

ANALYSIS OF THE KEY FACTORS IN ON-LINE BANKING. THE WEBSITE AND ITS INFLUENCE ON TRUST.

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ABSTRACT:

This paper analyzes the impact of the quality of a financial website on the creation of trust by users toward the channel Internet. With this aim, a hypothesis which establishes a relationship between both constructs has been proposed. The hypothesis will allow verifying whether the design, navigation structure and the information contained on the site bring on the appearance of online trust in the user. Online trust is understood in terms of reliability and safety and privacy. In order to contrast the hypothesis, a causal model has been formulated.

KEY WORDS: Website quality, trust, Internet, financial institution, structural equations.

1. INTRODUCTION

The term trust is crucial to explain customers' behaviour on the Internet (Pavlou, 2003). The management of trust is a difficult task for a company which operates through the online channel. This is so, because lack of trust is the main obstacle to the adoption of Internet as a shopping channel, due to the high risk perception that customers assume when they perform certain transactions through it.

The chosen context of study: online banking, its particular characteristics, and the rapidly changing environment based on the globalization and immersed on the strong economic and financial worldwide crisis, determine a reality that contributes to the adoption of this channel will be even more complex.

Therefore, identifying possible antecedents involved in the formation of customer trust in online banking is especially relevant. The reviewed literature suggests a quality financial website as a factor which generates trust, and in consequence, reduces risks and leverages Internet as a way to make financial transactions.

Consequently, we have established as main objectives of this research to check the possible relationship between the offer of a quality financial website and trust that an user develop to it, as well as the quantification of the impact if the relationship is verified, all from a customer perspective. A structural equation modelling is used for the contrast.

With this aim, the article is organized in three sections. The first section presents the theoretical principles about conceptualization and measurement scales of all variables to be considered in the model. With this idea, we summarize the main research in this area and we propose the relational hypothesis which will be contrasted in the empirical analysis. The second section, the measurement instruments proposed are validated (dimensionality, reliability and validation at different levels of the constructs) and the causal model is tested and adjusted. The contrast of the formulated structural hypothesis gives us the results. Finally, in the third section we present the conclusions and recommendations to scientific and professional fields derived from the research.

2. THEORETICAL FRAMEWORK

2.1 Conceptualization and measurement of website quality

Montoya-Weiss, Voss and Grewal (2003) propose that quality is a construct with a multidimensional character, in which they establish that customers form their perception of quality in Internet based on the characteristics of the website. Under this approach we adapt their definition of the perceptions of service quality as “total perceived performance evaluations of service provider”, according to a series of online service features.

With the aim of measuring the quality of the website we identify the attributes that customers use habitually for the evaluation of quality. The result of the literature review suggests we use three dimensions, which correspond with those that Montoya-Weiss *et al.*, (2003) adopted: information, navigation structure and graphic design.

In the literature, the information variable is organised around two aspects: availability of information and content of information. First aspect refers to the possibility of having enough information for make decisions through a website, without the necessity of contact with business personnel. In our research, this aspect is collected in item INF1, as table 1 shows. For its part, the content of the information has been treated in the vast majority of academic and professional research about online quality¹. Content of the information covers everything that is communicated and, so that is presented in a website. It can do reference to product range, details about service offered, the state of an order or a search, the corporate policy, public relations, information about the history of the business, recommendations to customers, security and privacy policy (Jarvenpaa *et al.*, 1999; Urban *et al.* 2000; Montoya-Weiss *et al.*, 2003), and so on.

With the purpose to guarantee the quality of the content of the information, Deshpande y Zaltman (1982, 1987) require that three characteristics were shown and their generalization to the online context was possible. It referred to the utility of the information to its purpose, the accuracy of the information and the actualization of the content. This set of attributes has been recorded in the measurement scale of the contained information in the website through the indicators: INF2 to INF4, as table 1 shows.

For navigation structure, we adopt the definition of Montoya-Weiss, Voss and Grewal (2003). Navigation structure is understood as “the organization and the hierarchical arrangement of content and search on a Web page”. This dimension refers to a good organization and structuring of the website and to the existence of an adequate search system as aspects that will allow a simple and intuitive navigation and they will guide users to achieve their objectives (to locate information, make simulations or perform a transaction, etc.). To specify this dimension, in our research, we have considered four items referred to the website (Table 1).

Both design of website and information content are equivalent to the context of an offline establishment. Montoya-Weiss *et al.* (2003) define graphic design as “the tangible aspect of online environment” that it reflects the appearance or “the perceived attractive of a website”. Graphic design includes aspects such as “colour, layout, print size and print type, number of photos and graphics, and animation” (Zeithalm *et al.*, 2002, p. 364) coordinated in order to achieve an “intuitive, pleasant and safe environment for customer use”. In our research 4 items have been used to this explanation (Table 1).

Consequently, our proposed measurement model for the quality of the website attend to the multilevel and multidimensional nature that is structured in Brady and Cronin (2001, p. 36) research. So that, we use a second-order construct² that it is composed for three primary dimensions (navigation structure, information and graphic design, all of them adopt in the research of Montoya-Weiss *et al.*, 2003) and we assume that several items are presented to reflect the attributes of the descriptors of the previous dimensions.

