 2002; Bannister & Connolly, 2011). But relationship between internet experience and trust of internet users is not fully clear. According to Yao et al (2007) users who have more internet experience have less trust. According to Miyazaki & Fernandez (2001) individuals who have high experience find more secure to transact on the internet. Because user's information increases with the internet experience both studies found this results.

H_7: Trust in internet affect Trust in E-government positively

H_8: Internet experience affect Trust in E-government positively

5. Methodology

5.1. Research Model

The research model developed in the context of the assumption of the study aimed to examine the factors that affect trust in e-government services. For testing these relationships analysis model was used as shown in figure 1. There are many researches examine the effects of independent variables in the model on e-services and e-commerce compliance. But in this study it is aimed to explore the effects of these variables, given dispersed in previous studies, on trust in online environments. In this context, the application domain has been an e-government services.

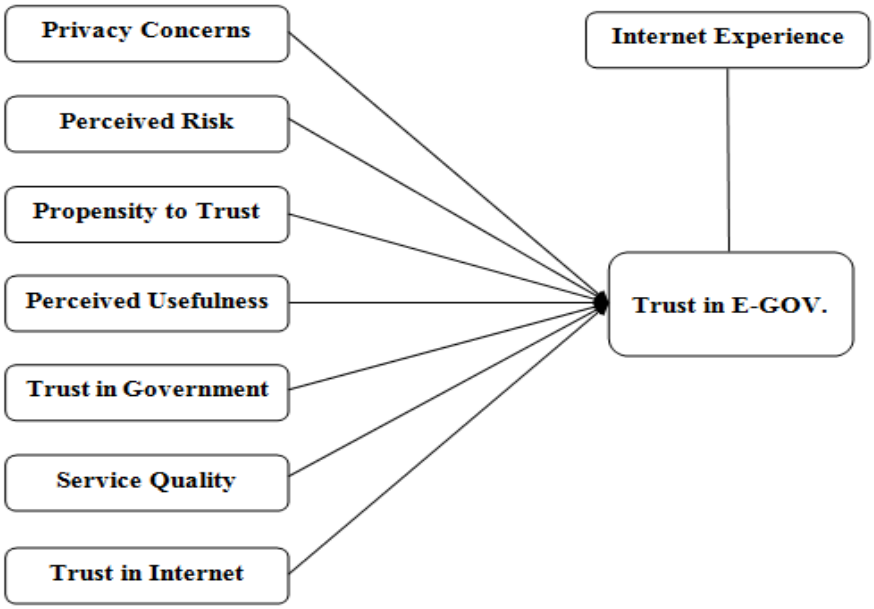

Figure 1: Research Model

5.2. Sample

Analysis at the individual level of the study was carried out on the internet tax office users. Main phases of the study are the taxpayers using internet tax office in all regions of Turkey. To facilitate data collection a questionnaire has been prepared and published on a website. Forms obtained as a result of data collection has been evaluated and a total of 426 questionnaires from different regions of Turkey were included in the sample.

5.3. Measuring

Data were collected by questionnaire method. First questions in the questionnaire included trust in e-government and questions about the factors affecting confidence. All questions were measured by five-point Likert scale. For instance, “1” expresssed as strongly disagree, “2” expressed as disagree, “3”, expresssed as neutral, “4” expresssed as strongly agree, “5” expresssed as strongly agree. The second part of the questionnaire included demographic variables such as age, education, occuptaion and internet experience.

5.4. Data Analysis Method

It has been proposed that for producing information scientific qualifications, interpreting analysis results and acceptance or rejection of the hypothesis, first it should be made reliability and validity. In this context, in the first phase of data analysis process, reliability and validity analyzes of the scale were performed. To test the reliability, Cronbach's alpha coefficient was used. For the adoption of the scale reliable, the calculated reliability coefficient must be over 0.70. The exploratory factor analysis was conducted to test the construct validity of the scale. To test the research model Structural Equation Modelling was used. To assess compliance between the models determined in SEM and data various fit index are used. Chi-square (x2) is the most common fit index and it is expected to be insignificant. Another criteria used when this statistic is not insignificant is the interpretation of the ratio obtained by diving to degree of freedom (df). This ratio is expected to be below 3 in order to have good model goodness. Common alternative fit index use to assess the data compliance of the model are; Comperative Fit Index (CFI), Tucker-Lewis Index (TLI), Normed Fit Index (NFI) ve Root Mean Squared Error of Approximation (RMSEA). Data fit model to be “acceptible”, CFI, TLI, NFI expected to be above ,90, RMSEA expected to be below ,08. To test H8 ANOVA was used and Tukey's test results and the significance level was taken into consideration .

