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EDUCATION AND INTERNET FOR LOCAL DEVELOPMENT

Cruz García Lirios[1]**:** Autonomous University of Mexico State, Mexico.
garcialirios@yahoo.com

Javier Carreón Guillén: Autonomous National University of Mexico, Mexico.
javierg@unam.mx

Daniela Mendoza Alboreida: Autonomous National University of Mexico, Mexico.
danielamendozaunam@hotmail.com

José Alfonso Aguilar Fuentes: Autonomous National University of Mexico, Mexico.
jorheval@unam.mx

ABSTRACT:

Since their inception, educational systems were part of a Modern State in which the release of religious dogmas was the most important venture of the Enlightenment, though a new homogeneity of the world that submitted knowledge and skills was built from an ethics of reward. In today's information society, devices and technologies reduce the release of beings to a minimum since they direct their topics of thought, debate and consensus. In this regard, the importance of studying the processes anticipating scenarios of uncertainty lies in the specification of those cognitive factors from which the acceptance of technology and intensive use of electronic devices is explained. Such an exercise will open the discussion on digital globalization that spreads in the educational processes and crystallizes in the classroom.

KEY WORDS: Globalization – Internet – devices – technology – attitude

EDUCACIÓN E INTERNET PARA EL DESARROLLO LOCAL

RESUMEN:

[1] **Cruz García Lirios:** PhD Studies on social and environmental psychology, professor and author of the book: "Culture and Governance of Public Peace" Research lines: Governance and Sociopolitical Agenda of Security
Correo: garcialirios@yahoo.com

Desde sus inicios, los sistemas educativos formaron parte de un Estado Moderno en el que la liberación de los dogmas religiosos fue la empresa más importante de la Ilustración, aunque se construyó, desde una ética de la recompensa, una nueva homogeneidad del mundo que sometió los saberes y los conocimientos. En la actual sociedad de la información, los dispositivos y tecnologías reducen la liberación del ser a su mínima expresión ya que orientan sus temas de pensamientos, debate y consenso. En este sentido, la importancia de estudiar los procesos que anticipan escenarios de incertidumbre radica en la explicitación de los factores cognitivos desde los que se explica la aceptación de la tecnología y el uso intensivo de los dispositivos electrónicos. Tal ejercicio abrirá la discusión en torno a la globalización digital que se disemina en los procesos educativos y se cristalizan en el aula.

PALABRAS CLAVE: globalización – Internet – dispositivos – tecnología – actitud

1. INTRODUCTION

The aim of this study is to establish the determinants of decisions and intentions of using the Internet to discuss cognitive consequences. Because psychological studies of intentions and decisions of using the Internet seem to be limited to cognitive variables, it is necessary to develop a model for establishing causal relationships among technological, perceptual, attitudinal and intentional factors.

In principle, the use of the Internet has been regarded as a set of actions for buying and selling products and services via electronic or digital protocols to transfer money for an item. In this sense, information exchange would be essential for the goals of personal development. That is, the competitive advantages of searching, selecting and synthesizing information on the Internet would be an indicator of the capacity to manage and process information.

It is the purchase and hiring of services or products in which the perception of control and the experiences of consumption explain the achievement of objectives. Let us think of customer satisfaction as the result of positive experiences and high perceptions of control, Information and Communications Technologies (ICTs) would be determined by both variables.

In the specific case of perceptions, psychological studies of Internet use maintain that the diversity of perceptions is the main determinant of decisions on electronic consumption and transfers of money for a product or service.

Although there is theoretical and empirical evidence to demonstrate that perceptions are essential factors of acceptance, adoption and use of ICTs, other evaluative, regulatory, demographic, technological, belief-based, attitudinal or intentional valuables would further explain Internet use.

The diversity of predictors of Internet use corresponds to the heterogeneity of studies in which perceptions are the most modulated factors to be able to explain specific actions on Internet use.

Perceptions have been sized into five aspects measuring skills, abilities, benefits, costs, risks and challenges as expectations occurring at the very moment of deciding on Internet use. Or rather, expectations that will likely occur if benefits outweigh costs.

1.1 Psychological studies of the use of the internet

Internet is a global scenario in which heterogeneity of identities and diversity of symbols impinge upon the construction of a culture of global features in which social inequalities and expressions build social and educational imaginariness (Winocur, 2006: 532 p.). In this sense, social networks defined as *promoters of ethnic, religious or sexual disagreements over everyday relationships face to face in novel ways of interaction mediated by Internet, primarily through mobile applications* (Sandoval and Saucedo, 2010: p. 133) guide frustration and satisfaction in consumption of goods and services (Montero, 2006). The satisfaction of using a website and its related applications and services determines the experience of buying and selling products and services online (Hassan, 2006: 240 p.). Satisfaction is directly related to the sociodemographic characteristics of Internet users. Mafé and Blas (2007: p. 139) demonstrated the direct and indirect effect of sex, age, educational qualifications and salary on the purchase of products and the procurement of services. Namely, the relationship of user's sex determined online consumption. This relationship was mediated by the attitude towards cyberconsumption. In another study conducted with 17 socioeconomic variables, Martinez and De Hoyos (2007: pp. 25-31) demonstrated the direct and positive effect of comfort on the motivation for buying online. In light of the convenience factor, comfort was the main determinant of the expectations of electronic consumption. In another model, offers were predictors of purchase motivation and confidence in the product; it impinged upon the reasons for consumption.