¹ See Liu and Arnett, 2000; Novak *et al.*, 2000; Szymanski and Hise, 2000; Bergeron, 2001; Lu and Lin, 2002; Montoya-Weiss, Voss and Grewal, 2003, Sohn and Tadisina, 2008.

² Several studies in online context have proposed quality as a construct of second or third order, although few (such as Parasuraman *et al.*, 2005 and Collier and Bienstock, 2006) have achieved to prove it empirically.

Table 1. Proposed multidimensional instrument to the measurement of quality of online banking service of a financial institution (for item).

WEBSITE INFORMATION		
Nomenclature	Items	Author/s
INF1	It is necessary in order to make decisions.	<ul style="list-style-type: none"> ▪ Liu and Arnett (2000). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Sohn, Changsoo and Tadisina (2008).
INF2	It is useful.	<ul style="list-style-type: none"> ▪ Liu and Arnett (2000). ▪ Aladwani and Palvia (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Harris and Goode (2004).
INF3	It is true (exact).	<ul style="list-style-type: none"> ▪ Liu and Arnett (2000). ▪ Yang, Peterson and Huang (2001). ▪ Aladwani and Palvia (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ E-Ratings (www.consumerreports.org)³
INF4	It is updated.	<ul style="list-style-type: none"> ▪ Liu and Arnett (2000). ▪ Aladwani and Palvia (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Sohn, Changsoo and Tadisina (2008).
NAVIGATION STRUCTURE OF THE WEBSITE		
Nomenclature	Items	Author/s
ESN1	It facilities me locate what I want.	<ul style="list-style-type: none"> ▪ Yang, Peterson and Huang (2001). ▪ McKnight, Choudhury and Kacmar (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Parasuraman, Zeithaml and Malhotra (2005).
ESN2	It gives me a clear list of products and services.	<ul style="list-style-type: none"> ▪ Montoya-Weiss, Voss and Grewal (2003).
ESN3	I find it easy to use.	<ul style="list-style-type: none"> ▪ Lociacono, Watson and Goodhue (2000). ▪ Yang, Peterson and Huang (2001). ▪ Yoo and Donthu (2001). ▪ Aladwani and Palvia (2002). ▪ McKnight, Choudhury and Kacmar (2002). ▪ Srinivasan, Anderson and Ponnnavolu (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Parasuraman, Zeithaml and Malhotra (2005). ▪ Collier and Bienstock (2006). ▪ Camarero and San Martín (2007). ▪ Sohn, Changsoo and Tadisina (2008).
ESN4	It offers me a logical and easy to follow layout.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001). ▪ Srinivasan, Anderson and Ponnnavolu (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Collier and Bienstock (2006).
ESN5	It is well organised.	<ul style="list-style-type: none"> ▪ Aladwani and Palvia (2002). ▪ Parasuraman, Zeithaml and Malhotra (2005).
ESN6	It has adequate search systems.	<ul style="list-style-type: none"> ▪ Liu and Arnett (2000). ▪ Roy, Dewit and Aubert (2001). ▪ Aladwani and Palvia (2002).
WEBSITE DESIGN		
Nomenclature	Items	Author/s
DIS1	I like its appearance.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Harris and Goode (2004).
DIS2	I like its images, icons, etc.	<ul style="list-style-type: none"> ▪ Yang, Peterson and Huang (2001). ▪ Montoya-Weiss, Voss and Grewal (2003).
DIS3	I find it attractive.	<ul style="list-style-type: none"> ▪ Lociacono, Watson and Goodhue (2000). ▪ Yang, Peterson and Huang (2001). ▪ Aladwani and Palvia (2002). ▪ Srinivasan, Anderson and Ponnnavolu (2002). ▪ Montoya-Weiss, Voss and Grewal (2003). ▪ Harris and Goode (2004). ▪ Collier and Bienstock (2006). ▪ Camarero and San Martín (2007).
DIS4	It has a professional appearance.	<ul style="list-style-type: none"> ▪ Harris and Goode (2004). ▪ Camarero and San Martín (2007).

Source: own elaboration

³ Mentioned in Collier and Bienstock (2006, p. 263).

2.2 Conceptualization and measurement of online trust

The term trust is crucial to explain customers' behaviour on the Internet (Pavlou, 2003). This term has been investigated for years from the marketing perspective. However, Das and Teng (2004, p. 86) argue that in spite of being one of the more used term in social sciences, trust is the "least understood" concept of the discipline.

Trust in the Internet channel, as a specific construct to electronic context, includes specific attributes in a traditional relationship between seller and buyer, such as perceived benevolence, ability, competence, honesty, integrity, credibility, predictability or reliability and other specific characteristics to the online environment such as security and privacy (Cheung and Lee, 2006 and Grabner-kräuter and Faullant, 2008).

