



# The choice of digital newspapers: influence of reader goals and user experience

The choice of  
digital  
newspapers

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## Abstract

**Purpose** – To analyze press reader behavior in the digital medium: identify the main goals that lead readers to read the press and analyze their influence on the choice of digital newspapers. Moreover, the research analyses the moderator effect of user experience.

**Design/methodology/approach** – First, qualitative studies were carried out which allow reader objectives to be identified and the hypotheses to be established. Subsequently a survey was applied to a representative sample of users. The scales were validated and refined, after which the hypotheses were tested by way of a structural equation model and a multi-sample analysis.

**Findings** – The goals based on the search for specific information and for updated news have a positive effect on reading newspapers on the Internet. In contrast, there is no significant effect when reading is for entertainment. This last relationship has been found to be moderated by the user experience variable.

**Research limitations/implications** – The main aspects which justify digital newspaper reading should be considered in order to increase its use. Similarly, attention is drawn to the probable evolution of reader behavior, which could depend on the level of user's experience with the Internet press.

**Originality/value** – This is one of the first studies that analyses reader behavior on the part of the Internet press readership. In this sense, it provides a significant contribution in that it sets out to identify patterns of behavior on the part of readers of digital newspapers, as well as to study reader goals from a global perspective.

**Keywords** Internet, Newspapers, User studies

**Paper type** Research paper

## 1. Introduction

The constant development of the Internet and the growing spread of its use in recent years has given rise to far-reaching and rapid change in the distribution of goods and services. The impact of the Internet has been such as to change conventional conceptions of certain activities and businesses (Forrester Research, 2004; Cheong and Park, 2005). In this regard, the growth of e-commerce has caused a major transformation of relationships between firms and their customers.

The newspaper industry is among those that have been most affected by the development of the electronic channel. The growing development of communications via the Internet and its subsequent use as a medium for publishing digital newspapers has led to substantial changes in this sector.

In view of the development of online journalism, there has been growing academic interest in research focusing on the analysis of the duality of press media. Thus, Deleersnyder *et al.* (2002), Ghosh (1998), Frazier (1999) or Gilbert (2001) focus on the hypothetical dangers which might be associated with simultaneous distribution of current information through both channels, such as the possible cannibalization of



readers or certain misgivings felt by traditional distributors. However, there is a startling gap in the literature as regards demand-side approaches to the issues (Black *et al.*, 2002). Nevertheless, there are some pieces of research that can be regarded as a starting point, in that they analyze the attitudes and preferences of consumers with respect to the possibility of using both traditional and digital channels (Richard and Chandra, 2005; Chang *et al.*, 2005; Weinberg and Diehl, 2004; Mattila *et al.*, 2003; Dans, 2000). In the context of the communication media, Cai (2003), Ferguson and Perse (2000), Tenopir and King (2002) and Dimmick *et al.* (2000), define a digital medium as a functional alternative as compared to other traditional communication media.

However, there is a lack of studies which explore this problem in depth, attempting to identify the behavior patterns of newspaper readers in the digital medium, as well as ascertaining the reasons which lead consumers to read each medium. In this context, the present research focuses on the following aims to:

- identify the basic goals for reading the press;
- analyze the possible influence of the readers' goals on the decision to read online newspapers; and
- analyze the effect of user experience in using the Internet on the relationship between the considered variables.

Taking these objectives as a point of reference, the following section analyses the growing relevance of the Internet press; the third section focuses on identifying objectives which lead press readership. Later, the different hypotheses to be tested in the study are formulated and justified; and below are presented the procedure of sifting through and validating the scales used, as well as testing the proposed hypotheses. The study concludes by providing a number of main conclusions, managerial implications and future research lines.

## **2. The growing importance of digital newspapers**

The enormous advantages of the new digital media in terms of both supply and demand have brought about a veritable revolution in modern journalism. The use of these new systems is distinguished by the speed with which news reach the reader, the low cost of distributing information and the opportunity to establish more direct contact and interact with users, who have come to play an important role in the design of journalistic offer.

These advantages of the new digital media have boosted the service in both quantitative and qualitative terms, resulting in a proliferation of increasingly specialized electronic journals. Indeed, there are currently over 4,200 digital newspapers worldwide (Editor & Publisher, 2004; World Newspapers Online, 2005).

