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An Exploratory Study of Website Information Content

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Abstract

This study describes and demonstrates the Website Information Content Survey (WICS), which is intended to provide practitioners and researchers with a means of systematically describing website information content. In an exploratory survey of twenty business-to-consumer websites across five e-commerce domains, we demonstrate how the survey can be used to make cross-website comparisons that can identify potential gaps in a website's information content. The results of this study offer actionable guidance to practitioners seeking to match their website's information mix to customer's demands for product, company, and channel information. The WICS tool enables future investigation of hypothesized relationships between website information content and user-website interaction outcomes.

Key words: Information Content, Content Analysis, e-Commerce, Website Quality, Information Cues

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1 Introduction

Despite early predictions that the Web would eliminate seller-buyer knowledge discrepancies and thus, create a frictionless, price-based market [4], [27], numerous studies have concluded that low prices are not the driving force behind B2C commerce. In fact, research has demonstrated that the Internet does not inevitably provide lower prices than traditional mediums, nor do customers tend to buy from the lowest priced seller [7]. Rather, the main advantage of the Internet for business-to-consumer (B2C) website customers lies in the relatively low cost of obtaining high-quality information [3], [5], [22], [33]. Hence, for B2C websites, success depends upon understanding how customers use information to make decisions about what products to buy, what company to buy them from, and whether or not to purchase the product on-line [35].

Two types of studies have dominated Information Systems (IS) studies of information content. In the first type of study, the effects of specific information cues are examined. For example, Dholakia & Rego (1998) investigated the effects of assurance seals on website hit rates. Generally, these studies seek to understand the effects of a few specific information points within a relatively restricted context [41]. In the second type of study, various information content is cataloged as part of a larger attempt to describe a website or to identify the relative importance of information content, website design, brand familiarity, product involvement, etc. For example, the website evaluation model presented by Zhang and von Dran (2001) accounted for several information content cues whose presence or absence could be objectively assessed. These papers generally address the relative utility of information content compared to other aspects of e-commerce websites (site design, functionality, etc.) [51].

Although both study strategies provide relevant guidance to e-commerce practitioners and managers, the instruments described in these studies offer little information to e-commerce and practitioners seeking answers to such questions as “Do visitors to my website perceive its information content in a manner that is consistent with how I intended it to be perceived?”, “Does my website provide the same information that my competitors do?”, “What relative importance do my customers assign to the information points presented at my website?”, or “How do various mixes of information content influence visitor perceptions and behaviors?” The answers to these questions can have important consequences. For instance, the results of this study indicate that some information cues which may seem obvious and un-ambiguous to a website’s designer may be confusing or otherwise unclear to the website’s visitors. For example, as the authors assessed the information content of each of the targeted websites (further described later in the article), we observed that “product or general warranty information” cues were often buried deep within the text of relatively peripheral web pages, and were often ambiguously worded. For instance, does a statement such as, “satisfaction guaranteed” imply the existence of a warranty? The Website Information Content Survey (WICS) tool offers one way to confirm that website visitors find and interpret information cues in the manner that managers and designers intend.

The primary goal of this paper is to introduce a survey instrument that provides a broad profile of the specific information cues that are commonly presented by business-to-consumer websites. In this preliminary study, we demonstrate how the Website Information Content Survey (WICS) can be used to measure which information cues website visitors actually experience, and how the survey can be used to compare the information content profiles of various websites. Our results lay the groundwork for future studies which may address more complex questions such as “What information content do visitors to my website consider important?”, or “How do various mixes of information content influence visitor perceptions and behaviors?”

2 Literature Review

The Internet is fundamentally an information medium, and most businesses operating online are providing information designed to improve visitors’ ability to make decisions. Researchers validating the DeLone and McLean Model of Information System Success (1989, 1992) have found the association between information quality and decision-making performance (and other individual impacts) to be significant (e.g. [14], [45], [48], [54]). This research measured information quality in terms of accuracy, timeliness, completeness, relevance, and consistency (e.g. [1], [36]). It suggests that providing the “right” information on a company website could have a dramatic impact on usability of a website, and ultimately improve a visitor’s ability to determine which products to buy and from whom.

Resnik and Stern (1977) defined information content as ‘cues that enable viewers to better achieve their own personal sets of purchase objectives. Information ‘cues’ are information points that allow a consumer to differentiate between products or otherwise make a more informed decision. One of the challenges facing website designers is determining what information cues need to be on their websites and, alternatively, what information cues distract visitors from their decision making tasks.