Regarding the first conception of trust, we adopt the perspective of social psychologists (Cheung and Lee, 2006), those authors focus on trust as belief or credibility and Ramón and Martín (2007) establish it in their model as first "moment of trust". Reliability or trust as a belief refers to the perception that a person has about the trustworthiness of another person. With the purpose of describing the seller's trustworthiness, customers analyse different aspects about certain characteristics and possible future behaviours of the seller (Ganesan, 1994; Coulter and Coulter, 2002; Das and Teng, 2004; Ramón and Martín, 2007). In spite of it doesn't exist an unified approach that establishes which attributes and dimensions that a subject should have to be considered as reliable (Calderón *et al.*, 2005; Ramón and Martín, 2007), we take out three dimensions from the literature: honesty, competence and benevolence.

Honesty⁴ refers to the conviction derived from an evaluation process that customer shows with respect to the sincerity and degree of fulfilment of the promises that the other part makes (Anderson and Narus, 1990; Doney and Canon, 1997; Geykens *et al.*, 1998; 1999). This aspect has been measured through 5 indicators and it is shown in table 2.

Benevolence is strongly related to the seller's goodwill. Therefore, an institution will be considered benevolent during the exchange, whether it puts the correct development of the exchange before the business profit (Lee and Turban, 2001; Belanger *et al.*, 2002). Benevolence has been measured by the searching of customers' welfare⁵, by the obtaining of a joint benefit (Doney and Canon, 1997), and by avoiding opportunistic behaviours (Larzelere and Huston, 1980), and so on. This dimension will be measured using 5 items (Table 2).

The competence of a business is measured as well through the customers' perceptions. Customers assess whether the institution has the abilities, capabilities and knowledge (Cheung and Lee, 2006) that they require "to do something" (Ramón and Martín, 2007) which was promised previously. This attribute is very important in the electronic context⁶, because the seller has to demonstrate that he or she has the "technical, financial and human resources needed" to fulfil that he or she has committed in a safe and efficient way (Flavián and Guinaliú, 2005). This aspect has been estimated through 6 items (Table 2).

From the literature review we summarize the criterions that users usually use to the evaluation of financial supplier's trustworthiness (Table 2).

⁴ In spite of the context of online banking doesn't fulfil in a strict way the condition of interpersonal relation that Grabner-Kräuter and Faullant (2008, p. 486) suggest to the use of the dimensions: benevolence and honesty, we have decided to include them because we understand that users feel that in the relation take part not only the technology, but also a group of people who work in the financial institution.

⁵ Crosby *et al.*, 1990; Ganesan, 1994; Doney and Cannon, 1997; Flavián and Guinaliú, 2005; Cheung and Lee, 2006.

⁶ Roy *et al.*, 2001; Bhattacharjee, 2002; Pavlou, 2003.

Table 2. Proposed instrument to the measurement of the reliability (honesty, benevolence and competence) of online banking of a financial institution.

Dim.	Nomenclature	Items	Author/s
HONESTY	CONF1	They keep the commitments that it assume	<ul style="list-style-type: none"> ▪ Doney and Cannon (1997). ▪ Roy, Dewit and Aubert (2001). ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Camarero and San Martín (2007). ▪ Lassala, Ruiz and Sanz (2007a). ▪ Sohn, Changsoo and Tadisina (2008).
	CONF2	The offered information is truthful and honest.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Camarero and San Martín (2007). ▪ Lassala, Ruiz and Sanz (2007a). ▪ Ramón and Martín (2007).
	CONF3	I can relieve on promises that they make.	<ul style="list-style-type: none"> ▪ Ganesan (1994). ▪ Kumar, Scheer and Steenkamp (1995). ▪ Doney and Cannon (1997). ▪ Siguaw and Baker (1998). ▪ Fernández-Sabiote and Román (2005). ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Camarero and San Martín (2007). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF4	They never make false claims.	<ul style="list-style-type: none"> ▪ Ganesan (1994). ▪ Siguaw and Baker (1998). ▪ Fernández-Sabiote and Román (2005). ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Camarero and San Martín (2007). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF5	It is characterized by its openness and transparency by providing its services.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Camarero and San Martín (2007). ▪ Lassala, Ruiz and Sanz (2007a).
BENEVOLENCE	CONF6	The offered advice and recommendations look for a mutual benefit.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF7	I like their values.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001). ▪ Camarero and San Martín (2007).
	CONF8	They worry about present and future interests of their users.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF9	It takes into account the impact of its actions on its users.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF10	They do nothing that might intentionality harm their users.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001). ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
COMPETENCE	CONF11	When they design their commercial offer they take into account wishes and needs of the users.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF12	They have the needed ability (capability) to do their work.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001). ▪ Cheung and Lee (2006). ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a). ▪ Ramón and Martín (2007).
	CONF13	They have a wide experience in the financial market.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001). ▪ Cheung and Lee (2006). ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF14	They have a successful reputation.	<ul style="list-style-type: none"> ▪ Roy, Dewit and Aubert (2001).
	CONF15	They know sufficiently to their users and offers them products and services adapted to their necessities.	<ul style="list-style-type: none"> ▪ Flavián and Guinaliu (2006a, 2006b). ▪ Lassala, Ruiz and Sanz (2007a).
	CONF16	In my experience, it is trustworthy.	<ul style="list-style-type: none"> ▪ Doney and Cannon (1997). ▪ Fernández-Sabiote and Román (2005).