The determinants of Internet use may be analyzed from the Technology Acceptance Model (TAM). TAM includes perceptual, attitudinal and intentional variables from which the effect of technological and organizational variables on intentions to use the Internet has been demonstrated (Davis, Bagozzi and Warshaw, 1989) variables.

Because psychological studies have followed the impact of technological and organizational variables rather than that influence of socio-demographic variables, the studies following a path of explanation out of sex, age, salary or schooling are scarce (Source , Smith and Grace, 2010).

However, if the perceptual variables refer to cognitive processes of effectiveness and usefulness on the use of the Internet, then the type of sex, the years of age, the amount of salary and the educational level would have a direct relationship with the achievements and benefits of Internet use in school and work related areas. If the

perception of self-efficacy and the perception of usefulness explain the expectations of users when using the Internet, then the amount of salary and the schooling level would encourage or inhibit these expectations.

Agarwal (2000: p. 85) states that socioeconomic, and socio-demographic variables are considered exogenous to human cognition and they indirectly impinge upon the use of the Internet. In this sense, psychological studies of humanity-technology interaction have specified indirect relationships between external variables and the use of the Internet via cognitions such as perceptions, attitudes and intentions (Agarwal and Venkatesh, 2002: p. 169).

Carmel and Agarwal (2002: p. 67) reported three levels of interaction in which the motivations, skills and knowledge have to do with the Internet. At the first level, users only transfer data via the Internet. At the second level, humans diversify their communication over the Internet. At the third level, they hold a strategy involving skills and knowledge to implement new systems of production, distribution and consumption through the Internet. This last level has to do with accepting, implementing, training and producing competitive advantages and certification standards.

TAM predicts that programs and technological and computational processes determine psychological variables. Hernandez, Jimenez and De Hoyos (2007: pp. 23-25) demonstrated the prediction of differences between the sexes of users of computer programs regarding their perceptions of usability, usefulness and attitude toward online sale managers. Indeed, TAM was born with a technical approach seeking to explain the processes of transfer, computational technological adoption and systematization. As TAM was developed from this technical vision consisting of implementing measures for efficiency, efficacy and effectiveness without considering the cultural, social and personal differences, the model has gained prestige to such an extent that now it is developed from multiple disciplines. Davis and Venkatesh (1996: p. 20) consider Internet software as exogenous variables to the acceptance of technology. The relationship between technology and its acceptance involves a technological, rational, deliberate, planned and systematic process in which socio-technological variables such as training and instruction out of a technology interact with human cognition; perceptions, attitudes and intentions.

Venkatesh, Morris, Davis and Davis (2003: p. 426) warn about the exponential increase in Internet studies indicated by an increase up to 50 percent in organizational research funding and the subsequent explanation of 40 percent of the total variance about acceptance and use of the Internet.

In this sense, it is necessary to explain the direct and indirect causal relationships between the socio-demographic variables and the intention of using the Internet. Precisely, demonstrating the relationship between socio-demographic variables and psychological variables will contribute to the development of TAM as a model in which sex, age, educational and economic differences would determine perceptions, attitudes and intentions of using the Internet. In this sense, TAM could develop an

explanatory theory of impact of technological variables on acceptance, adoption and use of the Internet through socio-demographic profiles.

1.1.1. Perceived self-efficacy

In the conception by Bandura (1977; 1982; 1993; 1994; 1995; 2001) self-efficacy is a perception and/or a belief resulting from trials on personal or impersonal successes and mistakes carried out deliberately or discursively. Because self-efficacy refers to failure, but mainly to success, despite those failed trials inciting to achievement, perception and belief of self-efficacy, it is based on the achievement of expected objectives rather than on competitiveness, recognition or vicarious learning. If self-efficacy is a system of success-focused perceptions and beliefs, then the group to which the self-efficacious agent belongs or wants to belong is related to success. Because the groups are diverse, efficacy varies depending on this diversity. A competitive group attributes success to one of its members when he has surpassed the precedent achievements which were established by the group. In this sense, the concept of self-efficacy appears to be reliably set to the influence of a group on the objectives, system and achievements of an individual.

If self-efficacy is a system of achievement-encouraging perceptions demarcating efficacious skills, self-efficiency would also be a system of perceptions and beliefs but, unlike self-efficacy, these would be aimed at implementing a procedure or a technology. Self-efficacy-driving factors would be identical in the case of self-efficiency. If competitiveness, recognition and vicarious learning drive self-efficacy, then self-efficiency would also have that drive.

