

# Empirical Studies

## Internet marketing the news: Leveraging brand equity from marketplace to marketspace

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### Abstract

*Can established newspapers leverage their offline brand equity to the online edition in order to create visits and page views? This question is key for publishers, as they are now facing a change only comparable to the advent of the printing press in the 15th century. In the present study, both cross-sectional and time-series analyses are applied to 12 Spanish newspapers. The findings indicate that brand equity in the marketplace can be efficiently leveraged into the marketspace. Online readership depends both on offline popularity and on the profile fit between the typical Internet user and the typical offline reader of the newspaper. The digital market dynamics are uncovered by persistence modelling of visits, page views and brand choice for each newspaper. First, the total number of visits initially evolves, but later stabilises. In contrast, page views continue to evolve as usage depth increases over time. Finally, brand choice is stable and proportional to the brand equity borrowed from the printed newspaper. The analysis yields specific recommendations for the three leading newspapers.*

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### INTRODUCTION

Digital news recently emerged as an important Internet phenomenon, both from the demand and from the supply side. As for the former, panel data from the Wharton virtual test market<sup>1</sup>

show that 84 per cent of Internet users accessed news online in 1998, up from 24 per cent in 1997. As for the latter, the number of newspapers available on the Internet has been steadily growing: from 2,700 in March 1998 to 4,280

in October 2000.<sup>2</sup> In most developed countries, the major newspapers either have an online presence or are currently in the process of implementing projects for creating one. An important reason for this phenomenon is the exponential growth of Internet availability to consumers. Editors are afraid that if they do not go online as soon as possible, they will lose their readers and advertisers to the competition. Advertising revenues for the total Internet medium reached US\$4.62bn in 1999<sup>3</sup> and are projected to reach US\$11.5bn in 2003, surpassing spending on traditional media.<sup>4</sup> Secondly, most newspapers can afford the initial investment required to set up a digital edition, since most of the cost has already been invested to create the printed version. Finally, the Internet offers a variety of revenue opportunities such as pay per use and advertising per exposure. However, the Internet also poses a major challenge, as the needs and expectations of digital news consumers may differ from the typical readership in the physical world. Because of consumers' reluctance to pay subscription or transaction fees, most newspapers depend on banner ads to generate revenue for their digital version.<sup>5</sup> In this advertising-based business model,<sup>6</sup> investments in fast content updates and interactive services are justified if they increase the number of visits and/or the number of page views.<sup>7</sup> As Coffin<sup>8</sup> points out, the higher the value of a website to the visitor, the higher the value will be to the advertisers. At this moment, advertisers and publishers usually employ brand popularity and readers' profiles as a basis for pricing.<sup>9</sup> But how do these elements of brand equity transfer to the online

environment? Both editors and advertisers have a keen interest in this question, which is the focus of this paper.

## CONCEPTUAL BACKGROUND

Recent marketing literature considers the Internet both as a major opportunity and as a major challenge for newspapers. A theoretic rationale is provided by Peterson *et al.*,<sup>10</sup> who develop a classification of products and services in the context of the Internet. News is a low-outlay, frequently purchased good, with a value proposition of intangible or informational nature, and a high differentiation potential. These attributes make news ideal for online delivery. The challenge for newspapers is twofold: generating traffic for their digital version, and turning this traffic into revenue streams.<sup>11</sup> For the advertising-driven business model that most digital newspapers follow,<sup>12</sup> these two challenges consist of first generating and increasing traffic, and then using these results to convince advertisers to place banner ads. Banner ads indeed represent the major part of investments in online advertising placements.<sup>13</sup> Moreover, advertisers are interested in maximising exposure to their banner ads, which directly depends on the number of pages read. Therefore, they are willing to pay more for ads on sites with a larger number of page views.<sup>14</sup> Finally, increases in page views may be persistent, allowing the brand to grow to market dominance at the expense of its competitors. Communicating such a position to advertisers could again increase advertising revenues.

This paper analyses the size and dynamics of digital readership. First, it

relates the popularity of the digital newspaper to the transfer of the off-line brand equity, which combines the audience of the printed newspaper and its fit with the readership profile on the Net. Secondly, it decomposes readership for the three leading brands in category incidence, brand choice and usage depth. Persistence modelling is applied to examine patterns of growth and evolution in these three components. These issues have profound implications for the competitive advantage of and challenges faced by these brands.