At the same time, digital news and newspapers are among the services most avidly sought by Internet users (Consoli, 1997; Levins, 1998; Newspaper Association of America, 2003). According to Nielsen (2003), news sites and, of course, digital newspapers are among the most widely demanded and visited web sites among the Internet community worldwide. Kaye and Johnson (2004) and AIMC (2005) affirm that the main aim of users accessing the Internet is to read breaking news and search for up-to-the minute information, only exceeded by the use of e-mail. Similarly, Pew Research Center for the People and the Press (2000), meanwhile, affirmed that one in

three Americans visited online newspapers and anticipated sharp growth in the number of users consulting current news items on these sites. Similarly, data provided by Harris Interactive (2004) show that 80 percent of US surfers read news online, preferring the web sites of digital newspapers in 45 percent of cases. Finally, Online Publishers Association (2004) concludes that 88 percent of respondents to its survey clearly prefer to read the news online.

### 3. Identification of newspapers readers' goals

Despite the interest in understanding people's motives for reading the press, little effort has been made in this direction in the specialized literature. In fact, there is currently no overall model to identify the main reasons that lead readers to consult the press, and to explain the phenomenon. However, we may note here the contributions made by scholars such as De Waal *et al.* (2004), Bouwman and Van de Wijngaert (2002), Machill *et al.* (2004), Bonfadelli (2002), Dans (2000), Len Rios and Bentley (2001) and Raeymaeckers (2002). Nevertheless, those scholars who have addressed the issue of reasons for reading do not do so in general terms, seeking to establish a framework for the analysis of the problem, but rather examine each of the possible goals on an individual basis. In this context, an overall analysis that simultaneously addresses the effects of these different goals seems essential.

In view of the relative paucity of the specialized literature in this area, we performed a series of qualitative studies in the preliminary stages of this research in order to identify and analyze newspaper readers' basic goals on an exploratory basis. Specifically, the first step consisted of defining and bringing together a focus group with the aim of familiarizing ourselves more thoroughly with the subject of our analysis (Edmunds, 1999) and making an initial approach to the attitudes and behavior of newspaper. Later, we also held a series of in-depth interviews with a sample of readers of both traditional and digital newspapers. The profiles of these readers were similar to those of the typical Internet user profile. These interviews were conducted face to face with duration between 15 and 30 minutes. The results of the interviews were enormously useful in fleshing out the scope of our research and progressing with the work, in line with the suggestions of De Ruyter and Scholl (1998) and Gummesson (1999), because they highlighted the importance of certain factors that have not been considered in detail in the existing literature.

Having analyzed the results obtained from the preliminary qualitative study for this research project, we were able to identify some of the basic objectives that lead readers to consult or read the press. Specifically, we propose in this paper that there are three basic goals for reading the press:

- (1) *Search for specific information (SSI)*. Many of the readers interviewed in the preliminary qualitative study affirmed that they sought specific data with special interest for them in the newspaper, such as stock prices, sports results, and so on. It would seem logical, then, that one reason for reading a newspaper may be the need to find specific information on a subject or to find information on a specific subject (Bush and Gilbert, 2002; De Waal *et al.*, 2004; Liu, 2005).
- (2) *Search for updated news (SUN)*. Another of the reasons for reading a daily newspaper is the desire to keep abreast of breaking news (i.e. the latest events), or to follow current affairs (Rathmann, 2002).

- (3) *Leisure – entertainment (LEIS)*. Many of the readers interviewed mentioned that they would frequently begin reading current information in the newspaper motivated by the need for entertainment or to pass the time (Bouwman and Van de Wijngaert, 2002). Thus, reading the press takes up a part of the reader's leisure time, while he/she acquires knowledge of current affairs (Liu, 2005).

#### 4. Hypotheses

The significant development of the Internet as a new channel to distribute information has not only affected the way in which the media work and information content itself, but has also unquestionably had an impact on readers' motivations and their reading and information search habits (Dimmick *et al.*, 2004; Hujanen and Pietikäinen, 2004; Jansen *et al.*, 2005). In this light, we need to establish which of the goals leading people to read the press significantly influence the choice of digital newspapers.

The results of our previous qualitative studies also enable us to establish an association between the different objectives for reading the news through the digital medium, in terms of the extent to which the goals identified influence the behavior patterns identified in that channels in which the newspaper industry currently provides its services.