1.1.2. Computational self-efficiency

Studies of computer self-efficiency have established associative and causal relationships among perceptions, beliefs, attitude, experience, knowledge, skills, comfort, anxiety, usefulness, affection, control and perceived ease.

Busch (1995) established the prediction of computational self-efficacy from previous experience. This finding agrees with the study by Khorrami (2001) that demonstrated a significant positive association between control beliefs and willingness to type. Particularly, Durndell and Haag (2002) have related self-efficiency to increased anxiety when handling the computer. Barbeite and Weiss (2004) predicted computational comfort and cyber comfort from computational efficiency and advances in perceived ability. Hsu and Chiu (2004) demonstrated the exogenous effect of cyber self-efficiency by adjusting a structural model. In this structure, the use of a technology is determined by the effect of cyber self-efficiency through intention and attitude towards technology (Compeau and Higgins, 1995). It is a structure explaining a deliberate, planned and systematic process of adoption, acceptance and cyber-use. Johnson and Wardlow (2004) found that self-efficiency related to anxiety in computational use increased prediction and significance in the use of the Internet. Sam, Othman and Nordin (2005) established significant differences between attitudes toward the Internet, computational self-efficiency and

cyber-anxiety regarding information-storing skills. By demonstrating that perception of efficiency varied depending on the previous use of the computer, Chu (2006) demonstrated that perception of achievement was determined by the number of trials on computer handling. Torkzadeh, Chang and Demirhan (2009) demonstrated significant individual differences between men and women who were trained and recorded anxiety and attitude toward cyber-navigation with respect to computational self-efficiency and cyber self-efficiency. Wu and Tsai (2006) found an association between effectiveness and self-efficiency.

However, psychological studies have consolidated the direct effect of self-efficiency on perceived usefulness. Rose and Fogarty (2006) demonstrated the influence of perceived self-efficiency on perceived usefulness which, together with the attitude towards technology and intention to use, transferred the effects of self-efficiency in handling the Internet. Consistent with this result, Reid and Levy (2008) established the mediating effect of perceived usefulness and the attitudes toward technology in the indirect causal relationship between computational self-efficiency on the use of technology. Both endogenous mediating variables increased the effect of perceived self-efficiency. Using a structural model, Bennet, Zimmer, Gundlach and McKnight (2008) found the incidence of internalization and externalization of perceived cyber-ability. Adjustment of the structure was demonstrated with four different samples. However, the covariance between the two exogenous factors is close to the unit, which limits its discriminating validity. Paraskeva, Bouta and Papagianni (2008) demonstrated that the basic skills, the advances in the skills and data management are associated with computational efficiency. An increase in handling the computer, files and data capture increased perception of efficiency. Using a model of trajectories, Reid and Levy (2008) demonstrated indirect prediction of intention to use from computational self-efficiency. In this trajectory prediction, perceived usefulness, perceived ease of use and attitude towards computing significantly transmitted the effect of perceived cyber-ability. Vekiri and Chronaki (2008) found that anxiety in the case of women and frequency of use in the case of men are directly, positively and significantly related to computational self-efficiency. Meanwhile, Sadee and Kira (2009) demonstrated the mediating effect of computational anxiety on perceived usefulness through computational self-efficiency. In a first study, computational anxiety had a direct, negative and significant relationship with perceived usefulness. By adding the computational self-efficiency variable, the indirect effect would become positive and significant. From this beginning, incidence of computational self-efficiency on the use of technology was inferred. In a mediating model, Saade and Kira (2009) established the direct and indirect effect of cyber anxiety on perceived usefulness. This effect also increased through computational self-efficiency. Teh, Chong Yong and Yew (2010) argue that achievements configure advances in self-efficiency that determine the level of knowledge. Finally, Chuo, Tsai and Tsai Lan (2011) explained the direct, positive and significant relationship between Cyber-Efficiency and Cyber-Usefulness as direct and indirect determinants of the decision to use the Internet. Simsek (2011) found that an increase in perceived ability values impinges upon increased intentional values regulated by the perceptual values. It is an indirect effect in which efficiency beliefs interact with anxiety (Ademola, 2009).

The relevance of advances in basic skills is another determinant of computational self-efficiency. As the file-and-data-managing skills are developed, they encourage an increase in knowledge and perceived abilities (Liang and Tsai, 2008). Inclusion of computational self-efficiency in the extension of TAM accounted for the relationship between educational self-efficiency and usefulness of the Internet. As users increase their experience of using the Internet, they also increase their expectations, needs, opportunities and demands of Internet use (Melendez and Moreno, 2006). That is, students and scholars not only use the Internet for educational purposes but also for commercial reasons. In this sense, the diversification of the Internet would be explained by the multiplicity of its functions that, when being used by users, enable individual creativity and group innovation that are potential for heterogeneous growth of the Internet.

