The Carry-Over Effects . . .

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THE CARRY-OVER EFFECTS OF A PHYSICAL STORE’S IMAGE ON ITS ECOMMERCE DISTRIBUTION CHANNEL

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As more consumers use the Internet for product information and search, the image one has of an existing retailer’s physical store is likely to impact expectations of the retailer’s web site. In a controlled experiment, we compared expectations with perceptions of a retailer’s web site. We also examined the effect of exceeding web site expectations on future intentions to use the web site as well as changes in attitude toward the retailer. Our results indicate that existing retailer image influences expectations, and shopping motivation influences intentions to use the web site and attitude toward the retailer.

INTRODUCTION

With over 60 percent of the U. S. population currently online, consumer spending has increased steadily from $27 billion in 1999 to a projected $65 billion in 2004 (Jupiter Research, 2004). As the Internet has diffused into the late maturity phase of adoption in society, consumers that are going online now are characteristically risk averse and their familiarity with established offline retailers, such as Sears, Circuit City and Home Depot, leads them to those sites. Consequently, most traditional “brick-and-mortar” retailers recognize that their customers require them to expand their distribution channel capabilities to the creation and maintenance of web-based shopping environments. As retailers operate online, they are now confronted by the challenge of designing and delivering a seamless integration of retail experiences across distribution channels. Though there has been some research concerning the carry-over effects of pleasure and arousal characteristics of a web site and its effect on subsequent exploration activities on other web sites (Menon and Kahn 2002), there has been virtually no research concerning the effect of established retail store image on expectations and subsequent evaluations. However, web retailers that establish sites that fail to live up to their customers’ store experiences and web site expectations may run the risk of alienating their customers as illustrated from these excerpts from the public forums at epinions.com:

Top 100 Retailer of electronics — The brick-and-mortar store is pretty good, with a good selection and reasonable prices. The online store, however, is mismanaged and frustrating to deal with. posted Oct ’02

Top 100 Retailer for upscale clothing - Retailer A is a great store. Retailer A.com is a good store. This department store has excellent merchandise and upholds its customers to the highest level. However, its online store lacks the selection it can boast of at its brick-and-mortar locations. posted Mar ’03

Top 100 Specialty Store for home furnishings - I have always loved their brick and mortar stores for browsing for great home decorations and accessories. Our local store is in close proximity to the mall and parking was impossible so I headed to the online site for some last minute gifts.... So far as I know Retailer B hasn't hyped or advertised their website much, and I can sort of see why. The site is functional but nothing special.... The selection is limited, the shipping is high and their return policy is a mixed bag of...
good and bad. Myself, I won’t be back. There are too many other merchants on the web who do it better, faster, and cheaper.

posted Feb ‘03

The above anecdotal evidence suggests that the overall image of the retailer may have been damaged by the experience at the web site. This paper examines how an individual’s established store image affects their expectations of the web site and how the difference between expectations and experience relate to intentions to use the web site in the future as well as changes in overall attitude toward the retailer or store. Additionally, since consumers are likely to visit an Internet retailer with different shopping motivations (Childers, Carr, Peck and Carson 2001), we examine experiences with the retailer under both task oriented and experiential oriented shopping motivations.

STORE IMAGE AND ONLINE EXPECTATIONS

In traditional retailing, an important core strategy is to create a series of consistently positive experiences for the consumer. Over time, these experiences form a store image. The store image is then used to form expectations concerning future interactions. The store image is also likely to influence expectations of online experiences, which judging by the above examples, has not been met. The ability to convey a consistent image is especially important as the number of individuals that use multiple distribution channels (i.e., retail stores, Internet, catalogs, etc.) increases. The need to maintain a consistent retailer experience is underscored by a recent Doubleclick (2003) report. Doubleclick found that over 56 percent of holiday online shoppers browsed or shopped in more than one channel. Clearly, managers need to be aware when and how customers are forming retailer image.

