

THE EFFECT OF MORAL IDEOLOGY ON ACCEPTANCE OF E-GOVERNMENT SERVICES

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ABSTRACT

This study investigates the effect of moral ideologies and institutional trust on the acceptance of E-government services. We theorize that moral ideology influences institutional trust in the government. This institutional trust in the government will influence the acceptance of E-government services. The hypotheses are tested with an empirical study of undergraduate students enrolled at a public university. The results support all the proposed hypotheses in the study. We discuss the contributions of this study, which provides two novel considerations – moral ideology and institutional trust – to study E-government acceptance.

Keywords: Moral ideology, E-government services, trust

INTRODUCTION AND MOTIVATION

The ability to conduct transactions with government agencies via web-based technologies is more commonplace than ever before. COVID-19 made face-to-face interactions unavailable for a time, and governments had to rely on online platforms to expand their offerings of online services to include use of COVID-19 information portals, self-diagnosis and contact tracing apps, and other technologies to shift previously in-person public service delivery to virtual settings (for example, setting up virtual classrooms in public schools etc.). However, the success and acceptance of E-government services is contingent upon citizens' willingness to adopt this innovation [1]. To develop 'citizen-centered' E-government public services that are accessible, relevant, and reliable, agencies must first understand the factors that influence citizen adoption of E-government services.

Literature from the fields of e-commerce and public administration support the notion that acceptance of online services is determined by a citizen's trust in government institutions [1]. According to Mayer, Davis and Schoorman [2] and related empirical research [3, 4] trust is a product of a set of individual beliefs. Extant research has studied the effects of individual beliefs on trust formation, but one aspect of trust formation which has been consistently overlooked is the ethical element that informs trust development. Specifically, we know little about the connection between the ethical or moral beliefs of an individual, and how these beliefs are crucial to engendering trust in governments as an institution. This is a gap that this study aims to address, ultimately linking ethical beliefs to the acceptance of E-government services. We posit that trust in government is a function of people's ethical ideologies, because an individual's moral domain determines what is an acceptable or unacceptable norm and serves as an indicator of what they

seem to accept as good or trustworthy [5]. An individual's level of trust in government, in turn, influences their intention to adopt E-government services. To summarize, we propose the following research question:

RQ: Does an individual's ethical (or moral) ideology engender trust in the government, which in turn influences the individual's intention to accept/adopt E- government services?

This study contributes to our current understanding of adoption of E-government services in two unique ways. First, the literature on adoption of E-government services is limited in explaining the impact of institutional-based trust in government on adoption intention of E-government services; second, there is little knowledge about how trust in government is established from an ethical standpoint. This study integrates literature from the fields of ethics, organizational psychology, and public administration to examine the ethical antecedents of trust to better understand people's barriers to trusting government institutions and in turn offers a unique explanation for variations in the adoption of E-government services.

The remainder of this article is organized as follows. In the literature review, we define E-government services and discuss ethical ideologies and the concept of institution-based trust in government. Then, we develop the theoretical model and the hypotheses. Following that, we report the empirical study to test the model and discuss the results. Finally, we discuss the contributions and implications of this study and point to directions for future research.

LITERATURE REVIEW

E-government Services

Broadly as defined by the United Nations, E-government involves the usage of information technology to provide services/information to citizens or businesses. Factors that determine or predict user acceptance of new technologies have been one of the most intensively examined topics in information systems literature [6], with several models developed to help understand adoption of IT [7]. The two most influential models cited in literature on intention to adopt E-government services include the Technology Acceptance Model (TAM) [8], and Diffusion of Innovation (DOI) [9]. These models emphasized attitudinal explanations towards the technological characteristics as determinants on their use of a specific technology or technology-based service [10]. What is less emphasized is the impact of trustworthiness as a determinant of the adoption of E-government services. Recent studies using integrative approaches of the two models have found that trust in the institutional entity of government plays a key role in intent to adopt E-services [1, 11-13]. This study posits that a person's trust in the institution of government will influence their intent to use E-government services and that this trust is a function of their ethical ideologies.

Ethical Ideologies

Using Forsyth's [14] logic, an individual's moral framework can be used to explain why some people and not others are more trusting toward the government. This observation is consistent with theories on business ethics that generally posit that individuals when faced with trusting decisions, apply ethical guidelines based on their moral philosophies [15]. Using the theoretical framework

proposed by Forsyth, Nye, and Kelley [16], this study examines two dimensions of moral ideology that can impact trusting decisions: idealism and relativism.