In this regard, it would seem logical to assume that people who need to obtain specific information will turn naturally to the online press rather than conventional printed newspapers, since the ease of search and comparison is one of the factors differentiating the Internet from physical media (Brown, 2000; AECE, 2004). The use of digital media thus greatly simplifies the process (Kulviwat *et al.*, 2004). Following this line of argument, we can say that the digital versions of newspapers are aimed at the pragmatic reader, who seeks information that is relevant to his/her needs and ignores matters of no immediate interest, making demands on the medium in line with information motives (De Waal *et al.*, 2004). Thus, Liu (2005) consider that electronic media tend to be more useful for searching. Furthermore, searches for specific news items or data are usually associated with professional activity and occupational needs. Indeed, the possibilities of the online press have made the use and accessing of information into just another working tool (Jansen *et al.*, 2005; Van Oostendorp and Van Nimwegen, 1998; Maier, 2000).

It is for this reason that Schönbach and Lauf (2005) consider the Internet a vital "research" medium allowing the user to search for needed information. The reader, therefore, goes directly to the section of the newspaper in which he/she will probably find the information they are looking for or will use the search engine offered by the web site to do an even faster search. This type of consultation would be much less efficient and rapid in the case of traditional papers, which force the reader to turn the pages until finding the information required (Dans, 2000).

Consequently, we may suppose that the SSI is one of the goals for reading the press online:

- H1. The search for specific information has a positive effect on reading the digital press.

At the same way, it seems reasonable to suppose that users who are particularly interested in learning keeping abreast of up-to-the-minute news will read newspapers online (Rathmann, 2002), because the immediacy and updates that are key features of the Internet are closely bound up with breaking news (Brown, 2000; Chyi and Lasorsa, 2002).

This phenomenon, which is associated with the differential advantages of the new medium for information services, was clearly demonstrated by the pattern of Internet use in the wake of recent world events such as the September 11 terrorist outrage (Kim *et al.*, 2004), the March 11 train bombing in Madrid and the July 7 in London. Thus, the Spanish Internet Observatory (2004) reported that Internet access multiplied to eight times the normal flow of connections as a result of news interest in the terror attacks of March 11, 2004. The main portals contacted estimated an increase in traffic of between 40 and 50 percent (IBLNews, 2004). Furthermore, on the basis of information provided by the Spanish daily newspaper *El Mundo* ([www.elmundo.es](http://www.elmundo.es), 2005), UK information web sites received what could only be described as an avalanche of visits on July 7[1]. However, the search for constantly updated news also features in day-to-day contexts, such as tracking the results of sports competitions, weather reports, etc.

Consequently, another of the goals associated with reading the digital press for those who have access to the Internet would be interest in the latest or updated news items, as reflected in the following hypothesis:

*H2.* The search for updated news has a positive effect on reading the digital press.

In contrast, we may also imagine other reasons for reading the press that may be more closely associated with the print than with the digital versions of newspapers. Specifically, entertainment as an objective for reading a traditional newspaper would be closely linked to the behavior of the physical version readers. In fact, Stephenson (1967) pointed out that reading traditional press media was associated with leisure moments. Meanwhile, Bogart (1992) showed that reading was relaxed and detailed when people read the dailies on paper, which would relate the activity to entertainment or leisure time. Similarly, Bouwman and Van de Wijngaert (2002) refer to entertainment as one of the motives for reading the press. In this way, Liu (2005) explain that paper-based media are preferred for relaxed consumption of information. Thus, readers will continue to use printed newspapers for much of their activities, especially in depth reading in leisure moments.

The readers we interviewed in the preliminary stage of our research also declared that one of the objectives for reading they most closely associated with the traditional medium was entertainment in free moments. Furthermore, where reading was motivated by this factor, it was more extensive, detailed and relaxed compared to reading in a digital environment.

In this case, we propose the hypothesis that entertainment would not have a positive and significant influence on reading digital newspapers, in accordance with the following hypothesis:

*H3.* Leisure – entertainment does not have a positive effect on reading the digital press.

As the earlier hypothesis has made clear, it seems reasonable that reader objective does not give rise to a positive and significant effect based on entertainment or leisure as regards the reading of digital newspapers. However, this lack of influence could be explained by the still early stage of development of the Internet newspaper business or by the lack of experience of users with the online press.