The seminal definition of store image was provided by Martineau (1958), who stated:

Clearly there is a force operative in the determination of a store’s customer body besides the obvious functional factors location, price ranges and merchandise selection...this force is the store’s personality or image—the way the store’s defined in the shoppers mind. (p.47)

Store image has been depicted as a multi dimensional construct (Manolis, Keep, Joyce and Lambert 1994) composed of a general store dimension, an appearance dimension, and a service dimension. Ongoing research concerning store image over the past four decades has primarily followed two paths; either how store image is developed (e.g., Baker, Grewal and Parasuraman 1994; Mazursky and Jacoby 1986), or the ability to infer attributes based on a store image or reputation (e.g., Brown and Dacin 1997; Dawar and Parker 1994; Robertson, Eliashberg and Rymon 1995). In both of these streams, the store image is shown to be not what the retailer/store thinks its image is, but rather, it is the consumer’s perception of the store.

Of the two research agendas noted above, the use of a store image to make inferences is most relevant here. In this area of research, the consumer utilizes an established store image to infer attributes and expectations concerning the firm. Essentially, the store image serves as an anchor point for current judgments. For example, Robertson, Eliashberg and Rymon (1995) suggest that the reputation of a firm’s signaling behavior is used to determine the credibility of current signaling messages. Similarly, Dawar and Parker (1994) found that retailer reputation had a significant positive effect on perceived product quality. In terms of store image effects on beliefs and attitudes, Brown and Dacin (1997) found that the image consumers had of a company influenced beliefs and attitudes toward the company’s proposed new product introductions. Researchers also recognize that store image perceptions may vary across their various constituents (Brown and Dacin 1997).

Most recently, researchers have begun to examine expectations and perceptions of the online experience (Bhatnagar, Lurie and Zeithaml
2002; Zhang and von Dran 2001). Zhang and von Dran (2001) noted that quality expectations of a web site (i.e., a news oriented web site) can come from intra-category competitors. In a more direct examination of the effects of physical store image on online perceptions, Bhatnagar et al. (2002) found that offline experiences have a strong impact on online firm expectations. Bhatnagar et al. also suggest that offline experiences are more important than online experiences when forming expectations across retail channels.

The above discussion concerning store image and online experience suggests that expectations of a web site may in part be driven by the existing store image. This leads to the prediction that existing physical store image will impact expectations concerning the retailer’s web site. Therefore:

**H1**: There is a relationship between existing physical store image dimensions (general appearance and service) and the expectations of the benefits of the web site.

**SHOPPING ORIENTATION AND ONLINE EVALUATION**

Hoffman and Novak (1996) were among the first to recognize that benefit expectations and behavior online would be moderated by the shopping motivation of the online visitor. Recent investigations have shown that online shopping orientation influences benefit expectations as well as attitude formation (Childers et al. 2001; Mathwick, Malhotra and Ridgon 2002). Similar to traditional retail settings, in which shopping orientation was found to affect behavior (e.g., Hirschman and Holbrook 1982), Childers et al. (2001) found that for task motivated shopping, performance oriented characteristics of the web site strongly influenced attitudes and purchase intentions, while for a hedonic motivation, pleasure aspects such as enjoyment of the shopping environment was more important. Childers et al. also note that enjoyment was also important for task motivated individuals, noting that the Internet’s immersing interactive capabilities should be used even for retailers that aren’t normally thought of as “enjoyable.” They also suggest that consumers’ attitudes, expectations, and preferences may be different for online vs. offline shopping.

To determine which website attributes are more important, Mathwick et al. (2002) directly examined how shopping orientation heightened perceptions of specific website or catalog performance benefits using the Experiential Value Scale (EVS). The EVS (Mathwick, Malhorta and Ridgon 2001) was specifically developed to capture the value that is experienced by the shopper along four dimensions: consumer return on investment, service excellence, playfulness, and aesthetic appeal. In their comparison of shopping orientation effects between retail channels, Mathwick et al. (2002) suggest that task motivated shoppers should have heightened awareness of utilitarian dimensions and experiential motivated shoppers should have heightened perceptions of the hedonic dimensions. Though their hypotheses are partly supported concerning heightened perceptions along the dimensions, they don’t tell us much about the impact of the EVS components with respect to attitudes and intentions toward a web retailer. Since some dimensions may be more salient than others depending on the orientation of the shopper, we would expect those heightened dimensions to drive behavior.

