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An Analysis of Web Navigability in Spanish Internet Banking

Blanca Hernández-Ortega, PhD
Assistant Professor of Marketing, Department of Marketing and Business Studies at the University of Zaragoza (Spain).
Postal Address: **Faculty of Economics and Business Studies, C/ Gran Vía 2, C.P. 50005, Zaragoza, Spain.**
Email: ***bhernand (at)unizar.es***
Blanca Hernández-Ortega has a Ph.D. in Business Administration. Her research interests are e-commerce, technology acceptance and knowledge management systems.

Julio Jiménez-Martínez, PhD
Senior Lecturer in Marketing and Head of the Department of Marketing and Business Studies at the University of Zaragoza (Spain).
Postal Address: **Faculty of Economics and Business Studies, C/ Gran Vía 2, C.P. 50005, Zaragoza, Spain.**
Email: ***jjimenez (at) unizar.es***
Dr. Julio Jiménez-Martínez has spent over twenty years researching the subject of business technology diffusion and is the author of numerous related articles in prestigious journals. He currently directs the Telefónica Chair at the University of Zaragoza.

Mª José Martín-De Hoyos, PhD
Assistant Professor of Marketing, Department of Marketing and Business Studies at the University of Zaragoza (Spain).
Postal Address: **Faculty of Economics and Business Studies, C/ Gran Vía 2, C.P. 50005, Zaragoza, Spain.**
Email: ***mjhoyos (at) unizar.es***
Mª José Martín-De Hoyos has a Ph.D. in Business Administration. She is a founding member of the principal national bodies concerned with technology and has undertaken numerous research studies for the Spanish government.

Abstract

The Internet has an ever-growing importance in the banking sector because of the advantages it brings to both the entities and their customers. However, not all the financial entities that have adopted e-banking have been successful, often because of an inadequate website design. A navigable website allows the users to find the information they want and carry out their operations quickly. The objective of this paper is to analyse the navigability of the websites of Spanish financial entities. To do so, different e-tools that determine web navigability have been identified, defining their importance for a correct interaction between the entities and the customers. Furthermore, we have analysed empirically all the Spanish banking entities with a presence on the Internet and have measured the level of navigability in the sector.

Keywords: **Internet banking; Website; Navigability; Savings banks; Spain**

INTRODUCTION

Since the mid-1990s, there has been a fundamental shift in banking delivery channels toward using self-service channels such as Internet banking. In the Spanish banking sector, most financial entities have a dual electronic-physical model to facilitate the reduction of costs and to provide services adapted to their clients' needs. In recent years, the development of Internet banking in Spain has been conditioned by an important process of property concentration. The investments necessary to carry out mergers and acquisitions are usually incompatible with the technological investments necessary for the development of Internet banking, so the financial entities must choose between one or the other of these options.

The Internet is the cheapest delivery channel for banking products (Sathye, 1999; Robinson, 2000; Giglio, 2002), because it allows the entity to reduce their branch networks and downsize the number of service staff (Karjaluoto et al., 2003). Nevertheless, success on the Internet requires the provision of adequate services through the website implemented. The website has become the new sales outlet and its characteristics shape the image of the financial entity and condition its customers' behaviour. An adequate e-banking strategy necessarily includes the design and construction of a visible website on the Internet (Serrano-Cinca et al., 2007) and that users find comfortable and can navigate easily. Therefore, the navigability of the website is a very important part of Internet banking because it can become one of the biggest competitive advantages of a financial entity.

The objective of our paper is to analyse the navigability of the websites of Spanish banks. To do so, different e-tools that determine web navigability have been identified, defining their importance for an adequate interaction between the banks and their customers. In the following section, we analyse empirically all the Spanish banking entities with a presence on the Internet. The paper ends with the conclusions and implications derived from the study.