1.1.3. Perceived usefulness

Technological perceptual studies have shown an indirect and direct, positive and negative effect of perceptions on the use of technologies. Through attitudes and intentions, perceptions of usability, usefulness and control have emerged as the determinants of decisions on and management of technologies. Perceived ease of use and perceived usefulness have been raised as the determinants of technology acceptance.

Davis (1989: p. 320) defines ease of use as *the degree of information about the investment of effort to manage technology.* Regarding perceived usefulness, he defined it as *the degree of information about the benefits expected from management of technology*.

Davis (1993) established the indirect effect of perception on the use of technology. Both perceived ease of use and perceived usefulness indirectly affect acceptance of technologies. In this causal path, attitudes toward technology are mediators of the perceptual effect. Lee, D., Park, J. & Ahn, J. (2001) demonstrated the effect of perceptions on the use of technology. The technology perceived as easy to use indirectly and directly affects its use. Through perceived usefulness, perceived ease of use has an indirect effect impacting on the use of technology in much greater degree in relation to its direct effect. That is, individuals perceiving an ability to use technology increase their expectations with those benefits that technology can give them. With a sample of volunteers from the entertainment and telecommunications industry and operators of banks and tax administration, Venkatesh, Morris, Davis and Davis (2003) established the prediction of intention to use technology from the perceptions of ease of use, usefulness, control and self-efficiency. When the perception of control interacts with age, they cause a positive effect on the intention to use. Regarding the prediction of the use of technology, perception of control is the variable causing more effect. Pin (2004) extended the limits of perception when he stated that perception of implementation is the original target of technology relevance. That is, if a technology comes to be relevant in a given context, it triggers the perceptual processes predicting its use. Through this trajectory, ease of use,

usefulness and attitude are intermediaries of the contextual effect on the use of technology. Lai and Lee (2005) extended prediction of attitudes toward technology and decisions on consumption into three groups classified as non-adopting, adopting and neutral. In the three groups, they established prediction of perception of benefits on readiness being favorable to technology and its decisions on adoption. They even established the causal relationship between perceived ease of use on perceived usefulness. Lim, Lim and Heinrichs (2005) established the prediction of e-purchase out of perceptions of safety and perceived enjoinment. In this model, perceived ease of use turned out to be a better mediator when compared to perceived usefulness. In another model, perceived usefulness as a mediator increases the effect of the other three perceptions. In a third model, perceived ease of use is a better predictor when compared to the other three directly related perceptions. Porter and Donhthu (2006) found that age and education indirectly determine the use of technology through perceived ease and attitude toward technology. As age and education increase, expectations and readiness increase the use of technology.

In spite of the predictive power of perceptions, Limayen, Hirt and Cheung (2007) stated that there is a direct relationship between perceived usefulness and continuous use of information systems. This relationship was moderated by the later satisfaction of having used technology and the intention to use technology again. Herrero, Rodríguez and Trespalacios (2006) established the influence of perceived usefulness on the attitude and the intention to buy. Only perceived ease of use of technology had an indirect effect on the decisions to buy through the attitudes. Chin (2009) compared the indirect effects with the direct effects of perception on the intention to use. He found out that direct effects are more significant than indirect effects of perceived usefulness and ease on the intention to use technology. Hee and McDaniel (2011) demonstrated the prediction of decisions to acquire and use technologies out of perceived usefulness. That is, the benefits perceived out of the purchase of technologies directly, positively and significantly impinge upon its use. Insofar as customers and users get more benefits than risks, they consume technology. In the technological perceptual studies, usefulness and ease of use are the determinants of intentions and use of technologies. The evolution of the Internet influenced the development of technological perceptual studies. Perceived usefulness and ease of use are now factors explaining the use of Internet.

Davis (2006: p. 400) conducted a meta-analysis which demonstrated the causal relationship between perceived usefulness and perceived ease of use of technology as determinants of technology acceptance. Mainly, perceived usefulness is considered the quintessential predictor of acceptance and use of technology. However, perceived usefulness is only a transmitter, an intermediary or a mediator of the effect of external or exogenous variables on human behavior.

When interacting, external variables such as sex, educational level and family income foster a moderating effect on acceptance and use of technology. Being indirect, said causal relationship would be mediated by perceived usefulness. However, only three studies have been conducted about specification and demonstration of a model in

which the sociodemographic variables interact to predict the use of technology through perceptual variables such as usefulness and ease of use. Such is the case of the research carried out by D'ambra and Wilson (2004), Porter and Donthu (2006), Bigne, Ruiz and Sanz (2007) in which they established the impact of sociodemographic variables of sex and age on the use of Internet. Insofar as the age of users increased, so did their perceived usefulness and acceptance of technology.

However, psychological studies of the interaction between humankind and technology and cognition and the Internet have disregarded the predictive power of family income, personal income, economic status, quality of life, subjective well-being and educational level.

