



Article

# The Use of Trust Seals in European and Latin American Commercial Transactions

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**Abstract:** The emergence of the Internet as a commercialization method has offered organizations many opportunities. However, when buyers want to execute a transaction online, a certain distrust typically accompanies the need to provide personal data. To address this problem, assurance seals have been designed for use on websites. Different guarantee logos certify compliance with buyer protection laws and offer transparency in the commercial process. Thus, assurance seals displayed on the websites of sellers that adhere to a specific trust system allow consumers to choose among entities that have publicly committed to best business practices. We researched 130 sellers in Europe and Latin America that adhere to assurance seals in order to determine the influence of such seals. Our research shows that the use of trust seals increases Internet sales for more than 66% of these companies, improves their corporate image, enhances the number of potential buyers who visit their websites, and generally captures consumers' attention.

**Keywords:** assurance seals; e-commerce; consumer protection; corporate social responsibility; self-regulation



**Citation:** López Jiménez, D.; Dittmar, E.C.; Vargas Portillo, J.P. The Use of Trust Seals in European and Latin American Commercial Transactions. *J. Open Innov. Technol. Mark. Complex.* **2021**, *7*, 150. <https://doi.org/10.3390/joitmc7020150>

Received: 4 May 2021

Accepted: 5 June 2021

Published: 8 June 2021

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## 1. Introduction

Commercial transactions occurring on the Internet provide a technological contribution that provides strong innovative power for companies, encouraging major changes in both their organization and structure. The novelty of this technology extends beyond the opportunity for companies to change their processes and products, as was true in the past; today, it can modify companies' relationship with the outside world [1].

The use of the Internet for transactions has led to significant changes in how business is conducted compared to traditional methods [2,3]. To some extent, given the relevance of the Internet today, it is more than an option for companies—it is an obligation [4].

E-commerce is a highly active sector. Its global rise has been attributed to two main factors: the advancement of technology and new consumer habits. E-commerce allows consumers to acquire all kinds of goods and services from both inside and outside their country. Beyond understanding the growth that e-commerce is experiencing, it is important to know how it is transforming traditional commerce and the way consumers buy. E-commerce has been gaining more importance each year. Its large figures of both sales and turnover represent significant weight in the world economy. One of the main reasons for the rise of e-commerce is increasing access to technology around the world. Mobile telephony has risen globally and has displaced fixed telephony, for which spending worldwide is consistently falling.

E-commerce makes transactions easier and operations more convenient for both buyers and sellers by expanding the range of possibilities, reducing the complexity of purchasing processes, and—most importantly—reducing costs [5]. E-commerce is available 24 h a day, 7 days a week, 365 days a year. Consumers make payments digitally, receive services electronically, and receive goods at their chosen address.

As in the physical world, in which commercial transactions are sometimes based on a person's word (sometimes accompanied only by a simple handshake), it is important in the virtual sphere to instill an environment of mutual respect to allow good faith to prevail on both sides. This environment must exist in e-commerce between businesses and consumers (B2C) and between businesses (B2B), but is not always easy to achieve in practice [6]. Currently, a widespread sense of distrust exists on the Internet [7–10]. The reliability of online retailers is important for buyers, especially in relation to unknown sellers [11]. Indeed, a study found that approximately 70% of buyers abandon online orders because they do not trust the retailer [12]. A lack of familiarity with an online retailer can lead to a lack of trust among buyers towards that retailer [13].

The reputation of an online retailer and the guarantee of that reputation are factors that influence buyers' perceptions of trust. The reputation of a retailer is determined by a buyer's belief that a supplier will act competently and honestly [14]. A guarantee represents the reliability and security of a retailer in allowing safe and successful transactions through the Internet [15].

The perceived risk associated with online retailing is a barrier to the growth of e-commerce [16]. Various aspects of this perceived risk must be considered: for example, the absence of a physical store and the distance and lack of direct interaction between buyers and sellers [17]. The reputation of a seller can act as a signal that reduces the risk perceived by buyers [18]. In addition, the number of successful past transactions can be an indicator that reduces the perception of risk.

Many buyers express hesitation and reluctance about requests for specific personal data about themselves, their family members, or other directly or indirectly related matters, because they do not know how this information will be used or who will use it [19]. This consideration is even more apparent when consumers are required to provide particularly sensitive data (including national ID numbers, bank account numbers, bank card numbers, and card PINs on virtual points of sale) linked to the electronic procurement of goods or services on the Internet [16,20,21]. In other words, both security and privacy are notable areas of concern for buyers [22–25]. Other important aspects that result in buyers' distrust include receiving defective items or never receiving a product or service that they ordered.

Online retailers have taken a variety of steps to encourage buyer confidence, ranging from offering warranties and information on privacy protection to posting customer reviews or the number of customers and items sold on their websites [26].

To manage these and similar situations, assurance seals (issued by a trusted third party) have been designed for use on websites by companies that adhere to the standards that such seals certify [27]. Using such a seal, which is entirely voluntary, is intended to increase potential buyers' trust and make them more comfortable with the transaction process [22,28]. Displaying an assurance seal proves a company's commitment to a specific code of conduct, which also demonstrates corporate social responsibility. The assurance seal represents a key aspect of the Internet boom, consolidation in general, and e-commerce specifically [29]. E-commerce, strictly speaking, comprises electronic procurement and interactive advertising.

Assurance seals serve a public awareness function because they not only address legal imperatives but also include a set of recommendations for good practices in e-commerce. Similarly, in international organizations, these standards make it possible to harmonize laws or divergent criteria for individual countries. Despite these advantages, there are barriers that make it impossible to effectively apply and recognize assurance seals: for example, the disparities between the numerous existing assurance seals, sellers' general lack of adherence to them, and legislative and cultural differences between different states.

This article first examines the current literature on online retailing at a theoretical level that focuses in particular on assurance seals. Second, it describes an empirical study conducted for this purpose. This study was performed on a sample of 127 sellers from a total of 130 that the authors initially contacted. These businesses are based in Europe and Latin America and display assurance seals on their websites. This article focuses on sellers

that display assurance seals, whereas most previous articles on this issue have focused on buyers. Based on the results obtained from the empirical study, we identify the main reasons for using a seal, including offering greater trust to potential consumers, improving the image and prestige of the company, and increasing quality and safety.

## 2. Theoretical Background

The expansion of e-commerce has opened up a huge number of possibilities for sellers and buyers. Studies carried out in this field address different issues related to technology and business management. Wareham, Zheng, and Straub [30] present a discussion about critical issues related to information systems. Other studies [31] note that the focus of research in e-commerce has changed from technology to management. In any case, different developments have led to important changes in business models based on social networking, interaction orientation and customization, and value added to the online user [32].

The evolution of e-commerce technology began to make certain activities possible, and the focus moved to marketing studies related to the attraction and maintenance of customers. Some authors consider 2004 as the beginning of the social network services era in the digital economy, the Internet economy, or the new economy [33]. Some parts of the academic literature started to concentrate on customer relationships based on trust and commitment [34]. Others focused on trust and online commercial environments [20].

When shopping in person, buyers receive numerous signals, such as the appearance and location of the store, the level of service provided by employees, and other visual and nonvisual signals. Not as many signals are available from an online vendor. Buyers rely on the few signals available, such as assurance seals.

