Attitudes’ hierarchy of effects in online user behaviour

J. Alberto Castañeda, Miguel A. Rodríguez and Teodoro Luque
Departamento de Comercialización e Investigación de Mercados,
Facultad de Ciencias Económicas y Empresariales,
Campus Universitario de Cartuja s/n, University of Granada, Granada, Spain

Abstract

Purpose – The purpose of this article is to analyse the impact of the internet, as a new information channel for the consumer, on business results, and in particular, the consequences of attitude towards the web site with regard to customer behaviour and web site sponsor brand.

Design/methodology/approach – A survey instrument was used to gather data to test the relationships in the research model.

Findings – The paper shows the importance of attitude towards the web site and attitude towards the internet in explaining attitude towards the brand and consumer e-behaviour, and identifies the hierarchy of effects operative among these three concepts of attitude: attitude towards the internet; attitude towards the web site; and attitude towards the brand.

Research limitations – This study only looked at one category of web site – free-content sites. Future research could apply the conclusions of this study to other types of web sites, e.g. the e-commerce web site and the corporate web site.

Practical implications – The main practical consequence of the study lies in the need to take into account that the profitability of an e-business should not be measured solely in terms of direct profitability. Profits generated indirectly should also be considered, given the proven positive relationship between attitude towards the web site and attitude towards the brand. This conclusion is of vital importance since very few e-businesses obtain direct profits. Brick-and-click firms eliminate their e-businesses without bearing in mind the positive consequences they may be having on the brand itself.

Originality/value – The study aimed to take a more in-depth look at the value of e-businesses for brick-and-click firms. It analysed sources of indirect profitability for the e-business that should be taken into account when looking at web site value.

Keywords Consumer behaviour, Attitudes, Internet marketing, Internet shopping, Profit, Brands

Paper type Research paper

Introduction

There is a dearth of literature concerned specifically with the effects of a web site on company returns. However, various models of consumer behaviour have been established that could be of great use since, after all, homepages could be considered to be advertisements, thanks to their conceptual similarity, physical appearance and function fulfilled (Singh and Dalal, 1999). Thus, the work carried out by Lutz on the antecedents of attitude towards the advertisement may help in understanding how people process information and form their attitudes on the electronic market (Lutz et al., 1983; Lutz, 1985).

Attitude can be considered one of the most important concepts in the study of consumer behaviour as, according to the literature, it is the direct determinant of this behaviour. This functional view of attitude suggests that people hold attitudes to determine how to respond to their environment (Shavitt, 1989). Therefore, if we know
what attitudes are relevant to particular stimuli, we should be able to predict behaviours in response to those stimuli. Indeed, historically, the concept of attitude has commonly been defined in terms that emphasise its predictive relation to behaviour. For example, in one highly influential definition, Allport (1935) referred to attitude as “a mental and neutral state of readiness... exerting... [an] influence upon the individual’s response”. Similarly, Campbell (1963) defined attitude as an acquired behavioural disposition.

In research on consumer behaviour, particular attention has been paid to attitude towards the product, the brand, the behaviour, the firm, the advertisement, etc. With the internet, new constructs are appearing that are specific to the electronic market, such as attitude towards the internet and attitude towards the web site (Bruner and Kumar, 2002). At the same time, Jarvenpaa et al. (1999, 2000) emphasised the importance of both concepts of attitude in explaining online consumer behaviour.

The aim of this study was to analyse the impact of the web site, as a new channel of communication between the company and the customer, on business results. The user’s evaluation of the contribution of the internet to business translates into a measure of loyalty to it. Nonetheless, most managers of companies with an internet presence are actually finding themselves counting the losses of their e-commerce units, which raises a crucial question: when a manager decides to scupper the investment in a web site because of scarce direct profitability, is he or she doing justice to the site’s overall contribution to the business? Where does that leave the complementariness of business units? Following the established models of information processing in advertising, advertisements have a direct influence on attitude towards the product advertised and on consumer behaviour. Thus, by identifying the concept of attitude towards the advertisement with that of attitude towards the web site (Luna et al., 2002; Karson and Fisher, 2005a, b), this study aimed to:

- analyse the effect of attitude towards the web site on attitude towards the sponsoring brand; and
- identify the impact of a user’s attitude towards the web site on his or her use of that web site.

