

Do we need innovative trust intermediaries in the digital economy?

Klaus Rüdiger · María José García Rodríguez

Published online: 27 September 2013

© The Author(s) 2013. This article is published with open access at Springerlink.com

Abstract Even almost 20 years after the launch of online shopping (B2C E-Commerce) as an important pillar of the digital economy, a significant number of consumers are still reluctant to buy goods and services via a website due to lack of trust. Study after study has shown that this lack of trust is due to privacy issues, IT security and performance risks. As a consequence, a few years after the advent of the digital economy trust marks began to be introduced which vendors can display on their websites in the hope of remedying this lack of trust. Several studies exploring the effectiveness of trust marks showed low awareness and an inadequate understanding of such certification. The aim of this repeat study is to explore whether awareness and understanding of German trust marks have changed from 2007 to 2012 through increased Internet experience and online purchasing activity as well as through the wider proliferation of Internet trust marks. The results show that the problems associated with lack of awareness of Internet trust marks identified earlier still persist and do not appear to have diminished over time.

Keywords E-Commerce · Online shopping · Seal of approval · Trust · Trust mark

Introduction

In the meantime the use of the Internet and online shopping has become a common phenomenon for a significant proportion of the population in Germany. Last year

K. Rüdiger (✉)

Fakultät für Wirtschaftswissenschaften, Studiengang Wirtschaftsingenieurwesen, Aalen University of Applied Sciences, Beethovenstr. 1, 73430 Aalen, Germany
e-mail: klaus.ruediger@htw-aalen.de

M. J. G. Rodríguez

Departamento de Organización de Empresas y Marketing, Facultad de Ciencias Económicas y Empresariales, University of Vigo, Lagoas – Marcosende, 36.310 Vigo, Pontevedra, Spain

there were 53.4 million Internet users in Germany, representing over three-quarters of the population, and 35 million people made purchases online (Statista 2012b; van Eimeren and Frees 2012). These figures, however, should not mask the fact that online trading, compared to overall retail sales, has developed relatively slowly and that consumers tend to make their purchases via a very few, well-known online retailers which in many cases also often have shops on the high street and/or catalogue sales. Consequently, there is still enormous potential for growth in online trading which so far remains unfulfilled.

A central explanation for the trend described concerns the uncertainties and particular risks involved in online trading and the resulting lack of trust this engenders among consumers. To try and overcome this lack of trust, at the end of the last century numerous trust intermediaries were created (Bailey 1998; Eggs 2001). Among the most significant intermediaries were the Internet trust marks, which still play an important role in online shopping.

However, seals of approval have the problem of misperceptions, which has also been clearly demonstrated in the case of Internet trust marks, too. This repeat study has been designed to investigate whether this problem has lessened in the intervening period, through increased Internet experience and online purchasing activity as well as through the wider proliferation of Internet trust marks.

Online shopping as an area of application for trust marks

Definition and delimitation of the term

As with many e-terms, “online shopping” is not used consistently in the literature. Here, “online shopping” is understood as the electronic support of those activities directly related to the buying and selling of goods and services between companies and end consumers via the Internet (Wirtz 2010).

The main elements are the medial offer of goods and services via a company website, the possibility of personalised interaction, the intertemporal character of the act of purchasing (distance selling) and the online purchasing decision within the buyer’s decision-making process (Rüdiger 2008).

Facts about online shopping and online consumer buying behaviour

With the number of online shoppers, online sales have grown continuously from 2.5 billion euros in 2000 to 29.5 billion euros in 2012 (Statista 2012a). However, compared to total domestic retail sales, the proportion of online sales is still relatively low, with online sales only contributing 7.7 % to total retail sales in 2012 (IFH Institut für Handelsforschung GmbH 2013). The top ten online shops generate nearly a third of all online sales. Only amazon.de and otto.de, the two largest online shops in Germany by turnover, achieved sales of nearly five billion euros (EHI and Statista 2012). Online shopping is dominated by retailers with well-known brands which also have high street stores and/or a mail order business (e.g., conrad.de,

bonprix.de, esprit.de and apple.de). The two notable exceptions are the retailers Amazon and eBay (EHI and Statista 2012; Reischauer 2011; Statista 2012a).