Source: own elaboration

Moreover, the particularities of the channel indicate that it is necessary specific measurements in the approximation of trust on the Internet. Those measures should think globally about the security conditions in the Internet. Unlike the traditional channel, in the Internet behaviours and movements (clicks) of customers are recorded from the instant when they access to the Web and throughout all the navigation process. So that, there are two aspects of the Internet that customers are worried about: the protection of their privacy and the security of private data. Both aspects are related, so that in the literature they have

been treated as the same dimension⁷, although, some authors refer to them as two clearly different concepts⁸. For instance, Hoffman *et al.*, (1999) argue that the two concepts are different and they positioning security as an aspect which acts in the environment and privacy as the use of the information beyond its proper use (Luque and Castañeda, 2007). Therefore, in our research we propose a single dimension that contains two different nuances: security and privacy.

The first refers to the security of information systems on which measurements of protected data are laid. According to Flavián and Guinaliú (2005) “it refers to technical aspects that guarantee the integrity, confidentiality, authentication, and no-repudiation of the transactions and, definitely they enable the compliance of legal requirements and good practices in transactions was fulfilled”. Some of this technical aspects are digital signature, “encryption mechanisms”, protection or security mechanisms of transferred data, “best practice mechanisms for transactions”, use of certificates that guarantee a secure connection, systems to guarantee the confidentiality of the transmitted information between bank and customer, the creation of safe passwords, authentication mechanisms, access control mechanisms, and so on. Moreover, online providers can increase the creation of trust in the electronic customers and their perception of security through “the explicit mention of the use of security features on the website⁹”. To collect the contents of the security safeguards we have proposed three items (Table 3).

Privacy refers to the process of protection of users’ data against the voluntary or accidentally transmission of data to other people or institution without the effective consent about the use, modification or destruction of the data (Udo, 2001). Customers should control the process of collection and processing of private information, its disclosure or its potential abuse in order to achieve that their privacy is respected (Wang, Lee and Wang, 1998). On the other hand, businesses can respect the privacy of their customers if they do not distribute personal information that they have collected about customers to other sites, by protecting the customers’ anonymity and requesting their approval with the stated purpose (Friedman, Kahn and Howe, 2000). In order to investigate the terms about the protection of privacy of the online banking users in our model, we propose three indicators (Table 3).

Based on the previous explanation, we suggest that the concept of customer’s trust in banking through Internet is made up two dimensions: reliability (honesty, benevolence and competence) and perceived security and privacy in the website.

Table 3. Proposed instrument to the measurement of the security and privacy of online banking of a financial institution.

Dim.	Nomenclature	Items	Author/s
SECURITY	SEG-PRIV1	They implement security measurements to protect customers.	<ul style="list-style-type: none"> ▪ Cheung and Lee (2006). ▪ Collier and Bienstock (2006). ▪ Flavián and Guinaliú (2006a). ▪ Camarero and San Martín (2007). ▪ Grabner-kräuter and Faullant (2008).
	SEG-PRIV2	The information about a transaction is protected from distortions during a connection.	<ul style="list-style-type: none"> ▪ Parasuraman, Zeithaml and Malhotra (2005). ▪ Cheung and Lee (2006).
	SEG-PRIV3	They have a safe identification system for users (For the access to the service).	<ul style="list-style-type: none"> ▪ Cheung and Lee (2006).
PRIVACY	SEG-PRIV4	They don’t sell to others my information without my approval.	<ul style="list-style-type: none"> ▪ Cheung and Lee (2006).
	SEG-PRIV5	They worry about their users’ privacy.	<ul style="list-style-type: none"> ▪ Cheung and Lee (2006). ▪ Flavián and Guinaliú (2006a). ▪ Camarero and San Martín (2007).
	SEG-PRIV6	They don’t disclose personal information to other users.	<ul style="list-style-type: none"> ▪ Gerard and Cunningham (2003). ▪ Parasuraman, Zeithaml and Malhotra (2005). ▪ Cheung and Lee (2006). ▪ Collier and Bienstock (2006). ▪ Flavián and Guinaliú (2006a). ▪ Camarero and San Martín (2007).

Source: own elaboration

⁷ For instance, Loiacono *et al.*, 2002; Wolfenbarger and Gilly, 2002 and 2003; Zeithaml *et al.*, 2002.

⁸ For instance, Ranganathan and Ganapathy, 2002; Flavián and Guinaliú, 2005.

⁹ Calderón, Izquierdo and Ruiz, 2005; Cheung and Lee, 2006.

2.3 Consequences of a quality Website

In this research, developed in an electronic context, we intend to test, through the proposer model, the existent relationship between the quality of a website and the online trust.