Idealism is defined as the degree to which individuals assume that harming other individuals should be avoided and desirable consequences should be followed [16, 17]. The concept of idealism refers to individuals' concern for the welfare of others and a belief that one must always avoid harming others and exhibit caring toward them [16]. The focus on caring implies that idealistic people would not intentionally harm another person even to a small degree. Different from idealism, relativism is defined as the belief that all moral standards are relative to society and culture, and moral actions depend on the nature of the situation and circumstances [16]. Relativistic individuals make decisions of what is right and wrong depending on the nature of a specific situation. For example, relativistic individuals would judge the ethicality of a situation depending upon the cultures, norms etc. in place. They do not believe that one set of ethical principles can be applied universally across the board. Thus, relativistic persons believe ethicality is more contextual.

Institution-based trust in the Government

In early research on trust, the concept implied the willingness of a person to depend on another because of the trustee's perceived characteristics [18]. According to McKnight, Cummings, and Chervany [19], there are three main types of applicable trust concepts: (1) trusting beliefs (meaning a belief that the other party has favorable attributes such as benevolence, integrity, and competence), (2) trusting intentions (feeling secure, committed, and willing to depend upon trustee), and (3) trusting behaviors (acting towards creating a dependence on the trustee). These concepts are connected, meaning high levels of trusting beliefs about a trustee leads to higher levels of trusting intentions and willingness to become vulnerable to the other party in specific ways, which in turn lead to trusting behaviors such as engaging in action-making oneself dependent on the trustee. Studies examining the acceptance of E-services within E-commerce and public administration literature primarily focus on the concept of trusting beliefs, supporting claims that perceptions of integrity, reliability, and benevolence of government influences citizens' intentions towards using E-government services.

McKnight, Cummings and Chervany [19] extend the notion of interpersonal trust to institution-based trust, contributing a sociological dimension that relates to structural assurance and situational normality to support the presence of trust. In the case of this study, institution-based trust in government means a belief that, regardless of the characteristics of the people representing government, the structural conditions like regulations, legal recourse, or other procedures are in place (structural assurance), and that the online environment provided by government is appropriate, well ordered, and favorable for sharing information and transacting (situational normality). An individual with high government-related structural assurance would believe that the government employs legal and technological protections like data encryption to safeguard one from loss of privacy, identity, or money. Also, a citizen with high perceptions of situational normality in general, believes that E-government platforms are competent and reliable to effectively do what they are tasked to do.

Simply put, institutional-based trust in government is defined here as an individual's perceived confidence in the competency (beliefs about the skills and competence of the trusted party), integrity (belief that the trusted party adheres to accepted rules of conduct, such as honesty and keeping promises), and benevolence (belief that the interests the party being served are being considered) [1]. The study proposes that the higher their degree of institutional based trust, the more accepting they are of E-government services.

RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

In this section, we develop the research model and hypotheses. The entire model is shown in Figure 1.