Thus, it would be feasible to consider analyzing a possible moderator effect of the experience variable on the relationship analyzed in *H3*. Indeed, the marketing literature

includes studies analyzing the major role played by a consumer's experience as a variable moderating certain relationships or behaviors (Forbes and Rothschild, 2000; Koufaris and Hampton-Sosa, 2002; Friedman and Howe, 2000; Tan and Thoen, 2001). In this respect, several studies have proposed the relationship between consumer experience and familiarity (Alba and Hutchinson, 1987; Daughwety *et al.*, 2002).

In this way, Mandel and Johnson (2002) claim that the level of Internet experience has a significant effect on consumers' choices and final preferences. Although it might seem reasonable to suppose that these effects also apply to the newspaper business as it is today, the fact is that there are very few studies that have analyzed the effect of user experience in the press sector. Nevertheless, it is possible to argue that for the less experienced readers in the use of Internet, consulting a digital newspaper is a relatively complex task that requires a certain effort. If this is the case, then reading the press in the new electronic media could not be associated with entertainment or leisure time. By contrast, the more experienced users would have a greater knowledge of the possibilities of the net and of its tools, as well as a greater degree of familiarity with the medium. As a result consulting the newspapers would become a simple task that could be executed in the free or leisure time that the reader enjoys.

In the light of this, it is possible to think in terms of an evolution on the part of behavior and the motivations of the Internet press readership, by reference to the degree of experience they have with this medium. Thus, it further seems reasonable to suggest that there are significant differences in the effect of the LEIS variable on reading online newspapers, depending on how experienced these users are with the Internet. For users with more Internet experience, entertainment will have a greater effect on the adoption of the digital press than in the case of readers with less experience. This is because more experienced users will have greater knowledge of the medium and greater familiarity.

- H4.* The effect of leisure – entertainment on reading the digital press is more intense among more experienced readers.

## 5. Information sources

In order to develop scales to measure the various goals for reading online newspapers, we undertook an exhaustive review of the specialized literature, as well as a search for existing scales that could be suitably adapted. Given the relative scarcity of the existing literature, however, it was necessary to take the problem further by undertaking a series of preliminary qualitative studies (Barker, 2003), as mentioned above.

Having established the context of the analysis and designed a series of questions that would pick up the various factors involved, the information contained in the preliminary scales was presented to a group of academic and business experts for their remarks on both formal and conceptual issues.

The next step was to carry out the survey itself. We opted for the Internet to do this. This was decided because the target public for our study are Internet users, who have the opportunity to read the press online and are, therefore, in a position to choose to read the digital rather than traditional newspapers.

The final questionnaire was then prepared and published on a web site designed specifically for the purposes of our research. This site presented the research and its objectives and offered the possibility of downloading the questionnaire allowing respondents to answer on paper or using their PCs and return it by e-mail, fax or



conventional mail. Information was sent to various distribution lists associated with a range of subjects and banners were placed on the web sites of electronic newspapers in order to disseminate the existence of our research. Variables were analyzed using 7-point Likert scales.

The total number of valid responses obtained in the period April-July 2004 was 253 questionnaires completed by readers of both printed and digital newspapers. We selected the 217 corresponding to readers of online newspapers. This gave sample error of 6.8 percent (95.5 percent).

The representative nature of the sample could be guaranteed by the similarity of the profile of the interviewees with that usually obtained in recent studies (Table I), such as AECE (2004) or AIMC (2005). In qualitative terms, the representative of the sample was high because most of the newspapers' web sites had a high volume of users and a large variety of services.

## 6. Reliability and validity analysis

In order to obtain scales that would allow us validly and reliably to quantify the goals and behaviors of newspaper readers, we undertook a process of fine tuning structured in two stages. First, we conducted a reliability and unidimensionality analysis and second, we checked the content and construct validity of the proposed scales.