## HYPOTHESES

### Digital market dynamics

In contrast to the mature and stable market for printed news, digital news is considered as an emerging market in Spain.<sup>15</sup> This characterisation implies particular patterns for the over-time behaviour of performance variables for the total market (total number of visits and page views) and for the newspaper brand (brand visits, page views and usage depth). In mature markets, virtually all performance variables are mean-reverting — they return to their mean or equilibrium level soon after a 'shock' to the time series.<sup>16</sup> In emerging markets, evolution in the performance variables is likely during an initial period, before the market structure is established.<sup>17</sup> Evolving variables do not return to their historical mean, and shocks to these variables may have permanent effects on their time series. From a consumer behavioural perspective, learning is a necessary condition for evolution in performance variables: new consumers visit the digital newspaper and existing consumers

learn more about its products and services.<sup>18</sup> After some time, saturation in consumer penetration and habit formation of existing consumers will lead to stationarity in performance variables.<sup>19</sup>

For the digital news market, both pages and visits are expected to evolve initially. Moreover, it is postulated that these series co-evolve; ie they are in long-term equilibrium. After all, attracting users is a necessary condition for increasing the number of page views.<sup>20</sup> In a later stage, however, the number of visits will stabilise. In contrast, page views will continue to evolve because the existing visitors get more used to reading news online and learn more about the services of the digital newspaper.<sup>21</sup> Three hypotheses are therefore postulated.

- H1: The total number of digital visits initially evolves, and then stabilises.
- H2: The total number of page views evolves.
- H3: The total number of digital visits and page views initially co-evolve.

### Brand equity transfer

A common view on Internet marketing claims that the reduction of consumer search costs will lead to dwindling product differentiation and vanishing brand loyalty.<sup>22</sup> Brynjolfsson and Smith<sup>23</sup> find strong evidence against this assertion, and conclude that heterogeneity in consumer awareness and trust are at least as important in the digital as in the physical world. Retailers believe that besides 'having a well-designed, easy-to-use site', the most important success factors are 'a

strong company brand' and 'selling well-known branded products'.<sup>24</sup> This popularity aspect of brand equity is captured by the newspaper's audience; ie the estimated number of people actually reading the newspaper (in contrast to the number of people buying it).

- H4: The larger the audience of the printed newspaper, the more readers are attracted to its Internet edition.

Although popularity in the real world may establish a baseline for awareness on the Net, newspapers know that Internet access is not universal yet. In fact, the demographic profile of the typical Internet user could be vastly different from the typical print customer. Consistent with the marketing concept, it is expected that newspapers with a closer demographic profile to that of the Internet will get a higher number of readers in their Internet edition.

- H5: The higher the degree of similarity in demographic profile between a newspaper's readers and Internet users, the more readers are attracted to its Internet edition.

Both the audience for the printed version and its profile match with Internet users are stable factors in established news markets like Spain.<sup>25</sup> Moreover, the printed newspaper is the vehicle for virtually all promotion for the digital version in this market. Because of this dependence on the stable market structure for printed news, a further hypothesis is postulated.

- H6: The share of digital visits is stationary for all newspapers.

## DATA AND VARIABLE OPERATIONALISATION

The present study analyses data from 12 Spanish Internet newspapers audited by the OJD.<sup>26</sup> Table 1 describes these data in more detail. The examined newspapers include five national, four regional and three provincial papers. Ten of these newspapers have a general scope, whereas two specialise in economic and sports news respectively.

The performance variables include the number of daily visits and page views for each digital newspaper. Based on this information, it is possible to create the variables 'total visits' (visits to all digital newspapers), 'total page views' (page views for all newspapers), visit share, page view share and usage depth (page views divided by visits for each brand). Additionally, the newspaper's offline brand equity and identity is captured by circulation (copies sold), audience<sup>27</sup> (actual readership) and demographic profile.<sup>28</sup> This last variable is measured along four dimensions: age, gender, socioeconomic status (SES) and level of education, and is available both for the printed newspapers and for the general Internet audience.