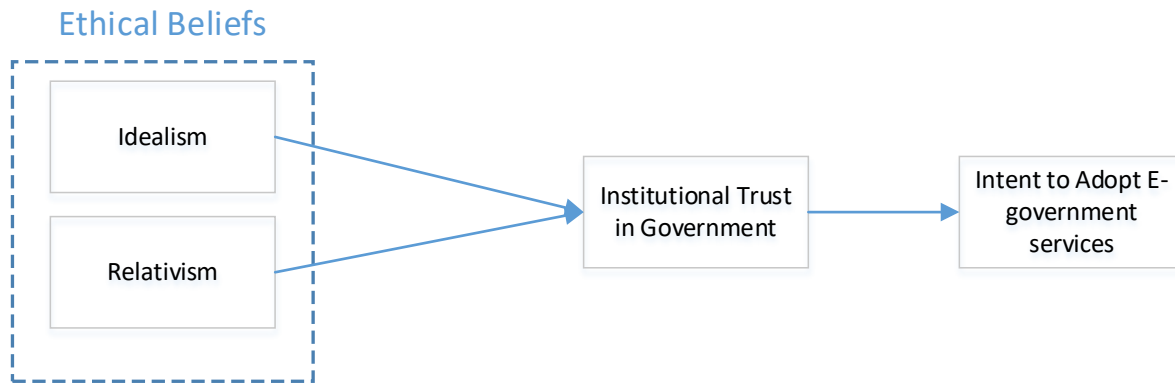


Figure 1. The Theoretical Model

Ethical Beliefs and Institution-based Trust in Government

As proposed by McKnight, Cummings, and Chervany [19], two antecedents of an individual's trust in an institution include their belief in its structural assurance and situational normality. Within the context of this paper, we can take this to mean that the degree of trust in government depends on citizens' beliefs about the available protection from institutional structures and the perceived appropriateness of the way in which they are transacting with the institution.

Idealism implies that a person believes in universal laws and rules that can enable desirable outcomes for all, and harm to oneself and others can be avoided. It can be assumed that most people understand the role of government is to serve its citizens, and rules, regulations, policies, etc. exist as protections for constituents. Supporting this perspective, an idealist person will have a strong tendency to believe in the government, and in the ability of the government to protect citizens from harm. Simply put, this implies that an idealist person will trust the government. Therefore, we can hypothesize that:

H1: Idealism will positively influence institution-based trust in the government.

Relativism is a rejection of absolute rules and seeks to evaluate actions on a case-by-case basis. In other words, relativists hold the view that beliefs about right and wrong, good, and bad, vary across time and contexts. For example, their trust in government and likelihood to engage in e-services may vary depending on their past experiences transacting with the specific agency/ website, social influence from others, the sophistication of the website, etc.

A generalized view of the political argument of why people trust government suggests it's because they believe in common or collective interests and aims [20]. Often governments, in their focus on collective pursuits, allow citizens the flexibility to engage with the government in alternate ways. For example, one could apply for a driver's license and use it as an ID; it is also possible to apply just for an ID with no driving privileges. Usually, governments also allow for citizens to qualify for exceptions if they fall within a special category. For example, during the recent pandemic, citizens are allowed to submit their document of exceptions (e.g., for religious reasons) if they cannot be vaccinated.

The underlying argument is that governments are often flexible especially when serving the public. Governments usually enact policies which leave "wriggling room" or degrees of freedom to the public. Relativists would be in favor of this flexibility and consequently would trust the government to better serve the public. Therefore:

H2: Relativism will positively influence institution-based trust in the government.

Institution-based trust and Acceptance of E-government Services

Theoretically speaking, it can be expected that the individuals that are more likely to report higher levels of institutional trust in their government can be confident that their information: (a) will not be misused by authorities or used in ways not intended by, and against the interests of, the individual; (b) is protected by reliable systems to guard against security breaches; (c) their personal information is not vulnerable to fraudulent and unauthorized use, either by outside parties due to poor security or by members of the government itself [1, 21, 22]. E-commerce research on trust with regards to acceptance of E-services observes that a consumer's trust in the vendor (here the government) is crucial to helping them overcome perceptions of risk and insecurity, without which they were deterred from using vendor website [12]. In a similar vein, public administration research found that the decision to engage in E-government transactions requires citizen trust in the government agency providing the service [1, 11, 23].

Hence, it can be hypothesized that citizens who trust their government are more likely to have intentions to use the E-services offered by the government. Therefore:

H3: Institution-based trust will positively influence intention to adopt E-government services.

EMPIRICAL STUDY

Data Collection and Sample

Data was collected using an online survey of undergraduate students enrolled at a large public university in the US Southwest. Students are users of public or governmental services like other adults, and therefore are appropriate subjects for this study. The survey was distributed among students enrolled in undergraduate-level coursework, and course instructors distributed the survey URL among students via email, requesting students to answer the survey anonymously. Subjects' participation in this study was voluntary. The survey platform *Canvas* is a trusted web-based learning management system used by the institution, to host and manage online course learning and testing materials for educators and students. A total of 180 undergraduate students completed the survey.

Measurement

Items for the questionnaire were drawn from existing literature (see Table 1). The items measuring idealism and relativism were adapted from the Ethics Position Questionnaire (EPQ), developed by [24] and condensed and refined to meet the needs of the study. Items measuring Institutional-based trust in government were adapted from [1]. The items to measure the intention to adopt E-government services were adapted from Lawson-Body, Willoughby, Hoffner and Logossah [25]. Each item was measured on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Consistent with the literature, data on demographic control variables, such as age, gender, and efficacy with technology, were collected.