A significant body of work has already been done to identify the elements of successful e-commerce websites. High quality information content, along with effective design, navigation, security, and functionality, are consistently cited as critical aspects of website success [1], [15], [18], [21], [29], [40], [46]. In fact, e-commerce researchers have found that the context in which a product is sold is statistically a better predictor of customer attitude toward the e-

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commerce business than the product is [31]. Table 1 summarizes a number of instruments that have been developed to measure website quality (e.g., [2], [6], [30]). These instruments have been tested on a variety of selling and non-selling sites using experienced online shoppers, student Web users, and Web developers. The website quality construct used in these studies borrows strongly from the Technology Acceptance Model [10] in that one of its major objectives is to measure the "usefulness" and "usability" of websites. However, as Loiacono et al. (2007) point out, website managers and developers require more guidance than usefulness and usability. Despite this, the majority of these instruments measure the information content of a site as a single construct (e.g. "The information on the website is pretty much what I need to carry out my tasks," [30]) or examine the believability, accuracy, timeliness and completeness of the information on the site without looking at what specific information is found on the website [6].

Table 1: Website Quality/Information Content Dimensions Found In Prior Studies

Source	Website Quality/Information Content Dimensions
[2]	Data quality, Organized, Attractive, Technical adequacy
[6]	Data quality, Usability, Interaction reliability
[13]	Page features, Information content
[28]	Data quality, Response time
[29]	Data & service quality, Organized & use, Playfulness, Security & transaction
[30]	Data fit to task, Understandable & Response time, Emotional & visual appeal, Trust
[32]	Price usability, Quality (information) usability, (Product) comparability
[36]	Data Quality, Ease of Use & Response, Layout
[40]	Completeness, Navigation & Response time, Security
[43]	Content features, Design features (Presentation, Navigation, Security, Speed, Tracking)
[47]	Promotion, Service, Interpersonal sources, Ease of use/navigation, Purchase facilitation
[49]	Reliability, Responsiveness, Tangibles, Assurance & Empathy
[52]	Information Quality, Perceived Usability, Service Quality
[55]-[56]	Accuracy & completeness, Navigation, Privacy

A few of the studies listed in Table 1 have created broad surveys of important website information cues, functions, and design features. A previous study by Son & Zahedi (2005) study created a list of 46 web design elements, of which 27 were specific information cues. In an experimental analysis, the 29 most important web design elements (of which approximately 25 were information cues) were manipulated across 32 experimental treatments. Their results found that information content significantly influenced experimental subject's purchase intentions and their attitudes about the website. A second study by Zhang et al. (2001) compiled an inventory of 77 website elements and compared their relative importance across six common web domains. Of the 77 elements they inventoried, approximately 20 were information cues, (e.g., 'Advertising/Lack of advertising', 'Customer reviews, responses and input', 'Multimedia', 'Product and service description', etc.). The other items of the survey generally assessed the presence of various functions ('No broken links', 'Printable/downloadable') or user's reactions to the site ('Interesting content', 'Informative', 'Intuitive interface', 'Appropriate Level of content'). While no specific information cues rated within the top 5 most important elements in any domain, 'Completeness/Comprehensiveness of Info' ranked as the first or second most important element in 4 of the 6 domains examined. A 1998 study by Dholakia and Rego surveyed the presence of 27 information cues and design features across 272 homepages. They used regression to examine which elements correlated with site popularity (they used daily hit-rate as a proxy variable for site popularity). Unlike the other two studies, their results did not find a significant relationship between website information quantity and website popularity.

Website quality and information quality have been found to play an important role in user perceptions of the abilities and trustworthiness of the eBusinesses [6], [24], [34], [39], [44]. In one such study experts were asked to rank the content of websites based on the number of links, graphics, words, and banner advertisements at each site. The study indicated that when users were relatively uninterested in the topic of the websites they evaluated, they rated the sites with high information content as more informative than sites with low information content. In contrast, subjects who exhibited relatively high interest did not equate information content with informativeness [23]. Kang and Kim (2006) speculate that disinterested users used a simple heuristic (such as: a large amount of data implies

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high informative value) to judge the informativeness of a site. On the other hand, users who displayed a relatively high level of interest did not rate all information cues equally, and were more discriminating about which information they considered important. This and other research clearly indicates that interface issues such as information quality, usability, and attractiveness all have a significant influence on a consumer's perceptions about a business, increase the percentage of those who intend to purchase from or use a website, and affects how much they are willing to pay [18], [19], [28], [37], [38], [40], [50].