The salience of attributes proves important when examining expectations vs. performance. The services literature suggests that when actual experiences do not meet expectations, dissatisfaction occurs and individuals are likely to experience changes in attitudes toward the service provider/retailer (Zeithaml, Berry and Parasuraman 1996). With respect to expectations concerning the capabilities and benefits of a firm’s website, Waite and Harrison (2002) found that a bank website that fails to meet expectations concerning online transaction capability may result in a lower satisfaction with the firm as well as negatively influence future transaction intentions. In a similar vein, Abbott, Chiang, Hwang, Paquin and Zwick (2000),
in their proposed model of online store loyalty, propose that loyalty to the online store is mediated by the expectations - performance gap. Therefore:

H2: For task motivated shoppers, when perceptions exceed expectations of utilitarian benefits (vs. when they do not exceed expectations) we would expect: a) more positive intention to use the web site in the future; and b) a more positive change in attitude toward the store.

H3: For experientially motivated shoppers, when perceptions exceed expectations of hedonic benefits (vs. when they do not exceed expectations) we would expect: a) more positive intentions to use the web site in the future; and b) a more positive change in attitude toward the store.

METHODOLOGY

A survey followed by a between subjects laboratory experiment manipulating the shopping orientation of subjects (task vs. experientially motivated) was used to examine the proposed hypotheses. Old Navy, a subsidiary of The Gap (ranked second in specialty store sales) and the top general retailer Wal-Mart were selected based on their physical presence in the local marketplace as well as their professionally developed web ecommerce operations.

Procedure

The study was conducted in two phases. In the first phase, a survey directed toward one of the two retailers was administered that assessed attitude toward the firm, existing store image and the benefit expectations of the web site.

After completion of the survey, subjects moved to a local computer room to complete phase two. Subjects were seated at a PC and read along as the instructions were given. In the instructions, subjects were told they were going to visit a web site and were "...to browse the site as they would if they had come across it while they were online..." for the experientially motivated shopping orientation; or "...to search for a ..." specified product, for the task motivated shopping orientation. In the task motivated condition, subjects were asked to record their choices on a separate provided form. Pre-tests were used to establish an appropriate task motivation for each of the online retailers. The items which were selected to be searched for were a pair of jeans and a shirt at the Old Navy web site, and a microwave and toaster oven at the Wal-Mart site. All subjects were told there was a five minute time limit, and if they finished early there was an article for them to read which was located next to the PC. They then typed in the URL provided on the instruction sheet. The URL was for the same target retailer as the earlier survey. The target retailer and shopping orientation conditions were randomly assigned to time periods over three days.

All subjects completed the task in less than five minutes. Upon completion of the web site experience, subjects were instructed to turn off their monitors and complete a survey assessing their perceptions, attitudes, intentions, demographic information as well as a manipulation check for shopping orientation. After collection of the surveys, subjects were debriefed, thanked and dismissed. The entire experimental procedure lasted approximately forty minutes. It should be noted that due to seating limitations of the computer room, if the number of subjects completing the first phase exceeded the number of available seats, those individuals were moved to an adjacent area, thanked by a researcher and dismissed.

Sample

A total of one hundred and thirty-five undergraduate business students from a large southeastern university participated in the study in exchange for extra credit in their class. One hundred and thirty-five subjects completed the first phase, and of these, one hundred and four completed the second phase. All subjects were familiar with using the WWW. The average
age was 23 years old and there were more males than females (58 percent vs. 42 percent). The one hundred and four subjects for the second phase were arrayed for each condition as follows: experientially motivated at Old Navy web site (n=26); task motivated at Old Navy web site (n=30); experientially motivated at Wal-Mart web site (n=25); task motivated at Wal-Mart web site (n=23).