In this article, assurance seals are explained, and the concept of sales, different types of seals, and adherence procedures are analyzed (e.g., trusted third parties). This article analyzes certain aspects of using an assurance seal in two regions: Latin America and Europe.

There are different types of assurance seals issued by a trusted third party. The majority are designed with privacy and security in mind and seek to guarantee online shoppers that online transactions on websites that display these seals are considered secure and private. Balboni and Dragan [35] state that privacy and security seals serve two important functions: they provide an assurance that the seller's practices are subject to acceptable standards or norms in terms of privacy, and they influence perceptions of risk associated with a website, thus encouraging users to disclose information. Previous studies have emphasized that if buyers feel safe on a particular website, they trust it more [36,37]. Assurance seals help reduce buyers' perceived risk of online purchases. Thus, online retailers that adhere to assurance seals reduce this perceived risk.

As will be discussed later in this article, seals designed for privacy and security coexist with other seals that accredit a seller's compliance with high levels of excellence beyond privacy and security. For example, seals that guarantee the comprehensive protection of minors, the use of noninvasive advertising techniques, and accessibility standards constitute a significant percentage of the assurance seals that are common in Latin America and Europe [38].

Sellers may choose to adhere to several seals representing different commitments to generate confidence in their potential target audience. However, instead of achieving positive effects and distinguishing a seller from their competitors, adhering to numerous seals may lead to harmful and even unwanted effects. For example, the display of a particular assurance seal may go unnoticed as a result of unnecessarily overloaded web pages.

Experience has shown that website setup and design are factors that may encourage or discourage purchases [39]. In some cases, sellers have decided to adhere to a multitude of voluntary seals, leading their websites to require significant changes to enable them to publish a list of supposed assurance seals. However, a website that is overloaded, slow,

and thus limited in terms of usability is ineffective. It is easy to guess the fate of these websites, which tend to disappear.

Additionally, an online platform that facilitates transactions should answer questions related to copyright protection. On the one hand, such information can play a very important role in protecting property rights, and on the other hand, it can discourage buyers from infringing intellectual property rights [40].

### 2.1. Review of the Literature

The industry has created accreditation mechanisms to favor sellers committed to business activities of excellence that not only respect the law but also follow best practice documentation and codes of conduct [41]. This accreditation consists of a seal published on the websites of these sellers. Therefore, assurance seals often, although not always, attest to a seller's adherence to a certain code of conduct.

The academic literature has provided a variety of definitions for assurance seals. One group of authors [42] understands these seals as demonstrating that a seller agrees to comply with best business practices. Similarly, Kimery and McCord [43] indicate that seals provide visual signals to buyers that highlight an online seller's commitment to reliability standards conferred by the organization that sponsors the seal: in other words, a trusted third party. These seals are designed and displayed to elicit specific effects on potential buyer behavior. They play a distinctive role in trust and quality because they demonstrate that sellers comply with certain legal and ethical quality standards based on the code of conduct to which they subscribe [44,45].

In other words, the organization responsible for the self-regulatory system—a trusted third party—in the field of e-commerce guarantees that the activities carried out by a seller comply with not only the leading rules on e-commerce but also additional standards above and beyond those recognized by any applicable legislation as a minimum standard. Thus, adhering to a code of conduct entails fully complying with legislation and a set of suggested legal and ethical rules that favor potential buyers.

Some international studies have determined that a trusted third party is generally effective in increasing sales [4,46,47]. Thus, a certain approach to the doctrine [48] holds that, from a commercial point of view, the use of assurance seals is the best strategy to help small and emerging sellers grow online [49]. When the sellers are known and identified, the presence of assurance seals on websites has been proven to be very effective in convincing potential buyers to complete a contract for goods or services offered on the seller's website [50–52].

In contrast, few empirical studies on this subject seem to concur on the effectiveness of seals in demonstrating sellers' adherence to a trust system (conveyed by a trusted third party). The results of some studies indicate that seals have a low positive impact on buyers' behavior on websites that display them [53]. These unfavorable results may be largely owing to an inappropriate environment for developing this practice. In most of the cases discussed, the situation examined was not a real-life, everyday context, and participants in the empirical studies were generally university students.

However, some authors [54] believe that students constitute an adequate representation of online buyers because they tend to be younger and have a higher education level than the general public. Table 1, designed by this article's authors, displays the most relevant characteristics of some of the empirical studies conducted on quality trust seals.

**Table 1.** Summary of a Sample of Empirical Studies.

Authors	Objective	Collective	Seals	Findings
Grazioli & Jarvenpaa (2000) [55]	Deceptive e-commerce	Students	BBBOnLine	Trust seals affect a buyer's perceived risk. The study focuses on the importance of buyer education.
Kovar, Gladden & Kovar (2000) [56]	Simulated e-commerce	Students	Webtrust	Buyers who pay more attention to a seal on a seller's website or who have viewed WebTrust advertising have higher transaction expectations than their counterparts.
Portz, Strong & Sundby (2000) [57]	Simulated e-commerce	Students	Webtrust	Trust seals in general, and Webtrust in particular, have a significant impact on transactions carried out on the Internet.
Hu, Lin & Zhang (2002) [50]	Simulated e-commerce	Students	BBBOnLine Verisign TRUSTe	There is an overall positive effect on purchase intention for AOL, BBBOnLine and Verisign. There is no global effect for Verisign or TRUSTe. Effects for TRUSTe and Verisign vary by product category.
Lala, Arnold, Sutton, & Guan (2002) [54]	Online Travel Agencies	Students	BBBOnLine Webtrust	There is no effect on purchase intention for BBB Online and a positive effect for Webtrust.
Mauldin & Arunachalam (2002) [51]	Real e-commerce	Students	TRUSTe Webtrust	There is no overall effect on purchase intention. There are no differences between seals.
Miyasaki & Krishnamurthy (2002) [58]	Simulated e-commerce	Students	BBBOnLine TRUSTe	Seals have an overall positive effect on purchase intention when there is a high purchase risk. There is no effect when the purchase risk is low.
Kaplan & Nieschwietz (2003) [59]	Simulated e-commerce	Students	BBBOnLine TRUSTe Webtrust	There is a positive effect of security on trust, which influences purchase intention.
McKnight, Choudhary & Kacmar (2004) [27]	Simulated e-commerce, Legal Advice	Students	TRUSTe	The TRUSTe seal is imperceptible, and the seals of professional associations do not have a significant impact on buyer confidence.
Wang, Beatty & Foxx (2004) [60]	Simulated e-commerce	Students	BBBOnLine TRUSTe Verisign	A guarantee seal does not increase the confidence of buyers.
Rifon, Larose & Choi (2005) [61]	Simulated e-commerce	Students	TRUSTe BBBOnLine	Privacy seals increase trust in a website and the expectation that the website will inform a buyer of its information practices.
Zhang (2005) [62]	Simulated e-commerce	Students	TRUSTe. Verisign BBBOnLine	Trust seals affect buyers and, to a great extent, the possibility of carrying out a transaction.
Kimery & McCord (2006) [43]	Home Furniture	Students	TRUSTe. Verisign BBBOnLine	There is no significant relationship between guarantee seals and buyers' confidence.
Metzger (2006) [63]	Real (Music) and Simulated e-commerce	Students	TRUSTe	Little-known trust seals have no impact on a potential buyer.
Nikitkov (2006) [53]	Online Auctions	eBay users	Square Trade Power Seller	The Square Trade seal has an impact on the confidence that buyers show towards sellers on eBay.