Data Analysis

Partial least square (PLS) was conducted for data analysis which is a method of structural equation modeling using a component-based approach. The study used PLS as the most appropriate data analysis tool due to the sample size of the study is comparatively smaller and possible non-normality of the data. PLS provides more reliable results in this case. The tool WarpPLS7.0 was used in this study.

RESULTS AND ANALYSIS

Measurement Model

Partial least squares (PLS) were used for model testing. PLS is an SEM approach that is particularly useful for exploratory investigations in theory development [26]. WarpPLS7.0 was the tool used to conduct the analysis. In PLS assessing the measurement, the model involves analyzing the reliability and convergent and discriminant validities [27]. These reliabilities are all higher than the recommended threshold, and therefore it can be inferred that our instrument was reliable [28]. Convergent validity can be demonstrated by showing that t-values of the Outer Model Loadings are above 1.96" [29, p. 97], that is they are significant loadings at the $p < 0.05$ level. All the items satisfied this benchmark, thereby demonstrating convergent validity (please see table 2).

Discriminant validity was assessed in two steps. First, we confirmed that the items loaded much higher on their respective constructs than on other constructs. Next, we confirmed that the square root of the average variance extracted (AVE) was substantially higher than the correlation between any latent construct pair. We observed that the loadings of the items on their respective constructs were all higher than the recommended benchmark of 0.7 [28]. The square root of the AVE was also higher than the correlation between the latent variables. In addition, the AVEs were all greater than the recommended benchmark of 0.5 (table 4) [27]. The analysis shows that our measurement model is adequate.

Table1: Loadings and Cross Loadings

	Idealism	Relativism	Trust in Gov	Intention	Type (as defined)	SE	P-value
Idealism							
Deciding whether to perform an act by balancing the positive consequences against the negative consequences is immoral.	0.738	-0.034	0.067	-0.003	Reflective	0.064	<0.001
It is never necessary to sacrifice the welfare of others.	0.727	-0.032	0.069	-0.069	Reflective	0.064	<0.001
Moral actions are those which closely match the ideals of the most "perfect" action.	0.704	0.069	-0.142	0.074	Reflective	0.065	<0.001
Relativism							
Moral standards are individualistic; what one person considers to be moral may seem immoral to another.	-0.128	0.752	0.018	0.099	Reflective	0.064	<0.001
Different types of moralities cannot be compared to "rightness."	0.085	0.722	0.016	-0.042	Reflective	0.065	<0.001
Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.	0.048	0.727	-0.034	-0.061	Reflective	0.064	<0.001
Trust							
I think I can trust the government.	-0.029	-0.008	0.912	0.034	Reflective	0.062	<0.001
The government can be trusted to carry out transactions faithfully.	-0.011	-0.027	0.880	0.022	Reflective	0.063	<0.001
In my opinion, the government is trustworthy.	-0.014	0.022	0.936	-0.069	Reflective	0.062	<0.001
I trust the government to keep my best interests in mind.	0.059	0.012	0.842	0.016	Reflective	0.063	<0.001
E-governance							

I would be interested in using web-based E-government services	0.045	-0.022	-0.011	0.904	Reflective	0.062	<0.001
If web-based E-government services are available to me, I am likely to adopt them	-0.067	0.039	0.035	0.936	Reflective	0.062	<0.001
I would use E-government services provided over the web.	0.024	-0.018	-0.024	0.925	Reflective	0.062	<0.001

Structural Model

Figure 2 shows the structural model. The endogenous constructs' variance showed to be 14% (Institutional trust) and 18% E-government Services). The study's model proved to have substantial predictive power with the benchmark of 10%. H1, H2 and H3 were supported.