NAVIGABILITY OF A WEBSITE

An e-banking client expects the Internet to offer him/her many advantages that are not available in traditional banking (among others, time utility, speediness and economic benefits) (Karjaluoto, 2002; Goi, 2007). All these advantages must be

backed up by satisfactory website user experiences. Hoffman and Novak (1996) considered the website as the best platform to attract more visitors and reach more new customers because it can promote the company's products, services and image. Website design is one of the most important topics in recent research about e-commerce (Liu and Arnett, 2000; Zhang and von Dran, 2001; Liao et al., 2007). These studies identified some key website characteristics among which it is necessary to highlight navigability (Liu et al., 1997; Palmer, 2002; Liao et al., 2007).

Navigability refers to the usability and operability which a website must offer its customers. It has four main objectives: (1) to organise and classify content; (2) label information; (3) design navigation systems and (4) help users to find information.

Its characteristics include ease of search, which reflects the website's capacity to help users to find the information they require (Huizingh, 2000). The fewer clicks necessary to find the object required, the greater the navigability and the greater the user satisfaction. This satisfaction increases the probability of obtaining loyal customers. On the other hand, a poor website design may prevent users from finalising the desired transaction and, consequently, they will not revisit this financial entity.

The navigability of a website is conditioned by its ease of use, usefulness and the time clients save during their interaction. Thus, Internet banking must provide e-tools, such as site maps or a permanent site menu, which permit visitors to perceive these characteristics and to know where they are at any given moment (Clyde, 2000; Hudson Keasey, & Litter, 2000; Robbins & Stylianou, 2003). Moreover, these navigation tools help users to keep a mental map of their position and understand how different pages or sections are interrelated (Bauer and Charl, 2000; Cao et al., 2005). Some of the main tools that improve the navigability of a website are the following:

1.- **Compatibility with any navegator** that the user might employ (Firefox, Explorer, etc.)
2.- **Permanent site menu,** which provides rapid access to the various sections of the site and prevents users from perceiving uncertainty or a lack of control while navigating (Buenadicha et al., 2001).
3.- **Home buttons,** that lead to the home page and are very useful for lost users.
4.- **Labels on all the pages of the website**, which should be visible and informative to allow users to know in which area they are located.
5.- **Internal website links in new windows**, so that the user can return to the home page simply by closing the windows that have been opened.
6.- Site map, which gives a global vision of the website and allows familiarity prior to navigation.
7.- **Translation of the website into different languages**, facilitating access to users of different nationalities.
8.- **Breadcrumbs.** This tool informs users about the level at which they are located and answers questions like: "Where have I been"? "Where am I"? and "Where can I go"? It usually employs different colours to highlight what is and what is not active.
9.- **Search for keywords**, that allows users to find items of interest available on the website of the financial entity.
10.- **"Back to top" buttons**, very useful in the case of vertical scroll.

On the basis of these e-tools, a financial entity will be able to design a correctly structured and easily navigable website, enabling the user to finish his/her transactions and become a satisfied client.

RESEARCH METHODOLOGY

Empirical research on e-banking is very scarce, most of it focusing on the study of web users' perceptions (as Liao et al., 2007, affirm). With respect to research about website quality, most of it focuses on other sectors and the little that focuses on the banking sector refers to one particular country (Diniz, 1998; Jasimuddin, 2001; Vijayan & Shanmugam, 2003). Therefore, this study aims to cover a gap that exists for the Spanish banking sector, which presents a series of peculiarities compared to other EU countries, as can be seen in questions such as the evolution of the number of branches (Bernad et al., 2007) (Table 1).

To carry out our study, we visited and evaluated the website of all the Spanish banks and savings banks between June and July 2007. We should point out that, in recent years, the Spanish banking sector has gone through a growing process of concentration, mainly due to the mergers that have taken place. Taking this into account, we tried to make sure that our information was not duplicated by eliminating the financial entities that had only one website because they belong to the same financial group. On the other hand, the entities that belong to the same group but had different websites have been considered separately.