Table 1. Cont.

Authors	Objective	Collective	Seals	Findings
Whitten & Wakefield (2006) [64]	Simulated e-commerce	Students	BBBOnLine TRUSTe Verisign Webtrust	Trusted third-party credibility positively affects purchase intention due to seal value, perceived risk, and trust.
Jiang, Jones & Javie (2008) [65]	Real e-commerce	Shoppers	BBBOnLine TRUSTe Verisign	Seals have an overall positive effect on trust. The specific effect varies according to the seal mode.
Bahmanziari, Odom & Ugrin (2009) [2]	Simulated e-commerce	Students	Verisign Webtrust	There is no relationship between trust and purchase intention for Webtrust. However, the combination of seals has a positive effect.
Hu, Wu, Wu & Zhang (2010) [7]	Simulated e-commerce	Students	Cybertrust	Seals have a positive impact on buyer confidence.
Kim & Kim (2011) [66]	Simulated e-commerce	Students	TRUSTe	Seals have positive effects on buyer confidence.
Mascha, Miller & Janvrin (2011) [67]	Simulated e-commerce	Students	Invented seal “Web Honesty”	Seals have positive effects on purchase intention. They are similar to encryption.
Utz, Kerkhof & Van Den Bos (2012) [68]	iPod Nano	Shoppers	Qshops Keurmerk Thuiswinkel Waarborg Webshop Keurmerk	Seals have no significant impact on trust.
Özpolat, Gao, Jank & Viswanathan (2013) [69]	Health Care Products	Shoppers	Buysafe	Seals have a positive impact on purchase intention when they are known by their recipients.
Li, Jiang & Wu (2014) [70]	Simulated e-commerce	Students	Webtrust	Trust seals have a positive influence on electronic transactions.
Bauman & Bachman (2017) [20]	Simulated e-commerce	Students	TRUSTe	Seals have no significant impact on trust.
Barkatullah & Djumadi (2018) [19]	Real e-commerce	Shoppers	BBBOnLine Verisign TRUSTe	Seals have a positive impact on purchase intention.

Assurance seals (issued by a trusted third party) displayed on the websites of sellers that adhere to a specific trust system allow buyers to choose among entities that have publicly committed to best business practices and those that lack this commitment [71,72]. Only the former offer an advantage or added value for the products or services that entities sell.

The graphic representation of the assurance seal depends on the organization responsible for conveying that particular trust system. For example, a seal may comprise initials representing the managing organization’s name or an abstract drawing or figure [73]. Options for a seal’s graphic representations are as limitless as the imagination. Importantly, an assurance seal should be displayed on various pages on a website. To be fully effective in developing trust, a seal should appear not only on the home page but also on all sections likely to be viewed by potential buyers [74].

Trusted third parties develop assurance seals that both accredit adherence to a code of conduct and that function as interactive icons that serve as links to the managing organization’s website [74]. The presence of an assurance seal means that the seller pledges to meet all of the requirements of the corresponding code of conduct. In other words, assurance seals serve as recognition of the quality that these sellers have achieved, and sellers use them to seek a better market position. This process translates into more competition in commercial trade, and in some respects, sellers benefit from the prestige conferred by

these seals [75]. Assurance seals can be a mechanism for building confidence and security in a buyer during the early stages of the buyer–seller relationship. Furthermore, seals can gradually build a seller’s online reputation. Finally, they can provide a competitive advantage for retailers that incorporate them into their websites.

As noted, the decision to display seals represents an intriguing demonstration of corporate social responsibility. The industry codes of conduct analyzed in this study are intended to publicize a seller’s characteristics or highlight their compliance with certain e-commerce practices. Seals can be interpreted as a common frame of reference, in addition to their important moral connotations. Large and, in particular, multinational sellers generally develop a code of conduct to advertise their commitments and principles of action both to the general public and within their organizations. These codes are unilateral declarations of will, and there is generally no impartial and independent entity that controls them. However, such an entity does exist in the case of a trusted third party. Buyers’ confidence is notably higher in this case. In areas such as e-commerce, it is important to establish adherence to codes of conduct governed by an independent and impartial third party whose commitment demonstrates high quality in the areas it regulates.

The standards considered in these codes are usually customized to the specific problems that these companies want to solve because the codes have been developed by people who work closely together to solve these problems. These people include different groups that interact in the e-commerce sector, such as buyers, sellers, public administration officials, and other stakeholders.

From the buyer’s point of view, seals give them the opportunity to understand the set of standards encompassing the regulations included in best practice documents, which are generally codes of conduct, and the established extrajudicial body designated for dispute resolution as well as the results of claims that it creates. Thus, sellers have the option of voluntarily committing to these codes of conduct, which are based on a legal framework [76]. Buyers can also access a list of sellers that adhere to this assurance seal (issued by a trusted third party) and can sometimes even file a claim online.

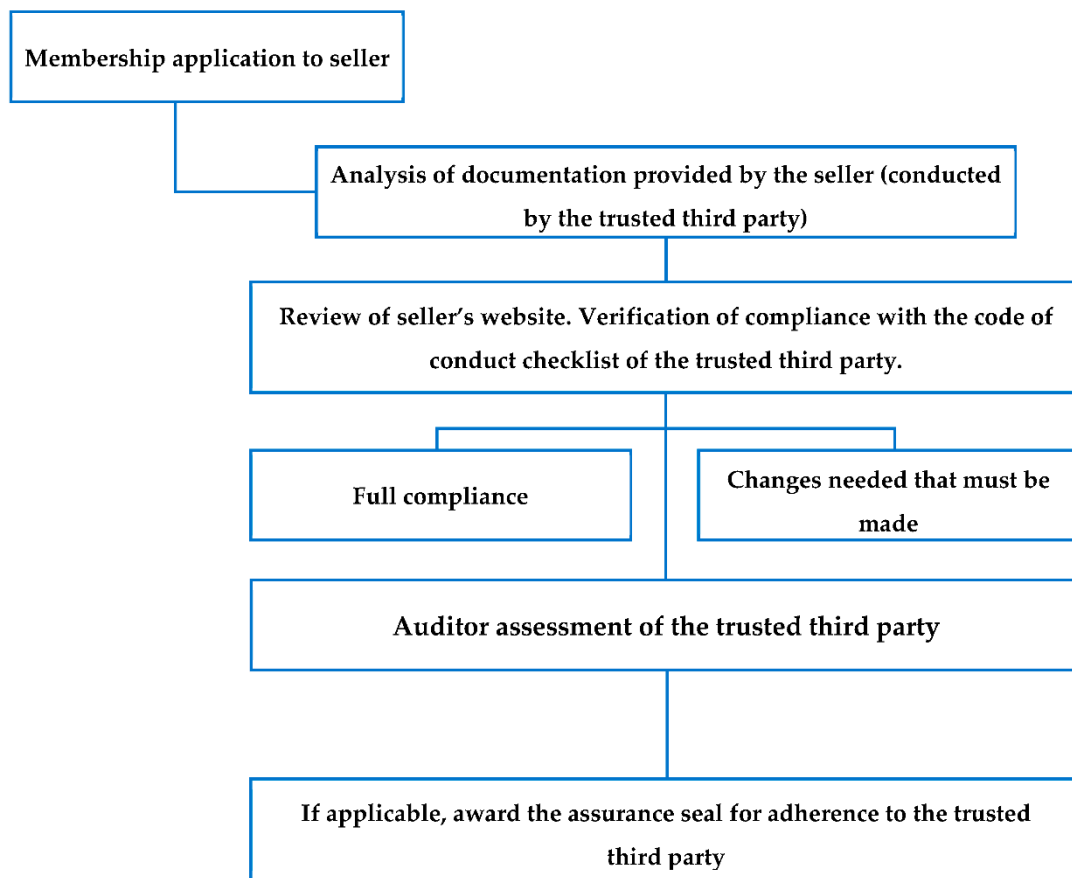
In addition to instilling confidence in the target audience (buyers), displaying these seals has other benefits. First, doing so freely and directly publicizes sellers’ adherence to the trust system corresponding to the seal, because buyers can access this information online by clicking on the icon, enabling the service conditions to be widely known. Second, by displaying the seal, affiliated sellers contribute to attributing greater prestige or social recognition to that seal, which can grant higher quality and a better reputation to the service provided by the trusted third party.

