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Emergent Research Forum (ERF)

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Abstract

Developing countries have been launching e-government projects; a number of them have, however, failed partially or completely, generating distrust in citizens. E-government implies an internal approach, which has been extended with an external view as a consequence of the Digital Transformation in the public sector and its relationship with citizen trust. This paper aims to study the influence of digital transformation of the Peruvian public sector on citizen trust. We propose a quantitative method of research using the structural equation modeling (SEM) technique to assess our proposed model.

Keywords

Digital transformation, citizen trust, improved services

Introduction

The rapid adoption and use of the Internet in recent decades has increased the interest of governments in using information and communications technologies (ICTs) to make public services work better (OECD, 2017). ICTs have changed the way individuals communicate, socialize, acquire goods and access public services (Filgueiras et al., 2019). For Janowski (2015), this technological change has led people to interact and access digital services in a ubiquitous way, increasing the expectations of public services.

E-government applications have the challenge of improving public services and changing the way that public institutions work. However, the complexity of the public sector led multiple e-government initiatives to fail, generating a lack of user adoption, increased tax expenses, and deterioration of citizen trust (Sundberg, 2019). This situation has been harmful to government because citizens expect public institutions to manage their resources efficiently and with transparency to satisfy their needs (Mahmood, 2016; Sangki, 2018). A high failure rate of e-government in developing countries has been identified, with estimations that 35% of the projects were total failures, 50% were partial failures, and only 15% were successful (Heeks, 2003).

In the case of Peru, public services provision faces various challenges. According to the OECD (2019), in the Peruvian public sector, it takes an average of 8.6 hours to complete a procedure, only 15% of the procedures can be initiated online, only 4% can be completed digitally, and only 29% can be completed in a single interaction. Based on these statistics, Peru is in the penultimate position in Latin America.

In the Information Systems domain, the terms digital transformation and e-government are often used interchangeably when referring to the public sector. Digital transformation is the term mainly used in the private sector and Loonam et al. (2018) define it as a strategic, organizational, information-technology and user-centered change. According to Janowski (2015), there is an evolution from traditional e-government to digital transformation, where e-government focuses on internal concerns and digital transformation evolves from internal to external concerns. According to Twizeyimana et al. (2019), improved services are consequences of digital initiatives and have a long-term impact that may increase user trust. In addition, Mahmood (2016) and Morgeson et al. (2011) determine that there is a positive relationship between public services, government performance, citizen satisfaction and trust. Accordingly, we found a gap in the

literature because the perception of digital transformation in the public sector and the characteristics of improved services have not been studied from the perspective of citizen trust.

The purpose of this research project is to explore the influence of the digital transformation of the government on Peruvian citizens' trust.

Literature review

Digital transformation in the public sector

Mergel et al. (2019) conceptualize the digital transformation in the public sector as a continuous process that involves changing aspects of the public institution such as digitalization, internal and external relationships, competences and mindset to obtain both better long-term results and better public services. The proper application of digital transformation entails the generation of public value that embraces improved public services (Twizeyimana et al., 2019). Santa et al. (2019) and Twizeyimana et al. (2019) state that the result of the digital transformation is improved or new public services. Santa et al. (2019) emphasize the relationship of public services and the perception of citizens about performance. The study of digital transformation in the public sector is new and the consequences of this technological trend have not been measured from the perspective of citizen trust.

Improved services

The theory of public value is adopted from public administration, specifically, from Moore's theory that defines it as the collective expectations of citizens about government and public services (Moore, 1995). Twizeyimana et al. (2019) analyze the public value generated by e-government and define 'improved public services' as a dimension of public value and refer to the different service improvements offered by e-government. Improved services are measured based on their characteristics (Jansen et al., 2016).

The characteristics of improved services are cost reduction (Bannister & Connolly, 2014; Castelnovo, 2013), transparency (Bannister & Connolly, 2014; Castelnovo, 2013; Karkin & Janssen, 2014), accessibility (Layne & Lee, 2001; Pirannejad, 2011; Zhang, Guo, Wang, Chen, & Wei, 2011), ease of use (Lu, Feng, Wang, & Fang, 2011), personalization (Zachary & Pieterson, 2011) and security (Gafni & Geri, 2013). To the best of our knowledge, there is no study on the characteristics of public services enhanced by digital transformation and how this affects trust from a citizen perspective.