## METHODOLOGY

The first step in the analysis consists of unit root tests for all performance variables. This procedure allows a direct assessment of H1, H2 and H6. The augmented Dickey-Fuller test of equation (1) is performed for each series in several different versions, allowing for multiple lags ( $p$ ) and for a deterministic time trend  $t$ .<sup>29</sup> In each case, Schwartz's Bayesian information criterion (BIC) guides the choice for

Table 1: Descriptive data of the newspapers in the sample

Name	Code	Ambit	Type	Audience*	Profile*	Visits**	Pages**	Data period	Launch
El País	EPA	National	General	1,572	55.70	42,109	300,320	Jan 98–Aug 99	May 96
El Mundo	EMU	National	General	926	53.33	20,360	128,498	Sep 97–Aug 99	Feb 96
ABC	ABC	National	General	952	62.10	8,951	38,200	Dec 97–Aug 99	Sep 95
La Vanguardia	LVA	Regional	General	640	61.68	3,799	22,632	May 97–Aug 99	Jun 95
El Periódico de Catalunya	EPC	Regional	General	912	76.81	4,089	56,575	Mar 98–Aug 99	Oct 96
Levante	LEV	Regional	General	349	76.05	878	13,851	Jul 98–Aug 99	May 98
Avui	AVU	Regional	General	138	63.84	1,752	24,825	Nov 98–Aug 99	Dec 97
Canarias 7	CA 7	Provincial	General	166	90.36	582	2,214	Jun 97–Aug 99	Jan 97
El Diario Vasco	DVA	Provincial	General	344	84.50	967	6,983	Jul 97–Aug 99	Dec 96
Diario de Navarra	NAV	Provincial	General	228	89.33	715	4,403	Dec 98–Aug 99	Nov 97
Expansión	XPA	National	Economic	133	53.58	7,116	36,277	Jun 98–Aug 99	Mar 97
Marca	MAR	National	Sports	2,440	81.77	11,428	87,274	Jun 98–Aug 99	Jan 96

\* Data from AIMC: audience data in thousands; profile data transformed: distance between demographic profile audience and Internet user

\*\* Data from OJD: average number of electronic visits, average number of electronic pages read

the appropriate version of the test. This criterion consistently estimates the lag structure by minimising the sum of squared errors and model complexity.<sup>30</sup>

$$\Delta y_t = (\rho - 1)y_{t-1} + \sum_{i=1}^p \Delta y_{t-i} + c + t + \epsilon_t \quad (1)$$

Rejection of the null hypothesis of a unit root ( $\rho = 1$  implies  $(\rho - 1) = 0$ ) provides evidence for stationarity, whereas failure to do so at the 5 per cent level provides evidence for evolution.

Since strong seasonality effects (in this case, intra-week patterns) can obscure the long-term behaviour of the time series,<sup>31</sup> the unit root test was performed for both the raw data and the deseasonalised data (using multiplicative seasonal indices for each day of the week). The findings are identical for each performance series. Finally, rolling-windows of 182 daily observations (six months) were constructed and the unit root test was performed

for each of these data windows.<sup>32</sup> This procedure provides another check on the stability of the test results and allows the researchers to investigate whether the total number of visits has the tendency to become stationary after an initial period of evolution (H1).

H3 on the co-evolution of visits and page views is examined by means of the Johansen FIML cointegration test.<sup>33</sup> This test does not only assess whether cointegration exists, but also estimates the cointegration relation between the variables.

The analysis of readership patterns (H4 and H5) uses a panel data model to exploit both the cross-sectional and the dynamic variation for weekly data of the 12 newspapers:

$$\begin{aligned} \text{Log}(Vis_{it}) = & \alpha + \beta_1 \text{Log}(Aud_i) \\ & + \beta_2 \text{Dem}_i + \beta_3 \text{Vac}_i + \gamma_i \\ & Gr_{it} + \rho \text{Log}(Vis_{i,t-1}) + \epsilon_{it} \end{aligned} \quad (2)$$

The dependent variable is the number of visits ( $Vis_{it}$ ) to each newspaper. Independent variables are the log of the