There are many individuals who may see these seals on business websites, including buyers, public or private sellers, and public administrators.

## *2.2. Phases of Adhering to an Assurance Seal*

As highlighted, trusted third parties certify voluntary compliance with rules of superior quality. Assurance seals are often based on best practice documents called codes of conduct that are developed by a specific organization responsible for verifying full compliance as part of its daily operations. Because it is optional for online sellers to adhere to these seals, these organizations must promote their adoption.

The process, shown in Figure 1, requires sellers to first apply for membership. Subsequently, the third-party organization analyzes the documentation provided by sellers and evaluates their websites’ compliance with the stipulations included in the best practice document. This evaluation can have two results: either the website is found to be fully compliant with the code of conduct, or it is found to be noncompliant and to require changes. In the second case, the trusted third party determines whether the assurance seal can be granted.



**Figure 1.** Adherence Process.

Not all sellers operating on the Internet adhere to a trust system that includes assurance seals. Some sellers conduct their online business in a proper deontological and legal manner, respecting buyers' rights and interests. However, other sellers do not make this commitment and act with blatant disregard of laws concerning privacy, security, electronic procurement, interactive advertising, and other issues. Although buyers know that sellers collect and store their personal data, if they knew slightly more about the type of information collected and how it is used to understand their consumption habits and preferences, this would be more likely to influence their purchasing decisions [40].

Given the impossibility of ensuring effective control of these business practices, assurance seals are understood as a useful tool for buyers, other companies, the government, and society in general to differentiate sellers that adhere to trust systems and those that do not [77]. Buyers can thus choose businesses which they are willing to contract and businesses to avoid.

Although e-commerce has resulted in online disputes, the resolution of such disputes has improved access to justice in the digital world. Buyers benefit from faster and less expensive resolution mechanisms compared with traditional forms of litigation [78].

### 2.3. European and Latin American E-Commerce Self-Regulation Tools

Assurance seals on the Internet have spread around the world. Many countries have a fairly significant list of regional assurance seals for the Internet. Although only a very broad sample of existing initiatives in Europe and Latin America is described here, these incentives provide an example of what can be found in other areas.

In Spain and in other European countries, a wide variety of trust systems exists. An assurance seal—issued by a trusted third party—can be highly effective when it is widely recognized in its target society [23]. A relatively small number of initiatives contributes significantly to making these seals more well known. However, an increasingly large



number of initiatives may cause confusion and a general lack of knowledge about them. In other words, a higher number of immeasurably broad initiatives in a set results in less credibility for that set of assurance seals. Table 2 shows the countries in Europe and Latin America that have such organizations, their names, and their websites.

**Table 2.** List of Trust Seals in Europe and Latin America.

Country	Regulatory Body	Website
Germany	EHI Geprüfter Online Shop	<a href="http://www.ghi-siegel.de">www.ghi-siegel.de</a> (accessed on 2 January 2021).
	Haendlerbund	<a href="http://www.haendlerbund.de">www.haendlerbund.de</a> (accessed on 2 January 2021).
	Internet Privacy Standards	<a href="http://www.datenschutz-nord-gruppe.de">www.datenschutz-nord-gruppe.de</a> (accessed on 2 January 2021).
	Safer Shopping	<a href="http://www.tuvsud.com/de-de/dienstleistungen/cyber-security/online-guetesiegel-safer-shopping">www.tuvsud.com/de-de/dienstleistungen/cyber-security/online-guetesiegel-safer-shopping</a> (accessed on 2 January 2021).
	Shopluxe	<a href="http://www.shopluxe.com">www.shopluxe.com</a> (accessed on 2 January 2021).
Austria	Trustmark Austria	<a href="http://www.handelsverband.at/trustmark/trustmark-austria/">www.handelsverband.at/trustmark/trustmark-austria/</a> (accessed on 6 January 2021).
	Österreichisches E-commerce-Gütezeichen	<a href="http://www.guetezeichen.at">www.guetezeichen.at</a> (accessed on 6 January 2021).
Belgium	Becommerce label	<a href="http://www.becommerce.be">www.becommerce.be</a> (accessed on 9 January 2021).
	Safeshops.be	<a href="http://www.safeshops.be">www.safeshops.be</a> (accessed on 1 January 2021).
	Unizo	<a href="http://www.unizo.be">www.unizo.be</a> (accessed on 7 January 2021).
Croatia	Shopper's Mind	<a href="http://www.smind.hr">www.smind.hr</a> (accessed on 4 January 2021).
Denmark	E-market	<a href="http://www.emaerket.dk">www.emaerket.dk</a> (accessed on 5 January 2021).
Slovenia	Shopper's Mind	<a href="http://www.smind.si">www.smind.si</a> (accessed on 3 January 2021).
Spain	Aenor	<a href="http://www.aenor.com">www.aenor.com</a> (accessed on 9 January 2021).
	Confianza Online	<a href="http://www.confianzaonline.es">www.confianzaonline.es</a> (accessed on 9 January 2021).
	Calidad Online	<a href="http://www.calidadonline.es">www.calidadonline.es</a> (accessed on 9 January 2021).
	Icert	<a href="http://www.icert.es">www.icert.es</a> (accessed on 4 January 2021).
	Evalora	<a href="http://www.evalora.es">www.evalora.es</a> (accessed on 2 January 2021).
Estonia	Eesti E-kaubanduse Liit	<a href="http://www.e-kaubanduseliit.ee">www.e-kaubanduseliit.ee</a> (accessed on 2 January 2021).
Finland	ASML	<a href="http://www.asml.fi">www.asml.fi</a> (accessed on 1 January 2021).
France	Fevad	<a href="http://www.fevad.com">www.fevad.com</a> (accessed on 8 January 2021).
Greece	Epam	<a href="http://www.enepam.gr">www.enepam.gr</a> (accessed on 7 January 2021).
	GRECA Trustmark	<a href="http://www.trustmark.gr">www.trustmark.gr</a> (accessed on 4 January 2021).
Netherlands	Webshop Keurmerk	<a href="http://www.keurmerk.info/en/home">www.keurmerk.info/en/home</a> (accessed on 2 January 2021).
	WebwinkelKeur	<a href="http://www.webwinkelkeur.nl">www.webwinkelkeur.nl</a> (accessed on 12 January 2021).
	Thuiswinkel	<a href="http://www.thuiswinkel.org">www.thuiswinkel.org</a> (accessed on 12 January 2021).
Hungary	eQ-recommendation	<a href="http://www.ivsz.hu">www.ivsz.hu</a> (accessed on 12 January 2021).
Ireland	EIQA W-Mark	<a href="http://www.eiqa.ie">www.eiqa.ie</a> , (accessed on 4 January 2021).
	Retail Excellence	<a href="http://www.retailexcellence.ie">www.retailexcellence.ie</a> , (accessed on 2 January 2021).
Italy	QCB Italia	<a href="http://www.qcb.it">www.qcb.it</a> (accessed on 9 January 2021).
	QWEB	<a href="http://www.qweb.eu/it">www.qweb.eu/it</a> (accessed on 9 January 2021).
	Netcomm	<a href="http://www.conorzionetcomm.it/sigillo">www.conorzionetcomm.it/sigillo</a> (accessed on 9 January 2021).
Norway	Trygg E-handel	<a href="http://www.trygghandel.no">www.trygghandel.no</a> (accessed on 5 January 2021).
Czech Republic	Apek	<a href="http://www.appek.cz">www.appek.cz</a> (accessed on 6 January 2021).
Portugal	CONFIO	<a href="http://www.confio.pt">www.confio.pt</a> (accessed on 5 January 2021).

