This is the authors' final peer reviewed (post print) version of the item published as:


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Personal Information Privacy and Shopping Behaviour on the Internet

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Abstract

This paper focuses on the perceptions held by consumers of the practices of Internet retailers in handling their personal information. It investigates attitudes towards personal information privacy on the Internet and compares perceptions of personal information management practices with consumers' willingness to provide personal information to clicks-and-mortar Internet retailers versus pure-plays. General scepticism and concern about the information practices adopted by Internet retailers is reported, but generally clicks-and-mortar retailers were trusted more than pure-plays with regard to personal information management.

Introduction

With the growing application of the Internet as a tool for conducting commerce, privacy and ethical issues are becoming increasingly important (Caudill & Murphy 2000; Miyazaki and Fernandez, 2001; Richards 1997). This study investigates consumers' perceptions of Internet websites' use of personal information. The study compares the privacy perceptions held by consumers of clicks-and-mortar retailers' websites (a retailer with both an on-line and physical presence, for example, barnesandnobie.com) with pure play Internet retailers' websites (an on-line retailer only, such as amazon.com). It also investigates the linkages between perceptions of personal information privacy and shopping behavior.

Information privacy is one important factor in building trust on the Internet, with a significant body of work provided by Milne (1993, 1997, 1998, 2000), Ang, Dubelaar and Lee (2001) and Sheehan and Hoy (1999,2000). Overall both trust and privacy have become crucial issues as Internet commerce is beginning to build a greater client base and a growing stream of commercial transactions. Trust and personal information privacy are major issues for Internet businesses, but ultimately provide such organisations with an opportunity to build closer and stronger relationships between businesses and consumers (Fukuyama 1998).

Trust and Personal Information privacy are fundamentally linked, in that a consumer needs to have a certain level of trust in order for them to provide data of a sensitive nature over the Internet (Jevons and Gabbott, 2000). There is an abundance of academic literature outlining the importance of the creation and the maintenance of consumer trust in the physical marketplace (for example, Aaker 1996; Cespedes and Smith 1993; Doney and Cannon 1997; Dowling and Uncles 1997; Foxman and Kilcoyne 1993; Fukuyama 1995; Ganesan 1994; Goodwin 1991; Morgan and Hunt 1994). However, due to the relative infancy of the electronic economy, trust and the electronic marketplace have been studied to a lesser extent than the physical marketplace, with a few notable exceptions (for

**Trust and Consumer Privacy**

"Government and industry organisations have declared information privacy and security to be major obstacles in the development of consumer-related e-commerce (Miyazaki and Fernandez, 2001, p. 27.)" Hoffman & Novak (1998) have also pointed out that recognising consumers’ rights to on-line data ownership is an important first step in rebalancing the process of establishing trust. This is an important concept for businesses with an on-line presence, where an opportunity arises to empower the customer and possibly establish trust with the user. An initial lack of trust is expected, and Hoffmann and Novak (1998) point out that most consumers who decline to provide personal information to Web sites report that they do not trust the entity collecting the data; they say that providing personal information is not worth the risk of revealing it.

Mohr and Nevin (1990) show that a sense of shared identity can arise in a trusting environment and that this commonality of understanding can provide a framework for information flow, complementing work by Peppers et al. (1999) that shows the importance of interactive communication in building a closer relationship between business and customer.

According to Hoffman and Novak (1998), the Internet threatens consumers in a new and extreme way with regard to personal information privacy, and Mick and Fournier (1998) provided a more general investigation of the paradoxes and inconsistencies that arose from the introduction of new technology and consumers’ consequent behavioral coping strategies. Consumers need to be reassured as to how their personal information is to be managed; Hoffmann, Novak and Peralta (1999) identified the primary barrier to commercial development on the Web as a lack of consumer trust in it as a commercial medium, a finding echoed by the U S Federal Trade Commission (2000). An up front statement of how the information is to be used informs the customer and aids them in drawing conclusions about the integrity of the company (Hanson 2000). This "proof" of integrity is intended to relax the consumer, who may have real qualms about the lack of regulations to monitor electronic commerce (Spalter 1996). Regulations, such as the European Personal Data Protection Directive 95 that prohibited the transfer of information to a country that did not have adequate privacy laws, the Australian Federal Privacy Act 1988 which largely regulated the public sector, the Privacy Amendment (Private sector) Act 2000 which extended privacy requirements to business, together with lobby groups such as the on-line privacy alliance at http://www.privacyalliance.org and, in contrast, http://www.personalization.com which points out the benefits of business use of personal data, have both provided reassurance to consumers as well as raised the profile of privacy as an issue.