**Table 2:** Unit root test results (absolute t-values for the augmented Dickey-Fuller test)

Series	Visits	Pages	Usage depth	Visit share	Page share	Deseasonalised visits	Deseasonalised pages
Total market	5.63	1.55*	1.08*	NA	NA	4.52	1.24*
Total 1998	2.96*	1.85*	1.03*	NA	NA	2.62*	1.61*
Total 1999	3.97	2.08*	1.26*	NA	NA	3.84	1.97*
EPA	6.51	5.01	3.83	3.87	4.64	5.27	3.62
EMU	5.62	2.99*	0.62*	2.41*	2.23*	4.97	0.63*
ABC	4.49	4.32	6.50	3.73	5.22	4.60	6.73
LVA	7.52	4.08	1.58*	1.81*	1.70*	9.02	4.31
EPC	5.51	4.76	7.30	5.35	6.22	5.98	5.39
LEV	5.50	5.25	18.89	5.52	5.43	5.45	5.13
AVU	3.53	4.92	10.95	11.39	11.18	3.64	12.78
CA7	6.21	7.69	6.82	3.16	3.74	8.61	9.01
DVA	6.09	6.69	5.04	3.26	3.00	6.89	7.39
NAV	3.88	3.95	5.00	2.37*	0.09*	3.92	3.86
XPA	5.85	3.44	4.21	5.35	3.07	7.52	4.04
MAR	4.34	3.79	4.49	3.11	4.21	5.02	4.61

\*Failure to reject the null hypothesis of a unit root at 5 per cent significance level

printed newspaper's audience ( $Aud_i$ ), distance in demographic profile ( $Dem_i$ ), a linear trend for growth ( $Gr_i$ ), a dummy variable for vacation periods ( $Vac_i$ ) and the auto-regressive coefficient ( $Vis_{t-1}$ ). Except for growth, coefficients are restricted to be common across units. The intercept is common ( $\alpha$ ), since the audience variable controls for size differences. Estimation by seemingly unrelated regression (SUR) is preferred due to the presence of both heteroskedasticity (strong size differences among newspapers) and contemporaneous correlation (common shocks to all series).

## RESULTS

Table 2 presents the results of the unit root test for the raw and the deseasonalised data. First, the total market is analysed for digital news. Total visits are stationary, whereas total page views and usage depth are evolving. The ADF test, in the version

selected for the full data period, is also estimated for each of the two calendar years 1998 and 1999. For visits, evidence of evolution is present for 1998, but not for 1999. This finding supports H1: the total number of visits initially evolves, but later stabilises. In contrast, the tests for page views and usage depth show strong evidence for evolution throughout the full data period. These results support H2. Secondly, stationarity in all performance series is the rule for most newspapers in this dataset. Evidence for evolution is found for *El Mundo* (pages, usage depth, visit share and page share), *La Vanguardia* (pages, visit share and page share) and *Diario de Navarra* (visit share and page share). Results for the deseasonalised data mirror those for the raw data. It is concluded that, in support of H6, visit shares tend to be stationary.

The co-evolution between visits and page views is examined for 1998, the period in which both are evolving. For both the raw and the

**Table 3:** Results of the panel model (weekly data)\*

Variable	Coefficient	t-Statistic	Probability
Constant	10.30	17.68	0.0000
Log (audience)	0.75	10.45	0.0000
Demographic profile	-0.07	-18.47	0.0000
Vacation periods	-0.30	-8.63	0.0000
Log ( $Vis_{t-1}$ )	0.72	28.05	0.0000

$R^2$  0.97

Adjusted  $R^2$  0.96

SE of regression 0.26

Durbin-Watson 2.19

\*The individual newspapers' growth coefficients have been omitted

**Table 4:** Summary of hypotheses and findings

Hypothesis	Finding	Supported?
H1 Total visits initially evolve, then stabilise	Evolution in 1998, stationarity in 1999	Yes
H2 Total page views evolve	Evolution over full data period	Yes
H3 Visit and page views initially co-evolve	Co-evolution for 1998	Yes
H4 Offline audience increases digital visits	SUR estimation yields significant	Yes
H5 Profile match increases digital visits	coefficient for audience and profile	Yes
H6 Visit share is stationary	Stationarity for all brands	Yes

deseasonalised data, the Johansen LR test finds evidence of cointegration (likelihood ratio = 26.03). The cointegrating equation reveals that seven pages per visit constitute the long-term equilibrium and thus H3 is supported.

