AN EXPERIMENTAL STUDY OF THE ROLE OF BRAND STRENGTH IN THE RELATIONSHIP BETWEEN THE MEDIUM OF COMMUNICATION AND PERCEIVED CREDIBILITY OF THE MESSAGE

Roger Marshall
Na WoonBong

ABSTRACT

Does a message on the Internet have less credibility than an equivalent message in conventional print media? What is the role of brand strength in the relation between the medium of communication and perceived credibility of the message? We address these questions through an experimental study. The results show that a message on the Internet has less credibility than the same message in print. For messages of strong brands, however, there is no significant difference in their credibility between the Internet and print media.

© 2003 Wiley Periodicals, Inc. and Direct Marketing Educational Foundation, Inc.

JOURNAL OF INTERACTIVE MARKETING
VOLUME 17 / NUMBER 3 / SUMMER 2003
Published online in Wiley InterScience (www.interscience.wiley.com).
DOI: 10.1002/dir.10061
STUDY OBJECTIVES

The issue of online trust has generated a great deal of research, reflecting the strength of the established association between trust of the online message and purchase behavior in both business-to-business and business-to-consumer markets (Shankar, Urban, & Sultan, 2002). Trust, when examined rigorously, transpires to be a complex, multifaceted variable whose major antecedents appear to be some combination of Web site and user characteristics, plus several other characteristics mainly concerning the perceptions of the user toward the source company’s ability and desire to truly satisfy the user’s needs (Markey, 1977; Shankar et al., 2002; Talwatte, 2002; Yoon, 2002).

According to Tillman (2000), there is generally no difference between the continuum of information on the Internet and the continuum in print. Both media have content ranging from the very scholarly and specific to “vanity” material (articles that have not been through the peer review process intrinsic to scholarly work). Given that anyone can put anything online, though, it is generally more difficult to differentiate the scholarly–vanity continuum on the Internet than in print. The purpose of our study is to find out if this fact has, inter alia, resulted in a bias toward the credibility of materials placed on the Internet.

HYPOTHESES DEVELOPMENT

The research hypotheses are simple and flow from the earlier discussion. The major test of interest is simply to confirm that messages on the Internet are perceived as less credible than the same messages in print media are. This has already been established to a point, and our expectation is that the hypothesis will be strongly confirmed.

H1: A message is less credible if presented on the Internet than if it is presented in a conventional print medium.

To positively entrench a brand name in the minds of a group of consumers is usually a painstaking and expensive process, where an organization must continuously build its reputation through the multitude of transactional and communication contacts that recur over the relational span of the association of a firm and its consumers. Trust is an important part of the brand association; trust in an entity’s intentions at a particular moment in time is strongly correlated to the persuasiveness of the message (Herbig & Milewicz, 1994; Sobel, 1985). More recent, Internet-specific research has confirmed that individuals are sensitive to the identity of content providers (Kwiatowski, 1998; Yoon, 2002). Tillman (2000) uses even stronger terms, stating that the major factors influencing an individual’s perception of an online source are the author’s-advertiser’s reputation or the publisher’s–Web master’s reputation.

Earlier it was suggested that there is an intrinsic distrust of online materials because of the difficulty of distinguishing scholarly from vanity materials online as compared to offline. Shankar et al. (2002) pointed out that online trust and offline trust are intertwined; one factor that sources could have in common across different media is a brand name. Thus, there are grounds to suspect that statements made under the auspices of a well-established, strong brand with a positive reputation will tend to be believed despite the medium used.

H2: The differential trust in a brand’s message displayed on the Internet and in the print medium is mediated by the strength of the brand such that there is no difference in perceived credibility for strong brands across the two media.

RESEARCH METHOD

Pretest

A pretest was first conducted where information-source brand-name strengths are measured, and several are grouped into “strong” or “weak” brands. Next, eight groups of respondents were exposed to an article containing an improbable statement. The articles were separately attributed to four hard copy and the same four online sources for each group. This al-
allowed a between-group comparison of source and media credibility, using a developed scale to measure credibility of the statement.