1.1.4. Attitudes toward behavior

The studies of attitudes toward behavior have focused on their ambivalence. Briñol, et, al, (2004: p. 373) point out that people try to balance favorable and unfavorable information toward that dispositional object and keep ambivalent attitudes. That is, attitudinal objects are part of the environment in which people find themselves and their need to order, predict and control it (Orantes, 2011). Therefore, although the attitudinal object is consistent with their perceptions, values and beliefs, people should compare these objects with those behaviors related to them. In the scenario for buying and selling products and services, Internet fosters positive and negative attitudes on users. People may have the purchasing power to buy an item or purchase a service but they may not be confident and secure enough to order the good in exchange for transferring its equivalent price in cash (López y López, 2011). This inhibits e-commerce because displeasure favors distrust. Insofar as a technology is not easily accessible, it fosters negative emotions discouraging the potential customer.

1.1.5. Attitudes toward the use of internet

Studies have shown attitudes toward Internet associative and causal relationships between skills, anxieties, norms, perceptions, intentions and behaviors. In researching Dishaw and Strong (1999) attitudes are intermediary effect of perceptions about the intent and use of technology. In another structural model, attitudes governing the influence of adjustment skills from one technology to the role of work and experience of using technology. Amoako and Salam (2004) measured the impact of a technological training on their use. This effect was regulated by the perceptions, attitudes and intentions. However, the attitude seems to convey the effect of computer self-efficacy. In the structural model of Gong, Xu and Yu (2004) regulates the attitude influence the ease and perceived usefulness, perceived ability but has a direct effect. In a correlational study Shih (2004) showed significant positive association between attitude and perception. The provisions on technology were directly related to the usefulness and perceived ease. In another Lai and Lee (2005) study demonstrated the robustness of TAM with various subgroups. Attitudes associated with perceptions showed minor variations in sub-samples. Both experts and neophytes very arrogated answers leading to infer the likelihood of the model of

measurement and testing hypotheses in the structural model.

This was the case in the investigation of Liu, Liao and Peng (2005) who included perceptual variables utility and ease as determinants of attitude which affected the intended use of Internet. In this structural model, attitude conveys the effects of the perception of intention. An increase in usage expectations indirectly determines the probability of using information technology as evaluative provisions governing the tendency of utility. In contrast, the structural model of Porter and Donthu (2006) the effect on the socioeconomic and demographic variables Internet usage, attitudes are endogenous prime determinants. Ie, age, education and race are indirectly determining the use of information technology through perceptions and attitudes. To the extent that the samples differ by age, race and education, cause an effect on perceived usefulness and ease which in turn affect the favorable provisions to Internet and later use. Shepers and Wetzelts (2007) conducted a meta-analysis of research on the effect of subjective norm on the use of technology. This impact, regulated by the perceptions, attitudes and intentions, was demonstrated in different samples with different technologies and multiple cultural values. In a different study, Bertrand and Bouchard (2008) demonstrated the association between attitudes and motivations, skills, anxieties and perceptions. Established correlations with different to those used in the prior art variables. It is perceptions of control and self-efficacy which together with the subjective norm and anxiety enrich the TAM. Ha and Stoel (2009) modified the TAM by adding the perception of electronic banking transaction. In this model the attitudes conveyed the effect of perceptions of intent to transfer. Shroff, Deneen and Ng (2011) demonstrated the validity of attitude a mediating perceptions. Since ease moderates the effect of perceived usefulness, attitude transfers its influence Internet use.

This demonstrates the plausibility of the hypothesized relationships TAM. To the extent that people perceive technology as an accessible and beneficial object is more likely to accept and consume via their evaluations. Indeed, the attitude towards Internet is transmitting perceptions and antecedent of intention which is the determinant of Internet use.

The sociodemographic variables such as sex, age and salary are determining indirect attitude towards technology, Internet, electronic commerce and consumption.

D'ambra and Wilson (2004: p. 305) established an indirect relationship between age and the use of technology. Through the use of technology increased the relationship between the dependent variable and the independent variable was observed. It should be noted that none of the variables of the TAM was involved in the discovery. However, it is important to consider the indirect and positive effect as it is an indication of a probable structure of asymmetrical relations between the ages of users that would facilitate the systematic use of technology. In the TAM, age is an external variable and attitude an internal variable that explains the use of technology in interaction with the perceptions and control utility. In this model, age is an individual characteristic that affects the technological skills. The relationship between the two variables explains the attitude toward using technology at work.