The importance of the study is two-fold. On the one hand, the paper demonstrates the important role played by attitude towards the web site in explaining future site usage. On the other hand, the results of the study reveal the need to consider that e-businesses obtain indirect profit for the brand sponsoring them. This new perspective allows us to identify more accurately the true value of a web site for a brick-and-click business.

**Literature review**

The potential profitability of a web site varies according to the type of business. In the case of a brick-and-click business, a web site will not only turn a direct profit through the sale of advertising space or e-commerce, but will bring indirect benefits as an advertising channel aimed at enhancing the image of the sponsor’s brand (King and Liou, 2004).

Most studies into the profitability of web sites have been partial in nature. They have tended to focus either on the sites’ influence on consumer online behaviour or on their effect on the sponsoring brand’s image. This study analysed the impact of a web site on both of these aspects of profitability, using the concept of the individual’s attitude towards the web site (Supphellen and Nysveen, 2001; Argyriou et al., 2005),
defined in this context as a person’s predisposition to respond to a web site in a consistent manner (Bruner and Kumar, 2002).

Regarding indirect profitability, given that a web site may be considered similar to an advertisement (Singh and Dalal, 1999) and that attitude towards a web site bears close resemblance to attitude towards an advertisement (Karson and Fisher, 2005a, b), in the formulation of the hypotheses it seems feasible to resort to information processing models. MacKenzie and Lutz (1989) suggested four important antecedents of attitude towards the advertisement: prior attitudes towards advertising in general, prior attitudes towards the advertiser, mood during processing of the advertisement and advertisement perceptions themselves. Of all of them, we emphasise the role of prior attitudes towards advertising in general. As the authors themselves pointed out, attitude towards advertising is defined as a learned predisposition to respond in a consistently favourable or unfavourable manner towards advertising in general. Attitude towards advertising may condition the perceptions of an advertisement. Nonetheless, as MacKenzie and Lutz (1989) mentioned, a direct effect of attitude towards advertising on attitude towards the advertisement is also likely because the consumer affective reaction to advertising has a tendency to affect his or her attitude towards a specific advertisement. In the context of this study, attitude towards advertising would have its homonym on the e-market – attitude towards the internet (Kwak et al., 2002). Taking the above into account, we hypothesised that:

\[ H1. \text{ Attitude towards the internet significantly determines attitude towards a specific web site.} \]

In a similar manner, various studies have concentrated on the relation between attitude towards the advertisement and attitude towards the sponsor’s brand (e.g. Lutz et al., 1983; Lutz, 1985). MacKenzie et al. (1986) compared four alternative models (affect transfer, dual mediation, reciprocal mediation and independent influences), and established that the reciprocal mediation model can be adequate in the case of well-known brands the consumer has had prior experience of. This model posits a relationship from attitude towards the brand to the attitude towards the advertisement. Balabanis and Reynolds (2001) demonstrated the existence of this relationship for internet users and suggested that attitude towards the sponsoring brand transfers towards attitude towards the use of the web site. Given that this study took a well-known brand as its reference point, we proposed that:

\[ H2. \text{ When the brand sponsoring a web site is well known, attitude towards it significantly determines attitude towards the web site.} \]

In corporate branding, any marketing effort has a direct impact on associations about the corporate brand entity. Research shows that 91 per cent of customers satisfied with a brand web site value the brand more highly than non-web site-using customers (Steenkamp and Geyskens, 2002). Thus, consumer brand associations will be positively related to consumer attitudes towards the company’s brand web site (Argyriou et al., 2005). Similarly, Singh and Dalal (1999) and Karson and Fisher (2005a, b) found a significant correlation between attitude towards the homepage and attitude towards the sponsor. Furthermore, studies that have considered attitude towards the web site and attitude towards the advertisement as different constructs have found significant direct relations between the first of the variables and attitude towards the sponsor’s brand.
(Bruner and Kumar, 2000; Stevenson et al., 2000; Poh and Adam, 2002). These results are supported by the previously mentioned affect transfer, dual mediation and reciprocal mediation models (MacKenzie et al., 1986). All of the previously mentioned items led us to propose the following hypothesis:

\[ H3. \text{ Attitude towards the web site significantly determines attitude towards the brand.} \]

Regarding the effect of attitude towards the web site on consumer online behaviour, consumer loyalty is the main factor explaining the success of an e-business (Reichheld and Schechter, 2000; Reichheld et al., 2000). With the internet, we can talk of visiting loyalty and purchasing loyalty, depending on whether we are dealing with an e-commerce, buying or subscription destination site, or a web site containing free content (Hoffman et al., 1995). Today, the volume of e-commerce is low, at least in business-to-consumer transactions (EUROSTAT, 2006), which is why we opted to use visiting loyalty as the considered behaviour in this study.