Consequently, online consumer purchasing behaviour is a reflection of the high market concentration in online shopping. According to the two empirical studies carried out by the author, over two-third of online shoppers made purchases in just one to four different online shops over a period of a year; over 90 % made their purchases from fewer than ten online shops. Earlier empirical studies by other authors support these findings (A.T. Kearney 2001; Einwiller 2003; Ludwig 2005).

Risks involved in online shopping

Study after study has shown that both potential online buyers (Internet users, non-buyers) as well as online buyers are aware of the following risks involved in online trading in particular: privacy risks, IT security risks, difficulty in assessing the reliability of the retailer, difficulties in assessing the goods and services and fulfilment risks (De Figueiredo 2000; Rüdiger 2008; TNS Infratest 2012; van Eimeren and Frees 2012).¹

Trust marks as an object of research

Definition and delimitation of the term

Since the introduction of the first Internet trust mark in the USA in 1997, worldwide hundreds of Internet trust marks and other labels and signs have appeared on the World Wide Web, so that in the meantime one can speak of a “jungle”, “maze” or “glut” of Internet trust marks (Rüdiger 2008). Based on a comprehensive analysis of the literature, Internet trust marks can be defined as follows: Internet trust marks are word and/or figurative marks issued by an independent institution, which online retailers can display on their websites as a sign of recognition, giving customers and potential customers in a compact form the assurance that the online retailer concerned fulfils certain criteria/(quality) requirements (i.e., codes of conduct, criteria catalogues, standards, guidelines, etc.) specified by the issuer with respect to his business practices, particularly with regard to information privacy, IT security and consumer protection (Rüdiger 2008).

Thus for consumers, Internet trust marks provide so-called key information or quality signals combining important information or provided in place of other important information, thereby relieving the consumer of the need to search for and process the detailed information himself (Kroeber-Riel et al. 2009).

Trust marks schemes

Internet trust marks and the underlying trust mark schemes differ, often considerably. They can be categorised according to a number of criteria (Rüdiger

¹ For a comprehensive discussion of the risks, see Rüdiger (2008).

2008). For the present analysis, two factors are of particular relevance that will be briefly described here.

The *award criteria* are a key element of any trust mark scheme, since they represent the criteria/(quality) requirements which an online retailer has to meet in order to be allowed to display the trust mark on his website. The main areas currently covered by Internet trust mark schemes are information privacy, IT security, the disclosure of general information such as the provider's identity or the correct representation of the products and the alternative dispute resolution (ADR).

The *award procedure* is the second key component of any Internet trust mark scheme. Usually, the award of the trust mark is based on a successful examination of the online dealer according to the underlying award criteria. The procedure may be limited to the evaluation of questionnaires and checklists which the online retailer himself fills out and an assessment of the retailer's website. However other certification procedures exist which include a thorough on-site inspection and test purchasing.

How trust marks work

In online shopping, because of the specific characteristics of online business, consumers see themselves exposed to numerous and particularly new potential risks, whereby the mechanism of trust—as in the case with other transactions—is often not sufficient to ensuring that consumers are prepared (or willing) to purchase goods and services online.

Through the trust mark on the website, consumers should be able to see that the online retailer has satisfied the relevant award criteria and checks and thus can be deemed to be trustworthy. From a theoretical point of view, the institutionalised mistrust in the form of checking the online retailer from an individual point of view contributes to the building of trust (Sztompka 1995; Rüdiger 2008).