Porter and Donthu (2006: p. 1001) demonstrated the indirect effect of educational level on the use of technology through perceived ease of use and attitude toward technology. To the extent that the values of sociodemographic varying values impinge on behavioral variable is increased. The indirect effect was broadcast on perceived ease of use and positive disposition toward technology. Through the perceived usefulness and perceived ease of use demonstrated incremental effects of sociodemographic variables considered exogenous by the TAM. Although there is a direct, negative and significant relationship between sociodemographic variables and perceptions of technology, attitudes receive a negative indirect effect. As we age, education and income increase decrease their perceptions positively affect the attitude toward technology. That is, both the usefulness and perceived ease of use increase as the user is younger, their level of education is basic and minimum income is causing an increase in their beliefs toward technology. In light of TAM, the indirect relationship between level of education and the use of technology was an extremely important finding since only the external variables such as the implementation of a technology program or computer system produced an indirect effect. The result shows that the selection of sociodemographic variables can be used in the implementation of programs and technology, computational, informational, relational and administrative strategies.

Bigne, Ruiz and Sanz (2007: p. 56) established the prediction of intention to use Internet from a socio-demographic variable such as age and through a mediating variable par excellence as it is the attitude toward using technology or system information. However, they showed an indirect, positive and significant relationship between age and mobile consumption. It is a model that explains the adoption of mobile commerce in the future consumption of products and services is predicted using a smartphone.

1.1.6. Attitudes toward the use of internet in Latin America

In the context of Latin America, only seven studies have demonstrated the reliability, validity of the attitude towards Internet and its causal relationship to perceptions of usefulness and ease of use and intentions of acceptance, adoption, use, purchase or acquisition of goods and services protocols of digital data transfer. In this sense, the attitude has been used as a variable mediating and transmitting the perceptual effect on the intended use. These studies corroborate the assumption of theories and models of reasoned action, planned behavior and technology acceptance around which attitudes are components of a structure or cognitive behavioral system in which individuals systematize their expectations, regulations, decisions and actions on an object which in this case is technological.

Bonilla and Bonilla (2006: p. 105) demonstrated the association between attitudes and perceptions of usefulness and ease and intentions use. To the extent that expectations were increased dispositional values also increased which in turn impinge on the decisions of Internet use.

Mafé and Blas (2007: p. 139) demonstrated the causal relationship between exposure and attitude towards purchasing products. Through the exhibition of products on television, influence attitudes about acquiring them. The direct effect between attitude and purchase was lower compared to the mediation of product exposure.

Martinez and De Hoyos (2007: p. 26) established three attitudinal dimensions to demonstrate its effects on the motivation of purchase. The comfort, supply and knowledge directly influenced, positively and significantly on the motives of people when buying or compare one product or service data transfer protocols and exchange of goods.

Sanz, Mafé and Aldás (2008: p. 63) demonstrated the causal relationships between attitudes and perceptions and intentions. The usefulness and ease of use received directly influenced, positively and significantly on attitudes toward Internet use. In this sense, decisions of Internet use were predicted by the provisions on technology.

Suarez Garcia and Alvarez (2008: p. 15) established significant differences between users online survey regarding their attitudes toward these instruments. They evaluated six items related to the ease, enjoyment, value, extent, timing and intent of online surveys. In every one of the items significant differences between respondents and its provisions when answering an online survey found.

Hernandez Robles and Mella (2009: p. 34) established significant differences between sex, age and type of technology with respect to attitudes toward the computer and Internet service. The types of computers, the time of use, were positively evaluated by users just like Internet services, data transfer and exchange. The differences between levels, zero, basic, intermediate, advanced and expert were significant in relation to positive dispositions toward Internet use.

In short, the provisions towards the use of technology such as the Internet tend to be positive to the extent that users or potential customers increase their profit expectations and ease of use. That is, if people are perceived as able to use and exploit a technology, then its provisions will be favorable motivating their consumption decisions.

However, psychological studies of cognitive-behavioral system or structure around the Internet, have not incorporated the attitudinal ambivalence around which the provisions would be affected by the perceptual discrepancies such as; high expectations of a product or service and low levels of satisfaction after use. In other words, the tendency of people to compare their experiences and prior information with regard to computer technology innovations and its prevalence in balancing the discrepancies between what they expect from a technology and customer satisfaction levels, seems to be determined by their expectations and skills around the use of Internet. This same effect would influence their decisions to buy and sell products and services.

1.2. Determinants of intent to use internet

The TAM refers to the process of adoption, acceptance and systematization of information through the use of Internet. This process is different from addiction or addiction to a technology in which the user accedes to offsetting a personal or work absence. It addicts away from their everyday environment to immerse yourself in your virtual environment which substantially change their lifestyle (Beranuy, Chamorro, Graner and Carboell 2009: 481 p.). Such is the case of cybersex that the study of Ballester, Gil Gomez y Gil (2010: p. 1051) established significant associations with hours online, visiting pornographic sites, the frequency of cybersex and hours devoted to this addiction. This finding is very significant considering that the sale of products and services on the Internet is determined by psychological factors similar to those operating in trade face to face, but unlike the latter, electronic commerce is more uncertain by the computational technological ignorance which stands as a barrier of consumer electronics. In this sense, Ruíz and García (2007: p. 56) showed that the decision to buy on the Internet is determined by the product satisfaction, distrust in the organization and perceived usefulness. Indeed, as occurs in face to face trade, satisfaction is an important factor for consumer electronics that added to the perception of risk, distrust and uncertainty increase expectations of timeliness, performance and improving the quality of life of consumers. Meanwhile, Lorenzo, Constantinides, Gómez and Geurts (2008: p. 59 and 62) demonstrated the direct, positive and significant effect of usability, interactivity, reliability, aesthetics and marketing on the virtual consumption.