Taking cognizance of the relationship between attitude towards the web site and revisiting behaviour is essential in attaining true user e-loyalty (Dick and Basu, 1994). Methlie and Nysveen (1999) tested a model of e-loyalty that considers the relationship between both variables, and Supphellen and Nysveen (2001) empirically demonstrated the existence of a significant mid-size coefficient between attitude towards a web site and the intention to revisit it.

The relationship between attitude towards a given system and behavioural intention appears in the Technology Acceptance Model (Davis et al., 1989). This model has been tested to explain web site revisiting behaviour and the results suggest a coefficient for the relationship between attitude towards the web site and revisiting intention in the region of 0.4 (Castañeda et al., 2007; Sánchez and Roldán, 2005). In view of the above, the following hypothesis was proposed:

\[ H4. \text{ Attitude towards the web site significantly determines intention to revisit it.} \]

Finally, satisfaction is the most relevant variable in the study of customer loyalty. In the overview of the literature carried out by Dick and Basu (1994), according to the definition of true loyalty, satisfaction determines attitude. Oliver (1999) theoretically defended the view that customer satisfaction with a brand leads to an improvement in attitude towards it. Carrying this idea over to the electronic context, one could argue that as the satisfaction with a web site improves, so does the attitude towards it. Methlie and Nysveen (1999) demonstrated that customer satisfaction with a web site is not only related to the attitude towards the web site, but also exerts a direct influence on user intended behaviour. This direct effect has been corroborated by a variety of studies centred on the analysis of the consequences of customer satisfaction on the internet (Anderson and Srinivasan, 2003; Shankar et al., 2003). Based on all of the foregoing, the following hypotheses were put forward:

\[ H5. \text{ Consumer satisfaction with the web site significantly determines attitude towards the web site.} \]

\[ H6. \text{ Consumer satisfaction with the web site significantly determines intention to revisit it.} \]
The hypotheses are represented in the model in Figure 1, which shows attitude towards the web site to be a key element in determining not only the direct profitability of an online business (attitude towards web site → intention to revisit), but also in shaping indirect profitability through improving attitude towards the brand (attitude towards web site → attitude towards brand). Important as these questions are in themselves, the model would only be of limited usefulness if it failed to offer insight into ways of improving attitude towards the web site. Consequently, three possible precursors of attitude towards the web site are contemplated – web site satisfaction, attitude towards the internet and attitude towards the brand – which have proved significant in the literature reviewed.

**Research design**

**Data collection and sample**

The different attitude concepts, together with satisfaction and intention, were established with regard to a specific web site and a particular firm, so that the responses from different individuals could be integrated. The firm and web site used had to fulfill the conditions of being present both on the physical and the electronic markets, of offering a web site of value to the customer (over and above the classic corporate web site) and of being a widely known company (to ensure that the respondents would have a fully formed attitude towards the firm). All these conditions were met by the firm Puleva and its health portal, pulevasalud.com. The company is part of one of Europe’s largest food conglomerates, and its health portal received over 500,000 visits per month in the year 2005. Bearing in mind our intention to make the results as generalisable as possible, choosing a portal dealing with health matters seemed appropriate since, according to Siegel (2000), over 25 per cent of online information refers to “health” and over half of all internet users access health content.

Respondents were drawn from a convenience sample chosen from among university undergraduates in two European cities. The data collection was carried out in a computer classroom where the purpose of the study was explained to the participants, with no mention of the Puleva brand or its associated web portal (pulevasalud.com). The respondents were handed a paper-and-pencil questionnaire with a series of general introductory questions as well as questions to assess their attitude towards the internet. Subsequently, they were asked to visit the aforementioned portal for at least 20 minutes. After logging off, the subjects responded to a list of questions relating to their attitude towards the brand, their attitude towards the web site, their satisfaction.

