

CREDIBILITY OF WEBSITES THROUGH FACETS AND DIMENSIONS

Oana ȚUGULEA

University Alexandru-Ioan Cuza of Iași, Romania

Email: ciobanu.oana@uaic.ro

Claudia STOIAN (BOBĂLCĂ)

University Alexandru-Ioan Cuza of Iași, Romania

Email: iuliana.bobalca@uaic.ro

Abstract:

This study aims to investigate important aspects to concern on when building a commercial presentation website, in order to increase the credibility of the certain categories of a presentation website. Factor analysis was used in order to identify the dimensions of each category. The categories and resulted dimensions discussed were: "image" – with the following dimensions: Projected image, Specialist, Advert and Coherence, "relationship" – with the following dimensions: Bi-directional communication and Contact information, "product presentation" – with the following dimensions: In-depth description and Variety and "site functionality" – with the following dimensions: Usefulness, Official relationship, Complete communication, Exterior communication, Information format and References.

Keywords: Internet, credibility, website, factor analysis

1. Introduction

The credibility concept appeared long time ago in the humanity history of communication. Nowadays, the concept is integrated in various.

Credible information, as a concept, was first defined by Fogg and Tseng (1999) as information that can be trusted. As derived, source credibility is the ability of a message from a certain source to provide accurate information.

Websites are sources of information widely used nowadays. It becomes important to study manners to create websites that drag clients into the content and convince them to make a purchase. From this point of view, quality credible websites generate successful online presence.

San José-Cabezudo et al. (2008) findings suggest that organisations should pay attention to both emotional arousing reactions and informative value especially in order to generate favourable feedback from online users. A successful e-commerce website "provides clear, timely and accurate information in all its contents and an appearance that calls for the users' attention" (Flavian et al., 2009, p. 168). Accessibility and content are important aspects to consider when creating a website (Fry et al., 2004).

In a previous qualitative and instrumental research (Ciobanu, 2011), the data collection instrument was configured with the purpose to identify the dimensions of credibility of commercial websites, split into two categories: presentation websites

and online sales websites (Ciobanu, 2011). This research investigated only presentation websites category.

There were 57 items selected in the final questionnaire. The instrument was tested on 50 subjects (two groups of students randomly selected) before being used to collect data.

The items of the questionnaire were selected and grouped in four categories, based on the logical sense of each item. 44 items from the initial questionnaire were selected. 13 items were removed from the research, as they could not be integrated in any category. The selected categories are: (1) the first category of items: site image; (2) the second category of items: relationship; (3) the third category of items: product presentation; (4) the fourth category of items: site functionality.

2. Literature Review

The levels of Web credibility assessment are: (1) website as a type of media, (2) website as a source of information and (3) information from a certain website (Rieh et al., 2007).

Fogg et. al (2001), very cited authors for website credibility in the literature, delivered in their paper the websites credibility's dimension: (1) Expertise, (2) Ease of Use, (3) Amateurism, (4) Tailoring, (5) Real-World Feel, (7) Commercial Implications and (8) Trustworthiness.

Other authors identified different, identical or similar dimensions of the construct of website credibility (Manolică et al., 2011), such as: goodwill, depth, sufficiency, expertise, trustworthiness, fairness, privacy, identity, advertising and sponsorship, confidence, accuracy, etc. (Hong, 2006; Morrison, 2005; Fogg et al., 2001).

Websites are connection gates between companies and clients; it is important for websites to communicate on the efforts on quality of the company (Rocha, 2012).

Recent research investigates on successful web presence aspects and website quality factors/dimensions.

According to Fry et al. (2004), a successful web presence is correlated to: (1) provision – whether a URL exists or not; (2) accessibility – whether the website can be found by a user; (3) facilities – aspects on content and features of the website.

In their paper, Kriechbaumer and Christodoulidou (2014) presented an overview of the literature about the impact of quality factors on website implementation of small and medium-sized hospitality enterprises (SMEs) only. According to their findings, there are four quality implementation factors: (1) access – manner to find and access the site (links, search, direct); (2) content – the communication material itself and also the main reason for a visitor to actually visit a website (value, quality, legacy, product, company, supplements); (3) function – or “usability” (security, privacy, relationship, interaction, ordering, after-sale); (4) design – important for brand building and awareness (target user, brand image, user input, aesthetics, navigation, organisation).

In his research, Rocha (2012) proposes the three dimensions structure to assess the quality of a website: (1) technical quality, (2) service quality, (3) content quality.