Table 2. Cont.

Country	Regulatory Body	Website
United Kingdom	SafeBuy	<a href="http://www.safebuy.org.uk">www.safebuy.org.uk</a> (accessed on 14 January 2021).
	Sectigo	<a href="http://www.sectigo.com">www.sectigo.com</a> (accessed on 14 January 2021).
	TrustMark	<a href="http://www.trustmark.org.uk">www.trustmark.org.uk</a> (accessed on 14 January 2021).
Sweden	Trygg E-handel	<a href="http://www.dhandel.se/trygg-e-handel">www.dhandel.se/trygg-e-handel</a> (accessed on 13 January 2021).
Switzerland	Swiss Online Garantie	<a href="http://www.vsv-versandhandel.ch/consumer/swiss-online-garantie">www.vsv-versandhandel.ch/consumer/swiss-online-garantie</a> (accessed on 15 January 2021).
Brazil	Movimiento e-MPE	<a href="http://www.e-mpe.com">www.e-mpe.com</a> (accessed on 16 January 2021).
Chile	Confianza Ecommerce CCS	<a href="http://www.ecommerccecs.cl/sello-confianza-ecommerce-ccs/">www.ecommerccecs.cl/sello-confianza-ecommerce-ccs/</a> (accessed on 17 January 2021).
Mexico	Asociación de Internet MX	<a href="http://www.sellosdeconfianza.org.mx">www.sellosdeconfianza.org.mx</a> (accessed on 2 January 2021).
Peru	Capece	<a href="http://www.capece.org.pe">www.capece.org.pe</a> (accessed on 18 January 2021).
Guatemala	GRECOM	<a href="http://www.grecom.gt">www.grecom.gt</a> (accessed on 18 January 2021).
Latin America	EConfianza	<a href="http://www.ecommerce.institute/econfianza">www.ecommerce.institute/econfianza</a> (accessed on 20 January 2021).

Latin America has fewer assurance seals for the Internet in general and e-commerce in particular; however, some interesting considerations should be mentioned. First, only five countries in Latin America currently have e-commerce assurance seals. Although there have been projects in the region, and several e-commerce assurance seals have been developed in the last decade, the majority of them have not been successfully implemented by companies or have lost significant ground from their initial interest. Regardless, one positive example stands out: the seal designed in Mexico. In its regulations, Mexico recognizes the effectiveness of instruments derived from self-regulation, such as codes of conduct and assurance seals. The best practices code from the Asociación de Internet MX (formerly AMIPCI) merits an extremely positive assessment. It is part of the Asia Pacific Trustmark Alliance, which operates in the Asia-Pacific region.

Second, similar to Europe's regional assurance seal Euro-Label, Latin America has launched a label called Econfianza.

### 3. Empirical Method

Considering the theoretical relevance of assurance seals on the websites of sellers with online operations, the authors decided to assess the results of adherence to these seals. Different studies have been published regarding the perception of the final customer, but few studies have analyzed the impact of assurance seals on the final perception of the company. This is the objective of the present research referencing various businesses that choose to actively engage with these seals. The authors contacted a total of 130 sellers in Europe and Latin America that adhere to one of the previously described assurance seals (issued by a trusted third party).

The scope of the study includes all European and Latin American companies that operate on the Internet and adhere to an assurance seal. With the aim of obtaining unbiased and representative results, a sampling of all the types of companies that operate on the Internet under a seal was carried out by simple allocation quotas. The characteristics considered to define the sample were the size of the company (small and medium-sized enterprise or not), level of billing, time operating on the Internet, existence of operation outside the Internet, international or local character, commercialization of products or services, and universal or business customers. Based on these criteria, a total of 130 companies from Europe and Latin America adhering to any of the abovementioned seals were selected, from which a total of 127 valid surveys were obtained (3 companies

declined the invitation to participate). To help communicate our research, we present a research method diagram in Figure 2.