### 6.1 Exploratory analysis of reliability

The first step in assessing reliability was to calculate the Cronbach's (1970)  $\alpha$  value and the item-total correlation of each of the variables analyzed (Bagozzi, 1981). Once the scales were refined, the results of Cronbach's  $\alpha$ -test showed an acceptable degree of internal consistency in the eight scales we considered, being in all the cases over the 0.7 recommended by Cronbach (1970) or Nunnally (1978). The SSI scale reached 0.885 points; SUN 0.833; LEIS, 0.849 and RBI (Reader Behavior Internet), 0.868. In addition, the item-total correlation of each indicator was higher than the 0.3 points recommended by Nurosis (1993). As a second stage in the previous exploratory analyses of the scales, we carried out a study of unidimensionality in each by means of an exploratory factor analysis (McDonald, 1981). Factorial analysis revealed the existence of a single factor in all scales: SSI explained the 89.774 percent; SUN, 67.003 percent; LEIS, 76.904 percent and RBI, 88.423 percent of the variances. Furthermore, the factor loadings were above 0.5 points (Hair *et al.*, 1999).

### 6.2 Confirmatory analysis of reliability

In order to guarantee the proposed scales' reliability and validity, we carried out a series of confirmatory analyses, according to the methodology of confirmatory model

|                                    | AECE (2004)<br>(percent) | AIMC (2005)<br>(percent) | Our research<br>(percent) |
|------------------------------------|--------------------------|--------------------------|---------------------------|
| Sex (male)                         | 69.3                     | 68.6                     | 61.1                      |
| Age (24-35 years)                  | 37.7                     | 39.6                     | 47.1                      |
| Qualification (higher education)   | 71.9                     | 89                       | 82.8                      |
| Internet experience (over 5 years) | 57.2                     | 51.9                     | 51.6                      |

**Table I.**  
Representative nature of  
the sample

development (Hair *et al.*, 1999). This methodology enables one to sift scales by the development of successive confirmatory factor analyses[2]. With this aim, we successively eliminated those items which did not meet the three criteria proposed by Jöreskog and Sörbom (1993)[3]. In our case, the required criteria were met in the first confirmatory model and the structural model fit was acceptable. Thus, the measurement model proposed initially needed no modification.

In order to confirm the definitive reliability of the scales, we carried out tests of the composite reliability coefficient (Jöreskog, 1971) and the average variance extracted (Fornell and Larcker, 1981). The three scales reached the required levels of 0.7 in the case of the composite reliability coefficient[4] and 0.5 in the average variance extracted[5].

6.3 Validity analysis

In order to verify whether through the designed scales we were measuring the concepts correctly, we carried out the corresponding analyses of validity (Flavián *et al.*, 2006).

- (1) *Content validity.* No statistical tests exist that would allow us to guarantee the validity of the scale contents. In general, the validity of a scale's content may be accepted if it has been developed on the basis of existing theories in the relevant literature. In our case, we may consider validity to be guaranteed not only in view of the rigor employed in the design of the initial scales on the basis of the literature (D'Haenens *et al.*, 2004; De Waal *et al.*, 2004; Van Oostendorp and Van Nimwegen, 1998; Watters *et al.*, 1998; Marath *et al.*, 2002), but also because we have taken into account the results and conclusions of the in-depth interviews carried out, which were endorsed by various experts in the subject.
- (2) *Construct validity.* This type of validity analysis is formed by two fundamental categories of validity: convergent and discriminatory.
  - *Convergent validity.* The standardized coefficients in each scale were over 0.5 and significant (Sanzo *et al.*, 2003).
  - *Discriminatory validity* (Table II). To assess the discriminatory validity we used several tests, such as checking that value '1' was not in the confidence interval of the correlations between different constructs. Likewise, we checked that correlations between different scales were not over 0.8 (Bagozzi, 1994).

|          | Correlation | Confidence interval | $\chi^2$ differences | <i>p</i> |
|----------|-------------|---------------------|----------------------|----------|
| SSI-SUN  | 0.11        | (- 0.044, 0.264)    | 228.634 (1)          | < 0.001  |
| SSI-LEIS | - 0.11      | (- 0.270, 0.050)    | 256.288 (1)          | < 0.001  |
| SSI-RBI  | 0.46 *      | (0.312, 0.608)      | 320.486 (1)          | < 0.001  |
| SUN-LEIS | - 0.02      | (- 0.166, 0.126)    | 187.428 (1)          | < 0.001  |
| SUN-RBI  | 0.21 *      | (0.050, 0.370)      | 192.569 (1)          | < 0.001  |
| LEIS-RBI | - 0.07      | (- 0.226, 0.086)    | 220.312 (1)          | < 0.001  |

**Table II.**  
Discriminatory validity  
analysis

**Note:** \*Significant coefficients to level 0.01



- Finally, the correlation between each pair of variables was set at “1” and we conducted a  $\chi^2$  differences test, in order to test that the initial model was significantly different ( $p < 0.001$ ) to any of the alternative models (Bagozzi and Yi, 1988).

