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Inhibitors of e-Government adoption: Determinants of habit and adoption intentions



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ABSTRACT

Explanatory models of e-Government adoption are based on the premise that user behavior results from users' intentions, which derive from users' beliefs and attitudes. According to such models, citizens' high intentions to use e-Government tools should have led to the widespread adoption of these tools. Yet this has not occurred. Therefore, existing models fail to explain the adoption of e-Government. These models must be complemented to explain the cause of citizens' failure to adopt e-Government. Attempts to build a satisfactory model include the design of dual models (jointly analyzing facilitators and inhibitors) and integrating models (jointly analyzing the interaction between intention and habit in prompting behavior). This study identified several inhibitors of e-Government adoption. Organizational support, self-efficacy, benefits, loss aversion, regret aversion, control, transition costs, sunk costs/switching costs, uncertainty, habit, resistance, and inertia were found to inhibit citizens' adoption of e-Government.

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Inhibidores y no usuarios del E-Gobierno: determinantes del hábito y las intenciones de adopción

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Los modelos explicativos de la adopción del e-Gobierno se sustentan en que el comportamiento del usuario es fruto de las intenciones generadas por sus creencias y actitudes. De acuerdo con dicho modelo, la elevada intención de uso que muestran los ciudadanos debería haber provocado una adopción masiva del mismo, que lo consagrara como el canal más empleado para acceder a los servicios públicos. Sin embargo, dicha situación no se produce. Ya que tales modelos no consiguen explicar de forma completa la adopción de los servicios digitales en general y del e-Gobierno en particular, en los últimos años se reclama la necesidad de complementarlos para explicar la causa de la no adopción del e-Gobierno por la ciudadanía. Entre los intentos realizados para completar esta explicación se establecen tanto el desarrollo de modelos duales (analizan conjuntamente los favorecedores e inhibidores), como el de modelos integradores que analizan de forma conjunta la interacción entre intención y hábito en la generación de comportamiento. Es por lo expuesto que el presente trabajo se dirige a delimitar los inhibidores que frenan el proceso de adopción del e-Gobierno. De entre ellos existe una batería (apoyo organizacional, autoeficacia, beneficios, aversión a la pérdida, aversión al lamento, control, costes de transición, costes hundidos/costes cambio, incertidumbre, hábito, resistencia e inercia.), que se encuentran presentes en el proceso de adopción del e-Gobierno como frenos del mismo por parte de los ciudadanos.

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Introduction

The literature related to adopting information systems (IS) is centered on identifying the elements which determine this process. Recently, a trend which considers completing these models with dual ones including facilitators or inhibitors (Hsie, 2016), or which study the intention and habit effect (Ouelette & Wood, 1998) has been gaining importance.

Although, within the dual models, there is a generalized acceptance of the factors which explain the facilitator elements, we cannot say the same about the inhibitors. Among them, resistance stands out, considered as the first challenge for implementing IS when they are used as distribution channels (Kim & Kankanhalli, 2009). There are few studies which target the inhibitor factors in comparison with those which are centered on the adoption and continuation of use (Kim & Gupta, 2013). Among the theories which explain the user's resistance is the Status Quo, which evaluates the switching decision linked to the new IS (Hsie, 2016). It is essential to understand the factors which could strengthen or weaken the Status Quo and hence develop strategies to reduce or reinforce the switching intention (Li & Cheng, 2014).

Over the years public agencies have tried to incorporate information technologies, though at times they have met maximum resistance from those which they could benefit (Bhattacharjee & Hikmet, 2007). This situation has caused a gap between the expected and actual behavior of citizens. As a greater rate of use of traditional channels than online ones has been shown, we should know the causes which lead to this rejection (Rey & Medina, 2016). In this context, the

present work is developed with the aim of analyzing the validity of variables which can be linked to the user's resistance to adopting e-Government.

Adoption and its link with intention

Research related to IS adoption has been centered on the initial adoption, on the premise that its use will be mainly determined by the intention of use (Limayem, Hirtz, & Cheung, 2007), generated by the evaluations carried out by the individual during the phase prior to adoption (Kim, 2009). The criteria prior to adoption are mainly based on indirect experience, while criteria after adoption come from the experience itself (Yang, Lu, Gupta, Cao, & Zhang, 2012). In this vein, the intention of adopting an IS is determined by two basic elements: psychological factors and social influence. Within the personal factor, the attitude toward adopting the IS reflects the evaluation – positive or negative – of developing this behavior (Karahanna, Straub, & Chervany, 1999).