The web addresses were found on the sites of the Bank of Spain, the Spanish Bank Association and the Spanish Confederation of Savings Banks. Foreign banks that do not have a webpage in Spanish were then eliminated as well as all entities that do not permit the carrying out of transactions (an indispensable condition for e-banking). After this filtering process, we were left with a total of 83 entities: 40 banks and 43 savings banks.

Table 1: Evolution of the number of branches

	1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**% change**
Austria	4,691	4,587	4,589	4,570	4,561	4,466	4,395	4,360	-7%
Belgium	7,538	7,129	6,982	6,616	6,168	5,550	4,989	4,837	-36%
Denmark	2,283	2,291	2,294	2,365	2,376	2,128	2,118	2,021	-11%
Finland	1,289	1,254	1,193	1,202	1,257	1,267	1,252	1,585	23%
France	25,464	25,428	25,501	25,657	26,049	26,162	25,789	26,370	4%
Germany	63,186	59,929	58,546	56,936	53,931	50,867	47,351	45,505	-28%
Greece	2,510	2,779	2,850	3,004	3,134	3,263	3,300	3,403	36%
Holland	6,800	6,787	6,258	5,983	5,207	4,610	3,671	3,649	-46%
Ireland	942	1,026	977	880	970	926	924	909	-4%
Italy	25,601	26,748	27,134	28,177	29,270	29,926	30,502	30,946	21%
Luxemburg	318	324	345	335	274	271	269	253	-20%
Portugal	4,746	4,947	5,401	5,662	5,534	5,390	5,440	5,408	14%
Spain	**38,039**	**39,039**	**39,376**	**39,311**	**39,024**	**39,021**	**39,762**	**40,621**	**7%**
Sweden	2,521	2,197	2,140	2,059	2,040	2,040	2,061	2,034	-19%
UK	16,344	15,854	15,387	14,756	14,554	14,392	14,186	14,001	-14%

Source: European Central Bank and Bank of Spain.

The information was gathered using a checking procedure similar to that used in previous studies (Liu et al., 1997; Cheung and Huang, 2002; Agarwal and Venkatesh, 2002; Wu et al., 2004). Three researchers were assigned to scrutinise the Internet banking websites and, in an attempt to minimise subjectivity, they received very precise guidelines for the study (Evans and King, 1999). Discordant opinions arose when one researcher thought that a certain web feature existed in a site while the others were unaware of it. The discrepancies disappeared after the second round review process. All the information was measured through dichotomous questions (YES/ NO).

RESULTS

The results obtained about the level of navigability of the Spanish Internet banking sector are shown in Table 2 and Figure 1.

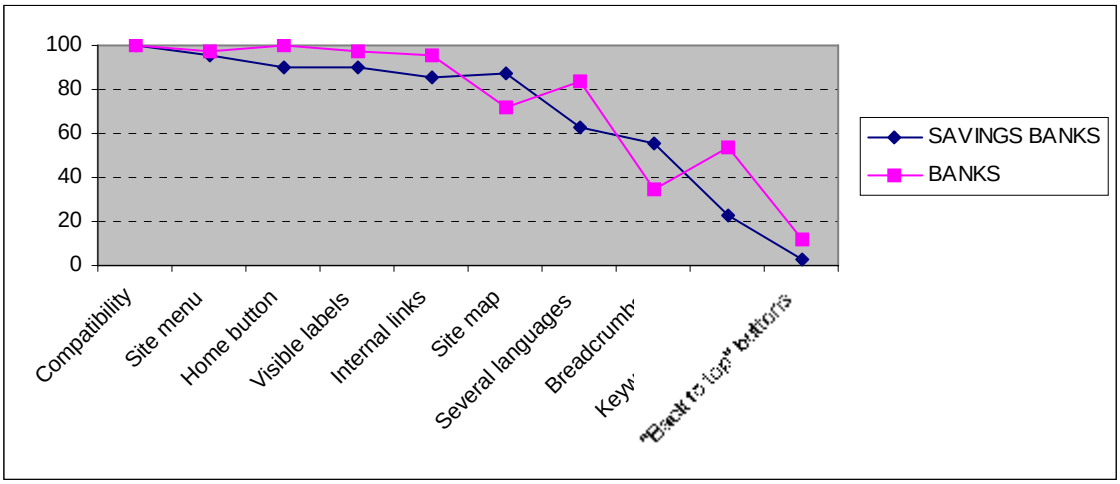
We can observe that, in general, there is a high level of navigability (71.9%), which is considerably higher in the case of banks compared to that of savings banks (74.6% vs 69%). If we compare these values with those presented in other papers, we can see that they are much higher than the 16% found for the logistics sector but very similar to the 75.81% obtained for the Top 200 Spanish websites (Miranda and Bañegil, 2004).