In order to ensure that trust in the Internet trust mark and the online retailer is actually justified and is not simply a blind leap of faith—i.e., not trust but negligence—two conditions need to be met.² Firstly, consumers must recognise the Internet trust mark and be able to distinguish them from other signs on the online retailer's website. Secondly, (potential) online shoppers must understand the contents of the trust mark scheme (at least the award criteria and award procedure used) (Rüdiger 2008).³

Research question

The first empirical study by the author in 1997, consistent with other empirical studies of US Internet trust marks and other seals, showed the most important

² In addition, other conditions must be met. See Cook and Luo (2003) and Rüdiger (2008).

³ Trust is always “an intermediate state between knowledge and ignorance” (Simmel 1983, translated by the author). For a detailed account of the situation of trust in online commerce and how Internet trust marks work as a trust-building institution, see Rüdiger (2008).

German trust marks are scarcely noticed by online shoppers and that typical misperceptions exist with regard to the content of trust mark schemes (see Tables 3, 4) (Rüdiger 2008).

From 2007 to 2012, the framework conditions with regard to online purchasing have changed significantly: The number of Internet users and their frequency of use have increased substantially, the number of online shoppers has increased by about six million and retail sales by nearly ten billion euros. At the same time, the number of online retailers displaying one of the Internet trust marks investigated here has also increased considerably. Furthermore, Internet trust marks now appear much more often on television and in print advertising than was the case in 2007. This development suggests the awareness and understanding of Internet trust marks has improved and that they now fulfil their role better as potential trust intermediaries than they did 5 years ago.

Thus the research question to be investigated is: Have the changes in the framework conditions over the last few years led to increased awareness and better understanding of Internet trust marks or do we need innovative trust intermediaries?

Methodology

Procedures

To answer the research questions, the lead author's initial study from 2007 was updated by asking the same questions again in 2012 (Rüdiger 2008).⁴ To measure awareness of the trust marks, seals of approval were shown in the questionnaire and respondents asked to put a tick against those which they recognised (Parkinson 1975). In accordance with the studies by Parkinson (1975), Laric and Sarel (1981), Beltramini and Strafford (1993), and Moores (2005), the “true – false – don't know” technique was used to assess the understanding of the trust mark scheme (see Table 1). The wording of the statements was conceived by the author (Rüdiger 2008).

So as not to overburden the participants, each respondent was only required to assess two trust marks. For this, respondents were asked in a previous question to identify the two trust marks from the list provided which would most increase their confidence in a website (Cheskin 1999; Rüdiger 2008).

Sample selection and data collection

In the initial survey in 2007, 347 students at the Faculty of Economics at the Ruhr University in Bochum, Germany, were interviewed using a standardised questionnaire. The second survey was carried out in 2012 with 366 students at the Faculty of Economics at Aalen University of Applied Sciences, Germany. Only German

⁴ The questionnaires for the studies carried out in 2007 and 2012 include additional questions not shown here, as other aspects of e-commerce were also investigated. The questionnaire from 2007 and all the results are published in full in Rüdiger (2008).

Table 1 True–false–don’t know statements

The trust mark ensures that...	
1	... the online shop complies with the <i>data protection</i> regulations
2	... the online shop takes measures for <i>data security</i>
3	... data transmission during <i>payment</i> is encrypted
4	...the goods and services offered meet the <i>legal requirements</i>
5	... the <i>credit worthiness</i> of the online shop was monitored by the trust mark provider
6	... the buyer can make use of an <i>alternative dispute resolution</i> (mediation, arbitration, etc.) procedure if differences arise with the online shop
7	The trust mark provider checks the <i>content</i> of the online shop <i>website</i> before the trust mark is awarded
8	If the online shop is found not to comply with the criteria of the trust mark, and the buyer is harmed by this, the trust mark provider assumes <i>liability</i> for this

Internet users with online shopping experience during the preceding 12 months were taken into account. With regard to age (on average 22.7 and 22.3 years, respectively) and the proportion of male to female respondents (65:35 and 61:39, respectively) both samples were very similar. While the students chosen may be considered as a “convenience sample”—and thus not necessarily very representative—this nonetheless seems to be acceptable for answering the research question concerned. The studies by van Eimeren and Frees (2012) and Mende et al. (2013) show that 14- to 29-year-olds exhibit both similar media habits as well as a similar frequency of shopping on the Internet as the rest of the population. Likewise, 14- to 29-year-olds have a similar perception of risk when it comes to data protection as other Internet users.