Performance, satisfaction and trust

Mahmood (2016) studied the perception of performance, satisfaction and citizens' trust with regard to e-government services. Likewise, Sharma et al. (2018) establish a model called 'performance-satisfaction-trust' that measures the performance of e-government from the perspective of citizens. Tolbert et al. (2006) and West (2001) focus on the relationship between digital services and citizen trust in public organizations. Mahmood et al. (2019) investigated the relationship between government transformation and citizen trust, as well as the factors that influence transformation. Morgeson et al. (2011) also focus on electronic government and its relationship with citizen trust in public organizations. Mahmood (2016) and Morgeson et al. (2011) state that an adequate process of transformation of the government improves the performance of public institutions, generates greater satisfaction and increases trust. However, these researchers have not studied the dimensions of digital transformation, nor the characteristics of improved services from the perception of performance and trust.

Conceptual model and hypothesis

Based on our literature review, we have established the following hypotheses and constructed our conceptual model (figure 1):

H1 a, b, c, d: Perception of digitalization, internal and external relationships, competences, and mindset have a positive impact on each characteristic of improved public services.

H2 a, b, c, d, e, f: Perception of transparency, security, personalization, accessibility, cost reduction, ease of use have a positive impact on perception of performance.

H3: Perception of performance has a positive relation with satisfaction.

H4: Citizen satisfaction has a positive relation with trust.
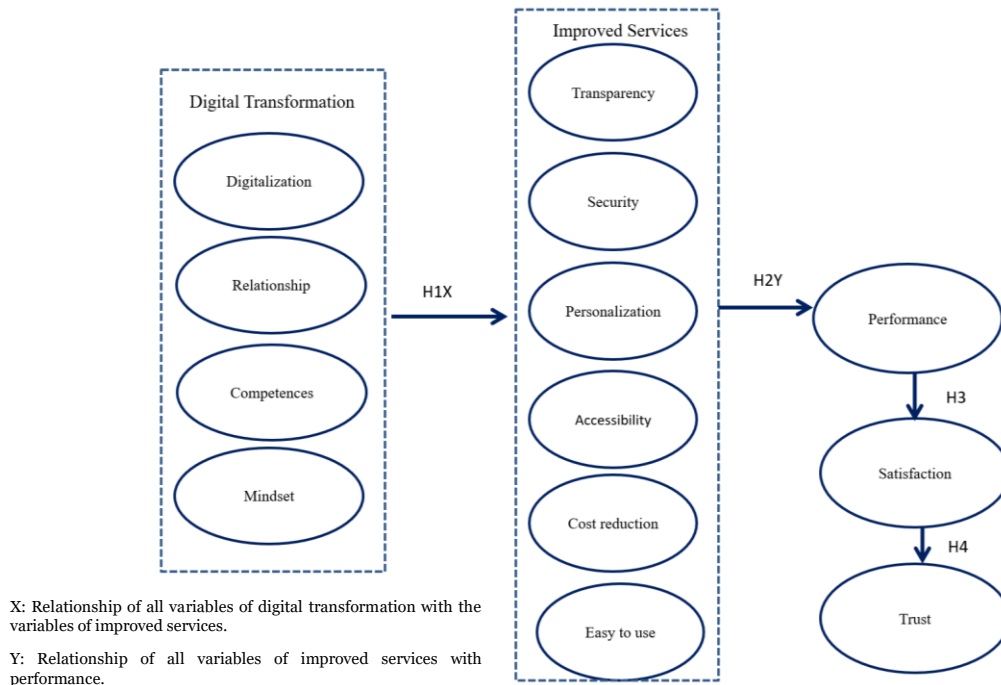

Figure 1 – Conceptual model of the influence of digital transformation on citizen trust

Methodology

For this explanatory research, we are going to use a quantitative method to determine the significance of our proposed relationship between variables in our conceptual model. We will use SEM because it allows the analysis of all paths simultaneously (Barclay et al., 1995). The research will seek to explain the relationship between perception of digital transformation, the perceptions of characteristics of improved services and the perception of performance, satisfaction and citizen trust. The unit of analysis will be citizens who use digital services from SUNAT, RENIEC or SUNARP. These public institutions of Peru were selected because they are the ones that invest the most in technology (OECD, 2019).

The instrument for collecting the most suitable data for research is the questionnaire adapted from the studies of Mahmood, 2016, and Parasuraman, A., Zeithaml, V., Berry, 1988 with Likert scale responses from 1 to 7. The study will look for response from 600 citizens who use a digital service from SUNAT, RENIEC or SUNARP. We will analyze how the results vary between public institutions. This questionnaire will be distributed through the Survey Monkey tool and the data collected will be analyzed through SmartPLS 3.0.

Conclusion

Our research is based on the exploration of the characteristics of the improved services generated by digital transformation in the public sector and how it impacts the trust of Peruvian citizens. We expand the understanding of the digital transformation definition of Mergel et al. (2019) and study the improved services from the perspective of trust. We will test our measurement instruments and start to validate our model with testing data to adjust our model.

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