One of the most topical issues surrounding information privacy on the Internet is the purchase or use of information to build databases for the distribution of e-mail and other promotional purposes. Hoffman and Novak (1998) discussed the conflict between Personal Information Privacy and consumer convenience, an issue earlier raised by Goodwin (1991).
who suggested that many people would be upset if they were denied the marketing and credit opportunities made available through use of personal information. Phelps et al. (2000, p.27) concurred, suggesting that "most consumers are willing to give up some of their privacy in order to participate in a consumer society". Goodwin (1991) suggests that consumer privacy must be balanced against information needs of marketers as well as conflicting consumer rights and values. Individuals' values vary from consumer to consumer, the marketer's ability to gauge this can lead to a more amicable and trusting relationship between organisation and consumer.

Studies in the UK by the National Consumer Council (2000) and DTI Foresight (2000) found that consumers were more likely to trust an Internet retailer with a physical presence. This may mean that consumers are more confident with personal information privacy with clicks-and-mortar versus Pure Play Retailers.

In summary, the literature indicates that information privacy is a critical cornerstone to establishing relationships with consumers. As a result, a perception of an appropriate level of privacy is suggested as a key hurdle prior to a consumer being willing to shop on a web site. Therefore, we would expect that people who are more comfortable with providing personal details on-line are also more likely to shop on-line. Furthermore, the literature suggests that perceptions of privacy levels are stronger with on-line operations that also have a physical presence compared with those that are "pure-play" only. It was therefore considered timely to investigate these issues.

Hypotheses

Our review of the literature leads us to suggest the following hypotheses:

H 1: Consumers perceive that Pure Play Internet shops make more frequent commercial use of personal information than do clicks-and-mortar Internet shops.

H 2: Perceptions of privacy levels are directly related to on-line shopping behavior.

A self-completion pencil and paper survey was developed to collect the data necessary to test the stated hypotheses. The instrument was pretested with the target sample prior to administration.

The sampling frame consists of undergraduate students. A convenience sample was surveyed over a two-week period in September 2000.

All questionnaires were administered to students during classes. Surveys were completed within 15 minutes in class.

The concept of Internet privacy is in its infancy. Consequently there are no replicable instruments in the literature. In order to test the stated hypotheses, we required measures of perception of Internet privacy across both pure-play and clicks-and-mortar operations. We also needed behavioral data.
Questions relating to these constructs were kept simple, with single item indicators for each point of interest. Behavior is captured through asking respondents to indicate a range of expenditure on-line in the last four weeks. Questions on the perceptions of Internet privacy were administered using seven-point Likert scales. A question about credit card usage was included to reflect willingness to share sensitive data. Questions reflecting the commercial use of private information were included to capture attitudes towards personal information privacy. A question examining perceptual linkages between on-line and off-line operations of the same business was also included. The questions are detailed in the body of the paper.

The respondents were then screened for experience with the Internet, and those with no experience and respondents who invariably gave noncommittal answers (“don't know”) to all questions were eliminated from the data set since those responses were of no value. The hypotheses were tested using simple means comparisons and multiple linear regression.

Results

A total of 181 completed and useable surveys were returned, out of a total 186 distributed, giving a response rate of 97.3%. After removing those people who had never used the Internet, and those who consistently answered "don't know" to all the questions, the sample was reduced from 181 responses to 107 qualified responses. Thus the final data set consisted of a group of Internet savvy people. Of this data set, 24.3% had made purchases over the Internet recently (in the last four weeks).