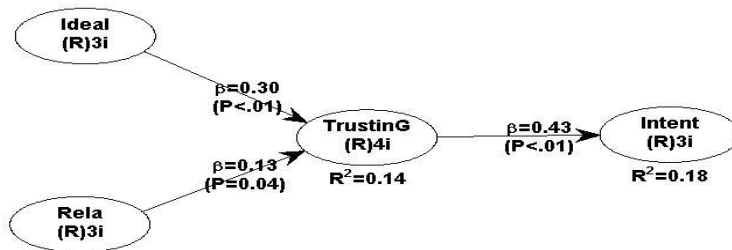


Figure 2. The Structural Model

Table 2. Path Coefficients

	Idealism	Relativism	Trust in gov	Intention
Idealism				
Relativism				
Trust in gov	0.305	0.131		
Intention			0.425	

Table 3. P values

	Idealism	Relativism	Trust in gov	Intention
Idealism				
Relativism				
Trust in gov	<0.001	0.037		
Intention			<0.001	

Table 4: Correlations Among I.Vs. with Sq. Rt. of AVEs

	Idealism	Relativism	Trust in gov	Intention

Idealism	(0.723)	0.050	0.262	0.003
Relativism	0.050	(0.734)	0.031	-0.003
Trust in gov	0.262	0.031	(0.893)	0.410
Intention	0.003	-0.003	0.410	(0.922)

DISCUSSION

The results show strong support for all our three hypotheses. Moral ideologies have a significant positive effect on the acceptance of E-governance. However, it is also noticeable that the effects of moral ideologies are different. Idealism has the strongest effect on institutional trust. This is not surprising because idealism is often considered fundamental in decision-making. However, the effect of relativism, which is the weakest (though significant), provides an interesting insight into this study. The results also highlight that institutional trust has a very strong influence on the acceptance of E-government services. This is also the strongest relationship in our structural model. It shows that notwithstanding the uniqueness of moral ideology, they do tend to still leverage institutional trust to develop acceptance of E-governance. This is a relationship that is well-established and therefore, our results imply that moral ideologies have impacts on acceptance of E-governance. However, this result needs to be investigated further, especially once the world recovers from the pandemic. It would be interesting to see if the salience of moral ideologies on acceptance of E-governance increases post-pandemic.

CONTRIBUTIONS AND FUTURE IMPLICATIONS

This study integrates ethical, e-commerce, and public administration disciplines to examine the moral antecedents of trust to better understand people's barriers to trusting government institutions which, in turn, offers a unique explanation for variations in individuals' intentions to adopt e-government services.

As supported by the findings of this study, ethical ideologies influence the adoption of E-government services, with idealism positively impacting institution-based trust in government; and institution-based trust in government was found to be a significant predictor of the intention to use E-government services. These findings are an important indication of the role of the ethical ideology and level of trust in government on the adoption of E-government services.

Our analysis suggests that idealist individuals have higher tendencies toward trusting their government and will more readily utilize E-government services offered by their government. Relativist individuals' trust in government is comparatively less (but still significant), supporting that relativist ideologies positively impact institution-based trust in government, but the level of trust is likely to vary based on individual experiences and the context. Therefore, relativists are more likely to utilize E-government services when they are flexible and adaptable to the varied needs of its citizens.

Theoretically, this study builds upon existing models used to understand the factors influencing the adoption of E-government services. Extant literature emphasizes the role of perceived ease of

use, perceived service quality, perceived benefits, and social influence as determinants of the willingness to adopt E-government services, with little importance placed on studying the effect of people's levels of trust in the institutions providing such E-services. Further, in examining the ethical antecedents of trust to better understand people's barriers to trusting government institutions, the study in turn offers a comprehensive and distinctive explanation for variations in the adoption of E-government services.

In terms of its practical implications, this study offers an additional lens through which we can explain the variances in the effectiveness and success of E-government initiatives. Governments must make large investments in the development of E-government platforms, taking on a huge risk should citizens fail to adopt it. Therefore, it is important for practitioners to first gain insight into the needs of its citizens (and an understanding of the citizens' ideology), the reasons for why and how citizens within their communities utilize their services, and then seek to offer e-services that are responsive and adaptable to their citizens' needs (given their ethical ideologies) to enable successful adoption of the E-government service.

To conclude, we hope that this study creates interest amongst academics in studying E-government through the lens of moral ideologies. Throughout the paper, an argument is made for the importance of understanding the successful adoption of e-services via the ethical lens. Moral ideologies can be a powerful ethical angle to augment our understanding of E-government phenomena. Given the increasing discourse on ethics in this literature, we are confident that moral ideologies will invoke compelling discussions of alternate and ethical perspectives that will help us better understand how E-government shapes businesses and society.

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