In their paper, Flavian et al. (2009) propose a Decalogue for improving the website design. The Decalogue is composed of four dimensions (Flavian et al., 2009): (1) appearance – using visualisation tools; (2) navigation – using map of site; (3) content – using information and visualisation tools; (4) shopping process – using information and visualisation tools.

3. Research objectives

The purpose of the research was to investigate important aspects to concern on building a commercial presentation website, in order to increase the credibility of the certain categories of a presentation website.

The objectives of this research are:

1. *Identify the dimensions of credibility of the “site image” category of items of presentation commercial websites;*
2. *Identify the dimensions of credibility of the “relationship” category of items of presentation commercial websites;*
3. *Identify the dimensions of credibility of the “product presentation” category of items of presentation commercial websites;*
4. *Identify the dimensions of credibility of the “site information” category of items of presentation commercial websites.*

3.1. Methodology of research

Each item included in the measurement scale was anchored from 1 (criterion is not accomplished) to 7 (criterion is very accomplished).

This is an exploratory research. Exploratory factor analysis in SPSS was conducted on the items composing each category. The dimensions resulted on each category communicate on the important aspects to focus on when building a credible presentation commercial website.

The investigated population is represented by young Internet users that are very familiar with using the Internet.

The sample is represented by students that study in Iasi, Romania. Students were randomly selected. There were men and women, bachelor and master educational levels. Students are heavy Internet users. This aspect makes them a very good sample (Kwak et al., 2002; James and Sonner, 2001; Miyazaki and Fernandez, 2001; Oakes, 1972; Sexton et al., 2002).

298 valid questionnaires were inserted into the analyses.

Out of the 298 students, approximate 80% were women. 25% were from Iasi. Students were included in the study based on a random selection.

4. Results and discussion

Objective 1. Identify the dimensions of credibility of the “site image” category of items of presentation commercial websites

Factor analysis was conducted for each objective, Principle Components Method in SPSS, in order to identify the dimensions of the “site image” category.

The value of the KMO and Bartlett's Test was 0.791 (>0.6), sig. < 0.05.

Table 1 lists the items grouped into dimensions as they resulted from the factor analysis procedure. The labels of the dimensions were attributed by researchers derived from the logical sense of the composing items.

Four dimensions resulted from this analysis, explaining 55% of the total variance.

Table 1

Dimensions of “site image” category

Projected image	Specialist	Adverts	Coherence
The site makes aggressive advertising	The site presents a won prize	The site structure clearly distinguishes the presented information by the adverts	The company promotes products according to its main activity domain
I find contradictory discussions, complaints, scandals on online discussion groups about the company and promoted products	The company is the producer of the products promoted by the site	The site contains adverts that fit the presented information	The name of the domain fits the name of the company
The company is a prestigious/respected/serious one	The site specifies the fact that it represents the official presentation site for a certain type of products or a certain domain	The site has one or more adverts on each page	The partners posted on the site are credible

The item “*The company makes available as many information about the company and its members as possible*” was removed from the analysis, as it loaded very similar on the four factors and it could not be identified the dimension to be included into.

All dimensions were grouped in a logical manner as well. Out of the total variance, 25.5 % was explained by *Projected image*, 14.5 % was explained by *Specialist*, 8 % was explained by *Advert*, 7.5 % was explained by *Coherence*

Reliability of the dimensions presented in this paper was not computed because this research does not propose an assessment of the credibility of the Websites. The aim of this study is to find the important aspects associated with presentation website credibility increase.

Objective 2. Identify the dimensions of credibility of the “relationship” category of items of presentation commercial websites

The value of the KMO and Bartlett's Test was 0.634 (>0.6), sig < 0.05 . As in the previous objective, table 2 lists the items grouped into dimensions as they resulted from the factor analysis procedure, with labels attributed as derived from the logical sense of the composing items.

Two dimensions resulted from this analysis, explaining 67.6% of the total variance.

Table 2

Dimensions of “relationship” category	
Bi-directional communication	Contact information
The site offers more contact information than a phone number or an e-mail	The site offers a phone number for contact
I receive e-mails from the customer support department	The site offers an e-mail address for contact
The company answers fast to my customer support questions	The site offers the names and e-mails of the authors of the articles included in the page

All dimensions were grouped in a logical manner as well. Out of the total variance, 38.7 % was explained by *Bi-directional communication* and 28.8 % was explained by *Contact information*.