The explanation of adoption and use is supported by the paradigm of planned behavior, assuming that behavior is a conscious process influenced by beliefs, attitudes and intentions (Verplanken & Aarts, 1999). Intentions can consciously channel behavior through controlled reasoning processes (Ouelette & Wood, 1998). The information regarding the generating of attitudes can have its origin as the fruit of the direct experience more than that which is indirect. Likewise, information whose origin is direct produces clear and trustworthy evaluations (Ortiz de Guinea & Martus, 2009). Intentions based on attitudes better predict behavior

than those based on subjective norms. The justification of this statement is to be found in the fact that “attitudinally controlled” intentions are the expression of the very “being”, formed under the complete sense of choice and the result of a real willingness. On the other hand “normatively controlled” intentions are experienced as due to pressure or through coercion (Sheeran, Norman, & Orbell, 1999).

Habit has recently been identified as an additional element which can determine behavior. If it is a question of a joint effect of intentions and habits, the relevance of automatic use stands out beyond conscious behavior. These works lead to a second behavior paradigm: “goal-directed automaticity” (Verplanken & Aarts, 1999).

Ouelette and Wood (1998) describe the interrelation between the opposing paradigms (the proposed behavior paradigm and goal-directed automaticity), suggesting that the generation of action and of control follow two basic processes: the automatic repetition of acts from the past (goal-directed automaticity) and the conscious effect of attitude and intentions (planned behavior). This implies that habit and intentions, guided by attitude, jointly predict behavior and could coincide or be at odds. When conscious intentions correspond with their habitual behavior, the actions are directly developed, drawing on elements of the environment and will be relatively automatic, but when intentions are opposed to habitual behavior, the responses will be guided by intentions only if they surpass existing habits (Ouelette & Wood, 1998).

The habits which are at odds with attitudes are called “counter-intentional” (Verplanken & Aarts, 1999). They can be generated by heuristic motives in the short term, such as comfort or enjoyment, and influence behavior differently than “pro-intentional” habits. With the aim of studying this gap, Sheeran (2002) proposes a perspective which analyzes the consistency between intention (positive or negative) and behavior (based on the result or not). Applying the theory of use of IS can mean that when intention and the habit of use correspond, they lead to the same result in terms of behavior, but when they do not correspond the result of behavior depends on the strength of habit or of intention (Kroenung, Eckhardt, & Kuhlensasper, 2017).

According to Sheeran (2002), attitudes are aligned with intentions (high intention-behavior consistency) in both cases. On the one hand, those people who have positive intentions and act in accordance with them (inclined actors) and, on the other hand, people with negative attitudes who act in accordance with their intentions. Therefore, the groups which make up the gap do not act in accordance with their intentions. This occurs in those who have positive intentions whose actions are opposed to them (inclined abstainers) and in those others with negative intentions which are opposed to their behavior (disinclined actors). In a similar line to this, Kroenung et al. (2017) suggest that the behavior of adoption is not explained by the theories analyzed by Sheeran (2002), but that different groups of people have distinct motives driven by different behavior paradigms.

Although IS use is considered to be a conscious and deliberate process which can be analyzed from the outlook of intentions, research is beginning to consider an automatic use which can happen beyond conscious knowledge, mainly driven by habit. In addition to leading to the continued use or

the inhibition of use of a new IS, habit moderates the effect of planned behavior depending on its strength and direction (Kroenung et al., 2017). This is why if we wish to explain the cause of the non-adoption of e-Government, we must go deeply into certain variables which can condition this process, such as resistance, inertia and habit.

Inhibitors of adopting information systems: resistance, inertia and habit

The economy considers that behaviors can be explained assuming that the agents have stable preferences and carry out rational choices based on them, opting for that alternative, among the new options, which exceeds the usefulness of the alternative which they have (Kahneman, Knetsch, & Thaler, 1991). Numerous works question these proposals for the case in which one of the options is preferred.