**Sample**
Convenience sampling was used to select 40 respondents from the same sample population as would consequently be used in the main study; that is, Singaporean respondents between 18 and 25 years of age. Respondents were English-speaking undergraduates of Chinese ethnicity; the sample was gender-balanced. While the sample is not representative of Singapore, it was felt that this group is a reasonable representation of an Asian generation who is exposed to, and thus familiar with, the Internet. Some support for this contention is provided by statistics from the Infocomm Development Authority of Singapore (2000), which states that more than 58% of Singapore computer users are 29 years of age and below and 52.5% have tertiary qualifications.

**Materials and Scales**
Strength of brand, within the persuasive communication context, is an issue of source credibility rather than market share or any other of the more familiar marketing measures of brand strength used in a more typical, brand equity situation. To measure brand strength in this situation is critical, as a claim that a lack of credibility of the Internet medium may be offset by brand strength has been made. Consequently, 10 information-source brand names were selected and placed onto a questionnaire, and 40 undergraduate business students from the target audience were asked to rate them in terms of brand strength. Initially, three 7-point items were used. The first asked for an assessment of brand strength, which was described as: “By ‘brand strength’ we mean how well known, trusted, powerful, valuable, etc. the brand is.” The second item measured is familiarity, and the third asked how credible the brand was as an information source about a medical-related matter. An inspection of the scale alphas revealed, however, that familiarity does not belong to the scale. In retrospect, this is quite obvious, as a brand can be quite well-known, but for all the wrong reasons! The two remaining items are strongly correlated for each source as can be seen from Table 1, which contains the 10 brands, their scale reliability data, and the mean “brand strength” score for each.

**Selection of Strong and Weak Brands**
An inspection of the data in Table 1 suggests that *Reader’s Digest* and the *Straits Times* are the strong brands, and the *Journal of Biological Chemistry* and *Spartacus Encyclopedia* are the weak. Moreover, all these brands exhibit satisfactory scale reliability. Inspection by paired sample *t* test reveals no significant difference between the brand strength ratings of the strong pair or the weak, but there are significant differences between each of the high-and-low pairs (*t* (*ST–JBC*) = 9.0, *p* < .001; *t* (*ST–SE*) = 8.3, *p* < .001; *t* (*RD–JBC*) = 7.3, *p* < .001; *t* (*RD–SE*) = 7.7, *p* < .001). At face value it is odd that the Singapore *Straits Times* should be considered more trustworthy than the *Economist*. On consideration it does make sense in the Singapore context, however, as the daily newspaper is published under the scrutiny of the Singapore government whereas the *Economist* is seen as a

---

**Table 1**

Information Sources with Scale Reliability and Brand Strength Data

<table>
<thead>
<tr>
<th>Source</th>
<th>Scale Reliability</th>
<th>Brand Strength Scale M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straits Times</td>
<td>.73</td>
<td>5.7</td>
</tr>
<tr>
<td>Journal of Biological Chemistry</td>
<td>.71</td>
<td>2.7</td>
</tr>
<tr>
<td>Reader’s Digest</td>
<td>.70</td>
<td>5.2</td>
</tr>
<tr>
<td>Newsweek</td>
<td>.80</td>
<td>4.9</td>
</tr>
<tr>
<td>Project Eyeball</td>
<td>.71</td>
<td>3.0</td>
</tr>
<tr>
<td>Journal of Neurology</td>
<td>.79</td>
<td>2.8</td>
</tr>
<tr>
<td>Spartacus Encyclopedia</td>
<td>.75</td>
<td>2.7</td>
</tr>
<tr>
<td>The Economist</td>
<td>.58</td>
<td>4.4</td>
</tr>
<tr>
<td>Journal of the American Medical Association</td>
<td>.75</td>
<td>3.1</td>
</tr>
<tr>
<td>Encyclopedia Britannica</td>
<td>.76</td>
<td>3.7</td>
</tr>
</tbody>
</table>

---

*a* Two-item scale reliability measured by Person’s correlation, significant to *p* < .001.
foreign publication, and Singaporeans have great trust in their government.