1.2.1. Intended use of Internet

Intention is a psychological variable transmitting the effects of the skills, training, norms, perceptions and attitudes towards Internet on consumer electronics. Dishaw and Strong (1999) established three trajectory models in the decision consumption was transmitting electronic effects of the perceptual and technological skills for use. In the study of Amoako and Salam (2004) developed a training program in which group led utilitarian beliefs. The results show that skills training, information and communication had an indirect effect on purchasing decisions through Internet. In these models, perceptions were endogenous transmitters of second order and attitudes towards technology were endogenous transmitter first order. In this sense, Gong, Xu and Yu (2004) established the effect of skills and perceptions about the intention of use. Attitudes were the transmitters of perceived usefulness and ease of implementation decisions. Klopping and McKinney (2004) the ease and perceived usefulness were direct determinants of consumer electronics decision. Liu, Liao and Peng (2005) demonstrated direct and significant effect between perceived usefulness and attitudes on purchase intent.

By adding the adjustment of technology to the task in the second hypothetical model was achieved demonstrate an indirect effect on consumer perceptions through purchase intentions. However, the inclusion of other perceptions in the measurement model, perceived usefulness was the determinant of cyber-making. Roca, Chiu and Martinez (2007) showed a series of complex scenarios and unprecedented in a

structural model in which personal influences, information systems and usage skills were exogenous variables that indirectly affect decisions online learning. Another important factor was the satisfaction as the endogenous variable first order and perceptions as endogenous second order who transferred the effects of exogenous variables. Saade, Nebebe and Tan (2007) demonstrated the indirect and direct prediction of intention to purchase from perceptions.

In this model, attitudes were carriers of these effects and perceived usefulness was the direct determinant. Shepers and Wetzels (2007) established a model of trajectories in which the perceptions and norms had indirect effects on consumer electronics. Attitudes and decisions were mediating these effects. In the model, perceptions and standards determined directly to the intended use of information technology. Perceived usefulness was the key determinant of the cyber-making. Wu research, Shen, Lin, Greens and Bates (2008) demonstrated a model of paths in which perceptions, including rules and transactions were intended to predict consumer electronics. In this model the personal standard was transmitting the effect of training on cyber-making. In a different model to the above, Chang (2009) established the effect of two computer systems on satisfaction on the use of information technology in which perceptions were mediators or transmitting of computer effects and usefulness was the determinant direct, positive and significant principal. In a major study conducted by Ha and Stoel (2009) showed the path of incidence of the electronic quality intend to purchase consumer electronics. In this model the perceptions and attitudes were carriers of the quality standards on purchasing decisions online. Finally at work Shrrof, Denenn and Ng (2011) have replicated the TAM and established an indirect effect of perceptions of intent technology adoption. In this model, the consumption decision was an endogenous variable first-order transmitted the perceptual effects of the use of technology.

In short, the intention or decision consumer electronics is transmitting experiences, norms, perceptions and attitudes prior to the use of Internet. The state of the art shows that intentions have emerged as the direct, positive and significant determinants of the adoption, implementation and development of technologies. Purchase intent, the intended use and intended to systematize technology is the transmitting variable excellence of external effects on the use of technology.
However, psychological studies of the use of technology included in theoretical models and structural models only the relationship between intention and use of technology bypassing the predictive power of sociodemographic variables such as; sex, age, level of study and family income. Only studies D'ambra and Wilson (2004), Porter and Donthu (2006) and Bigne, Ruiz and Sanz (2007) sociodemographic variables of age were established as predictors of intention through perceptions and attitudes . Moreover, the art has excluded the interaction between sociodemographic variables directly, positive and significant causal relationship to behavioral intention. That is, the moderating effect of gender, family income and education level of the intended use of technology has been overlooked in the TAM.

2. OBJECTIVES

Set the axes of discussion and consensus issues surrounding the establishment of an agenda on privacy and intensive use of electronic devices aimed at local development.

3. METHODOLOGY

A documentary study was carried out around acceptance, adoption and use of the Internet with a sample of 93 documentaries selected sources from DOI registration and indexed from 2010-2014 with the keywords of Internet and Local Development. The information was sought in the databases of LATINDEX, REDALYC, DIALNET, SCOPUS, COPERNICUS and SCIELO.

4. RESULTS

From the reviewed findings, a model is proposed to explain the dependency relationships between variables in a comprehensive way.

Attitude toward what place the use of Internet. They are associations between beliefs (data available) and experience of using the internet (Aqarwal and Venkatesh, 2002). For example, consider: "On the Internet it is possible to find the product I want, but I just know where to find them cheaper." This assertion is scored with seven response options ranging from "strongly agree" to "strongly disagree".