In this situation, people could prefer the option in use, regardless of there being an alternative with a greater usefulness (Kahneman et al., 1991). This is because when consumers choose an option, there is a tendency to maintain the current state (Wang, Song, & Yang, 2013). This can be due to one of the unconscious mechanisms present in the consumer's decision (Li & Cheng, 2014; Lucía-Palacios, Pérez-López, & Polo-Redondo, 2016). Within this, resistance to innovation is of special relevance (Polites & Karahanna, 2012).

Resistance is defined as the individual tendency to avoid making changes (Kim & Gupta, 2012). On other occasions, it is considered to be consumers' rejection to innovation due both to this meaning change to a satisfactory Status Quo and to it being a conflict with a structure of beliefs (Patsiotis, Hughes, & Webber, 2013). Non-adoption could be both active resistance, which represents the forming of negative attitudes guided by specific factors generated in the evaluation of the new product, and passive resistance, referring to a negative predisposition to innovations which at times means subconscious elements prior to the evaluation of the new product without considering its characteristics (Heidenreich & Kraemer, 2015).

Resistance to an IS differs in the phases which make up adoption. When it is introduced, the users will evaluate its conditions and carry out projections about the consequences of its use. If they expect threatening consequences, there will be resistance. During the implementation acts will be triggered which could modify this resistance. This will persist if the threats are perceived as being linked to the interaction between the object and the initial conditions (Lapointe & Rivard, 2005). In the area of IS, resistance is conceptualized as an adverse reaction, or opposition to change, related to the implementation of a new option (Kim & Kankanhalli, 2009). Given that the adoption of a new IS implies replacing one system with another, resistance manifests itself as a reticence to changing the technology used for another one (Polites & Karahanna, 2012).

A valid theory for explaining the way in which the use of a system impacts perceptions and intentions toward a new one is the *the Status Quo Bias* (SQB). This proposes that when the consumers face multiple options, they generally opt for that which is linked to the Status Quo even when the others are superior. This is a cognitive tendency, dependent on the

context, in favor of the current situation (Kahneman et al., 1991; Polites & Karahanna, 2012; Wang et al., 2013) and which enables the understanding of the impact which the current situation maintains via inhibitor perceptions toward the use of a new IS (Hsie, 2016). Three groups which contribute to the SQB are identified: rational decision-making (transition costs and uncertainty); the absence of cognitive perception (loss aversion and anchoring effects); and psychological commitment (sunk costs, regret aversion and control) (Samuelson & Zeckhauser, 1988).

Radical decision-making implies the evaluation of the costs and benefits linked to change before deciding on another alternative. Two types of costs are identified: transition and uncertainty. Transition costs are those incurred when adapting to the new situation. Uncertainty costs represent the perception of risk associated with the new alternative (Falk, Schepers, Hammerschmidt, & Bauer, 2007). Decision-making can at times mean a situation in which consumers ponder the losses more than the gains, a phenomenon called loss aversion (Samuelson & Zeckhauser, 1988). Therefore, people present a strong tendency to maintaining themselves in the Status Quo, because the disadvantages of abandoning the current behavior surpass the advantages linked with the new option (Kahneman et al., 1991). The anchoring effect could be linked to the statistical forecast which leads to a particular decision. Among the components of psychological commitment, the first is that of sunk costs, connected to the desire to justify prior commitments by carrying out others which are consistent. Regret aversion is based on previous negative experiences and why people fear making decisions in which they perceive that there may be a risk of provoking a new situation to regret. The bias which comes from the illusion of control is a potential significant source of inertia for the Status Quo (Samuelson & Zeckhauser, 1988).

Both resistance (Patsiotis et al., 2013) and the tendency to the Status Quo are manifested as inertia (Polites & Karahanna, 2012), one of the factors which lead to avoiding a decision (Anderson, 2003). Inertia describes a behavior tendency which heads to remaining with what has been chosen and which represents the current state. People guided by inertia avoid seeking variety and innovation. Inertia reflects the lack of desire to abandon a situation, irrespective of the alternatives present or those which could appear in the future (Lucía-Palacios et al., 2016). It is defined as the attachment and persistence of existing behavior guidelines, even when facing better alternatives or incentives. In other words, it reflects a rigid continuation of the Status Quo (Polites & Karahanna, 2012).