Clicks and Mortar Retailers versus Pure Plays

A series of questions was designed to directly compare Clicks and Mortar Internet retailers and pure-plays. In each case a set of paired statements or questions were devised relating to each type of retailer, enabling direct comparisons of the results achieved.

Hypothesis 1

H 1 directly compared the perceptions held by the respondents towards the two aforementioned types of Internet retailers. A set of five paired statements directly related to both types of Internet retailer were devised and responses scored on a 7-point Likert scale. The results of these statements are shown in Table 1.
Our respondents made only one significant distinction between their perceptions of the manner in which pure-play and clicks-and-mortar operations treat their personal information. This was the frequency with which they considered that the operations sold their personal information; they felt that the pure-plays would sell information more often than Clicks and Mortar. In contrast, our respondents reported significant differences in their perceived level of trust of pure-play versus clicks-and-mortar operations. They trusted clicks-and-mortar operations significantly more than pure-play businesses (see Table II). Without attempting to deconstruct the complex nature of the concept of trust, this indicates general support for the previous findings cited in this paper.

In summary, we found little support for the notion that our respondents felt Pure Play Internet shops made more frequent commercial use of personal information than do clicks-and-mortar Internet shops.
Hypothesis 2

In order to test whether perceptions of privacy levels are directly related to on-line shopping behavior we regressed behavior (amount spent on-line in the previous four weeks) on several perceived privacy dimensions (see Table 3).

<table>
<thead>
<tr>
<th>Question</th>
<th>Coefficient (standardised)</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>If I use my credit card at the physical store I don’t mind using my credit card at the on-line store</td>
<td>.231</td>
<td>2.493</td>
<td>.014</td>
</tr>
<tr>
<td>I don’t mind receiving promotional emails from these sites (CMR)</td>
<td>.240</td>
<td>2.052</td>
<td>.043</td>
</tr>
<tr>
<td>I don’t mind receiving promotional emails from these sites (pure-play)</td>
<td>-.281</td>
<td>-2.413</td>
<td>.018</td>
</tr>
<tr>
<td>I normally don’t shop at an on-line shop unless I know they have a physical shop</td>
<td>-.208</td>
<td>-2.261</td>
<td>.026</td>
</tr>
<tr>
<td>Constant</td>
<td>1.713</td>
<td>.090</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table III, personal information privacy is linked to on-line behavior. Specifically, our respondents indicated that extending behavior from the physical world into the on-line world is more likely than establishing that behavior ab initio in the on-line world. Further, we see that our respondents indicated that promotional emails were acceptable from clicks-and-mortar operations but were not acceptable from pure-plays. In summary, perceptions of personal information privacy are directly linked to on-line purchasing behavior.

Discussion and conclusions

The results of this investigation provide mixed support for the notion that consumers believe that clicks-and-mortar retailers are more trustworthy with their personal information than pure-plays. We find that there is no significant difference between attitudes toward pure-play and clicks-and-mortar operations with regards to use of personal information by the sites, nor is there a significant difference between the levels of credibility associated with privacy statements on-line in the two scenarios. In contrast, pure-plays are perceived as significantly more likely to on-sell personal information.

In behavior terms, our respondents demonstrated a clear linkage between their on-line purchase behavior and dimensions of personal information privacy. Taken together, these two sets of findings indicate that people are willing to accept some use of their personal information but it may be that the perception of higher usage of information by pure-plays results in lesser confidence in them than with clicks-and-mortar operations.

Managerial implications

The lower trustworthiness of pure-plays means that managers of such operations are at a disadvantage. Specifically, this means that pure-play operations need to establish credibility in the use of personal information to catch up with the existing levels of clicks-and-mortar
operations. Conversely, managers of clicks-and-mortar operations have the opportunity to maintain the competitive advantage provided by the existing credibility of the off-line brand.

**Future Research**

While the linkages among trust, personal information privacy and on-line shopping behavior have all been established independently, there is a need to build an inclusive model which studies the antecedents and consequences of on-line consumer trust in a single conceptual framework. Such a model will allow a deeper understanding of trust formation and the direct manner in which trust and its component parts influence on-line behavior.

**References**


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