The results for the panel model are presented in Table 3. SUR estimation of the first model, using the log of visits as the dependent variable, yields an  $R^2$  of 0.97. Significant effects are observed for audience, similarity in demographic profile, and vacation periods. The elasticity of the visits with respect to audience is 0.75. However, the introduction of profile distance yields a significantly higher model fit. Newspapers with demographic profiles close to that of the Internet consistently get a higher number of visits than

expected in view of their audience (distance coefficient = -0.07); H4 and H5 are supported.

## DISCUSSION AND IMPLICATIONS

Overall, the results support the proposed hypotheses, as summarised in Table 4. First, the emerging digital news market does experience evolution over time. Total page views and usage depth experience evolution over the full observation period, whereas the total number of visits evolves in 1998, but stabilises in 1999. Out of 12 newspapers, three experience evolution in visit and page shares, and only two experience evolution in usage depth. Finally, cointegration between visits and page views is found for the first

year of observation, but not for the second. Together, these results confirm the intuition that digital news represents both growth opportunities and challenges to editors. On the one hand, online presence enables editors to leverage offline brand equity and tap into new audiences and advertising revenues. On the other hand, competition in this market is intensified because of the consolidation in terms of total visits and the fact that only a few newspapers succeed in increasing usage depth. The analysis yields different implications for newspapers with a weak versus a strong match between the demographic profile of their offline readership and that of the Internet user. The paper now briefly discusses these implications for the specialised newspapers and for the three national, general papers.

The most striking results are obtained for the economic and the sports newspapers. The economic newspaper strongly benefits from its fit with the Internet public in all four measures: gender, SES, age and education level. The sports newspaper represents the other extreme: its printed version has the largest audience in Spain, whereas its digital version gets four times fewer visits than *El País Digital*. A similar scenario is seen for newspapers specialising in provincial news; their online readership does not live up to their offline popularity. In summary, advertisers should carefully consider profile fit, and not only offline audience, in their allocation decisions to digital newspapers. Specialised newspapers have an advantage to the extent that the Internet audience has a strong interest in their content. In the extreme case, the newspaper can start charging for online subscription (as the

*Wall Street Journal* did) and thus become less dependent on advertising revenues. In sharp contrast, the sports newspaper and the provincial newspapers suffer from a large gap between the demographic profile of their offline readership and that of the current Internet users. On the one hand, a consumer segmentation and targeting approach suggests that they should offer a different product to their digital versus their print readership. On the other hand, the costs of maintaining separate versions (and staff) and the potential dilution of their existing brand positioning, imply that they should adopt a more conservative strategy by maintaining a modest online presence for their existing audience. After all, as the Internet innovation diffuses in Spain, the typical online reader may soon resemble the typical offline reader. In the USA, the Internet population is already starting to look like the general population.<sup>34</sup>

The competitive dynamics can be examined in more detail for the three national, general newspapers: *El País*, *ABC* and *El Mundo*. The similarity in content and scope of these newspapers makes such a competitive analysis meaningful. Moreover, these newspapers are likely to compete for the business of the same national advertisers. For this analysis, the total market for national, general news is defined as the sum of the data for these three newspapers. Figures 1–3 show their market shares respectively for visits, page views and usage depth. As confirmed in the unit root tests in Table 2, visit shares look like the prototypical examples of stationary series: shocks to the series disappear almost instantly. In contrast, page views are evolving for *El Mundo*: this