The Status Quo could be linked to unconscious factors such as habit (Polites & Karahanna, 2012). Habits are defined as automatic behaviors and represented mentally as associations between objectives and actions. These associations are molded by a frequent carrying out of the actions and require the activation of the objective to become manifest (Aarts & Dijksterhuis, 2000; Sheeran et al., 2005). Polites and Karahanna (2012) define it as a sequence learned from acts converted into responses to specific matters which are functional in the achieving of particular aims. It is a question of a sequence of well-learned actions which could be repeated without a conscious intention and is conditioned by the stable conditions of

the context (Olsen, Tudoran, Brunso, & Verbeke, 2013; Yen & Wu, 2016). Habit in the context of IS is defined as the degree to which people tend to develop automatic behaviors due to learning. When behavior is guided by habit, it is not a reflexive act and it diminishes the degree of conscious attention, being considered a behavior lacking in force and efficiency (Limayen et al., 2007)

The forming of habits means the creation of associations in the memory between repeated behavior guidelines and the features of the environment in which they are developed. The recurring aspects of these circumstances lead to the responses of people being carried out directly without the need of any input related to acting (Verplanken & Aarts, 1999; Verplanken & Wood, 2006). The more frequent a specific behavior is, the more likely it will become habitual. Nevertheless, behaviors carried out intermittently over long intervals do not tend to become habitual in spite of their being able to present a repetitive nature (Ang, 2017; Yen & Wu, 2016). Habit has a high potential to explain behaviors, being one of the greatest determinants of the intention of use in online environments (Ang, 2017; Yen & Wu, 2016) and moderating the relation between intention and continued behavior (Limayen et al., 2007). As the habit develops less planning is produced and loyalty is guided by automaticity and inertia (Olsen et al., 2013). In a multichannel context, consumers persist in their habitual routine if they perceive the new channel as a natural evolution of their relation with the firm (Wang, Lin, Tai, & Fan, 2016).

Methodology

The aim of the present work is to delimit the inhibitors of the use of a new IS – in our case, digital public services. To do so, we have reviewed different conceptualizations and modelings on inhibitors gathered in the literature with a view to delimiting those inhibitors which are linked to the adoption of digital public services (e-Government). Next, we will carry out a qualitative study (focus group) which will enable us to corroborate and confirm the most significant inhibitor factors in the study area.

We now present the models whose components will be taken into account in the delimiting of the inhibitor factors. They are: (1) Kim and Kankanhalli (2009), whose interpretation of the SQB has been criticized in recent works, (2) Polites and Karahanna (2012), who present a dual approach (they analyze both acceptance and resistance), and (3) Lee and Joshi (2016), who reflect a review of the SQB from the work of Samuelson and Zeckhauser (1988).

Modelizations based on the choice of constructs

Kim and Kankanhalli (2009)

They propose that self-efficacy for change and the opinion of colleagues influence switching costs and that these also affect its benefits. The costs and benefits linked to change determine the perceived value and this, along with the switching costs and the organizational support of change determine the user's resistance. The model starts by conceptualizing the perceived value (a strong tendency to maximize value in decision-making will lead to resisting changes which have a

high perceived value) and proposes an indirect effect of the switching costs on resistance via the perceived value. According to radical decision-making, higher switching costs will reduce the perceived value.

Self-efficacy, which is the trust in one's own skill to adapt to new situations, reinforces the person's feeling of control. Users with a low level of self-efficacy will feel little motivated and could be inclined to resist change. Self-efficacy could influence the user's resistance indirectly through switching costs. High self-efficacy for change implies a lower perception of uncertainty and transition costs, such as those of learning. The model incorporates external efforts such as organizational support. The need for social accompaniment and sanction fear make users tend to adjust themselves to the opinion of their colleagues. Their favorable opinion can reduce uncertainty, switching costs and resistance, leading to a better perception of the benefits of the new IS.

Polites and Karahanna (2012)

Habit, sunk costs and transition costs determine inertia. This has an effect on the new IS's perceived ease of use, the relative advantage and the intention of use, as well as a moderation of the relation between the subjective norm and intention of use. Perceived ease of use affects the relative advantage and at the same time both affect the intention of use of the new system.