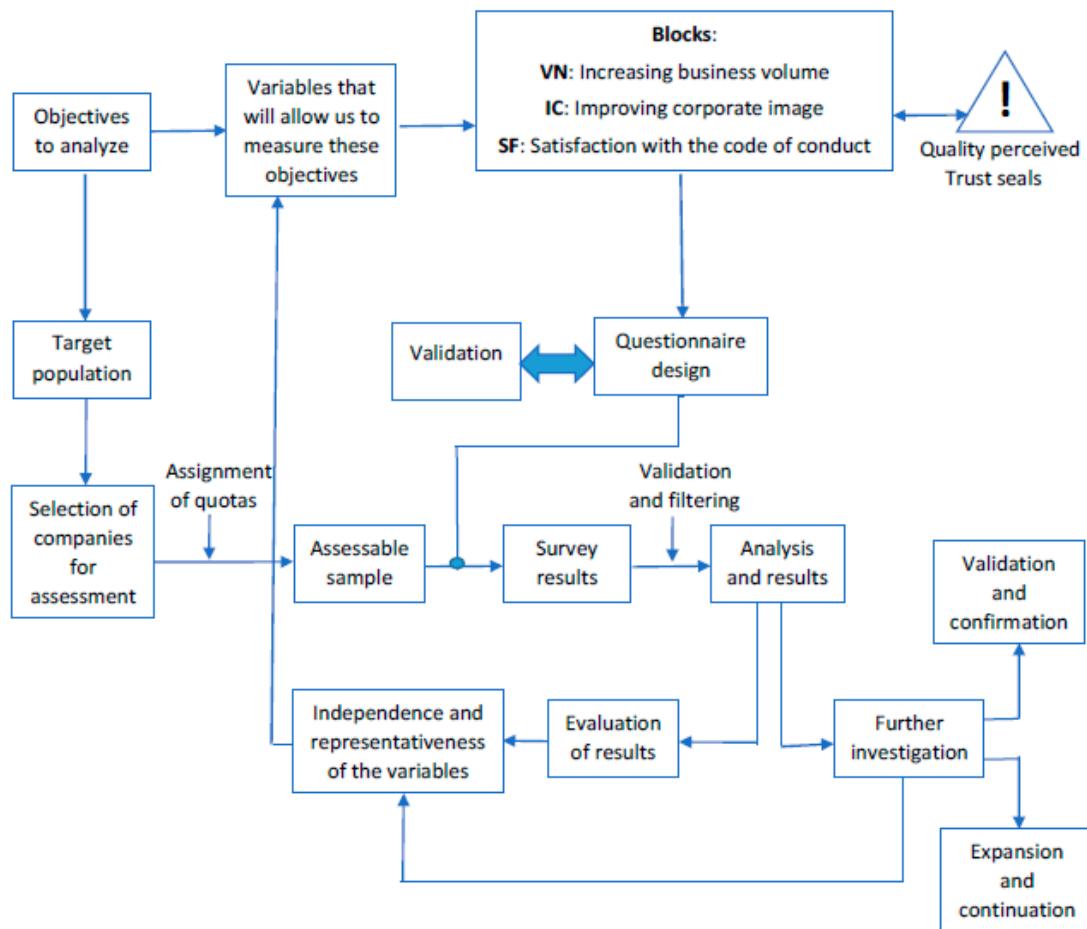


Figure 2. Research method diagram.

The selected companies received an email invitation to participate in a survey. The message they received explained that the study would be online and that the data would be processed anonymously and used for scientific purposes only. The message informed the participants that their participation was voluntary, that the study should not take more than 10 min and that it would be best to complete the survey without pausing. All participants gave their consent for the survey. Obviously, the subjects were free to decide whether and when to leave the study simply by closing the program. Because the option to drop out was always present, we treated voluntary participation as equivalent to written consent. The study was not submitted to a research ethics committee, as the participants were not identifiable, and no personal information was saved after the experiment.

Given the limited literature that analyzes the impact of online sellers’ adherence to assurance seals, a questionnaire was designed to measure the variables defined in our study. The questionnaire was validated by experts in the field from the business point of view, in consultation with several trusted third parties, and from the research perspective, in consultation with two recognized experts who have published studies on assurance seals. Once our questionnaire was validated, we conducted the interviews.

In designing the survey, sixteen items were identified and grouped into four blocks: introduction, increase in business volume, improvement in corporate image, and satisfaction with the assurance seal. Thus, the survey was designed based on these four axes.

The objective of this study was not exclusively to understand how the sellers’ businesses have changed due to the use of assurance seals; the aim also included other diverse

topics. The first block of questions refers to sellers’ first contact with the seals, the reasons why they decided to adhere to the seals, their opinion regarding the seals, and their opinion of the possible future prospects of their use of the seals. The second block focuses on the analysis of the change in business volume as a result of the implementation of the seal. The next block analyzes their perception of positive change in terms of improvements to their corporate reputation. Finally, the fourth block focuses on their degree of satisfaction. The sellers were asked whether they would change to another seal; whether the seal should be improved in any way; their activities carried out in relation to extrajudicial conflict resolution; and whether the management of the trusted third party was generally satisfactory. Under the umbrella of “satisfaction”, we analyzed the fulfillment of customer expectations (in our case, the seller) in relation to the seal and a critical view of the seal once the seller had an in-depth understanding of its virtues and possible limitations.

As we mentioned, the questions in the SF group (satisfaction with the seal) were framed to allow us to analyze the sellers’ expectations regarding the assurance seal and their critical vision of it once it had been implemented by the company. Thus, the SF questions were not strictly oriented towards evaluating the level of satisfaction of the customer (the seller), but rather were focused on anticipating or assessing future loyalty according to their lived experience. Thus, the selection of these questions was based on the criteria for evaluating customers’ experience with the assurance seal according to their initial expectations and the tools provided by the seal.

Each of the four blocks of questions identified important aspects to analyze before and after the introduction of the assurance seal. The questionnaire focused both on quantitative improvements or changes and on subjective impressions of improvement based on the specific internal business culture of each respondent. Different questions in the questionnaire were written to evaluate different answers within the framework of the use of assurance seals in such a way that the answers would cover the changes that occurred as a consequence of the implementation of these new systems (Table 3).

**Table 3.** Survey for Companies Adhering to a Quality Seal.

Group	Questions
Introductory	IN1—Can you tell us how you learned about the code of conduct?
	IN2—Why did you decide to adhere to the e-commerce code of conduct?
	IN3—Do you support the existence of numerous e-commerce codes of conduct, or do you wish there were only one?
	IN4—Do you see a future for the code of conduct?
Increasing business volume	VN1—From your perspective, rate how much adherence has increased visits to your website.
	VN2—Rate your increase in new clients since adhering to the code of conduct.
	VN3—Did the improvements you had to make to adhere to the code of conduct positively influence you from a business perspective?
	VN4—Has adherence resulted in increased online sales?
Improving corporate image	IC1—Do you think your corporate image has improved?
	IC2—Do you think customers’ quality-price perception has improved since your adherence?
Satisfaction with the code of conduct	SF1—Have you ever thought about switching codes of conduct?
	SF2—Do you think that the code of conduct you are adhering to should be improved?
	SF3—Rate the promoting organization’s work in extrajudicial conflict resolution processes.
	SF4—Rate the solutions adopted in the event of conflict by the relevant promoting organization.
	SF5—Evaluate the degree to which adherence has met and continues to meet your expectations.
	SF6—Rate the management capabilities of the organization responsible for the code of conduct you adhere to.

The first section of the survey included introductory questions designed to obtain additional information from the participating sellers. The next three sections included questions related to the suggested variables. In addition, the respondents were allowed to leave any written comments related to the study.

To avoid bias in the answers based on the orientation or identifiable objectives, the respondents received a suitably structured test in terms of their progression, but it did not reflect the different blocks under analysis. The questionnaire was designed to ensure simplicity and a quick response time in order to obtain a high response rate. The questions were concise, and the answers were limited to the minimum number of possible options that would allow the elimination of midpoint responses and answers by repetition. As many questions as possible were dichotomous, and in the case of ordinal variables, the number of answer options was limited to three. Open responses were used only in cases in which it was not possible to limit responses without conditioning or biasing them. As a result, the response scales presented in Table 4 below were used:

**Table 4.** Response scales.

Question	Scale		
IN1	Open question	-	
IN2	Open question	-	
IN3	Only one code	Many codes	
IN4	Open question	-	
VN1	To a low degree	To a medium degree	To a high degree
VN2	To a low degree	To a medium degree	To a high degree
VN3	Negatively	Positively	Very positively
VN4	0–33%	33–66%	>66%
IC1	To a low degree	To a medium degree	To a high degree
IC2	Low ratio	Medium ratio	High ratio
SF1	No	Yes	
SF2	No	Yes	
SF3	No	Yes	
SF4	Inappropriate	Appropriate	Very appropriate
SF5	No	Yes	
SF6	Negative	Positive	Very Positive

#### 4. Results

To obtain relevant and reliable data, most of the surveys were addressed to employees in the information systems department (in 77 cases, or 60.62%) or to the company’s marketing manager (in 50 cases, or 39.37%). Interviews were conducted between the second half of 2018 and the first half of 2019.