![Figure 1. Conceptual model and hypotheses](image-url)
and their intention to revisit the site, in that order. Finally, certain socio-demographic data considered relevant was gathered.

In all, the final sample contained 103 valid cases. The sample included a higher proportion of women (77 per cent) than of men (23 per cent), with an average age of 22. This gender distribution was in accordance with the content of the website selected. According to a study conducted by the Gomez consultancy, health-related information on the internet is sought primarily by women (Scalise, 2000).

According to comments made by Peterson (2001), using students as participants undoubtedly constituted a limitation to this research. However, we believe it was appropriate since, due to the fact that more homogeneous responses are obtained (Peterson, 2001), it is easier to refute the theory (Calder et al., 1981). This is because they allow more precise theoretical predictions and reduce the possibility of obtaining false conclusions regarding the presence of covariances among the variables being studied. Therefore, they are appropriate (Kardes, 1996) for basic research concerning causal mechanisms. Furthermore, according to Nielsen (2006), web surfers are mainly young people. All the aforementioned reasons support the choice of using a sample of students.

Construct measurements
Attitude towards the web site has been approached in the literature from two main standpoints, included in the comparison of scales carried out by Bruner and Kumar (2002). In this comparison the authors concluded that attitude measures adapted to the internet medium reach better psychometric characteristics and stability in the uni-dimensionality of the construct than those specifically developed for the construct. In this study we opted for a scale adapted to measure attitude towards the web site. Taking into account that the scale was originally intended to measure attitude towards the brand (Mitchell and Olson, 1981), that the items coincide with those used to measure attitude towards the web site (Bruner and Kumar, 2000) and that it has been used to measure attitude towards the internet (Rodgers and Harris, 2003), it was adopted for the three constructs of attitude (see the Appendix). Previously, Karson and Fisher (2005b) used the same scale to measure different attitude concepts in the electronic context.

In the case of satisfaction, we concentrated on overall satisfaction with the web site. Measures using a single item have often been employed in the literature (Westbrook, 1980), including in the internet context (e.g. Van Riel et al., 2001; Yoon, 2002; Shankar et al., 2003). Selnes (1998) also supported this idea – he considered satisfaction to be a concept that is directly accessible for the informant and consequently measured it using just one item.

The reference point for the study was a well-known brand, Puleva, and its free content site, pulevasalud.com (Hoffman et al., 1995), and therefore (conative) loyalty was measured as the intention to revisit. Customer retention (behavioural perspective) has traditionally been identified with loyalty (Dick and Basu, 1994).

Results
The relationships proposed in Figure 1 were estimated using the Robust Maximum Likelihood due to the fact that the hypothesis of multivariate normality could not be accepted in the model’s variables. Furthermore, in the case of small samples this
estimation method is preferable to Weighted Least Squares (West et al., 1995). The analysis was conducted using the LISREL software and followed guidelines suggested by Hatcher (1996). Fit indexes were chosen following recommendations by Hu and Bentler (1998). Fit indexes included in this investigation were the Satorra-Bentler chi-square test, the goodness-of-fit index (GFI), the comparative fit index (CFI), the normed fit index (NFI) and root-mean-square error of approximation (RMSEA).

Both the CFI and NFI may range in value from 0.0 to 1.0. According to Bentler (1989), a fit index of 0.0 is associated with a “null” model (one specifying that all constructs are uncorrelated), while a fit index of 1.0 represents a “saturated” model (a model with zero degrees of freedom that perfectly reproduces the original covariance matrix). Values greater than 0.9 indicate a good fit of the data, while values higher than 0.95 indicate an excellent fit of the data (Hu and Bentler, 1998). Conversely, an RMSEA of less than 0.08 suggests a good fit. Finally, a chi-square test that is not significant and a GFI greater than 0.90 are also indicative of a good fit for the data (Hair et al., 1998).