Selection of the analysed trust marks

For the survey, the three Internet trust marks with the widest acceptance in Germany (based on distribution and quality) were chosen together with a fake, non-existent seal (see Table 2).⁵





The fake seal was included in the study for various reasons. It provides an indication of how well an online buyer can actually recognise or distinguish certain marks and labels on a website. It shows how vulnerable consumers are to counterfeits (Moore 2005) and it is an indicator of what scope an Internet trust mark would normally have from the customer’s point of view.

Results

As can be seen from Table 3, with 94.7 % recognition the TÜV Internet trust mark has both the highest level of recognition and the greatest percentage increase compared to the survey done in 2007 (+46.4 %). The Internet trust mark from

⁵ For the selection criteria, see Rüdiger (2008).

Table 2 Investigated Internet trust marks and their distribution

							
EHI Retail Institute GmbH	Trusted Shops GmbH	TÜV SÜD Management Service GmbH	Fake seal				
Online retailers displaying trust marks							
2006: 190	2013: 551	2006: 1.500	2013: 15.169	2007: 83	2013: 252	None	

Source: EHI Retail Institute GmbH (2013), Trusted Shops GmbH (2013), TÜV SÜD Management Service GmbH (2013) and Rüdiger (2008)

Table 3 Recognition of trust marks by online shoppers

Please tick whether you have ever seen this seal on a website or not

Trust mark	EHI		Trusted shops		TÜV SÜD		Fake	
	2012	2007	2012	2007	2012	2007	2012	2007
N	(341)	(328)	(355)	(337)	(361)	(333)	(341)	(330)
Seen before	11.1	11.3	58.9	40.9	94.7	48.3	12.0	7.3
Never seen before	88.9	88.7	41.1	59.1	5.3	51.7	88.0	92.7

Trusted Shops was recognised by 58.8 % of respondents, representing an increase of 18 % compared to 2007. By contrast, the recognition rate of the EHI trust marks remained unchanged in both studies at 11 %. 12 % of respondents thought they recognise the fake seal in the current survey, representing an increase of 4.7 %.

The responses to the true–false–don’t know statements are presented in Table 4. Here the correct statements which the respondents with a full knowledge of the trust mark scheme should have ticked are highlighted in bold.⁶ The overall result shows clearly that, as before, there is a clear misunderstanding of the true significance of the Internet trust marks schemes in the case of all the trust marks tested. Besides this the following specific results should be highlighted: (1) The number of wrong and “not sure” answers ticked—in the case of almost all items—has increased further compared to 2007. (2) The high number of “true” answers with Item 4 shows that the respondents are unable to distinguish between Internet trust marks which only certify the online retailer, and those seals of approval which certify the goods and services offered. (3) The respondents are unaware that ADR is a central component of many Internet trust mark schemes.

⁶ If both the “right” and “wrong” answers are highlighted in bold, this means that the trust mark provider offers trust mark schemes of differing scope (i.e., differing award criteria).