They start their model with constructs linked to the acceptance of technologies. To this they add constructs associated with the use of the current system, which serve as a source of resistance toward the acceptance of a new one. With one exception (the effect of the habit of the current system on inertia), they state that they employ the SQB literature to identify the current system's constructs and how these contribute to the SQB. The central construct of the current system is inertia. They identify two conscious sources: sunk costs and transition costs. They also use habit as an unconscious source of inertia and the concept of psychological commitment. They propose that inertia is a mediator of the impact of the habit of the current system and the perceived switching costs on the beliefs and intentions linked to the new system.

Lee and Joshi (2016)

They set forth the correct interpretation of rational decision-making, of the absence of cognitive perception and psychological commitment. The function of value with loss aversion explains the so-called endowment effect, which consists in giving a higher value to things which are our own property. People value the probable usefulness of a reward in comparison with the costs with which they are faced and consider the "uselessness" of a level of cost more than the usefulness of the same level of gain. In this context, the implementation of an IS becomes more difficult and costly for users as the "uselessness" derived from the losses of the current IS could appear to be greater than the usefulness gained from it.

The anchoring effect stems from a bad cognitive interpretation which impacts the users' perceptions and their resistance. In the context of IS, users could generate anchoring based on a reduced volume of information obtained from their recent experiences, and form their expectations concerning the new system based on the descriptive information offered by the

organization. The sunk costs are the psychological commitment which could influence the person's intention to maintain the course of their current action; it could even turn out to be contrary to the cost-benefit analysis. In adopting an IS, the efforts of learning, experience and expertise with the current system could represent sunk costs.

The constructs employed in the current work are taken from prior conceptualizations, specifically:

- Organizational support for change, self-efficacy for change, benefits of change, opinion of change, opinion of colleagues, and value perceived: [Kim and Kankanhalli \(2009\)](#);
- Loss aversion, regret aversion, control and anchoring effect: [Lee and Joshi \(2016\)](#) and [Samuelson and Zeckhauser \(1988\)](#);
- Transition costs, sunk costs/switching costs and uncertainty: [Kim and Kankanhalli \(2009\)](#) and [Samuelson and Zeckhauser \(1988\)](#),
- Habit and inertia: [Polites and Karahanna \(2012\)](#),
- Resistance: [Kim and Kankanhalli \(2009\)](#)

Design of the field work

To respond to the aim set we used a qualitative method which facilitated a better understanding of the elements being investigated. We employed a reduced sample with a view to achieving a greater knowledge of the phenomenon studied ([Papaoikonomou, Valverde, & Ryan, 2012](#)). The use of qualitative analysis is defended when the aim is to generate theory ([Huang & Roig-Tierno, 2016](#)), the focus group being the most used technique ([Alomari, Snadhu, & Woods, 2014](#)), as well as that which is the most appropriate for exploratory works which study attitudes and behavior ([Bray, Johns, & Kilburn, 2011](#)).

We designed and developed a focus group of non-users of e-Government, made up of 6 participants (3 men and 3 women), aged between 37 and 59 years old. The debate lasted 83 min. It was generated around 7 sections (introduction, administering, help experiences and stories, security, necessary tools, and future). In each one we began by explaining the different research variables, gathered directly or indirectly in the distinct questions. Some of the study variables (habit and sunk costs/switching costs) were not grouped together in any specific section as they would be dealt with transversally throughout the discussion and stories of the participants in the two groups.

Results of the session

The non-users of e-Government elaborated stories justifying their negation to change, constructed through partial knowledge of experiences of third parties and of narrations of unknown sources. Although the legitimacy of the speeches was weak, they were used as justifications to avoid change ("There is a program which says that there is a 77% probability of cracking the codes", "A hacker can come and rob you of everything, can't he? Or something like that"). Uncertainty is an element with a double direction as you start from it and at the same time it is fed by these stories. The lack of tools and knowledge to function in a new paradigm generates a

sensation of incompetence which is nuanced through these narratives of fear justifying negation to change.

Although the non-users are aware of the benefits, at the theoretical level, of using e-Government, they value to a greater extent the potential risks which can be derived from its use. In this sense, *loss aversion* is established through possible supposed catastrophes (“I don’t buy on the Internet, nor... the truth is that it makes me a bit afraid to put my account number there”). However, these stem from the lack of *self-efficacy* perceived by them themselves for carrying out these operations (“But yes, really these fears, this ignorance... when you don’t know something you’re afraid”; “You think you’ve done it well but you haven’t done it well”).