The results revealed that the Satorra-Bentler chi-square test was not significant ($\chi^2 = 43.61$ with 39 degrees of freedom; $p > 0.05$) and the GFI was greater than 0.90. Both the CFI (0.97) and the NFI (0.91) were greater than 0.90, and the RMSEA (0.036) was less than 0.08, suggesting that the model was a good fit for the data. A review of the modification index and Lagrange tests did not suggest any conceptually sound changes to the model. Therefore, the proposed model was tentatively accepted, pending further tests to examine the reliability and validity of both the measurement model and the structural model.

Regarding the measurement model, Table I shows the standardised coefficients, reliability per item and Cronbach’s alpha, as well as the composite reliability and average variance extracted for each of the constructs measured through a number of items. From the analyses it was deduced that there was no need to eliminate any of the items proposed for each attitude concept. Cronbach’s alpha and the composite reliability reached values close to 0.9, while the average variance extracted was about 0.7 for the different attitude variables. The $t$-tests investigating the null hypothesis that each of the coefficients is equal to zero were all significant ($p < 0.01$), suggesting that all paths were assisting in the prediction of their assigned factors. These results provided evidence supporting the convergent validity of the indicators (Anderson and Gerbing, 1988). Finally, discriminant validity was analysed by comparing the correlation squared within each pair of latent constructs with the average variance for each of them. According to Fornell and Larcker (1981), measurement scales will have discriminant validity as long as the first value does not exceed the second. The results reached in all of the comparisons complied with that requirement. Moreover, none of

<table>
<thead>
<tr>
<th>Attitude towards the brand</th>
<th>Attitude towards the internet</th>
<th>Attitude towards the web site</th>
</tr>
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<tbody>
<tr>
<td>Item 1</td>
<td>Item 2</td>
<td>Item 3</td>
</tr>
<tr>
<td>Standardised coefficients</td>
<td>0.88</td>
<td>0.79</td>
</tr>
<tr>
<td>Reliability per item</td>
<td>0.77</td>
<td>0.62</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>0.88</td>
<td>0.86</td>
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<tr>
<td>Composite reliability</td>
<td>0.88</td>
<td>0.86</td>
</tr>
<tr>
<td>Average variance extracted</td>
<td>0.71</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Table I. Evaluation of the measurement scales
the confidence intervals for the correlation between each pair of latent constructs contained the value ± 1. All of the above afforded the certainty that the scales used also had discriminant validity.

Figure 2 contains the estimated coefficients for the structural model together with the $R^2$ indicator for each latent endogenous variable. Of the hypotheses proposed, those that proposed a reciprocal relationship between attitude towards the web site and attitude towards the brand were not met, although the effect of the former on the latter reached a level of quasi-significance ($\alpha = 0.10$). Nor was a direct relationship shown between satisfaction and the customer’s intention to revisit the web site.

Following the model development strategy (Hair et al., 1998), step-by-step the non-significant relations were eliminated from the proposed model. In line with Hair et al. (1998) and the results obtained by Anderson and Gerbing (1988), comparing nested models can be done directly using the chi-square and considering the degrees of freedom. More specifically, Satorra-Bentler’s scaled chi-square statistic was used, carrying out the corrections that make comparing different models possible (Satorra and Bentler, 2001).

Attending to the $t$-values of the non-significant relations, we went on to eliminate the relation that ran from attitude towards the brand to attitude towards the web site. The resulting model showed acceptable goodness-of-fit indexes. The difference in the chi-square between the models turned out not to be significant ($\chi^2_{SB} = 43.60, p = 0.32, df = 40$), although the modified model did show greater parsimony. All the relations in this model remained stable, except for that from attitude towards the web site to attitude towards the brand, which became a significant positive effect. Finally, given that the direct relationship between satisfaction and revisiting continued to be non-significant, it was eliminated, giving the final model shown in Figure 3. The final model fit the data acceptably well and the difference in the chi-square between the previous model and this turned out to be non-significant. However, the final model was more parsimonious. Furthermore, when a model’s fit cannot be improved, those that explain the phenomenon studied as simply as possible are always preferable.