The results of the surveys can be divided into two large groups: those corresponding to dichotomous variables and those corresponding to ordinal qualitative variables. We represent the first group by percentages (Table 5). To visualize the results for the ordinal qualitative variables, we use the mean and standard deviation (Table 6).

**Table 5.** Responses (dichotomous variables).

#	Question	%
IN3	Are you in favor of numerous codes of conduct for e-commerce, or do you wish there were only one?	Only one: 95.28%
SF1	Have you ever considered changing your code of conduct?	No: 96.85%
SF2	Do you think that the code of conduct you are adhering to should be improved?	No: 82.68%
SF3	In case you have had to appeal to the extrajudicial conflict resolution procedure: Do you consider the work of the extrajudicial conflict resolution mechanism to be positive in general?	Yes: 66.67%
SF5	Did the membership meet and still meet your expectations?	Yes: 79.53%

**Table 6.** Responses (ordinal qualitative variables).

#	Question	Mean (SD)
VN1	To what extent do you understand that adherence to the code of conduct has increased visits to your website?	To a high degree (2.47) 0.60
VN2	How do you think that the acquisition of new customers has increased?	To a high degree (2.44) 0.57
VN3	How do you rate, from a commercial point of view, the improvement you had to make?	Very positively (2.37) 0.50
VN4	How do you understand that your Internet sales have increased?	More than 66% (2.93) 0.32
IC1	How do you think your corporate image has improved?	To a medium degree (1.89) 0.74
IC2	To what degree is there a quality-price correlation?	High degree (2.33) 0.74
SF4	How would you assess the solution finally adopted?	Appropriate (2.33) 0.52
SF6	How do you rate the management operated by the entity responsible for the code of conduct to which you adhere?	Positive (1.84) 0.72

With respect to variable VN, high ratings from the respondents regarding their increased online sales since adhering to the code of conduct (VN4: “More than 66%”) stand out based on the improvements that they made to be in compliance (VN3: “Very positively”). The respondents felt that the improvements that they had to implement to adhere to the code of conduct had a positive impact on their e-commerce sales.

In addition, most organizations felt that their corporate image (CI) improved as a result of adherence (IC1: “To a medium degree”; IC2: “High degree”).

Regarding the final aspect of the SF variable, the sellers found the conflict resolution offered by the trusted third party to be appropriate (SF4: “Appropriate”) and responded similarly regarding the trusted third party’s management operations (SF6: “Positive”). Likewise, the degree to which adherence met their expectations of the adherence companies was reasonably positive (SF5: 79.53%). The sellers were satisfied with the trusted third party that they had engaged.

When analyzing the survey’s introductory questions (IN1), the sample appeared to be divided into two large groups. The first group comprised sellers that adhered to assurance seals on their own initiative after performing online research or seeing the seal displayed on other websites (for a total of 40.95%). The second group comprised sellers that had

learned of the seal from initiatives by third parties that had informed them of the seal's existence (59.05%).

In addition, differences were apparent between sellers that decided to adhere to the seal (IN2) because of either the improvement it signified for the seller's image and prestige (27.55%) or the need to gain the trust of buyers (47.24%). Some of the surveyed sellers went further and explained their desire to guarantee their website's quality and security (25.19%).

Finally, for IN3, the majority of sellers that adhered to a seal were in favor of the existence of a single online assurance seal and code of conduct (95.28%) to improve the effectiveness of seals. This agreement among sellers supports optimistic expectations for a future where sellers adhere to a single assurance seal. In this sense, the existence of numerous assurance seals can have negative effects on the recipients—the buyers—since such great diversity may mean that the seals are not well-known.

With regard to increasing business volume (VN1), the sellers agreed that website traffic had increased ("To a high degree") as a result of adhering to the seal. For this finding, a qualification should be noted. The increase in the web traffic of the sellers depends on multiple and diverse factors. Among them, adherence to an assurance seal is likely to be influential, but it is not the only factor.

In relation to the previously mentioned question, as a consequence of adherence, the sellers considered that they had notably increased their number of new clients (VN2: "To a high degree"). If buyers were familiar with the seal, in each of the regional markets, there was a decrease in perceived risk and an increase in confidence. Therefore, there were more possibilities for sales to be made online. We must also take into account the promotional activities carried out by the trusted third party which improve buyers' knowledge of the seal.

Surprisingly, very few seller companies actually acknowledged that their business experienced significant positive improvements (VN3: "Very positively"). When a seller voluntarily decides to join a trusted third party, their company must undergo an audit. This process determines the need to make necessary changes to adapt to the legal regulations and to the code of good practices on which the assurance seal is based.

Regarding an increase in sales derived from using the assurance seal (VN4: "More than 66%"), a significant percentage of sellers positively estimated that using a seal increased their sales. As mentioned, being familiar with a seal has positive effects on buyers: their confidence increases and their level of perceived risk decreases.

Responses regarding whether the company's CI improved as a result of adhering to the seal were similar to the responses to previous questions. Indeed, the sellers determined that adherence to the label had improved their CI to a medium degree (IC1: To a medium degree).

Regarding quality-price improvement after adhering to the label, most sellers rated this highly (IC2: "High degree"). In line with the responses to the next block—satisfaction—the companies were satisfied with the effects of the implementation of the seal.

Last, when asked about their satisfaction with their seal, 3.15% of the sellers indicated that they intended to change the assurance seal (and consequently the code of conduct) with which they were affiliated (SF1). This attitude reveals sellers' high approval (96.85%), in general, of the trusted third party with which they were affiliated. However, although most companies were clearly in agreement with the code of conduct on which the trust seal is based, interestingly, the percentage of sellers who believed that the code's content should somehow be improved was higher (SF2).

Given that relatively few sellers had had to settle a dispute through extrajudicial litigation (SF3), most of the sellers surveyed did not rate this aspect. Of the sellers who had experienced the extrajudicial conflict resolution system, a majority rated the organization's performance positively.

Overall, most of the sellers believed that the assurance seals (and consequently the related codes of conduct) would continue to meet their expectations (SF5: 79.53%), and

only slightly more than 20% stated that the seals did not meet their expectations. Although some level of discontent was present, it was by no means alarming.

Regarding the question of whether the sellers that adhered to the assurance seals thought that these seals had good future prospects (IN4), the vast majority answered that they believed so. Notably, European and Latin American legislatures for some years have been approving norms that promote self-regulation in this realm. Seals complement—and do not replace—the legal regulations approved by legislatures.