As we have admitted, on the Internet, the contained information on the website and the website design represent the online provider and also the physical environment of a traditional channel (Lohse and Spiller, 1999). Both aspects form the retailer that takes part in the exchange. In order to reduce the uncertainty and the risk that customers perceive when they develop an online financial operation (advisory or operational nature) and with the purpose of giving more confidence to customer (Montoya-Weiss, Voss and Grewal, 2003), institutions include in their site: an attractive and professional design, a content with useful and truthful information to the users, and a simple and intuitive navigation structure. In our research, all these aspects have been collected in 3 explicative dimensions of a superior construct. This superior construct has been named characteristics of the Website, and it represents the quality of the website.

Therefore, we have proposed to contrast the impact of the website quality with the creation of online trust. Accordingly, we have developed the following hypothesis:

Hypothesis (H1): The quality of a financial website has a positive impact on the trust of a user of online banking.

3. METHODOLOGY OF THE EMPIRICAL RESEARCH AND EVALUATION OF THE RESULTS

The study is based on a work developed through the electronic channel. The specifications of the research and the sample description are detailed in table 4.

Table 4. Specifications of the research.

Sample unit	Physical person from 16 to 74 year-old, resident in Spain and user of online banking.
Geographic scope	Spain
Procedure	Non-probabilistic method. Convenience sampling. Snowball.
Sample size (n)	404.
Sample error	+/-4,97% for a scale reliability 95% and assuming the maximum variability of the population $p=q=0,5$.
Method of information collection	Information has been collect through structured questionnaires, electronically auto-administrate.
Field work dates	From November, 2008 to February, 2009
Numbers of surveys	518, valid questionnaires: 404

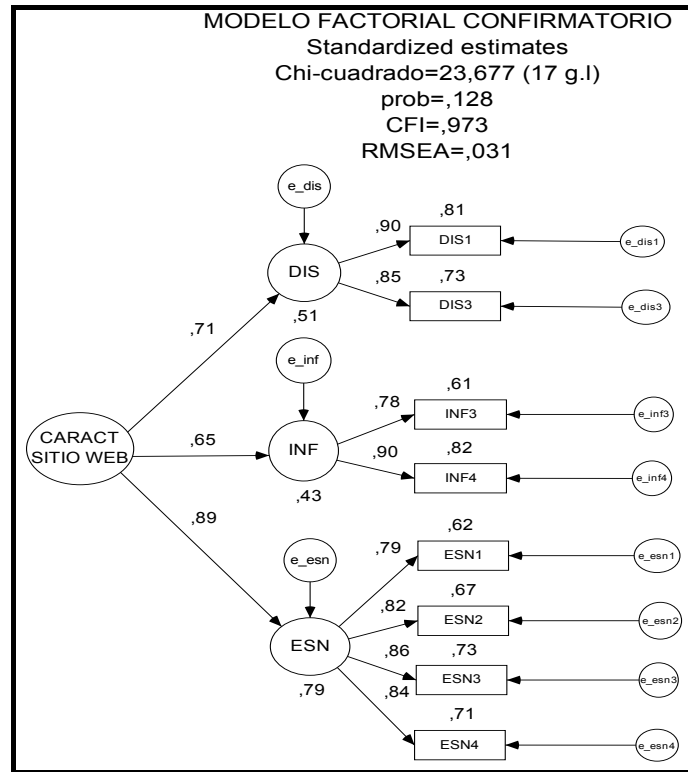
The results of the sample analyses have shown that the profile of an user of online financial services is a young Internet user, either male or female, with high levels of education and incomes, he or she access to the channel each 7 days, approximately, to look up his or her statements, balances, movements or make transfers.

3.1. Validation of measurement scales

In order to reduce, as far as possible, the measurement error, a process for monitoring the fulfilment of the psychometric properties of instruments which measure the constructs of the theoretical model was done. They are specified in the analysis the uni-dimensionality, reliability and validation of content, convergent and discriminating.

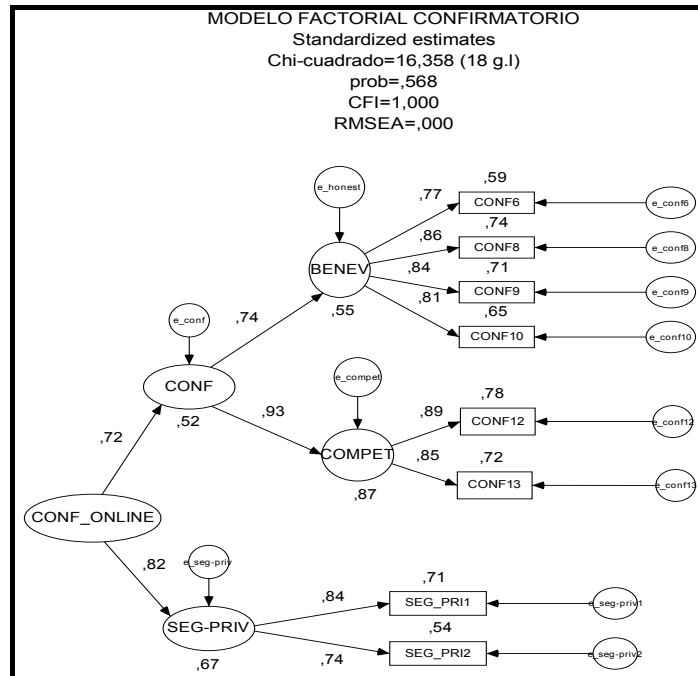
Because of the evaluation of the proposed instrument to measure the second level construct: quality of a website (figure 1) in the electronic context, we can concluded with a set of dimensions which are compatible with the purpose of Montoya-Weiss, Voss y Grewal, (2003).