Objective 3. Identify the dimensions of credibility of the “product presentation” category of items of presentation commercial websites

The value of the KMO and Bartlett's Test was 0.657 (>0.6), sig < 0.05.

Table 3 lists the items grouped into dimensions with logical labels.

Two dimensions resulted from this analysis, explaining 56.6 % of the total variance.

Table 3

Dimensions of “product presentation” category	
In-depth description	Variety
The site offers details about the manufacturing process and about the products	The site promotes very well known brands
The presentation of the products also underlines weaknesses/secondary effects of their use	The site promotes various product lines
The products are presented in a clear, detailed, precise manner	
The site promotes confirmed/recommended products by specialised institutions	

All dimensions were grouped in a logical manner by the factor analysis. Out of the total variance, 33.7 % was explained by *In-depth description* and 22.8 % was explained by *Variety*.

Objective 4. Identify the dimensions of credibility of the “site functionality” category of items of presentation commercial websites

The value of the KMO and Bartlett's Test was 0.793 (>0.6), sig < 0.05.

Table 4 lists the items grouped into dimensions with logical labels.

Six dimensions resulted from this analysis, explaining 62.5% of the total variance.

Table 4

Dimensions of "site functionality" category

Usefulness	Official relationship	Complete communication	Exterior communication	Information format	References
The site presents no access errors	It is necessary to get registered	The company frequently updates data on the site	The site posts links to competitors' sites	The presentation of the information on the site is sustained by sound	The site has articles with references
All the links posted on the site are functional	I am allowed to check my personal data that I use to get registered	The site specifies the confidentiality policy	The site offers more news types of information, without giving too many details on them	The site has a intro page that presents the strengths of the company or a new products	The site is small
The site loads rapidly	The site requires paying a subscription in order to access it	The site offers information in more than one language	The site offers the internal search possibility		
The site makes possible to search information posted in the past					
The site is easy to navigate					

Four of the six dimensions were grouped in a logical manner by the factor analysis. The other two dimensions grouped items that are not referring to the exact same topic (*exterior communication* and *references*).

Out of the total variance, 23.8% was explained by *Usefulness*, 11.2% was explained by *Official relationship*, 9.3% was explained by *Complete communication*, 6.3% was explained by *Exterior communication*, 6% was explained by *Information format* and 5.6% was explained by *References*.

5. Conclusions

This research has the purpose to investigate important aspects to concern on when building a commercial presentation website, in order to increase the credibility of the certain categories of a commercial presentation website.

Results suggest that, in order to have a credible commercial presentation website, the "image" aspect should be addresses from the following perspectives: *projected image* – what consumers find and know about the company, *specialist* – aspects that shape the image of a specialist company for the promoted category of products (prizes, producer, official site, etc.), *advert* – the proper combination of advertising and information on company and products and

Coherence – the logical combination of the activities that the company realises and the type of promotes product(s).

From the perspective of the “relationship” category, it seems like it is not enough to deliver contact information (such as phone, e-mail, address, etc.). It is also necessary to offer contact information of people involved in the website (such as authors of the articles included in the page) and also, it is extremely important to have a bi-directional communication with the target, to reply to customers messages by all means, in a short time.

In order to create a credible commercial presentation website, from the “Product presentation” category, the products should be presented very clearly, from all aspects point of view (manufacturing, strengths and weaknesses/secondary effects). Aspects of security (confirmed products and very well known brands) may also be important. A credible website is the one that presents a variety of product lines.

From the perspective of the “site functionality”, a credible site is *useful* (it has no access errors, all the links are functional, it is easy to be navigated, etc.), it *officialises the relationship* with the clients by using personal accounts, it offers *complete information* on aspects such as the confidentiality policy, frequent updates and information in more than one language, it offers information from competitors, it pays attention to the *format* of the information using sounds and intro pages and it offers *references* for the information posted on the site.

Research implications

The originality of this research is that it combines the selection of items into groups, by researchers, based on the logical sense of items, with the statistical grouping of items by the factor analysis procedure, the Principal Component Method. Research on credibility of websites (Fogg et al, 2001) commercial websites in particular (Ciobanu, 2011) was conducted before, but the important difference in this study is that the researchers categorize the items before running the factor analysis. This leads to creation of dimensions of credibility on certain topics to be approached when creating a commercial presentation website. No similar research was found in the documentation process for this article.

Managerial implications

The results of this research are very useful to Website designers and managers that operate in the online as well.