On the basis of preliminary analysis, we were able to establish the definitive scales to measure each of the variables considered in this study (see Appendix).

## 7. Results

Once the measurement scales had been designed and validated, we went on to test the different hypotheses proposed in the research, which constituted a structural model to be analyzed (Figure 1).

The results obtained reveal the existence of a significant and positive relationship between the specific information search objective and online reading. Hence, we find evidences to support hypothesis *H1*.

Similarly, we have been able to verify the existence of a significant relationship between the objective of keeping abreast of breaking news and the use of the digital channel. Consequently, we may find evidences to support hypothesis *H2*.

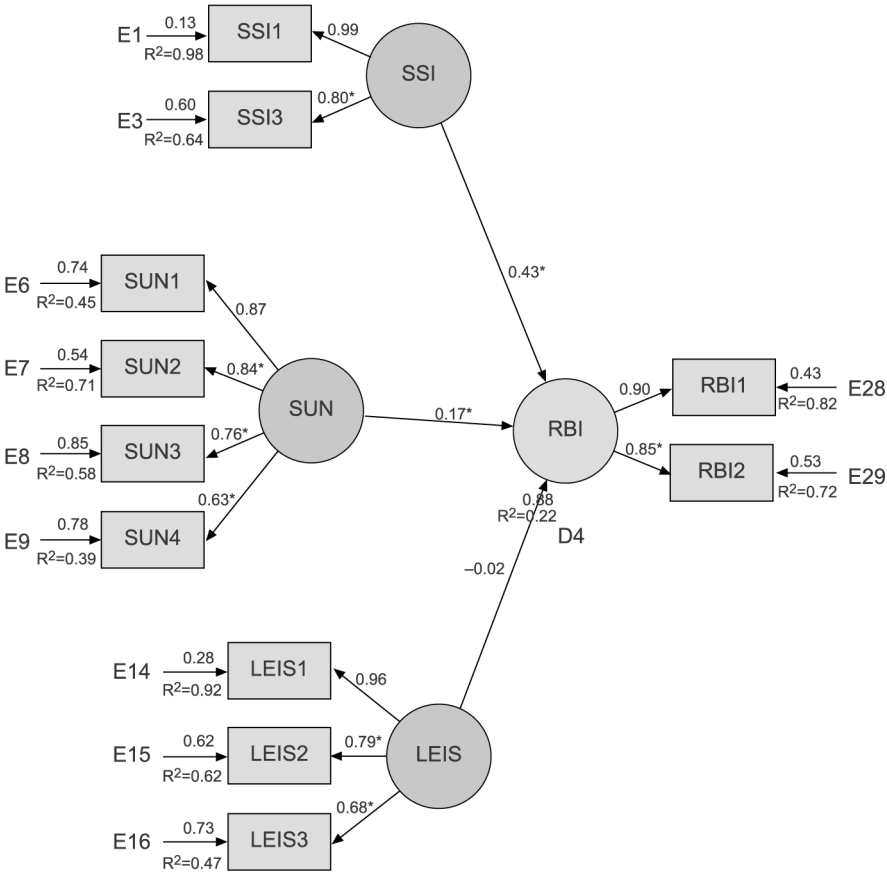
Finally, the last construct parameter sign obtained was as expected and is not significant for reading the digital press. Therefore, hypothesis *H3* is not rejected.

On the basis of this analysis, we may affirm that the first two objectives are closely associated with reading the press online. However, the last objective, which is associated with leisure time, is not positively related with reading online newspapers. Finally, we may note the  $R^2$  value obtained, as well as the good overall fit of the structural model, which is higher than recommended limits in all relevant indices.