In addition to investigating how website information content affects user-website interactions, it seems worthwhile to address a more fundamental question: 'What information content does a website contain?' The work of Goodhue and Thompson (1995) suggests that an instrument for evaluating the information cues available on a website could be an important first step towards better understanding how website content needs to vary based on how websites are used in different domains. Such an instrument could greatly advance the investigation of how various information cues influence consumer behaviors across various types of websites. The information content survey presented in this article (the WICS) allows website information content to be systematically catalogued, and facilitates future investigations of questions like: 'What information do my customers consider important when visiting my website?' 'What information enhances user-website interaction satisfaction?' and 'What information makes consumers more likely to make purchases at, and return to, my website?' This extends prior research by looking at specific information cues as opposed to viewing information content as a single construct.

3 Measuring Website Information Content

While it is sometimes acceptable to treat terms like 'information content' as self-defining and singular, the research proposed here requires a more specific definition of information content that can be consistently applied across a broad range of websites. This research identifies 92 separate information cues that could potentially be used by consumers to differentiate between products and make a more informed decision. In this paper, we focus on the explicit, discrete information cues included within a website's copy or media content. We do not attempt to account for information content that is implied through website design, organization, or visual content [25].

3.1 Survey Development

This study used content analysis to develop and test a website information content evaluation survey (WICS) that allows for meaningful description, analysis, and comparison of the information cues present in B2C websites. Content analysis develops a data set based on systematic coding of documentary evidence [20]. The intention is to systematically assign quantitative descriptions of qualitative data (in this case, the presence or absence of information cues).

The goal of this phase of the study was to develop a comprehensive inventory of the information cues that are likely to be found within websites. We began by reviewing the literature and identifying information cues identified in studies that investigated specific information cues, types of information, and website quality. The literature review identified 64 different information cues that were used in at least 1 of 14 prior research studies. In addition to identifying information cues in the literature, the authors surveyed 25 retail websites to identify additional information cues that had not been evaluated in prior research. Ultimately, 90 cues were compiled to create the Website Information Content Survey (Appendix A). Within the WICS the information cues were grouped into sections (e.g., "product information", "company information".) based upon which pages within a website the information cue was typically presented. For example, the cues included in the "product information" section of the WICS are commonly presented on web pages that describe products, cues included in the "company information" section of the WICS are commonly presented on web pages describe the website's host company.

3.2 A Demonstration of the WICS

As part of our exploratory study, we had 21 student subjects enrolled in an information systems class at a mid-sized urban university perform a content analysis of twenty different websites using the WICS instrument. The subjects were asked to determine (by indicating "yes" or "no") whether the specific information cues described in the WICS instrument could be found on the website they were assigned to assess. The websites represent five different e-commerce domains: insurance, consumer electronics, travel (cruises), health care, and foods and were not the ones used to develop the original information content survey instrument. These domains were selected to encompass a broad range of types of e-commerce including products and diverse types of services. The domains include some of the most popular business to consumer e-commerce segments (e.g. electronics, groceries, travel) as well as more specialized services [9]. Each student was given a paper copy of the initial WICS instrument, the URL of the website they were asked to perform the content analysis for, and a list of products or services to find information for. The products or services the subjects were asked to search for were chosen to expose them to a broad range of content available at each site. Two subjects were given the same site in the insurance domain- one of these subjects was asked to obtain a car insurance quote, the other was asked to obtain a home insurance quote. The subjects used the tools available on the individual sites to locate the information content (e.g. site maps, menus and site specific search tools).

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In order to assess the reliability of the WICS instrument, one author also used the WICS to independently assess each of the target websites. Following the initial assessments by the subjects and the first author, the second author re-evaluated all information content items where the first author's assessment differed from the student's assessment. This resulted in a combined author/student assessment that was compared to the independent assessment made by the first author to determine the inter-rater reliability. Inter-rater reliability is the degree of agreement among raters and is necessary in situations where there is a degree of human judgment involved in the measurement of variables. The inter-rater reliability of the student/author and author-only assessments were measured by calculating Cohen's kappa which is appropriate when comparing two sets of ratings (see table 2). The inter-rater reliability for each domain and for the websites overall exceeded the 0.70 criteria indicating that the coding is acceptable [26], [53].

Table 2: Inter-rater Reliability Scores

	Cohen's kappa					
	All Sites	**Electronics**	**Medical Services**	**Specialty Foods**	**Insurance**	**Cruise Lines**
3-rater reliability	0.805	0.783	0.840	0.860	0.721	0.790

4 Results

The prevalence of information cues found as a result of the content analysis is summarized in Appendix A. The table in Appendix A lists each information cue included in WICS, the source of the information cue (if it was derived from prior literature), and the percentage of websites in the sample that were found to contain the information cue, listed by domain. The frequency of occurrence across domains offers a simple comparison of which information cues are common (and could initially be inferred to be important) across various domains. Finally, Appendix A contains the overall percentage of sites surveyed that were found to contain a specific information cue.