The “results” section presents the dimension resulted from the factor analysis on four categories of items: site image, relationship, product information and site functionality. Each of the dimensions previously presented extensively needs to be very well considered before configuring a credible commercial presentation website for the company and the promoted products. Also, depending on the target, various dimensions may be considered more than others.

Limitations of the research

Only students were participants in this research. This leads to a limitation, as not all young Internet users were investigated (those that do not apply for a bachelor or master degree and those that already finished university studies). Young Internet users that are not in the students’ category may have different perspectives on the studied topic.

Future research

A future research direction is to analyse the resulted dimensions into qualitative researches. More complete scale may result that should be tested and analysed from the reliability and validity points of view.

Also, this research should also investigate Internet users on online purchasing websites.

REFERENCES

- Ciobanu, O. (2011), *Aspecte ale evaluarii credibilitatii site-urilor comerciale*, Tehnopress, Iasi.
- Flavian, C., Gurrea, R. and Orús, C. (2009), Web design: a key factor for the website success, *Journal of Systems and Information Technology*, Vol. 11, no. 2 pp. 168 – 184.
- Fogg, B.J., Tseng, H. (1999), The Elements of Computer Credibility, *Proceedings of ACM CHI 99 Conference on Human Factors in Computing Systems* (New York: ACM Press, 1999), pp. 80-87.
- Fogg, B. J., Marshall, J., Laraki, O. Osipovich, A., Varma, C., Fang, N., Paul, J., Rangnekar, A., Shon, J., Swani, P., Treinen, M. (2001), What Makes Web Sites Credible? A Report on a Large Quantitative Study, *CHI*, Vol. 3, no. 1, pp. 61- 68.
- Fry, J., Tyrall, D., Pugh, G. and Wyld, J. (2004), The provision and accessibility of small business web sites: a survey of independent UK breweries, *Journal of Small Business and Enterprise Development*, Vol. 11, pp. 302-314.
- Hong, T. (2006), The Influence of Structural and Message Features on Web Site Credibility, *Journal of the American Society for Information Science and Technology*, 57, 114–127.
- James, W., Sonner, B. (2001), Just Say No to Traditional Student Samples, *Journal of Advertising Research*, September-October, pp. 61-73.
- Kriechbaumer, F. and Christodoulidou, N. (2014), SME website implementation factors in the hospitality industry, *Worldwide Hospitality and Tourism Themes*, Vol. 6, no. 4 pp. 328 – 351.
- Kwak, H., Fox, R. J., Zinkhan, G. M. (2002), What Products Can be Successfully Promoted and Sold Via the Internet?, *Journal of Advertising Research*, Vol. 42, no. 1, pp. 23 - 38.
- Manolică, A., Ciobanu, O., Bobâlcă, C., Sasu, C. (2011), A Method to Assess Credibility of Commercial Web Sites. One level to Change Consumers' Attitude and Behaviour, *Proceedings of the International Conference on Management of Technological Changes*. Democritus University of Thrace, Alexandroupolis, Greece, ISBN: 978-960-99486-1-6, ISBN (Book 1):978-960-99486-2-3, pp. 157-161.
- Miyazaki, A. D., Fernandez, A. (2001), Consumer Perceptions of Privacy and Security Risks for Online Shopping, *Journal of Consumer Affairs*, Vol. 35, no. 1, pp. 27 - 44.

-
- Morrison, P. J. (2005), *Online source credibility: Experts and fellow users*, COMM 65020, Kent State University.
- Oakes, W. (1972), External Validity and the Use of Real People as Subjects, *American Psychologist*, Vol. 17, no. 10, pp. 959-962.
- Rieh, S. Y., Danielson, D. R. (2007), "Credibility: A Multidisciplinary Framework." In B. Cronin (Ed.), *Annual Review of Information Science and Technology* (Vol. 41, pp. 307-364). Medford, NJ: Information Today.
- Rocha, A., (2012), Framework for a global quality evaluation of a website, *Online Information Review*, Vol. 36, no. 3 pp. 374 – 382.
- San José-Cabezudo, R., Gutiérrez-Cillán, J. and Gutiérrez-Arranz, A. M., (2008), The moderating role of user motivation in Internet access and individuals' responses to a Website, *Internet Research*, Vol. 18, no. 4 pp. 393 – 404.
- Sexton, R. S., Johnson, R. A., Hignite, M. A. (2002), Predicting Internet/ E-commerce Use, *Internet Research: Electronic Networking Applications and Policy*, Vol. 12, no. 5, pg. 402 - 410.