### 7.1 Multi-sample analysis

The objective of this multi-sample analysis was to study the effect of experience on the influence of entertainment on reading the digital press. Hypothesis *H4* proposes that the higher the user's experience with the Internet, the more positive and significant is the effect of LEIS on the choice of digital newspapers for reading the news. Specifically, it is suggested that the effect of entertainment on reading the digital press will be positive and more intense for more experienced users. To test this hypothesis, we used the multi-sample analysis technique, based on the formulation of the structural models. The sample of users that served to test hypotheses *H3* was divided into two groups. This division was based on a variable that measured user experience with the Internet. This variable was based on the following item “I have quite a lot of experience with the Internet” using a 7-point multi-item Likert scale. Specifically, we took the average of this variable plus or minus half the standard deviation in order to divide the total sample. This is a recommended and very habitual practice in the specialized marketing literature (Iglesias and Vázquez, 2001; Bentler, 1995; Jaccard and Wan, 1996). Also, this division was adequate because the dispersion of the variable experience in the sample was quite high, so there were important differences between both groups.

The results obtained using this technique (Table III) show that for the group with less experience, hypothesis *H3* has to be rejected. On the other hand, for the group of users with more experience, hypothesis *H3* is supported. When analyzing the differences between the two groups, it can be seen that there are significant differences



Note: \*significant coefficients to level 0.01

**Figure 1.**  
Structural model of  
relationships between  
goals and online press  
readership behavior  
patterns

| Absolute Fit  | Incremental Fit   | Parsimony Fit         |
|---|---|-----------------------|
| $\chi^2 = 105.895$ ; 41 g.l., $p < 0.001$<br>S-B $\chi^2 = 89.2801$ ; $p = 0.00002$<br>RMSEA = 0.084<br>GFI = 0.926<br>RMSR = 0.067 | NFI = 0,913<br>NNFI = 0,925<br>AGFI = 0,880<br>CFI = 0,944<br>RCFI = 0,949<br>IFI = 0,945 | Normal $\chi^2 = 2.5$ |

in the relationship between entertainment and reading online newspapers depending on the experience of the individual. Thus, hypothesis *H4* is not rejected. It should be pointed out that the model has acceptable fit indicators (NNFI = 0.855; CFI = 0.886; RMSEA = 0.067).

## 8. Conclusions, discussion and managerial implications

Considering the increasing interest in the analysis of the duality of newspaper formats in recent years, the starting point for this paper has been the need to identify the objectives that lead readers to consult a newspaper. Specifically, we have sought to identify the goals why people read newspapers and we have also proposed a possible relation between the reasons for reading on the Internet and the type of reading in this case. Specifically, empirical analysis has confirmed the existence of a significant relation between the motivation arising from the SSI and reading on the digital medium. In addition, the motivation associated to knowledge of updated news has a positive and significant effect on reading newspapers on the Internet. In contrast, the results obtained have revealed that there is no significant effect on the behavior of reading of electronic newspaper editions when reading is for leisure or entertainment.

In light of these results and the goodness of fit and explanatory power of the proposed model, our study may represent a step forward in the context of this analysis. Specifically, this would allow us to rule out some of the fears in the newspaper sector at a moment such as the present, characterized by high levels of uncertainty as regards the possibility of exploiting the virtual medium simultaneously with traditional channels.

This would have significant implications for management. In fact, the main aspects which justify digital newspaper reading should be borne very much in mind by management personnel in this type of news medium, in order to increase its use. Similarly, if conclusive evidence for the relationship between readers' objectives and the format used to pursue them were provided, this could enable publishers to progress with the differentiation of the services offered via the two media and achieve a better fit with reader preferences.

Similarly, we have also analyzed the possible moderator effect that might be presented by the users' Internet experience variable on the relationship between the reader goal that is not significant (LEIS) and reading in the digital medium. In this regards, we have identified the existence of significant differences in this relationship between the most experienced and the least experienced groups of users. In this way, attention has been drawn to the possible evolution that might take place over the course of the next few years in the development and adoption of the Internet newspaper business. Indeed, we have found that as newspaper readers acquire greater experience on the net, as well as being motivated to read the Internet press in the search for specific or up-dated information, one of their

|                                   | Non standardized<br>coefficients | Hypothesis  |
|-----------------------------------|----------------------------------|-------------|
| Low experience ( $R^2 = 0.221$ )  |                                  |             |
| LEIS-RBI                          | 0.141                            | H3 No       |
| High experience ( $R^2 = 0.241$ ) |                                  |             |
| LEIS-RBI                          | 0.183*                           | H3 Yes      |
| Constraints                       | Df                               | Probability |
| LEIS-RBI                          | 1                                | 0.018       |
|                                   | $\chi^2$ difference              | Hypotheses  |
|                                   | 5.635                            | H4 Yes      |

**Note:** \*Significant coefficients to level 0.01

**Table III.**  
Multi-sample analysis  
results

objectives is precisely to be entertained or to occupy leisure time by acquiring news information. In this regard, we have found that entertainment has no significant effect on reading the digital press by less experienced readers, as well as the presence of a clearly positive and significant influence amongst the more experienced Internet users.