Figure 1. Re-specified measurement model (second level) for the scale characteristics of the website.



The proposed structure for the third order construct online trust which is theoretically defined by the variables: reliability and security and privacy, is confirmed and represented in figure 2.

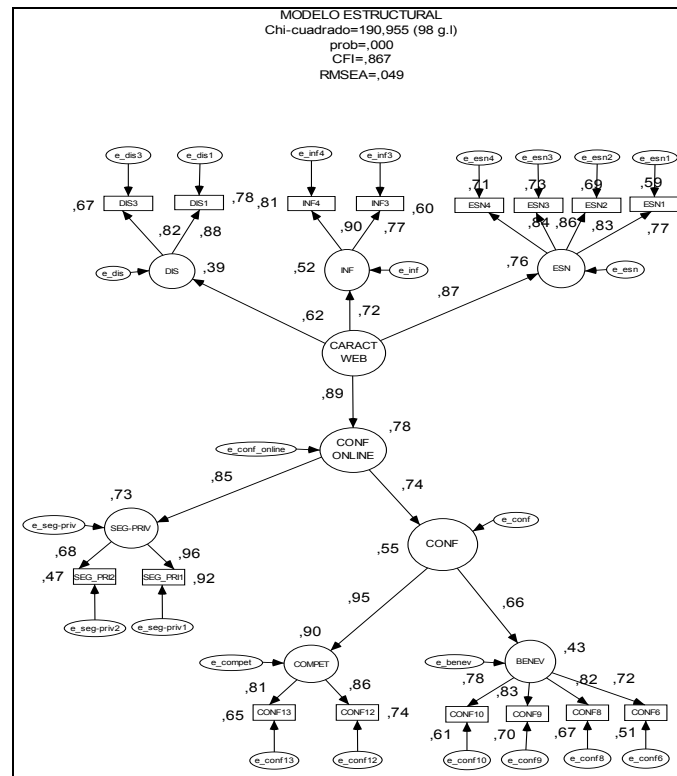
Figure 2. Measurement model (third order) for online trust.



3.2 Structural Model

Once the data depuration has been executed and the psychometric properties of measuring instruments (uni-dimensionality, validity and reliability at different levels through AFE and AFC), we proceed to develop a structural model (figure 3) in order to make the contrast the causal hypothesis proposed in the research.

Figure 3. Path diagram: initial structural model.



Through the review of the magnitude's significance of the estimated coefficient (table 5), we can see a significant causal relation at 0,001 level. The interpretation of the SMC coefficient (table 6) about the determination or reliability of the structural equations shows insufficient values (under 0.50) to the constructs: benevolence (0.434) and design (0.386). This deficiency should not be interpreted as a result of problems in the measurement models (all scales have passed the psychometric tests that they have been submitted), but the possibility of having omitted any variable that could be relevant in estimating the structural model. All the rest of equations reflect a high representation in the proposed model. The adjustment indexes (table 7) which have been proposed in the estimation of the proposed model are out of the limits that the literature advises, so it is necessary a re-specification.

Table 5. Measures of estimation to the initial structural model.

Causal relation	Standardized Coefficients	p-value
CARACT_WEB→ CONF_ONLINE	,885	11,337

Table 6. SMC and S.E values of the latent variables involved in the initial structural model.

Constructs	S.M.C	S.E
CONF_ONLINE (third order)	,783	,090
SEG-PRIV	,729	,102
CONFIAB (second order)	,553	,078
COMPET	,901	,061
BENEV	,434	,093
DIS	,386	,065
INF	,524	,081
ESN	,763	,046

Table 7. Structural model fit indicators (initial model).

ABSOLUTE FIT								
	X ²	DEGREES OF FREEDOM (DF)	P	GFI	NCP	ECVI	RMR	RMSEA
MODEL	190,955	98	,000	,887	92,955	,662	,272	,049
INCREMENTAL FIT								
	AGFI	NFI	RFI	IFI	TLI	CFI		
MODEL	,843	,767	,715	,871	,837	,867		
PARSIMONY FIT								
	NORMED X ²	AIC	PNFI	PGFI				
MODEL	1,949	266,955	,715	,639				

Hoelter (0,05: 258; 0,01: 282).

The adopted measures have resulted in a graphical representation (figure 4).

Figure 4. Path diagram: final structural model.