6. Results

6.1. The Demographic Charasteristics of Respondents

Table 4: Demographic Profile of All Respondents

Variable		Count	Percent %
Gender	*Male*	219	51,4
	Female	207	48,6
Education	*Elementary Education*	65	15,3
	High School	123	28,9
	Vocational High School	113	26,5
	Under Graduate	82	19,2
	Graduate	43	10,1
Income	*Under 1500 TL*	86	20,2
	1501 – 3000 TL	148	34,7
	3001 – 4500 TL	99	23,2
	Upper 4501	93	21,8
Age	*Under 17*	32	7,5
	18-28	111	26,1
	28-39	130	30,5
	40-50	103	24,2
	51 and Upper	50	11,7
Internet Experience	*Under 3 years*	54	12,7
	3-6 years	141	33,1
	6-9 years	102	23,9
	Upper 9 years	129	30,3
Occupation	*Puplic Employee*	101	23,7
	Employee	93	21,8
	Self Employment	56	13,1
	Retired	42	9,9
	Housewife	22	5,2
	Student	85	20,0
	Others	27	6,3
	Total	**426**	**100**

Table 4 shows the socio-demographic characteristics of respondents for the present study. The proportion between male and female is close to 1. Most of respondents are young and middle age (% 80.8). The large proportion of respondents is from middle income (% 57.9) and low education (70.7) Most of them are working in public and private sector (% 45.5). In the terms of internet experience level, on the half of respondents have being used the internet more than six years.

6.2. Results of Validity and Explaratory Factor Analysis

Results of exploratory factor analysis that used to test the construct validity of the scale of the research and reliability analysis are shown in table 4. "Varimax orthogonal rotation" that is the most common rotation method and allowing easier interpretation of factors was used in exploratory factor analysis. When examined items, it is seen that the structure of these factors have a certain consistency.

Table 5: Results of the Validity and Reliability Analysis

	Item	Std. Loading	Eigen value	VEE*	Composite Reliabilty
Privacy Concerns (PC)	**PC1**	.915	3.766	75.322	.917
	PC2	.871			
	PC3	.843			
	PC4	.872			
	PC5	.836			

Perceived Risk (PR)	**PR1**	,903	4.508	75.13	.936
	PR2	,850			
	PR3	,890			
	PR4	,871			
	PR5	,805			
	PR6	,878			
Propensity to Trust (PT)	**PT1**	,958	3.510	87.757	.953
	PT2	,924			
	PT3	,925			
	PT4	,940			
Perceived Usefulness (PU)	**PU1**	,873	2.994	74.859	.887
	PU2	,846			
	PU3	,807			
	PU4	,931			
Trust in Government (TG)	**TG1**	,939	3.396	84.9	.939
	TG2	,932			
	TG3	,916			
	TG4	,899			
Service Quality (SQ)	**SQ1**	,848	3.005	75.129	.888
	SQ2	,853			
	SQ3	,832			
	SQ4	,931			
Trust in Internet (TI)	**TI1**	,881	2.234	74.450	.826
	TI2	,857			
	TI3	,850			
Trust in E-Government	**TEG1**	,853	3.158	78.951	.901
	TEG2	,919			
	TEG3	,863			
	TEG4	,918			

**VEE: Variance Extracted Explained*

6.3. Results of Structural Equation Modelling and Hypothesis Tests

Research model was tested by Structıural Equation Modelling (Table 5). Model gives trust dimensions that affect trust in e-government services. According to fit index values, it can be said that compliance between model and data is very strong. (x^2**/df** =1,987; **CFI**=,961; **TLI**=,956; **NFI**=,926; **RMSEA**=,048).