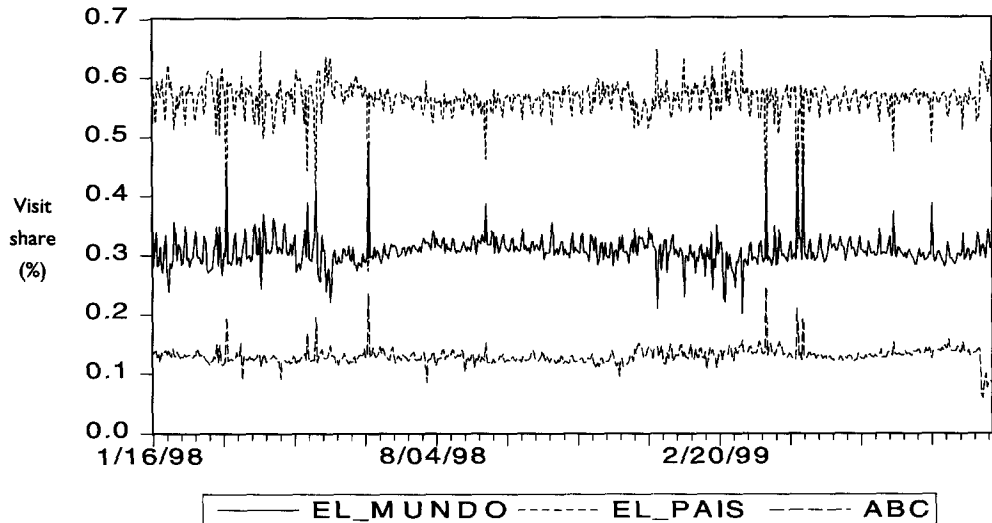


Figure 1: Visit shares for the three national, general newspapers

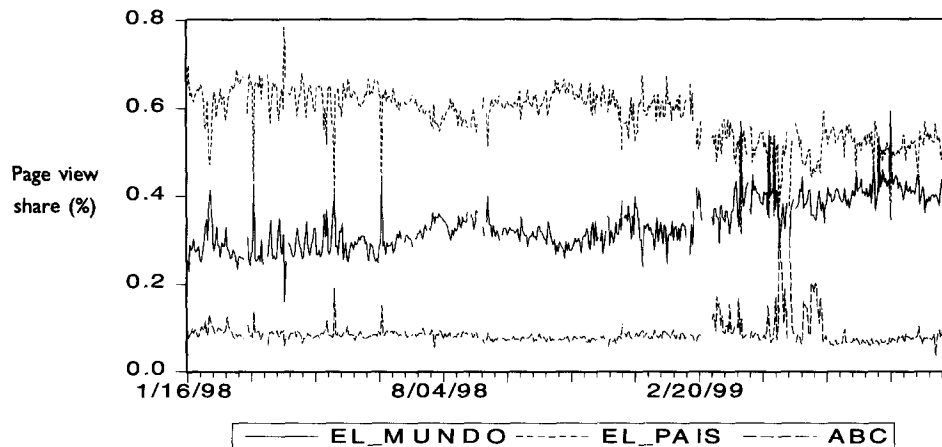


Figure 2: Page view shares for the three national, general newspapers

newspaper structurally increases its share of pages read. The reason for this evolution is evident in the analysis of usage depth (Figure 3): only *El Mundo* succeeds in structurally increasing the number of pages read per visit. Future research is needed to establish why *El Mundo* obtains this advantage. Both its high profile fit and the excellent interactive quality of its online version

could be responsible. This dynamic perspective of competitive advantage yields specific recommendations for the three newspapers.

First, market leader *El País* leverages its existing brand equity in the digital world in terms of visits, but is losing its leadership to *El Mundo* in usage depth, and therefore page views. Therefore, *El País* should align its online version