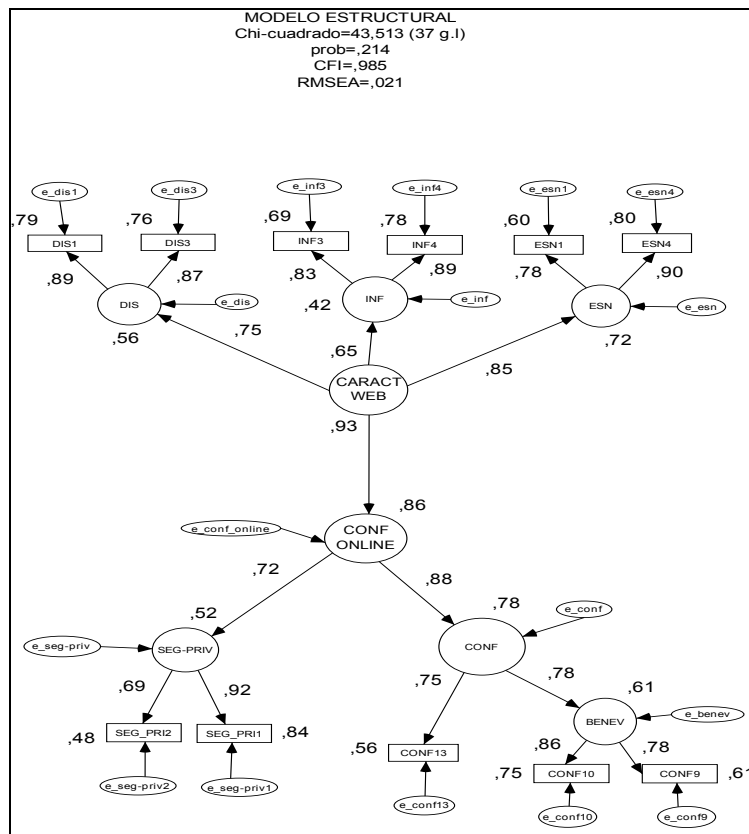


Table 8 presents the determination coefficients SMC for latent variables and presents all the proposed indicators in the model at different levels. As table 8 shows, the value of the coefficient to the variable: information content (0.424) proves that the variable doesn't explain sufficiently the whole model (it has a near value, but under 0.50), so we make the following clarification. In our model we have not considered all possible indicators which explain it such as these indicators that Aladwani and Palvia (2002) proposed in their attempt to develop a measurement tool for the perceived quality of a website ("the website content of ____ is full or website content ____ is clear, the website content ____ is concise"), and so on. The rest of the constructs reached a high level of representation in the model, which allows us to adopt the explanation of the variance for these variables. The values range from 0.523 for the security and privacy to 0.857 for the trust. Moreover it

should be noted that all the estimations for these measurements have been significant and therefore they remain in the model.

Table 8. Measures of estimation for the final model (first, second and third order).

Item	Standardized Coefficients	C.R.	S.M.C.	S.E.
FIRST ORDER				
DIS1	,887	18,906	,786	,049
DIS3	,874		,764	,066
INF3	,828	14,610	,686	,080
INF4	,885		,784	,064
ESN1	,777	13,915	,604	,069
ESN4	,895		,802	,059
SEG_PRI1	,916		,840	,066
SEG_PRI2	,689	11,199	,475	,103
CONF13	,745	9,266	,555	,080
CONF9	,782	7,943	,612	,102
CONF10	,864	8,213	,747	,108
SECOND ORDER				
CARACT_WEB			(*)	,140
DIS	,750	12,106	,562	,084
INF	,652	10,918	,424	,143
ESN	,849		,720	,086
BENEV	,780		,609	,059
THIRD ORDER				
CONF_ONLINE			,857	,057
CONFIABILIDAD	,882	,050	,857	,057
SEG-PRIV	,723		,523	,096

(*) The construct: characteristics of the website is an exogenous variable, so that its values of squared multiple correlations are not obtained in the model.

Values of adjustment indexes (table 9) approve the specification that we made to the model. These values arrive at over the reference limits, so we can guarantee the acceptance of the model and the suggested relationship. Moreover, the comparison between the indexes from the first proposed model and the final one show a clear superiority above the first model.

Table 9. Structural model fit indicators (initial and final models).

	ABSOLUTE FIT							
	X ²	DEGREES OF FREEDOM (DF)	P	GFI	NCP	ECVI	RMR	RMSEA
INITIAL MODEL	190,955	98	,000	,887	92,955	,662	,272	,049
FINAL MODEL	43,513	37	,214	,960	6,513	,252	,078	,021
	INCREMENTAL FIT							
	AGFI	NFI	RFI	IFI	TLI	CFI		
INITIAL MODEL	,843	,767	,715	,871	,837	,867		
FINAL MODEL	,928	,910	,866	,985	,977	,985		
	PARSIMONY FIT							
	NORMED X ²	AIC	PNFI	PGFI				
INITIAL MODEL	1,949	266,955	,715	,639				
FINAL MODEL	1,176	101,513	,612	,538				

Hoelter (0,05: 484; 0,01: 555)

Finally, in order to give provide greater guarantees to the model, we have been calculate the indicators of composite reliability and the average extracted variance of the latent variables and of each item that has been used to measure the constructs of the structural model (Table 10). Results show high levels of acceptance of reliability.