One simple application of the WICS survey is to determine if there are any significant differences between the information content of sites from different domains. Table 3 shows the results of paired sample t-tests that were used to determine if there were significant differences in the information cues found for different domains. The t-tests indicate that there were significant differences for most of the domains examined. The information cues found on the "electronics" sites were significantly different than the cues on sites for all other domains except the "cruise line" domain. The "medical services" sites contained information cues that were significantly different from all domains except "specialty foods", and the "insurance" sites also contained information cues that were significantly different from all other sites except for the "specialty foods" sites. The fact that "insurance" and "medical services" were both similar to "specialty foods" but not to each other suggest that the information cue overlap might be for different reasons. For example, most of the "specialty food" sites and most of the "medical service" sites were for very small companies with limited websites. Although the insurance sites were all large carriers, insurance sites have no product to deliver and as such might appear to be missing some product related information content cues which smaller sites that actually sell products include.

Table 3: Paired Sample t-Tests Comparing Domains (significance)

	Electronics	**Medical Services**	**Specialty Foods**	**Insurance**	**Cruise Lines**
Electronics	-	0.0000	0.0000	0.0006	0.8791
Medical Services	0.0000	-	0.1458	0.0047	0.0000
Specialty Foods	0.0000	0.1458	-	0.1237	0.0000
Insurance	0.0006	0.0047	0.1237	-	0.0008
Cruise Lines	0.8791	0.0000	0.0000	0.0008	-

Insight can also be gained from intra-domain comparisons, which may help identify information shortfalls, industry trends, competitive advantages, or opportunities. For instance, understanding how frequently an information cue occurs within a domain (the "intra-domain frequency of occurrence") gives an indication of whether the presence of that cue on a website is relatively common (or, conversely, unique) across websites in that domain. If a cue is included at most of the websites within a domain, this research suggests (but does not test) a website that does not provide that cue may be perceived as less informative than the competitors who do provide the information cue.

Our analysis of intra-domain frequencies of occurrence indicates that website designers may not always understand what data are expected in their particular domain. For example, our analysis found lists of product ingredients at 3 of the 4 specialty food stores we assessed. Assuming that a significant number of specialty food customers have food allergies, a specialty food store that does not offer a list of product ingredients may be at a substantial disadvantage, especially when competing websites do prominently feature ingredient lists.

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Practitioners may also need guidance identifying content that is not appropriate for their site. For example, only one of the health services websites assessed in our exercise mentioned price (in fact, that site lists only a range of prices: $499-$1500 per eye). While price is always a consideration, prudent health care providers probably do not want to be seen as differentiating themselves based on price alone.

Beyond its descriptive abilities, the WICS lays a foundation for more complex, explanatory analysis. While our methods were not sensitive enough to support inferences of causality, we did observe several potential relationships between information content and subject perceptions. One subject who assessed a website for a provider of Lasik eye surgery consistently indicated that the amount of information provided at the site they assessed was insufficient. When compared to other health-care provider sites (including another Lasik provider), we discovered that the low-ranking Lasik site was the only health-care related site that did not contain 1) warranty information and 2) information for conducting off-line financial transactions. It is possible that the lack of confidence-building (warranty) and payment method information could influence the perceptions of a consumer who is considering a potentially risky, expensive purchase such as Lasik eye surgery.

Finally, our analysis showed that there is often considerable variability regarding the presence of a given information cue within a domain. One insurance site prominently features a celebrity endorsement, while two other insurance websites featured very different types of entertainment content. The variability of information cues presented most likely reflects the very different corporate images being presented by the different insurance websites. Of course, high intra-domain frequency of occurrence variability may also signal that an information cue's presence is consistently ambiguous, subtle, or otherwise hard to assess. For example, subjects may not realize that when they are choosing how much liability insurance to carry, they are customizing the product.

5 Limitations and Future Research

The breadth and depth of information presented at even a simple B2C website makes consistently obtaining a systematic description of website information content extremely challenging. The reliability and usefulness of the WICS is largely dependent upon the domain it is applied to and the subjective interpretations of content assessors. However, the flexible nature of the survey means that it can be enhanced, clarified, or focused to address the specific domains and questions being investigated. Future researchers would need to evaluate the nature of their domain (e.g. product or service) and the size of the business they wish to assess and could eliminate specific questions that are not appropriate for those sites.

