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Reclaiming Competitive Advantage with Web Design

Alexander Bleier, PhD, Colleen M. Harmeling, PhD, and Robert W. Palmatier, PhD

In today’s complex, Internet-driven real estate market, some agents have been left wondering where their competitive advantage has gone. Agents once held specialized access to listings and were well-acquainted with information about pricing and quality of life in certain areas. With the quick availability of all these datapoints and more on the Internet, some buyers may feel they no longer need the specialized services of a real estate agent. Have you considered how the content and design of your website might help you reclaim competitive advantage, while connecting with potential clients on a deeper level?

We conducted extensive e-commerce research through two studies to understand how the web design elements you use impact the dimensions of customer experience and help drive sales. Our research focused on consumer products sold through Amazon.com or similar platforms, but we believe the results found in our studies may help you showcase homes and refine the customer dimension you intend to impact.

Selling Without a Physical Store

Real estate agents encounter the same issue many other salespeople face—selling without a brick and mortar store. When your first and predominant sales platform is the Internet, what concepts govern the design of the online store? Just as a fresh renovation of a store front will showcase products differently, we needed concepts for how to showcase products online. We found that “renovating” these online product listings impacts four distinct dimensions of the consumer experience; cognitive, affective, social, and sensory. To build the overall customer experience, we tested combinations of 13 easy-to-implement web design elements. Web design elements studied include linguistic style, descriptive detail, bulleted features, return policy information, cropped product feature photos, lifestyle pictures of the products in use, the size of pictures, product videos, customer star ratings, expert endorsements, comparison matrices, recommendation agents, and content filters.

As you consider the way these four dimensions impact your site, keep these definitions in mind. Your site’s informativeness, or cognitive dimension is measured by how much helpful information a visitor can draw from the page. The entertainment or affective experience of your
website is measured by how much pleasure the page brings to users (regardless of whether it helps facilitate shopping). Your website’s social presence is not necessarily connected to social media, but rather is the human connection, warmth, and sociability of your page. Finally, the sensory appeal of your website is closely connected to how you stimulate a user’s senses. How does your current website impact cognition, entertainment, social and sensory needs? How can meeting these dimensions help boost sales? Our studies aimed to find out.

**Study One: The Impact of Web Design Elements on Dimension and Sales**

We carried out two studies to understand the importance of these four dimensions, test which of the 13 web design elements we studied created experiences reflecting these dimensions, and determine how a brand’s trustworthiness and type of product impact these effects. For our first study, we partnered with four Fortune 1000 companies in various industries and an online content agency to create mock Amazon.com product pages for 16 products. We manipulated the previously listed 13 web design elements as “present” or “not present” on these pages, creating 256 unique mock web pages for 16 different products.

For the experiment, we randomly presented one of the 256 product pages to 10,470 participants recruited through Amazon Mechanical Turk. With every web page, the participants were asked to spend at least 45 seconds exploring, then complete a questionnaire to understand demographics, the effects of each manipulated design element, and most importantly, scales to measure intent to purchase and the four experience dimensions. As a corollary to this study, we also worked to understand if the products we were utilizing were perceived as “search” or “experience” products—that is, can customers easily assess the product based on factual information listed online (i.e., search qualities), or does the product require direct sensory assessments (i.e., experience qualities)? Four hundred fifty-two respondents completed questionnaires to measure these differences. Similarly, 341 respondents completed questionnaires to help us understand the trustworthiness of the brands we utilized.

Results of this extensive study are plentiful. Concerning the four dimensions, entertaining experiences were the most effective, followed by informative and social dimensions, with sensory appeal trailing behind. With respect to specific web design elements, return policy information and expert endorsements do not contribute to any of the four dimensions.

When creating more informative experiences, bulleted feature lists, comparison matrices, descriptive detail, larger pictures, product videos, a recommendation agent, and a lifestyle picture were found meaningful, in order from more to less effective.