Table 10. Measures to confirm the reliability of the latent variables of the final structural model (first, second and third order)

	Composite Reliability (CR)	Average Variance Extracted (AVE)
FIRST ORDER		
DIS	99,63	99,26
INF	95,32	91,07
ESN	95,62	91,65
BENEV	92,81	86,61
COMPET (CONF13)	87,40	87,40
SEG-PRIV	93,84	88,60
SECOND ORDER		
CARACT_WEB	98,56	91,96
CONFIAB	95,17	86,84
THIRD ORDER		
CONFIANZA ONLINE	97,21	87,55

As a result of the structural solution, the formulated hypothesis in this study is supported in the causal model (H1: The quality of a financial website has a positive impact on the trust of a user of online banking), it shows that characteristics of the website have effects on the online trust of the users. The empirical evidence (table 11) suggests that there is a strong, positive (0.926) and significant influence between the two variables. Therefore, according to the obtained values, the quality creates trust in a strong way, and it is the responsible to explain the 85.75% of this construct.

Table 11. Measures of estimation for hypothesis H1.

Causal relation	Standardized Coefficients	C.R	Explication	Hypothesis
H1: CARACT_WEB→ CONF_ONLINE	,926	9,537	85,75%	Contrasted

These results are consistent with the literature in which quality of a service is considered as a decisive factor to increase the customer trust (Singh, 2002) and the relation between quality and trust in an online context has been contrasted by authors such as Sultan and Mooraj (2001), Chen *et al.* (2002), Montoya-Weiss, Voss and Grewal (2003), Harris and Goode (2004), Gummerus *et al.* (2004) and Ribbink *et al.* (2004).

4. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Based on the results of our research we present the final considerations and conclusions of this study. Firstly we list the empirical conclusions of the research, and then we establish some recommendations for managers of financial entities that provide their services through internet. These recommendations favour the creation of trust to the website in customers.

The first set of empirical conclusions refers to the dimensions which explain the latent variables that take part in the final tested model. Each of the three dimensions of second order proposed in order to describe the construct: quality of the website (navigation structure, information and website design) has been empirically proved. If user evaluates the navigation structure as easy to use, intuitive and it has a searching tool, considers that the published information is updated, accurate and true and perceives that the design is attractive, it will favour that this user evaluates positively the quality of the website.

On the other hand, trust in an electronic context acquires a special relevance because of the greater uncertainty and complexity in the transactions that take place there. With reference to this, some research suggests that the lack of trust in providers and in the Internet has questioned the widespread of the use of this channel for conducting electronic transactions. The multidimensional and multilevel nature of online trust has been confirmed in this study. The online trust is established as third order construct. So that, online trust can be divided in two second-order factors: the reliability of the electronic retailer and the implanted security and

privacy policies, at the same time, these two factors can be divided in other sub dimensions which participates in the evaluation of the user about the online trust of the institution. Reliability can be explained through the benevolence (related with the goodwill of the institution in the fulfilment of promises made and the actions of the institution according to user' needs) and the competence (linked to the experience and reputation of the business), while security and privacy concerns to the application and transfer of practices related to the protection of personal data which could be transferred in the development of a relationship, and security systems that prevent or mitigate the maximum possible errors and frauds during the electronic connection.

With reference to the produced corollaries as a result of the analysis of the causal model, we have identified the existence of the construct quality of a website (design of the site, content of information and navigation structure) as direct antecedent to obtain trust (defined through three components: benevolence, competence and security and privacy) in a context of electronic banking. The direct incidence of quality on trust was found relevant, so the perception of the user about a high quality in the website of a financial institution has the ability to explain the 85.75% of the trust that customer felt. This suggests that the characteristics of the website are critical in order to achieve that online customer trust on the electronic channel of the financial institution. Therefore, if a financial institution designs an easy to use, attractive website and incorporates appropriate information, it will provide a professional perception and, consequently, very important effects in the creation of user's trust.

As a result of the previous analysis we propose a set of recommendations to the responsible of the management of the electronic channel in financial institutions.

To achieve the trust of users becomes a crucial aspect. Trust can be increased whether responsible act on the characteristics of the website (structure, organization, search, easy navigation, convenient, accuracy and updated information, the aesthetic and appearance of the site).

In addition, to increase the trust or reduce the distrust of users in a relation produced in Internet, we recognize that responsible should act on three aspects. First, banking managers should undertake to assume a benevolent character in business decision-making and place the desires, interests and needs of their customers as central core to the development and design of strategies. Our results also suggest that managers should pay special attention to the reputation and try to link the reputation with attributes that create a positioning based on the recognition of success and prestige.

Finally, the security and confidentiality in the electronic transactions should be guaranteed. To answer to insecurity, it is needed a use of different mechanisms of security such as ways to safe access (authentication keys, electronic ID-card, digital certification, coordinated cards, etc.) or platforms of data encryption. With reference to privacy, managers should adopt some measures to the convenient treatment of private data and facilitate information to users. We refers to the information about the type o data requested to finish the transaction, how data will be used, information about the institution which manages the data and where users should go to correct or cancel their recording in the data base or if their data would be ceded or sold.

5. REFERENCES

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