Table 4 Perception of the trust marks

	TÜV						Trusted shops					
	(2012: N = 296, 2007: N = 195)			(2012: N = 128, 2007: N = 98)								
	True	False	Not sure	True	False	Not sure						
	2012	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012	2007
Data protection	63.9	65.6	7.8	5.6	27.0	28.7	53.9	59.2	5.5	5.1	40.6	35.7
Data security	59.8	65.1	6.4	7.2	32.4	27.7	46.9	55.1	5.5	8.2	46.9	35.7
Payment	56.8	64.6	6.4	5.6	34.8	29.2	50.0	50.0	9.4	11.2	39.1	38.8
Legal requirements	68.9	69.7	4.4	5.6	24.7	24.6	50.8	55.1	10.2	13.3	37.5	31.6
Credit worthiness	37.5	42.1	14.5	16.4	47.3	41.0	39.8	48.0	12.5	15.3	47.7	36.7
ADR	18.2	20.0	21.3	22.6	59.1	56.9	15.6	21.4	22.7	17.3	60.9	60.2
Website content	70.9	74.4	2.4	4.6	25.0	20.0	64.1	75.5	7.0	5.1	28.1	18.4
Liability	14.2	14.4	39.9	46.7	44.3	37.9	10.2	15.3	40.6	33.7	48.4	50.0
	EHI						Fake					
	(2012: N = 34, 2007: N = 66)			(2012: N = 47, 2007: N = 39)								
	True	False	Not sure	True	False	Not sure						
	2012	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012	2007
Data protection	64.7	71.2	5.9	6.1	29.4	22.7	61.7	59.0	4.3	2.6	34.0	38.5
Data security	61.8	63.6	8.8	9.1	29.4	27.3	46.8	48.7	12.8	10.3	40.4	41.0
Payment	52.9	60.6	11.8	3.0	35.3	34.8	48.9	48.7	8.5	7.7	40.4	43.6
Legal requirements	47.1	59.1	14.7	10.6	38.2	30.3	63.8	71.8	2.1	5.1	34.0	23.1
Credit worthiness	26.5	40.9	29.4	21.2	44.1	36.4	38.3	46.2	10.6	7.7	51.1	46.2
ADR	23.5	22.7	17.6	27.3	58.8	50.0	21.3	20.5	14.9	20.5	63.8	56.4

Table 4 continued

	EHI					
	(2012: N = 34, 2007: N = 66)			(2012: N = 47, 2007: N = 39)		
	True	False	Not sure	True	False	Not sure
	2012	2007	2012	2007	2012	2007
Website content	70.6	78.8	20.6	18.2	63.8	76.9
Liability	<i>20.6</i>	<i>19.7</i>	45.5	44.1	14.9	17.9
			35.3	34.8	27.7	33.3
			20.6	20.6	4.3	20.5
			35.3	34.8	27.7	33.3
			20.6	18.2	63.8	76.9
			35.3	34.8	14.9	17.9
			20.6	18.2	4.3	20.5
			35.3	34.8	27.7	33.3
			20.6	20.6	31.9	31.9
			35.3	34.8	57.4	57.4
			20.6	18.2	46.2	46.2

The values have been rounded. Values in italics and bold italics do not exceed the critical χ^2 value at the 1 % confidence level (deviation from an even distribution)

Conclusion

The results regarding the *awareness of Internet trust marks* show a mixed picture which does not permit any mono-causal explanation based on the increased proliferation (see Table 2). While the proliferation of the EHI and the TÜV trust marks between 2007 and 2012 has increased by a factor of three, the EHI trust mark has experienced no perceptible increase in awareness over the investigation period on the part of online buyers, even though 42 % of the highest selling German online retailers display this seal of approval on their websites (EHI and Statista 2012). Awareness of the TÜV trust mark, by contrast, has more than doubled over the same period. For its part, Trusted Shops could only register an increase of 18 %, despite the fact that the number of certified shops has increased by a factor of ten to over 15,000. The high awareness of the TÜV seal is probably due to a number of different effects acting together: Firstly, because of its numerous certification and testing activities outside of E-Commerce, the TÜV brand is one of the best known brands in Germany, which evidently aids the TÜV seal or TÜV brand recognition (Rüdiger 2008; TÜV SÜD AG 2013). Secondly, TÜV offers another, almost identical seal for online shops which assesses customer satisfaction. Thus in Germany, the well-known online retailer Zalando, for example, displays both seals of approval marks on its website (Zalando GmbH 2013). Thirdly, the TÜV Internet trust mark is often shown on television and in print advertising by online retailers.