Once the results of our survey had been analyzed, through the sample data, we intended to study the 97% confidence intervals for the population. In doing so for ordinal qualitative variables, we obtained the confidence intervals. Performing the same analysis for the dichotomous variables, we obtained the following 97% confidence intervals for the population (Table 7):

**Table 7.** Confidence intervals (ordinal qualitative and dichotomous variables).

#	Question	97% Confidence Intervals	
VN1	To what extent do you understand that adherence to the code of conduct has increased visits to your website?	(2.35–2.59)	To a high degree
VN2	How do you think that the acquisition of new customers has increased?	(2.33–2.55)	To a high degree
VN3	How do you rate, from a commercial point of view, the improvement you had to make?	(2.27–2.47)	Very positively
VN4	How much do you think your Internet sales have increased?	(2.87–2.99)	More than 66%
IC1	How do you think your corporate image has improved?	(1.75–2.03)	To a medium degree
IC2	How strong is the quality-price correlation?	(2.19–2.47)	Medium-high correlation
SF4	How would you assess the solution finally adopted?	(1.87–2.79)	Appropriate–very appropriate
SF6	How do you rate the management operated by the entity responsible for the code of conduct to which you adhere?	(1.67–1.95)	Positively
IN3	Are you in favor of numerous codes of conduct for e-commerce, or do you wish there were only one?	Only one:	(93–97%)
SF1	Have you ever considered changing your code of conduct?	Yes:	(0–3%)
SF2	Do you think that the code of conduct to which you adhere should be improved?	Yes:	(14–21%)
SF3	In case you have had to appeal to the extrajudicial conflict resolution procedure: Do you consider the work of the extrajudicial conflict resolution mechanism to be positive in general?	Yes:	(47–86%)
SF5	Did the membership meet and does it still meet your expectations?	Yes:	(76–83%)

It should be noted that the great variation in the confidence intervals for variables SF3 and SF4 is due to the small number of responses (n = 6) to these questions. All confidence intervals for the population reinforce the previously noted results for the point estimates.



With regard to measurement and analysis methods, since there were no existing measurements available, a specific form was created for our objectives. The independence of the variables considered was analyzed to avoid measuring the same aspect from different formulations. Given the small number of questions involved in each block, a cluster analysis of variables or a factor analysis was not justified, since the simplification obtained would have been minimal in percentage terms.

Based on the information provided by the companies that adhere to a code of conduct, adherence has had the following consequences for companies:

- The number of visits to the company's website has greatly increased.
- The acquisition of new clients has increased.
- Internet sales have risen more than 66%.
- The companies state that the cost-benefit ratio in the adoption of a trust seal is very good. From a commercial point of view, they consider that improvements to their company's image have been very positive.

## 5. Discussion: Managerial Implications and Open Innovation

Our study has implications for management and entrepreneurs regarding the different benefits provided by a trust seal:

- Improvement of corporate image;
- Higher transparency and traceability;
- Increase in perceived quality;
- Boost in Internet sales;
- Better positioning on the Internet and an effective presence;
- Increased visibility in the network;
- Differentiation from competition, both perceived and real.

However, definitively, the best and most positive aspect of a trust seal is that it increases the perceived value of a product/service for customers. This is important because a seal does not make any physical or tangible change to a product/service; it improves offerings to clients simply through procedures, protocols, transparency and communication. This is a very useful point of view to consider given the few options that entrepreneurs have to differentiate themselves from other competitors on the market.

One of the most positive aspects of a trust seal is that it offers possible differentiation based on the characteristics of a product or service. In this way, companies can multiply their points of differentiation instead of adding them, and they can obtain an excellent tool to combine with their core business.

On the other hand, while sellers can be experts in their service or product, it is unlikely they will ever be experts in such a changing and dynamic media as the Internet, where so many parameters intervene. From this perspective, working under a quality seal allows sellers to take advantage of the know-how of specialists who deal with the specific environment of the Internet.

An important aspect of this study is its multinationality. Companies from both Europe and the vast majority of Latin American countries have been analyzed. This validates our results as being of an international nature; in other words, they are independent of the country under consideration. This constitutes a basic element, since this study analyzed a tool for use on the Internet, and when a company uses the Internet, it is usually to access new, available markets.

Therefore, these results are of vital importance for the strategy developed by any company since they are validated multinationally and thus are valid for research objectives regardless of the country examined. Latin American countries are the countries where Internet use is growing most rapidly, and we have obtained results from different companies in these countries. A study carried out simply in Europe would lack validity for positioning, differentiation, transparency, and trust strategies in Latin America and vice versa.

## 6. Conclusions

Today, sellers face both opportunities and challenges with regard to new technologies for their businesses. The evolution that has led to the immense growth of the Internet, the rapid explosion of social networks, Internet access on mobile phones, the opinions of Instagram influencers, and the development of new platforms for buyers to interact with online all represent new market niches that companies seek to exploit. As has been observed, buyers who interact with companies online often have strong feelings of distrust.

To solve this problem, trusted third parties design seals, to be displayed on the websites of companies, that actively comply with associated codes of conduct. Companies do so in the hope that when potential buyers identify these seals, their feeling of distrust for that company will diminish.

This empirical study conducted on businesses in Latin America and Europe that adhere to quality seals produced significant conclusions in an area that has scarcely been studied.

These conclusions include identifying the main reasons companies adhere to a seal, such as: conveying more trustworthiness to potential buyers, improving sellers' image and prestige, and increasing quality and security. In addition, the results confirm the surveyed sellers' recognition of the positive effects afforded by their affiliated assurance seals. Thus, we gained an understanding of seals' relevance in three noteworthy areas: the company's business volume, CI, and satisfaction with the seal. It is also necessary to highlight that sellers perceive a strong positive effect of their adherence to a seal on their turnover.

Although interesting and novel results can be extracted from the present study, it is necessary to identify more variables to help determine the impact of sellers' adherence.

## 7. Limitations and Future Lines of Research

Although there are many studies about users and trust seals, one of the greatest limitations of our study relates to the lack of previous research on the perceptions of entrepreneurs.

Additionally, in our study, in most cases, the survey was completed by a company's marketing or IT manager. However, since the survey was completed online, there is no way to verify the identity of the survey respondent.

Further, according to respondents' position in their company, their interpretation of the consequences of the use of trust seals may vary greatly, without any of them generating causality. For example, the head of marketing may have a very different perspective than the head of IT or operations.

Another point to take into account is that since there are trust labels offering various services, the joint analysis of these results is linked not directly to the seal itself but to the company that provides it, based on the package it has decided to offer.

In the future, this research could be deepened by taking into account various variables. An interesting approach could be to perform the analysis according to the product or service that the company sells, since there could be a significant bias in the results based on this factor. On the other hand, it would be a challenge to analyze and validate in depth the assignment of the questions to the different groups of variables to be measured. Finally, it could be evaluated whether a product or service offered by a certified company is for men, for women or for other people with other gender identities. This topic is important since the habits of online buyers are very different according to the gender of the buyer.

**Author Contributions:** Investigation, D.L.J. and E.C.D.; Methodology, D.L.J.; Resources, J.P.V.P.; Supervision, E.C.D. and J.P.V.P. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Not applicable.

**Acknowledgments:** The authors wish to express their dedication to the experts who assisted them with this study. We would also like to express our gratitude to all of the reviewers who provided feedback for improving this paper.

**Conflicts of Interest:** The authors declare no conflict of interest.

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