Table 6: Model Fit Summary for the Proposed Research Model

Fit Index	Recomended	Model
x^2**/df**	<3.0	1.987
NFI	>0.9	92.6
RFI	>0.9	91.6
IFI	>0.9	96.2
TLI	>0.9	95.6
CFI	>0.9	96.1
RMSEA	<0.8	0.48

Trust in e-government services is affected negatively by privacy concerns (β= -,158; P<,01) and perceived risk (β= -,082; P<,05); affected positively by propensity to trust (β=,079; P<,05), perceived usefulness (β=,198; P<,01), trust in government (β=,109; P<,05), service quality (β=,142; P<,05) and trust in internet (β=,207; P<,05). So, all hypotheses are supported.

Table 7: Coefficients of the Variables for the Proposed Model

	Path	Hypothesized Direction	βeta	SE	p-Value	Supported
H1	PC TEG	-	-.158	.046	.000*	Yes
H2	PR TEG	-	-.082	.033	.012**	Yes
H3	PT TEG	+	.079	.033	.016**	Yes
H4	PU TEG	+	.198	.046	.000*	Yes
H5	TG TEG	+	.109	.033	.001**	Yes

H6	SQ TEG	+	.142	.039	.001**	Yes
H7	TI TEG	+	.207	.046	.012**	Yes

* p < .01, ** p < .05

6.4. Results of ANOVA

In table 8, it is seen whether respondents' level of trust in e-government services change by internet experience. There are significant differences between groups (p < .05). According to Tukey test results there is no differences between those that have internet experience between 6-9 year and above 9 year only. According to ANOVA results, *H8 was supported*. So, it can be say that when internet experience increase, also level of trust in e-government services increases.

Table 8: The Differences Between Groups According to Internet Experience

Variable	Groups	N	X	SD	F	p-Value	Mean Difference*
Internet Experience	*Under 3 years (1)*	54	2,5741	.902	47.604	.0000	1-2, 1-3 1-4, 2-3 2-4
	3- 6 years (2)	141	3,3475	.925			
	6-9 years (3)	102	4,0098	.938			
	Upper 9 years (4)	129	4,1938	.976			
	Total	426	3,6643	1.085			

Conclusion

E-trust in the use of e-government services is an important component. Citizens want to share their personal information in a secure environment and complete their transaction to feel more comfortable. Public administrations may increase compliance to e-government services by raise the trust level and allows the realization of services in online environment. Higher compliance to e-government services provides important advantages both citizens and government.

This study explores the factors that affect e-government services. In this context, many research hypotheses has been developed and tested. According to analysis results, trust in internet (β=,207; P<,05) is the most effective factor on trust in e-government services. Perceived usefulness (β=,198; P<,01), privacy concerns (β= -,158; P<,01), service quality (β=,142; P<,05) and trust in government (β=,109; P<,05), are the other strong effective factors on online trust. Propensity to trust (β=,079; P<,05), and perceived risk (β= -,082; P<,05) are factors that have a little effect on trust in e-government services.

Citizens have doupt whether internet is reliable. They are not feeling confident when trading via internet. Due to the uncertain nature and risks of internet, they are uncomfortable about their personal informations may be get by third patties. Persuading citizens about internet is reliable and personal informations are protected contribute significantly to usage level of e-government services. Not only reliability is important for citizens, but also quality is important. On the other hand, reliability of the authorities that provide online services also positively affects the perception of trust.

According to the results, there is a perception that there is no risk to transact in internet tax office. Users of internet tax office worry about the use of informations demanded from them. In fact, even if perceived risk of internet tax office users affect trust in e-government services, this effect is weak. According to general belief in turkey, mutual trust between individuals and institutions are very weak Therefore, the level of propensity to trust of Turkish public is very low. The most interesting result is that even if this factor affects online trust, this effect is very weak. It can be say that this is due to the difference between real life and nature of virtual environments.

Turkish citizen's trust to internet is so weak. Especially, they are worry about virtual fraud, to get personal informations by third parties, suffer economic and legal losses. Internet tax office does not demand personal informations that could damage them if it gets by others. But, because credit card is used for tax payment

in internet tax office, they may be right about privacy concerns. Therefore, it the security infrastructure of the credit card operations should be ensured and citizens need to be convinced. Also, provision of services such as increasing trust level, keeping powerfull communication with users, making feedback, providing payment alternatives and financial incentives will be beneficial.

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