In conclusion, it is reasonable to assume that, despite some higher recognition rates, a substantial proportion of online shoppers are still largely unaware of Internet trust marks or confuse them with other symbols.

The findings concerning the *(mis)perception of Internet trust marks* paint a consistent picture: a significant proportion of the online shoppers do not know what Internet trust mark schemes stand for. However this does not allow us to conclude that Internet trust marks in general are ineffective per se because such trust marks also have an indirect effect which is of benefit to the purchasers (i.e., not directly via the trust mechanism described here, where the (potential) purchaser trusts the trust mark and thus the retailer, see Rüdiger 2008).

Nevertheless, the misperception which has been brought to light is a serious issue, since it can lead to wrong decisions being made by such consumers who—while recognising a trust mark and trusting it—have a misconception of what the trust mark scheme really stands for (Laric and Sarel 1981).

From the perspective of consumer protection, measures need to be taken in the short term to protect (potential) online buyers from making wrong decisions due to misplaced trust. The two studies showed that the responses to the true–false–don't know statements were comparable for all the trust marks including the fake one. This suggests that the majority of consumers has a similar idea of which areas are or should be covered by an Internet trust mark scheme, namely: privacy (data protection) and IT security, payment procedures, verification of goods and services as well as the website. A possible first step could therefore be an education campaign—whether run by government organisations at a national or international level or consumer protection organisations or by the trust mark providers themselves—that informs (potential) online shoppers of the fact that Internet trust

marks do not assess the goods and services themselves offered by the online retailer. In a second step, minimum standards for Internet trust marks could be introduced in the above areas.

From a scientific point of view, there is an urgent need for the development of innovative concepts for effective trust intermediaries. Besides this, there is also a need for innovation to enhance existing Internet trust mark schemes and overcome the problem of misperception or at least to mitigate it.

Open Access This article is distributed under the terms of the Creative Commons Attribution License which permits any use, distribution, and reproduction in any medium, provided the original author(s) and the source are credited.

References

- A.T. Kearney (2001). *Cómo satisfacer al cliente on-line? Estudio sobre los hábitos y preferencias de compras electrónicas en los mercados más desarrollados*. Retrieved May 27, 2005, from http://206.130.104.53/paperfree/029_at Kearney_clienteonline.pdf.
- Bailey, J. P. (1998). *Intermediation and electronic markets: Aggregation and pricing in internet commerce*. Cambridge, MA: Massachusetts Institute of Technology. Retrieved June 7, 2006, from <http://www.rhsmith.umd.edu/faculty/jbailey/pub/phdthesis.pdf>.
- Beltrami, R. F., & Stafford, E. R. (1993). Comprehension and perceived believability of seals of approval information in advertising. *Journal of Advertising*, 22(3), 3–13.
- Cheskin Research, Studio Archetype/Sapient. (1999). *eCommerce trust study*. Retrieved August 7, 2003, from <http://www.cheskin.com/p/ar.asp?mId=7&arId=40&art=0>.
- Cook, D. P., & Luo, W. (2003). The role of third-party seals in building trust online. *e-Service Journal*, 2(3), 71–84.
- De Figueiredo, J. M. (2000). Finding sustainable profitability in electronic commerce. *Sloan Management Review*, 41(4), 41–52.
- EHI Retail Institute GmbH. (2013). Retrieved June 1, 2013, from <http://www.shopinfo.net>.
- EHI Statista. (2012). *E-Commerce-Markt Deutschland 2012. Marktstudie der 1.000 größten Onlineshops für physische und digitale Güter*. Cologne and Hamburg: EHI Retail Institute e. V. and the Statista GmbH.
- Eggs, H. (2001). *Vertrauen im Electronic Commerce: Herausforderungen und Lösungsansätze*. Wiesbaden: Gabler.
- Einwiller, S. (2003). *Vertrauen durch Reputation im elektronischen Handel*. Bamberg: Gabler.
- IFH Institut für Handelsforschung GmbH. (2013). Retrieved May 12, 2013, from www.ifhkoeln.de.
- Kroeber-Riel, W., Weinberg, P., & Gröppel-Klein, A. (2009). *Konsumentenverhalten, 9. Aufl.* München: Vahlen.
- Laric, M. V., & Sarel, D. (1981). Consumer (mis)perceptions and usage of third party certification marks, 1972 and 1980: Did public policy have an impact? *Journal of Marketing*, 45, 135–142.
- Ludwig, P. (2005). *Vertrauen beim Online-Shopping – Eine empirische Arbeit über Vertrauensrelevanz, Determinanten und Maßnahmen für die Bildung von Vertrauen zu Online-Shops*. Lengerich: Pabst.
- Mende, A., Oehmichen, E., & Schröter, C. (2013). Befunde aus den ARD/ZDF-Onlinestudien 1997 bis 2012. *Media Perspektiven, 1/2013*, 33–49. Retrieved April 1, 2013, from http://www.ard-zdf-onlinestudie.de/fileadmin/Online12/Schroeter_Oehmichen_Mende_MP_1_2013_Internet_1997_2012.pdf.
- Moore, T. (2005). Do consumers understand the role of privacy seals in e-commerce? *Communications of the ACM*, 48(3), 86–91.
- Parkinson, T. L. (1975). The role of seals and certifications of approval in consumer decision-making. *Journal of Consumer Affairs*, 9(1), 1–14.
- Reischauer, C. (2011). E-Commerce reloaded. *Absatzwirtschaft*, 7, 18–23.
- Rüdiger, K. (2008). *Gütesiegel als vertrauensbildende Institution im Online-Handel – Eine Untersuchung der Vertrauensbildung unter Berücksichtigung kulturspezifischer Aspekte am Beispiel von Deutschland und Spanien*. Bochum: Institut für Sicherheit im E-Business (ISEB).