One of the major hindrances is ignorance, which generates a fear that some things can happen beyond the user’s control or there is a lack of tools to find a solution to the impediments which one comes across. Among the elements which justify not carrying out operations with the Administration in a telematic manner is the fear of the unknown or what may happen, fed almost mystically (“Fear, fear”, “Because I don’t know what I’ve read [...] that if you haven’t the codes of your computer turned off, they can get in and see your movements”). This fear will be easy to allay through a conscious process of actions and learning the necessary procedures and operations – with a mixture of the expected and the unexpected. Users refuse to enter into a space of action which they do not control and when they do not have references about what to expect. They find faults of a chronology of foreseeable elements during the steps necessary to carry out an electronic procedure. (“If I have put in information or do something, such as an income tax declaration, OK, but if another message comes about another thing, so that you say: Be careful, I haven’t put myself in here!”, “But in the end you always know if you’ve done it right or not because they give you the OK”).

The non-user population develops a certain sensation of abandonment, what they call a lack of *organizational support* for the change. They assume that they do not have the necessary knowledge to access the services by this channel and request help elements. Thus, they demand courses and bridging elements from the State, which they blame for a lack of facilities for people with little computer knowledge. However, efforts are not made in the opposite direction, and a proactiveness to acquire this necessary knowledge is not underlined (“Yes, yes, it makes me a bit envious, but I’m also lazy, and I’m also afraid”). This sensation of abandonment generates frustrations as the possibility of *habit* has been broken, eliminating its *modus operandi* of the possible options (“And then I get really angry, I’m going for an insurance history and they say this can’t be done by Internet. Well, you’re taking for granted everybody now knows Internet”, “For us everything’s going very fast, very fast...And you’re ending up increasingly more distant”). The sensation is of disconnection with social dynamics that override you, feeding uncertainty and your self-perception of lack of efficacy.

People, even aware of the advantages and disadvantages, construct an argumentation which justifies their procedure or the *inertia* of action. To justify this inertia, a commitment to the past and the previous established methods is carried out (*sunk costs*). This type of justifications pass through various stages and go from the development of the characteristics of

these procedures to a certain romanticism about the past (“I don’t like all this robotized world. Depersonalization. Human contact is what is essential”). These justifications fall within a logic where what is presented is the carrying out of operations by a third party to not abandon the habit and the delegation of responsibilities.

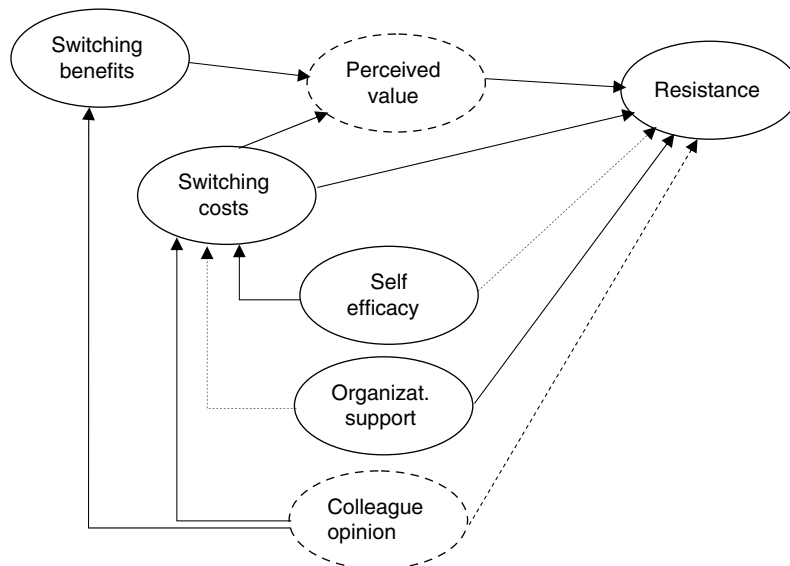
Resistance to abandoning habit is related with the slight motivation for new learning and it is preferred to delegate to other people, although from a personal point of view time has to be invested (“I ask for a number and I go personally and I lose a morning or two there”). If they proceed to carry out themselves the operations necessary for the proceedings, they can incur in *regret aversion*, where people see themselves as responsible for the actions which they have made. In the case in which another person has done this operation, the responsibility falls on him/her. This reasoning is shown through a reflex effect as they are the ones who consider that the Administration and other entities put into the hands of the consumers the possible negative consequences of the operation which they can carry out. (“And they give you the key, I’m going to be mean, and they tell you you can do this and of course suddenly now someone does a transfer or they do I don’t know what with my account and they tell me: “You’ve done this, as you have the keys...”, and they wash their hands of the affair”). They eliminate all kinds of control to evade responsibilities. A summary of the stories linked to the constructs analyzed can be viewed in [Table 1](#).