Nine elements impacted entertainment value of a web page, in order of most to least effective: picture size, customer star rating, a comparison matrix, bulleted features, descriptive detail, product videos, conversational language, and a cropped photo of product features.
Ten items proved relevant in creating social presence on a web page: picture size, linguistic style, customer star ratings, product videos, descriptive detail, comparison matrices, bulleted features, lifestyle pictures, and product feature crops were important, in descending order of effectiveness.

Finally, ten elements were found relevant when considering sensory appeal, in descending order: picture size, product video, linguistic style, lifestyle pictures, customer star ratings, a comparison matrix, descriptive detail, bulleted features, product feature crops, and recommendation agents.

Phrased in simpler terms, more informative experiences require outcome-oriented information, working best with search products and trusted brands. Bulleted features, comparison matrices, descriptive detail, and recommendation agents help the most for this dimension. More entertaining experiences work best for those brands which are not yet trusted. Most well-executed web design elements will increase the entertainment value of your website. More social experiences communicate human presence and are effective with experience products. A conversational linguistic style and lifestyle pictures are much more effective in this dimension than elsewhere. Sensory experiences connect with users on a deeper level through their senses. Product videos and product feature cropped images are especially important design elements for this dimension.

Study Two: Validating our Findings with Actual Sales

Study one resulted in a primary framework for designing online customer experiences, customized to specific products or brand factors. Study two, then, resulted in a test of external validity to the findings of study one. That is, we continued in partnership with one of the firms we had previously utilized to manipulate their actual Amazon.com product pages for two search products. We studied their sales volume before making changes, then gathered four weeks of data after changing the pages to utilize web design elements more suited to informative or social experiences. The sales of the two manipulated products were compared to a control product, and our partner firm provided access to Amazon’s Premium Analytics for these pages. We added additional statistical controls to address potential bias.

Because these were real world sales analyses, it is important to note the level of sales for each product prior to the change in the webpage design. While the control and informative product page had statistically similar sales, the product to be targeted for a social experience achieved higher sales before we manipulated the pages. To account for this, we used a difference-in-
differences approach that allowed us to observe the change in sales compared to the control condition. As we expected, after the launch of our web design changes, sales increased for the informative page, decreased for the social page, and showed a slight nonsignificant decrease for the control condition. These results verified the findings of our first study: when selling a search product, more informative experiences improve sales, while presenting a more social experience for these products has a detrimental effect on sales. When customers are motivated to search and learn more about the products they are buying, they respond more positively to an educational, informative approach than a socially geared page. Therefore, choosing your web design elements is not a “one size fits all” issue, but rather, web design elements should be carefully selected depending on the nature of your product and brand which dictate the relevance of different experience dimensions.

**Study Implications**

Previous studies had assumed that web design elements primarily conveyed cognitive and entertaining information. Our studies showed that sellers instead should also consider other dimensions in their web design such as social and sensory dimensions. Surprisingly, social dimensions of web design are shown to just as strongly impact purchase response as informative dimensions. As customers yearn for human contact in a digital world, these needs should be considered by sellers as they consider adding features such as AI chatbots and user-generated content in their online stores.

Managerial conclusions for these studies are straightforward. First, sellers should understand whether the products they are selling fit categories of “search” items—which can be evaluated based on factual information—or “experience” items which need more direct physical, sensory interaction. If sellers determine that their products are search items, then a more informative approach, with clearly delineated bullet points and descriptive language will be helpful. If a seller is using an online platform to sell a more experiential product, more social and sensory approaches with large lifestyle pictures, videos, and conversational language may increase sales. In all, we advocate for more care and thought to be put into the online product listing. Just because your web site has the capability to have certain design elements does not necessarily mean those design elements will lead to higher sales, and no amount of online novelty can hide poorly written descriptions and low-quality product pictures or video. Therefore, sellers should use the results of our studies to determine which design elements will showcase each product best; then, produce and employ excellent content that leads to sales.
We have summarized our findings and suggestions on when and how to emphasize the four website experience dimensions in the following table:

<table>
<thead>
<tr>
<th>Experience Dimensions</th>
<th>Informative</th>
<th>Entertaining</th>
<th>Social</th>
<th>Sensory</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to emphasize:</td>
<td>● Pages for search products ● Trusted brands</td>
<td>● Pages for less trusted brands</td>
<td>● Pages for experience products</td>
<td>● Pages for experience products</td>
</tr>
<tr>
<td>How to emphasize:</td>
<td>● Provide descriptive detail by adding product attributes ● Compare to other related products ● Suggest other related products</td>
<td>● No particular design element has its strongest effect on this experience dimension</td>
<td>● Use conversational style, adding adjectives and pronouns ● Include a lifestyle picture ● Avoid content filters, which require customers to decide what content appears</td>
<td>● Use a video with audio and visuals to present product ● Use a product feature crop that highlights key characteristic by zooming in on an attribute</td>
</tr>
</tbody>
</table>

**Real Estate Implications**

Though real estate properties are not yet available on Amazon.com, many of the same findings could be applied to a real estate agent’s web site design. First, understand what kind of buyers you and your properties usually attract; then spend time with every property you list considering what kind of buying experience is most appropriate. For example, you might ask how trusted your name is in the local market. If you have carefully built a local brand which inspires trust, our findings suggest clients may be willing to process more information and benefit from a cognitive experience. Similarly, if you conclude that a property you are listing may better fit the “search” category, as clients show flexibility in their preferred home type, other cognitive experiences may be more beneficial in driving sales. As mentioned before, informational web pages are best designed with bulleted feature lists, descriptive detail, and comparison matrices.

On the other hand, if you are a newer or less-trusted name in the local market, we suggest focusing on designing more entertaining web pages which engage client attention. For example, large pictures of a property or the dramatization of sales through prominent customer star ratings could be helpful. If you discern that a particular property more closely fits our label of “experience” products, targeting more social and sensory experiences with web design may be beneficial. To create these experiences, our findings suggest that conversational language, “lifestyle” pictures of the property in use, and videos may be the most helpful in helping clients envision themselves living in such a beautiful and prestigious home.
You may notice that our findings don’t call for a complete, expensive overhaul of your website or for you to purchase cutting edge new web design elements. Indeed, we completed these studies using mock Amazon websites and with actual Amazon web pages: powerful, but not particularly groundbreaking examples of innovative web design. Our studies show that you don’t have to have a particularly new or creative site to increase sales; rather, you can use the site you already have and simple web design elements you already know how to use in smarter ways to target different demographics. Rather than throwing every fancy new web trick at an e-commerce site, we encourage you to save that time, and invest it in creating better strategic content to showcase through simple, targeted web design elements. With a bit of intentional work and a few simple changes to what you put on individual web pages, you can target potential buyers and reclaim some competitive advantage in this client focused market.

Recommended Reading


About the Authors

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Dr. Alexander Bleier’s (PhD – University of Cologne) primary research interests lie at the intersection of digital marketing, customer relationship management, and consumer decision making. A particular focus concerns the investigation of marketing communication and personalization strategies. His work has appeared in leading academic and practitioner journals such as Marketing Science, Journal of Marketing, Journal of Consumer Research, Harvard Business Review, Journal of the Academy of Marketing Science, Journal of Retailing, and Harvard Business Manager. Before entering academia, he gained practical experience with two international top-management consultancies and a major retail and banking system provider as well as the German-Argentine Chamber of Industry and Commerce.

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Dr. Colleen Harmeling’s (PhD – Saint Louis University) research focuses on customer relationship development, managing key events, and facilitating customer engagement and brand advocacy. Her research has appeared in Journal of Marketing, Harvard Business Review, Journal of International Business Studies, MSI Working Paper Series, and has been presented at numerous marketing conferences. She has co-authored book chapters on relationship development and customer engagement. Her work on online engagement strategies has been funded by the Marketing Science Institute. She has provided consulting and worked on collaborative research projects with firms in various industries including Emerson Electric, Belkin, Wells Fargo, SC Johnson, Schneider Electric, and World Vision. Colleen has taught
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