Measures

The existing store image was assessed using a ten item, seven point semantic differential scale for store image (Manolis et al. 1994). The ten items represent three dimensions (service - two items; appearance - two items; and general - six items). The expectations and perceptions of the web site’s benefits were from the Mathwick et al. (2001, p.58) EVS scale. The items were suitably adapted to reflect expectations of the web site. The EVS scale represents the perceived value of the web site. The underlying dimensions of the scale reflect both hedonic and utilitarian elements. The hedonic dimensions of the scale are: visual appeal (three items); entertainment value (three items); escapism (three items); and enjoyment (two items). The utilitarian components are: service excellence (two items); efficiency (three items); and economic value (three items). This resulted in nineteen items for the expected benefits. One item from the economic value benefit was dropped due to low inter item correlation. The same items were slightly reworded and assessed after the subjects experienced the web site. All EVS items were assessed on a seven point scale with higher values representing stronger agreement. Intention to use the web site in the future was measured using a single item from Mathwick et al. (2001) that reflected future web site patronage intention. For each EVS benefit a difference score was calculated from subtracting expectations from perceptions of the web site. The difference scores were then coded as to whether the experience exceeded benefit expectations or did not exceed expectations.

The attitude toward the store was operationalized as a three item, seven point semantic differential scale consisting of an individual’s overall attitude toward the retailer with anchors of good/bad, unfavorable/favorable and negative/positive. Next, we calculated the difference between attitude toward the firm that was collected in phase one, and attitude toward the firm which was collected after the subjects visited the web site.

The manipulation check used to check shopping orientation consisted of four semantic differential questions that addressed the degree in which a subject interacted with the web site and were anchored by viewed many categories/viewed few categories, viewed many products/viewed few products, spent a lot of time browsing products/spent little time browsing products, and spent a lot of time exploring additional features of the web site/spent little time exploring additional features of the web site. In short we expect an experientially motivated individual to view more categories and products, spend more time browsing products and spend more time exploring different features of the web site than a task motivated shopper. The items were reverse scored and averaged to have higher scores reflect greater exploratory behavior. All scale reliabilities and correlations were within acceptable ranges.

ANALYSIS AND RESULTS

Analysis of the manipulation check indicates that subjects in the experientially motivated condition exhibited significantly more exploratory behavior than those in the task-oriented condition (p’s<.05) for both Wal-Mart (M=4.3 vs. M=3.0) and Old Navy (M=4.3 vs. M=3.4).

Hypotheses were tested using SPSS 11 regression and univariate analysis. Hypothesis 1 suggests that there is a relationship between an individual’s physical store image and expected benefits of the web site. To test the hypothesis, the three retail image dimensions were regressed onto each of the seven expected benefits for each of the retailers. Regression details are provided in Table 1.
For Old Navy, the general retail image dimension is significantly associated with expectations for four of the seven website benefits. Higher general retail image is associated with higher expectations of the website's visual appeal, efficiency, economic value and service excellence. Additionally, the service image dimension is significantly associated with the expected escapism of the website. Interestingly, the appearance dimension is negatively associated with expected economic benefits. The analysis of the regressions for Wal-Mart shows that general retailer image is marginally negatively associated with expectations of escapism and intrinsic enjoyment benefits. Higher service image is associated with positive expectations for the website's escapism, intrinsic enjoyment and service excellence. The appearance dimension is not associated with any of the expected website benefits.

Hypothesis 2 suggests that exceeding utilitarian benefit expectations in a task motivated shopping orientation will result in more positive intentions to use the website in the future as well as an increase in overall attitude toward the retailer. Table 2 provides descriptive results for H2, broken down by store. Inspection of the table reveals that exceeding utilitarian benefit expectations does not affect intentions to use the website or change overall attitudes. Only for those that exceeded expectations for the efficiency for the website at Wal-Mart was there even a marginally significant difference in intentions.