Non-users of e-Government are in a position in which they feel the pressure of a social influence which demands a change from them and they do not find points of support for carrying out this change. In this sense, they demand two elements. They assume the need for a process of readaptation to the new technologies (which has to come from the Administration itself) and also a process of tutoring (“Administration should give us recycling courses”). They value a mentoring system which favors the perception of *control* by people, as they develop their own operations, but there is a welfare figure to turn to in the cases in which *uncertainty* returns concerning the steps to follow (“I got angry, but it was good for me because I went to a computer there and they told me the steps a bit. I had to get up a few times saying: Hey, I can’t. [...] But in the end I made it and you feel good because you have done it, you’ve stamped it and you see they give you an OK”) ([Fig. 1](#)).

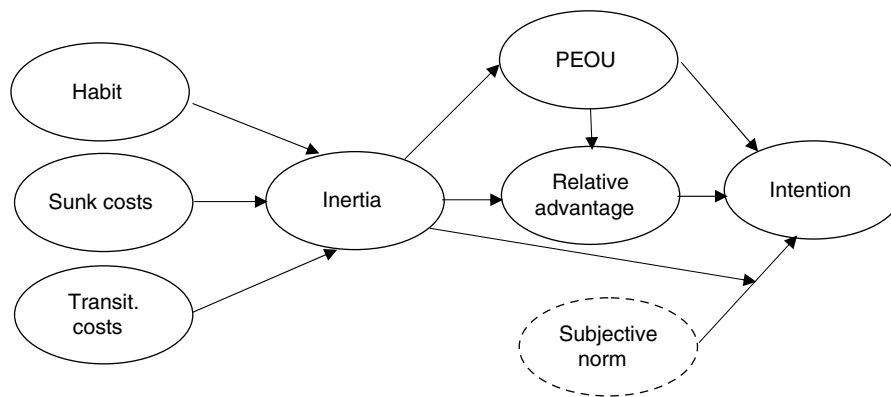
Discussion of results, conclusions and limitations

Discussion of results

Different research in the area of the acceptance of IS is centered on the initial adoption under the assumption that use will determine intention. This reasoning could not be applicable to continued use as it overlooks that the behavior carried out frequently tends to become habitual ([Limayen et al., 2007](#)). It is important to bear in mind that continuing in the use of an IS refers to a phase of the use in which conscious behavior is transcended, becoming a normal routine activity ([Bhattacharjee, 2001](#)). Therefore, it is not only a question of different elements but that many of the antecedents which help



Kim & kankanhalli (2009)



Polites & karahanna (2012)

Fig. 1 – Relevance of the constructs in the studied models after the qualitative research.

to explain the intention to adopt a particular IS do not present any explanatory value in the case of experienced users, in such a way that the adopters employ a richer set of beliefs when they make their decisions of use (Karahanna et al., 1999).

Having established the above, it is worth remembering that the current work is centered on the study of non-users of e-Government. The relevance of this work has already been set forth in the literature, as being able to identify the elements which cause resistance it is more likely that we will achieve the loyalty of our users (Kim & Gupta, 2012). This fact is especially relevant in the area of public services where it is verified that there is a broad segment of users who due to inertia do not change their behavior (Wieringa & Verhoef, 2007). In this sense, as it is not possible to explain the adoption of new distribution channels through classical theories, Falk et al. (2007) recur to the term cross-channel dysfunction referring to the negative synergic effect among them (Wang et al., 2013). Using the online channel for the first time means a change of behavior in which the guidelines acquired must be altered, inertia being a hindrance to the disposition of consumers to try out new technologies (Falk et al., 2007).