Beliefs about the use of Internet. It refers to specific information about the contents of Internet protocols considering purchase, sale or exchange of products and services through bank transfers or conventional. Such amount of information can be generated by any source as long as the user's use for a deliberately planned and systematic consumption (Agarwal, 2000). For example, consider: "On the Internet are all services and products as a consumer is looking for." This assertion evaluates to "false" or "true" by the respondent.

Intended use of Internet. They are making the purchase, sale or exchange of products and services through electronic money transfer protocols or any equivalent (Carmel & Agarwal, 2002). For example, consider: "In amazon.com buy a specialized scientific paper." This assertion is evaluated with four response options ranging from "always" to "never"

Perception of control over the use of Internet. They are expectations regarding the appropriate use of Internet to achieve a certain goal (Davis, 1989). For example, consider: "Internet is a world of information in which I select date information". This assertion is evaluated with four response options ranging from "always" to "never"
Perceived efficacy on the use of Internet. They are alluding to achieve search, selection and processing of information for personal purposes (Davis, 1993) expectations. For example, consider: "In academic google I can find specialized information that will increase my competitive advantages." This assertion is evaluated with four response options ranging from "very likely" to "very unlikely"
Perception of efficiency on the use of Internet. It refers to the search, selection and

synthesis of information through an Internet platform or interface (Davis, 2006). For example, consider: "In Dialnet I can do a search for information without keywords". This assertion is evaluated with four response options ranging from "always" to "never".

Perceived ease of use of Internet. It refers to systematic management expectations Internet (Venkatesh, Morris, Davis & Davis, 2003). For example, consider: "I use my online banking interface every time I want to buy an item". This assertion is evaluated with four response options ranging from "always" to "never".

Risk perception on the use of Internet. Expectations are higher than the likely benefits for the purchase or sale of products or services through digital commerce protocols (Lee, Park & Ahn, 2001) costs. For example, consider "would transfer money through online banking if it prevented the intrusion of hackers". This assertion is evaluated with four response options ranging from "very likely" to "very unlikely".

Perceived usefulness on the use of Internet. They are expectations of higher profits by reference to the costs of time, money and effort when conducting a search for information, product or service (Davis, 2006). For example, consider: "On facebook I can chat with specialized scientific communities." This assertion is evaluated with four response options ranging from "very likely" to "very unlikely".

Using Internet. Son shares purchase, sale or exchange of goods, services or any other tangible and intangible either through electronic protocols (Venkatesh, Morris, Davis & Davis, 2003). For example, consider: "Sharing music with my contact at facebook.com". This assertion is evaluated with four response options ranging from "five minutes" to "one minute".

Null hypothesis: The dependency relationships between the variables specified shall conform to the observed data as the state of knowledge has established such relations. However, theories that supported the dependency relationships do not explain in a comprehensive way the partnerships established.

5. DISCUSSION

The present study has shown, through a structural model, the causal relationships between sociodemographic variables of sex and age on the intention to use Internet. This finding is relevant in light of the state of the art given the paucity of studies.

However, the art has shown that organizational and computational software programs are the determinants of efficiency and usefulness perceptions, attitudes toward Internet use and intention to use. The sociodemographic variables, sex and age could be included in the TAM considering two specifications:

The first specification of a model would be including sex and age as moderating variables of programs and software on perceptions, attitudes and intentions

regarding the prediction of Internet use.

The second specification includes sex and age as transmitting variables of organizational and computer programs on psychological prediction about Internet usage variables.

However, the art seems to clarify the effects of computer programs and organizational psychological variables including other psychological variables such as attachment, identity, satisfaction or self-rule while the computer self-efficacy, perceived usefulness, attitude toward Internet use and the intended use. Even the state of the art has proposed other models looking for some more specialized Internet software prediction.

The state of the art seems to leave anonymous sex differences, age, education and salary that shape the profiles of Internet users.

Therefore, it is essential to recover the sociodemographic profiles for inclusion in the explanatory models of the effects of developments and innovations of computational and organizational programs on the consumption of products and services on the Internet. Incorporating sociodemographic variables would be the first step to humanize Internet and build a network not only data exchange but a comprehensive communication knowledge and affection.

6. Conclusions

The determinants of Internet use entail:

- Dependency relationships established out of theoretical frameworks explaining deliberate, planned and systematic processes around information processing and its impact on intensive use of technologies and electronic devices.

- Such dependency relationships have been confirmed empirically in different latitudes and different samples. However, the theories explaining the associations between each of the variables do not explain in comprehensive terms the deliberate process entailed by using a technology.

- In this study, a model from which it is possible to build a theory explaining the process of accepting and adopting a technology or electronic device was compared. However, it is recommended that emotions-related variables be included as the use of the Internet is subject to social relations of trust and commitment.

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