**MAIN STUDY**

**Sample**
As in the pretest, the sample frame comprises Singaporean undergraduates. Although this is purely a convenience measure, the gullibility of this group should be no higher than any other group in the society, so any effects found might be fairly considered understated rather than overstated. A total of 395 students responded and, although their selection was convenient, the allocation of experimental condition was purely by chance. The sample was not gender-balanced, but a test reported later shows that this is irrelevant in this instance.

**Materials and Procedure**
It is first necessary to identify the nature of the information to be used for the purpose of the study. In persuasive print communications, objective information is found to be superior to subjective information in influencing participants’ beliefs and credibility ratings (Hsu, 1999). Hence, objective information is used here. A true, but hard to believe, statement of a medical nature was identified.

If we look up at the sun, the increased intensity of the light reaching our eyes causes a high-frequency electrical signal to run through the optical nerves. The nasal nerves pick up some of this electrical impulse. They send a signal to the brain, which triggers a sneeze.

Several similar statements were pretested, but the statement above consistently met with mild disbelief, even though it happens to be factual.

To measure credibility across the media, the medical article earlier mentioned was printed onto cards, which were then presented to respondents and attributed to one of the eight sources. Selection of the two strong and two weak brands has already been discussed; each of these four hard-copy sources also was presented as an online source. A more elaborate procedure such as preparing the articles in a typical Internet or written format was not adopted because the various message frames would have brought other credibility variables into consideration. Similarly, the adoption of the true Internet address was eschewed, because to obtain a true comparison it was considered better to merely use the source name and date followed by “online”—for example, “Straits Times” and “Straits Times Online.”

This is a between-group design, where each student was randomly assigned to only one source condition. After the respondents were individually presented with the article, they were asked four Likert-scale (7-point) questions to assess their belief in the veracity of the articles. Scale reliability was assessed for the four items used to measure credibility, and a single dependent variable derived from the resulting scale. Between-group differences were then sought using ANOVA.

**ANALYSIS**
The chart in Figure 1 shows a summary of the data. There is a clear, visible difference, which is supported statistically by ANOVA, in the overall credibility of both online–offline sources ($F = 18.46, p < .001$), and strong–weak brands ($F = 7.06, p = .008$). More important, there is also a significant interaction effect ($F = 9.07, p < .001$) that shows that being online or offline
does make a difference to the perceived credibility level of strongly or weakly branded sources.

One further test was conducted to seek for an alternative explanation. The sample was composed of an unequal number of men and women within each test condition, so an analysis of variance was again conducted, this time with “credibility” as the dependent variable and gender as the independent variable. The result \( F = .626, p = .535 \) showed that gender does not appear to be an issue.

CONCLUSIONS

The results indicate that young Singaporeans find messages less credible when conveyed on the Internet than through the print medium. However, brand strength appears to mitigate any negative effect of the Internet medium. That is, the credibility of the message of strong brands was the same regardless of the medium of communication, print or the Internet.

Implications for Further Research

Future research could well take into account not only cultural effects, but also development effects. The former call has been made before (see Shankar et al., 2002). Nevertheless, it is quite possible that the suspicion with which the Internet is regarded in Singapore is not only quite natural given the fact that use of the Internet for e-commerce is still relatively low in Asia, but is also likely to change swiftly as Internet commerce gains momentum in the region. Thus, although cross-cultural work would be useful, longitudinal work may have even more value.

Implications for Business

The initial implication for business is very simple: if you wish to advertise and persuade on the Internet, then extra measures have to be taken to ensure potential clients’ trust. Such measures as using a recognized and trusted brand, co-branding, giving client lists, having third-party endorsement of the site, offering physical addresses with money-back guarantees, and ensuring that sites are properly encrypted must all help.

In addition, the trust generated by strong brands is apparently independent of media usage. Thus, a company with a strong offline brand that ventures online must ensure that it maintains a strong association with its offline brand name. For instance, if the Straits Times wants to venture into the new—but associated—product category of providing interactive news, information, and entertainment via the Internet, it is best that it leverage its original strong brand name, rather than adopt a new name that might be thought more appropriate to the Internet.

REFERENCES