Similarly, hypothesis 3 suggests that exceeding hedonic benefit expectations in a experientially motivated shopping orientation will result in more positive intentions to use the website in the future as well as an increase in overall attitude toward the retailer. Table 3 provides de-
scriptive results again broken down by store. Inspection of means reveals that for Wal-Mart, exceeding the expectations for entertainment and escapism benefits leads to increased future intentions to use the web site as well as an increase in positive attitude toward the retailer. For Old Navy, exceeding the intrinsic enjoyment and escapism benefits lead to more positive intentions to use the web site.

DISCUSSION

A survey by the Pew Research Center (2002) found that almost 80 percent of Internet users search for information concerning products they are considering purchasing and nearly half said they would be more likely go to a physical store if they saw the product offering online first. Clearly, in terms of product purchasing, a primary use of the Internet by consumers is to search for information. As consumers experience the web, they bring with them perceptions of the retailer and their expectations. Additionally, each interaction with the retailer has the potential to influence attitudes and purchasing behavior. Certain Internet consumers only look around and explore a web site, while others search for specific information and are more inclined to actually make a purchase (Bush, Bush, and Harris 1998; Hoffman and Novak 1996). Yet in light of these findings, many marketing teams are forced to develop and maintain a web site presence, regardless of how it contributes to organizational objectives (Bush et al. 1998). In order to justify such marketing activities, it seems prudent for business organizations to better understand the benefits that are desired as individuals use the company’s web site and the potential impact of not delivering on those benefits.

TABLE 2
Means and Standard Deviations: T-Test Results for Intention to Use the Retailer Web Site and Change in Overall Attitude Based on Exceeding Utilitarian Benefit Expectations

<table>
<thead>
<tr>
<th></th>
<th>Efficiency</th>
<th>Economic Value</th>
<th>Service Excellence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Exceed</td>
<td>Exceed</td>
<td>Not Exceed</td>
</tr>
<tr>
<td><strong>Old Navy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to use Web Site</td>
<td>4.4 (1.9)</td>
<td>4.2 (1.8)</td>
<td>4.6 (1.5)</td>
</tr>
<tr>
<td>Change in Attitude</td>
<td>-.24 (.45)</td>
<td>-.02 (.79)</td>
<td>-.07 (.26)</td>
</tr>
<tr>
<td>n</td>
<td>10</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td><strong>Wal-Mart</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to use Web Site</td>
<td>3.7 (2.1)</td>
<td>4.9 (.1)</td>
<td>5.2 (1.3)</td>
</tr>
<tr>
<td>Change in Attitude</td>
<td>-.23 (1.1)</td>
<td>-.05 (.06)</td>
<td>-.02 (1.5)</td>
</tr>
<tr>
<td>n</td>
<td>10</td>
<td>13</td>
<td>5</td>
</tr>
</tbody>
</table>

*a p < .01, b p < .05, c p < .10  Value in parenthesis is the standard deviation
The purpose of our study was to investigate the effect of established retailer store image on expectations of the web site experience and trace through those expectations to assess the web site's effect on changes in attitude toward the firm. The major finding of the study indicates that expectations of a web site may be influenced by the existing physical store's image. We found significant associations between the three image dimensions on all seven of the benefits. A reasonably consistent finding was that higher physical store image leads to more positive expectations of the web site. This implies that the physical store image has a carry over effect into the web channel. This is especially critical when examining the comparison of expectations and performance. We found that for experiential shopping motivations, when hedonic benefits exceeded the expectations of those benefits, an increase in overall attitude toward the retailer occurs. This finding goes beyond Bhatnagar et al. (2002) suggestion that offline images are more important than online experiences in attitude formation. Though in the majority of the comparisons between those that exceeded hedonic and utilitarian benefit expectations and those that did not there is no difference in attitude change, we do show instances in which an individual’s attitudes are modified by an interaction with the retailer’s web site.