As the citizens insist in their intention to use e-Government, but this adoption does not quite happen (Rey & Medina, 2016), it is necessary to delimit the inhibitors which lead to this behavior. If we center ourselves on inhibitors which affect the non-users of e-Government or prevent its adoption, we see how provided loss aversion is linked to supposed catastrophes, the uncertainty that is the origin of avoiding change is used as a justification in the story of non-users. Non-users do not feel control, they even note fear and blame the lack of foreseeable elements. These statements are in line with those works in which it is indicated that value and, especially, tradition are the main barriers to online shopping (Lian & Yen, 2013).

With regards to organizational support, non-users call for help in the form of courses. Regarding self-efficacy, this generates aversion in non-users as they do not trust their potential. Transition costs are higher than benefits for non-users. In a similar line, it had already been pointed out that for users more satisfied with the current offer, the perceived usefulness of the distribution channel diminishes. Therefore, to achieve the use of an online channel not only depends on showing the

Table 1 – Stories linked to the constructs analyzed.

Construct	Non-users of e-Government
Organizational support	Sensation of abandonment. They demand a process of tutoring.
Self-efficacy	Affects loss aversion. They do not trust their capacities. Consequence of lack of organizational support.
Benefits	Less than transition costs
Opinion of colleagues	–
Perceived value	–
Loss aversion	They value the losses more, though they recognize the benefits
Regret aversion	Arises if they carry out the actions themselves
Control	The lack of control generates fear. They request a system of mentoring. Formula to do away with uncertainty.
Anchoring effect	–
Transition costs	They see them as higher than the benefits
Sunk costs/switching costs	They affect inertia in their behavior
Uncertainty	Origin of avoiding change, and justification of the story
Habit	Abandonment by the Public Administration breaks the habit. Justified by fear, insecurity and lack of taking responsibilities
Resistance	Slight motivation for new learning
Inertia	Its justification leads them to stagnation in favor of face-to-face contact

benefits of this option but on administering the satisfaction of the users with the Status Quo (Olsen et al., 2013).

Non-users of e-Government value more risks, although they are aware of there being benefits. Inertia (this is an argumentation which leads to stagnation), sunk costs (commitment with the past, to the point of romanticism), habit (fruit of the abandonment of the Administration and justified by fear and insecurity), resistance (slight motivation to new learning) and regret aversion (they consider themselves responsible for the actions carried out) are relevant. In the face of these statements it must be remembered that the most effective strategies in order to intervene are those which prevent the carrying out of behaviors established while facilitating the transformation of other new ones into habits. The new intentions must have sufficient strength and be implemented with enough dexterity to annul a well-practiced behavior (Ouellette & Wood, 1998).

In the figure above, the resulting configuration of Kim and Kankanhalli (2009) and Polites and Karahanna (2012) models is observed. It reflects the relationships that, initially, were significant (continuous line) and non-significant (discontinuous line). The present research allows to identify the constructs that maintain their relevance among non-users of

Table 2 – Main contributions of focus group sessions.

Kim and Kankanhalli (2009)	Resistance is determined only by the switching costs and organizational support, between the five antecedents considered in the model (perceived value, self-efficacy, organizational support, switching costs and colleagues' opinions)
Polites and Karahanna (2012)	This model considers four antecedents of the intention of use (perceived ease of use, relative advantage, subjective norms and inertia). Subjective norms are not confirmed in our focus groups

e-Government (discontinuous). In Table 2 we show the main contributions confirmed in the research.

Conclusions and limitations

Resistance to use is one of the main challenges which organizations face in the launching of their innovations and the conquering of new markets. Once this resistance is overcome, users will then adopt them and, after a long process, continue with their use. This is why if we wish to analyze the causes which are behind the hindrances of e-Government in its process of implementation, we must go deeply into the knowledge of the inhibitors which condition the behavior of non-users. The qualitative study carried out shows the relevance of inhibitors in adopting e-Government. The variables confirmed in this area as most relevant (inhibitors) are the following: organizational support, self-efficacy, benefits, loss aversion, regret aversion, control, transition costs, sunk costs/switching costs, uncertainty, habit, resistance and inertia. Among work's limitations we point out the appropriateness of quantitatively checking the impact that these variables have on the user's behavior, based on their relation with intentions.

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