The final model in Figure 3 shows the key role held by attitude towards the web site, since not only does it increase intention to revisit (attitude towards web site)

Figure 2.
Standardised coefficients and overall fit measures for the model proposed ($t$-values in brackets)

$\chi^2_{SB} = 43.61, p = 0.28, df = 39$; RMSEA = 0.036; GFI = 0.91; NFI = 0.91; CFI = 0.97

Note: $t$ values in brackets
site → intention to revisit = 0.56; $p < 0.01$), but also contributes to improving attitude towards the brand (attitude towards web site → attitude towards brand = 0.32; $p < 0.01$). These results provided empirical support for $H3$ and $H4$, and failed to do so for $H2$, which had to be rejected given that the relationship from attitude towards the brand to attitude towards the web site proved non-significant.

With regard to the antecedents of attitude towards the web site, attitude towards the internet has a direct, significant and positive coefficient (attitude towards internet → attitude towards web site = 0.26; $p < 0.05$) and, therefore, $H1$ was supported.

Last, satisfaction also has a positive effect on attitude towards the web site (satisfaction → attitude towards web site = 0.44; $p < 0.01$), but its relationship to the intention to revisit is mediated by attitude towards the web site. These findings lent empirical support to $H5$, but not to $H6$.

**Discussion**

This paper attempts to offer a more in-depth study of consumer behaviour on the electronic market as well as making a further analysis of the positive consequences for a brick-and-click business of offering a web site that is of value to the customer. To do this, the study concentrated on the effects produced by attitude towards the web site, both direct (measured through intention to revisit) and indirect (measured through their influence on attitude towards the sponsoring brand).

Both the literature review and the results obtained in this study add strength to the view that attitude towards the internet is to be considered as one of the precursors or antecedents of attitude towards the web site. This conclusion ties in with the prevailing view in the field of advertising efficacy (which displays some parallels with the area under analysis here) regarding attitude towards advertising in general and attitude towards a single advertisement (Mehta, 2000). The exact mechanism behind this influence is yet to be fully understood, but, resorting again to the knowledge afforded by the world of off-line advertising, an understanding might come through a low-involvement process where an individual simply extrapolates their general opinion about the internet to a particular web site.
One of the implications of this result is that, as the public’s general view of the internet improves (which seems only to be expected given the continued arrival of new generations familiar with the internet from a very early age, along with substantial improvements in connection speed and price), so will individual perceptions of web sites. This process would certainly benefit from institutional educational campaigns aimed at boosting the public’s perception of cyberspace.

The above notwithstanding, this study also demonstrates that satisfaction is a more important antecedent of attitude towards the web site than attitude towards the internet, given that its coefficient nearly doubled that of the latter. This result is similar to those reached in other studies, where satisfaction proved to hold a direct and significant influence in the attitudinal component of loyalty to a web site (Methlie and Nysveen, 1999). As illustrated in a literature review by Dick and Basu (1994), satisfaction is the main determinant of true loyalty, understood as the attitude-behaviour relationship.

For its part, the effect of satisfaction on intention to revisit a web site, was found to be mediated by attitude towards the web site. This result reveals the convenience of adopting operative concepts of loyalty that include conscience and behaviour, in line with the proposals by Dick and Basu (1994) and Oliver (1999). The mere consideration of behaviour will lead to erroneous conclusions, concerned more with spurious loyalty than with true loyalty. In other words, customer satisfaction, considered a direct determinant of loyalty, operates on revisiting behaviour only through attitude towards the web site, demonstrating the importance of defining loyalty as a repetition behaviour based on a positive opinion.

We should like to underline the important antecedent role played by attitude towards the web site on attitude towards the sponsoring brand. From this, an extremely relevant business implication can be deduced – a web site that is valued by the customer is not only capable of generating direct benefits for the firm (advertising, e-commerce, loyalty, etc.), but also has an indirect utility through the positive impact on the attitude towards the brand of those visiting the site. This result is particularly important in the current situation in which internet businesses are undergoing grave crises due to the weak development of e-commerce and the nil (direct) profitability of the web sites. In juxtaposition to this, our study provides another way of valuing a web site’s profitability.

Having a web site that is of value to the customer can generate positive effects on the brand. These should be evaluated adequately by the decision makers of each firm before adopting “rash” decisions with regard to the organisation’s electronic presence. Although it is true that the large majority of e-businesses do not currently generate any direct profit, it is also equally true that when the business in question has a physical presence, the web site generates additional brand value. This indirect profitability does not exist for purely internet players, since they do not have a business on the physical market through which to maximise the benefits of the improved image that a good web site provides.