The findings from the present investigation offer some additional insight into the effects found by Childers et al. (2001) concerning the role that the enjoyment of the web site has as a

TABLE 3
Means and Standard Deviations: T-Test Results for Intention to Use the Retailer Web Site and Change in Overall Attitude Based on Exceeding Hedonic Benefit Expectations

<table>
<thead>
<tr>
<th></th>
<th>Visual Appeal</th>
<th>Entertainment Value</th>
<th>Escapism</th>
<th>Intrinsic Enjoyment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Exceed</td>
<td>Exceed</td>
<td>Not Exceed</td>
<td>Exceed</td>
</tr>
<tr>
<td><strong>Old Navy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to use Web Site</td>
<td>4.4</td>
<td>4.9</td>
<td>4.9</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>(1.6)</td>
<td>(1.5)</td>
<td>(1.5)</td>
<td>(1.6)</td>
</tr>
<tr>
<td>Change in Attitude</td>
<td>0.0</td>
<td>.10</td>
<td>.16</td>
<td>-.17</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
<td>(.90)</td>
<td>(.68)</td>
<td>(.39)</td>
</tr>
<tr>
<td>n</td>
<td>12</td>
<td>14</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Wal-Mart</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to use Web Site</td>
<td>4.1</td>
<td>4.6</td>
<td>3.8</td>
<td>5.1 a</td>
</tr>
<tr>
<td></td>
<td>(1.9)</td>
<td>(1.3)</td>
<td>(1.4)</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Change in Attitude</td>
<td>.23</td>
<td>.26</td>
<td>-.03</td>
<td>.51 b</td>
</tr>
<tr>
<td></td>
<td>(.53)</td>
<td>(.92)</td>
<td>(.08)</td>
<td>(.78)</td>
</tr>
<tr>
<td>n</td>
<td>7</td>
<td>18</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

a p < .01, b p < .05, c p < .10 

Value in parenthesis is the standard deviation
predictor of attitudes. By incorporating expectations into the assessment of changes in attitude, we suggest that individuals use physical stores as anchors for their web site experiences. For retailers maintaining both Internet and physical locations this has implications for both site design and the management of expectations of web atmospheres. We also found some support for congruency effects between shopping motivation and the individual’s future intention to use the retailer’s web site. Consistent with Mathwick et al. (2001), we found that experiential benefits that exceeded expectations lead to more positive future patronage intentions. However, in our study the pattern of findings is not necessarily consistent across retailer environments. For Wal-Mart exceeding expectations of the web site was more likely to lead to changes in overall attitude and intentions to use the web site, while for Old Navy many of the comparisons exhibited no difference in changes in attitude or future web site usage intentions. This finding is not necessarily bad. Existing store images of Old Navy may be at such a level that failure to meet expectations does not affect overall consumer attitudes. The question now is whether or not the existing overall attitude is acceptable to management-be it high or low.

CONCLUSION

This experiment found that existing retailer image perceptions shape consumers’ expectations of the capabilities of the web site. Additionally, when the perceived hedonic performance value exceeded expectations of the web site, more positive changes in overall attitude of the retailer resulted. With respect to the shopping motivation of a web site visitor, we found that if a web site’s visitor experiences high levels of congruency between the benefits the site offers and the motivation for their visit, they are more likely to return to the web site.

However, the limitations of our experimental approach warrant caution in generalizing these findings. We did not attempt to incorporate an individual’s overall expectations of web sites in general. Future research could incorporate the impact of channel expectations and perceived performance of a web site in comparison with other web sites of the same retailer type. Additionally, though subjects were familiar with both retailers, they were overall not as familiar with their web sites. Martineau (1958) suggests that store image is independent of experience with the retailer, while others note that it is critical in store image formation (Kunkel and Berry 1968). Future research could examine the direct role of familiarity in web site store image and its carry-over effect on attitudes and intentions.

Lastly, another limitation of our study is that subjects were instructed to be either task or experientially motivated and then asked to look at a web site they may not normally visit. Though this is a limitation, companies routinely place their URLs in advertising to entice consumers to go to their web sites for further product information (i.e., automobile manufacturers) or experience the offering (i.e., motion picture releases) and attempt to integrate their online and offline advertising messages (Sheehan and Docherty 2001). Understanding expectations and images that consumer have before they visit a web site is critical in ensuring that the experience they encounter meets those expectations.

REFERENCES