- Simmel, G. (1983). *Soziologie – Untersuchungen über die Formen der Vergesellschaftung*, 6. Aufl. Berlin: Duncker & Humblot.
- Statista. (2012a). *E-Commerce – Statista-Dossier 2012*. Retrieved April 2, 2013, from <http://de.statista.com/statistik/studie/id/6387/dokument/e-commerce—statista-dossier-2012>.
- Statista. (2012b). *Online-shopping – Internetnutzung 2012*. Deutschland. Retrieved April 2, 2013, from <http://de.statista.com/statistik/daten/studie/183211/umfrage/online-shopping—internetnutzung>.
- Sztompka, P. (1995). Vertrauen: Die fehlende Ressource in der postkommunistischen Gesellschaft. *Kölner Zeitschrift für Soziologie und Sozialpsychologie – Sonderheft 35*, 254–276.
- TNS Infratest. (2012). *Monitoring-Report-Digitale-Wirtschaft 2012 – Mehrwert für Deutschland*. Retrieved March 17, 2013, from http://www.tns-infratest.com/Monitoring-Report-Digitale-Wirtschaft/Downloads/TNS_Monitoring-Report_2012_Langfassung.pdf.
- Trusted Shops GmbH. (2013). Retrieved June 4, 2013, from <http://www.trustedshops.de>.
- TÜV SÜD AG. (2013). Retrieved June 9, 2013, from <http://www.tuev-sued.de>.
- TÜV SÜD Management Service GmbH. (2013). Retrieved June 1, 2013, from <http://www.safer-shopping.de>.
- van Eimeren, B., & Frees, B. (2012). Ergebnisse der ARD/ZDF-Onlinestudie 2012. *Media Perspektiven*, 7-8/2012, 362–379. Retrieved April 3, 2013, from http://www.ard-zdf-onlinestudie.de/fileadmin/Online12/0708-2012_Eimeren_Frees.pdf.
- Wirtz, B. W. (2010). *Electronic Business*, 3. Aufl. Wiesbaden: Gabler.
- Zalando GmbH. (2013). Retrieved June 7, 2013, from <http://www.zalando.de>.