From a theoretical standpoint, this study shows that the hierarchy of effects among different attitude concepts related to a brick-and-click business can be reasonably explained using the classical theories of information processing, thus supporting the idea defined by Singh and Dalal (1999) regarding the similarity between web pages and
publicity advertisements. Furthermore, of the four information processing models designed by MacKenzie et al. (1986), and in spite of using a very well-known brand, the dual mediation model is the one that best represents the relationship between both variables, in accordance with Brown and Stayman’s (1992) meta-analysis of attitude towards the advertisement. In the electronic context, Karson and Fisher (2005a, b) reached the same conclusion, identifying an enlarged dual mediation model as that which best represents the processing of internet users’ information. In keeping with Singh and Dalal (1999), it could be concluded that individuals consider the web site as an additional source providing information/advertising on the firm.

Conclusions
This study aimed to pinpoint the effects of the web site, as a new channel of communication between company and customer, on business results, for which purpose a range of traditional information processing theories of the last decades were employed.

The results lead to the conclusion that among the various models considered in the literature, it is the dual mediation model that best represents the relationship between attitude towards the web site and attitude towards the brand, despite the use in the study of a brand that is widely known.

This model, together with the theoretical developments relating to customer loyalty, yields the conclusion that those brick-and-click businesses capable of generating a favourable opinion in their customers will see their internet investment pay off in two ways: directly through customer visits and indirectly through improved image of the brand. The former will translate, for a free-content web site, into greater sales of advertising space, while the latter will boost revenue from both offline and online product sales.

Prior research has focused primarily on the effect of customer attitude towards the web site on loyalty to that web site and, to a lesser extent, on the opinion, image or value of the brand. It is hoped that this work will make a contribution to the field as an analysis of the joint effect of both consequences of attitude towards the web site as well as providing insight into the decisive role of user's perceptions of the internet and the web site.

A limitation of this study was that it analysed only one type of web site – the free-content site. We propose repeating this study in the future with respect to the different types of destination sites identified by Hoffman et al. (1995), which would make generalisation of our results possible.

References


Attitudes’ hierarchy of online users


Appendix. Questions used in the interviews

**Attitude towards the internet**
In general, my opinion about the internet is:

- Bad 1 . . . 5 Good
- Unfavourable 1 . . . 5 Favourable
- Negative 1 . . . 5 Positive

**Attitude towards the brand**
In general, my opinion about [brand] is:

- Bad 1 . . . 5 Good
- Unfavourable 1 . . . 5 Favourable
- Negative 1 . . . 5 Positive
Attitude towards the web site
In general, my opinion about [web site] is:

- Bad 1 ... 5 Good
- Unfavourable 1 ... 5 Favourable
- Negative 1 ... 5 Positive

Satisfaction
Assess your level of satisfaction with your visit to the web site.

- Totally unsatisfied 1 ... 5 Very satisfied

Intention to revisit
Assess the likelihood that you will visit this web site again in the future.

- Not likely 1 ... 5 Very likely

About the authors
J. Alberto Castañeda, is an associate professor in marketing and market research and holds a PhD in business sciences from the University of Granada. His current specialisation and research interests focus on online consumer behaviour. His recent works have been published in Information & Management, Internet Research, Online Information Review, The Service Industries Journal, Electronic Commerce Research and the International Journal of Internet Marketing & Advertising, among others. J. Alberto Castañeda is the corresponding author can be contacted at: jalberto@ugr.es

Miguel A. Rodríguez is an associate professor in marketing and market research and holds a PhD in business sciences from the University of Granada. His main research interest is consumer behaviour. His recent works have appeared in Internet Research, Cities, The Service Industries Journal, International Journal of Internet Marketing & Advertising, Tourism Management and others.

Teodoro Luque is Professor of Marketing at the University of Granada. His main interests are marketing research, consumer behaviour, strategic marketing (city and university), electronic marketing and macro-marketing. He has published several books and articles in Quality and Quantity, Cities, Journal of Consumer Marketing, The Service Industries Journal, Information & Management and others. He has contributed approximately 50 papers to conference proceedings (EMAC, AMS, EMARK, AEDEM, AEDEMO, etc.), and he has developed research projects with diverse companies and public administrations.