In the light of the above, it seems that the digital press business should take advantage of the possibilities of the medium and differentiate its offer as compared to that of the traditional newspapers, with this being so given the significant increase in the number of users and in the frequency of access to digital newspapers that have emerged in recent years. Having said that, it is necessary that publishing companies pay particular attention both to the evolution of the objectives and motivations that lead the press readership to choose the electronic media, as well as to the analysis of the patterns of behavior of these readers over the course of their evolution.

Among the limitations of our study, we should mention that the sample is limited to readers of newspapers published in Spanish. However, it should be noted that the Spanish language is the fourth language used on the Internet (Internet World Stats, 2005). Also, we may have passed over certain significant variables defining the goals of the readers of newspapers and reader behavior in digital medium. In this regard, we may mention certain possible future lines of research which could offer new analytic possibilities, such as the possibility of including new explanatory motives in the model to describe reading behavior.

It would also be useful to progress with the analysis of reader behavior patterns in the sphere of the digital press by including variables such as the usability of web sites and user loyalty in the analysis (Flavián *et al.*, 2006). Also, it would be interesting to consider the growing importance of web sites such as Google News or Yahoo News. These sites provide a selection of current news at the moment. Finally, it would be interesting to analyze the possible moderating effects of certain variables, such as the frequency of newspaper reading, the type of newspaper consulted or the time when it is read, on the relationships considered in this paper.

## Notes

1. The BBC, Sky, Reuters and Financial Times web pages suffered a number of problems due to the high volume of users, according to Keynoye Systems. Furthermore, Sky registered 1.7 million visitors, equivalent to the navigation of the web site for a complete month.
2. We used the statistical software EQS version 5.7b. As an estimation method we chose Robust Maximum Likelihood, since it affords more security in samples which do not unmistakably pass multivariate normality tests.
3. (1) Criteria of weak convergence would eliminate indicators that did not have a significant factorial regression coefficient ( $t$  student  $> 2.58$ ;  $p = 0.01$ ); (2) Criteria of strong convergence would eliminate those indicators that were not substantial, i.e. those whose standardized coefficient is less than 0.5; and (3) Lastly, Jöreskog and Sörbom (1993) propose the elimination of those indicators that least contribute to the explanation of the model, considering the cut-off point as  $R^2 < 0.3$
4. SSI, 0.889; SUN, 0.818; LEIS, 0.857 and RBI, 0.870
5. SSI, 0.80; SUN, 0.53; LEIS, 0.67 and RBI, 0.77

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## Appendix. Definitive objectives and behavior scales for newspaper readership

|  |  |
|--|--|
| Objective: search for specific information |  |
| SSI1                                       | When I read the newspaper, my objective is to find information on a specific subject               |
| SSI3                                       | When I read the newspaper, my main motivation is to obtain specific information on a subject       |
| Objective: search for updated news         |  |
| SUN1                                       | When I read the newspaper, my objective is find out breaking news                                  |
| SUN2                                       | When I read the newspaper, my main motivation is to find constantly updated news items             |
| SUN3                                       | When I read the newspaper, I am interested in the immediacy with which information can be obtained |
| SUN4                                       | When I read the newspaper, I am interested in highly current news items                            |
| Objective: leisure                         |  |
| LEIS1                                      | When I read the newspaper, one of my objectives is entertainment                                   |
| LEIS2                                      | When I read the newspaper, my main motivation is to spend some leisure or free time                |
| LEIS3                                      | I believe reading the newspaper is a pleasant pastime  |
| Reading behaviour – internet scale         |  |
| RBI1                                       | I read the paper focusing on specific information on a subject                                     |
| RBI2                                       | I read the paper focusing my attention on specific subjects of interest to me                      |

**Note:** The individual is asked to grade from 1-7 their level of agreement or disagreement with the following statements

Table AI.

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