The e-tools implanted can be divided into three groups. First, tools that have levels of nearly or equal to 100%. All the websites analysed are compatible with any navigator, which considerably eases access for internauts. Furthermore over 90% of the financial entities have a permanent site menu, home buttons, visible labels and new windows for internal links. This shows that navigability is an aspect over which the Spanish Internet banking sector takes great care.

Table 2: Percentage of Spanish Banks with Navigability Features

	Savings Banks	**Banks**	**TOTAL**
Compatibility with any navigator	100	100	100
Permanent site menu	95	97.7	96.4
Home button	90	100	95.2
Visible labels	90	97.7	94
Internal links in new windows	85	95.4	90.4
Site map	87.5	72.1	79.5
Web in several languages	62.5	83.7	73.5
Breadcrumbs	55	34.9	44.6
Keyword search	22.5	53.5	38.5
"Back to top" buttons	2.5	11.6	7.2
LEVEL OF NAVIGABILITY	**69**	**74.6**	**71.9**

Figure 1: Features of Navigability



A second group of e-tools achieves levels of implantation of 70% and contains the inclusion of a site map and the translation of the website into several languages. The site map allows the visitor to know, at a glance, the resources provided by the financial entity on the Internet, while the different languages eases access for a wider group of customers. We should recall that one of the biggest advantages of Internet banking is the capacity to access new markets and the translation of the website into different languages increases this capacity.

The third group are the less frequently employed e-tools. The tool with the lowest level of acceptance is the use of "back to top" buttons. This is not surprising because this tool is especially interesting if the website has a vertical scroll. Otherwise, there is hardly any improvement in navigability through its use. As for breadcrumbs, only 44.6% of the financial entities use them, even though they are one of the e-tools that most eases navigation.

Finally, we can observe that there is greater navigability in the bank websites than in those designed by the savings banks. This is probably because the savings banks have fewer resources and because their expansion is limited to a local environment.

CONCLUSIONS AND IMPLICATIONS

The objective of this paper has been to analyse the navigability of the websites of Spanish Internet banking, describing the different e-tools implanted by the financial entities.

For a financial entity to be successful in the electronic market, it must design a navigable website that allows fast and easy interaction with its customers. Therefore, the financial entity must take care of aspects such as ease of use, usefulness and the time saving that comes from Internet banking.

The e-tools that are connected with navigability promote the users' perception of self-efficacy, augment user confidence and increase the probability of completing a transaction. The navigability of a web site makes users feel comfortable and secure when browsing it, which increases the probability of a transaction being completed.

Financial entities must make the information desired by e-customers easily available, through internal search engines, general menus and site maps, among others. A website should be self-sufficient and provide internal links to its main contents so that its users never feel lost. Furthermore, the site menu should always be visible on the screen so that anybody can access the desired location quickly and simply.

It should be borne in mind that, for many banking entities, their website is one of their main windows to the world. They must, therefore, attempt to take maximum advantage of the information they provide and obtain via this medium, interacting with their customers and exploiting the feedback that Internet permits. The fewer the number of clicks, the greater the probability of a transaction being completed and, in this way, the financial entity will increase both user satisfaction and the number of loyal customers.

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