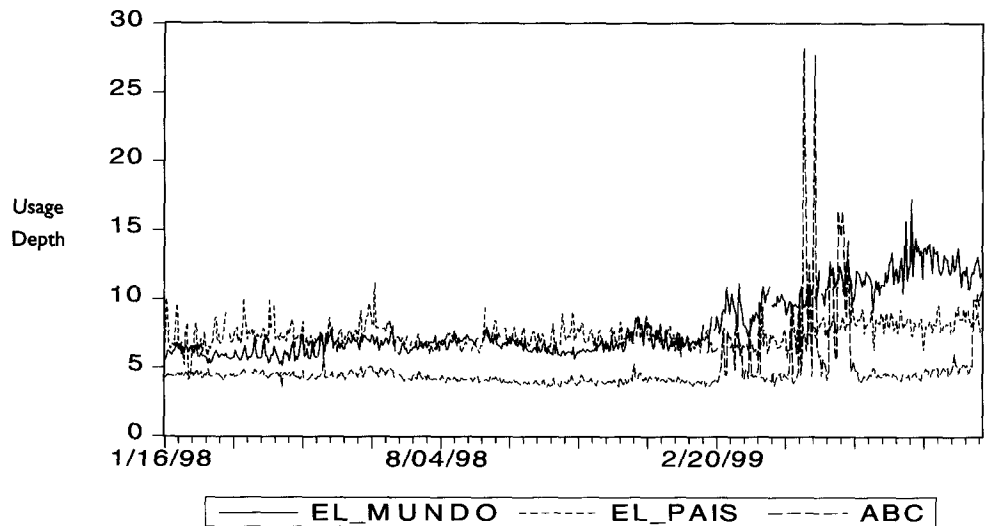


Figure 3: Usage depth for the three national, general newspapers

better with the needs and expectations of the typical Internet user. Comparative analysis between the content and style of the 12 websites suggests that faster content updates and better communication services should help. In fact, *El País* did introduce a free headline e-mail service right after the observation period. A next step could be to customise these e-mails and to include direct links to website articles, which is a lot cheaper than customising the site itself.<sup>35</sup> Very recently, in June 2000, *El País* shocked the whole press panorama by hiring, in a surprise operation, 15 people from the online edition of *El Mundo*, in fact the majority of its staff.

Challenger *El Mundo* has fewer offline readers than *El País*, but offers a better fit and understanding of the needs of the typical Internet user. However, the total number of visits and visit shares show no evolution. Traditional marketing wisdom dictates more attention to online and offline advertising in or-

der to build awareness and attract new users. Cross-selling techniques appear especially efficient for a large newspaper like *El Mundo*. Recently, Spanish newspapers have begun to offer passwords for specialised digital sections in the printed newspapers. Finally, follower *ABC* is evolving in neither visits nor usage depth. Investment in the content and style of its website would be needed to bring the digital newspaper up to the level of its competition. Moreover, advertising can help increase trials by new users. However, *ABC* has to balance the costs of these investments with the expected returns: the demographic profile of its existing readership is different from that of the current typical Internet user. Simply keeping online presence may be more consistent with the brand's positioning. This strategy is contingent on the current situation, however, and should be reconsidered if Internet usage increases up to a point that the typical *ABC* reader is online.

## CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

The present study offers new evidence and insight into the digital news market. First, the market for digital news shows evolution over time, but several newspapers do not share in the growth of visits and/or usage depth. Moreover, the total number of visits stabilises, indicating usage depth as the more likely source for future growth in page views. Secondly, the popularity of the digital newspaper is influenced both by the audience of its printed edition and by its profile fit with that of the typical Internet user. Finally, the usage depth of the digital newspaper evolves over time: the typical reader visits more pages. This phenomenon, however, depends on the profile fit between marketplace and marketspace readership. Most likely, digital newspapers are originally visited in a goal-oriented mode,<sup>36</sup> whereas the hedonic playing mode<sup>37</sup> develops as users learn the benefits of the digital newspaper. Given that most newspapers get funding from advertising,<sup>38</sup> editors of these newspapers should focus advertisers on the number of pages read (and thus opportunity to see the specific ad) instead of simple subscriber numbers. These findings also have strong relevance for advertisers. First, they need to know the size and profile of the audience that visit specific newspapers. Secondly, the growth differences for visitors and pages per visit provide insights into the future developments of their newspaper of choice.

This study is limited to market level data for one country, and future research should tap into individual consumer behaviour in different regions of the world. As the data

collection period starts at least six months after the introduction of each newspaper, it was not possible to analyse the very first steps of online readership. Moreover, the researchers did not obtain sufficient marketing action data to study the causal relationship between digital readership and changes in the digital news product, changes in the offered services, and advertising for the digital version. Future research should explore these relations in order to investigate the return on investment for these marketing actions. Finally, daily data on printed circulation would enable an investigation of the important cannibalisation and complementarity issues between the printed and the digital versions of newspapers. As in other areas of e-commerce, where 'clicks and mortar' dual distribution is replacing the 'clicks' versus 'bricks and mortar' dichotomy, editors need to balance online and offline investments.

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