The WICS instrument is designed to be a comprehensive information content assessment. As a result of its wide scope, assessing the information content of multiple websites may prove too taxing to many potential study subjects. The comprehensiveness and granularity of information description required by any given assessor will obviously vary widely, based upon the specific questions being investigated. Future investigators may opt to use only those parts of the survey that directly interest them. For example, many prior website quality surveys have focused on the quality of product related information.

The relatively small number of websites evaluated within each domain facilitated only general comparisons of the influences of information content cues on user perceptions. Future research can evaluate a large number of sites in a given domain to further investigate how information content influences user perceptions and behaviors.

The results of this study showed that the most (but not all) websites in a particular domain tend to have similar information cues. This suggests that some information cues are very important in some domains and other cues could potentially have a negative impact in other domains. Future research could examine the relationship between website information content and consumer website interaction outcomes more explicitly. For example, researchers could examine the impact of missing information cues on perceptions of website quality, trust, intention to purchase, purchase activity, and intention to return to the website (similar to [17]). This would help researchers better understand the role information content plays in user perceptions of websites and of e-commerce retailers.

6 Contributions

Previous studies of website information content have tended to focus on the effects of specific information cues or the importance of sub-sets of information cues. This study introduces a survey that allows practitioners and researchers to create a comprehensive, meaningful information profile of a broad range of B2C websites. The WICS can be used by website designers to benchmark their website content against their competitors. This benchmarking process will help website designers understand the best practices and the norms for their domains.

We hope that in the future, the survey may also prove useful to researchers investigating hypothesized links between information content and consumer website interaction outcomes, such as perceptions of website quality, trust, intention to purchase, purchase activity, and intention to return to the website. The survey may also provide utility and insight for researchers investigating links between information content and other website dimensions, such as site design and organization.

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WICS represents an early step towards understanding how to make informed choices about what information content should be included on a website. This study describes and demonstrates a tool and analysis method that allows practitioners to simply and effectively describe and assess their website's information content, and also compares their website to competitors. As described earlier, a systematic inventory allows practitioners to accurately identify possible information gaps in their site's information mix (e.g., product ingredients at a specialty food store), as well as information cues that differentiate their site from competitor's (e.g., entertainment content at insurance websites). Additionally, our preliminary results showed examples of possible relationships between information content and website user perceptions. Such examples invite future investigations of possible relationships between website information content and user-website interaction outcomes (i.e., visitor perceptions of website quality, trust, purchase intention and behavior, intention to return to the site, etc.). The WICS survey also enables further research investigating the relationships between information content and other aspects of website success, such as how site design and information organization influence perceptions of information quality.

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Appendix A: The Website Information Content Survey (WICS) and the Results of a Preliminary Study.

	Prevalence of each cue in the 5 domains surveyed - % of sites with cue						
Information Cue	Electronics (4)	Medical Services (4)	Specialty Foods (4)	Insurance (5)	Cruise Lines (4)	overall	**Source**
NAVIGATION INFORMATION							
Is a navigational bar present on every screen?	100%	100%	100%	100%	100%	100%	[2], [6]
Is the navigation bar consistently located?	100%	100%	75%	60%	100%	86%	[47]
Does the repeated Navigation structure (menus, links @ bottom of page) contain links to:							
a Customer service policy?	100%	50%	50%	100%	75%	76%	*Not previously studied
a Privacy policy?	100%	0%	50%	100%	100%	71%	[40], [43], [47], [49]
a Site map?	75%	75%	25%	100%	100%	76%	*Not previously studied
a Search engine?	75%	0%	75%	100%	75%	57%	[2], [40], [43], [47], [56]
the Home page?	100%	100%	100%	100%	100%	100%	[13]
Does the site have a site map?	75%	75%	25%	100%	75%	71%	[43], [56]
PRODUCT/SERVICE INFORMATION							
Lists of products/services offered by the company.	100%	100%	100%	100%	100%	100%	[2], [49]
List of products/services that can be purchased/used at the website	100%	50%	100%	100%	100%	90%	[56]
Prices of Product or Service	100%	25%	100%	100%	100%	86%	[13], [32], [47]
Availability of Product or Service	75%	0%	0%	60%	100%	48%	[13]
Product Description							
Attributes	100%	0%	75%	80%	100%	71%	[2], [13], [32], [47], [56]
Functionality	100%	50%	0%	60%	100%	62%	[8]
Materials	50%	25%	0%	0%	0%	14%	[13]
Ingredients	0%	0%	75%	0%	0%	14%	[13]
Nutritional Information	0%	0%	75%	0%	0%	14%	[13]
Description of services provided.	50%	100%	25%	100%	100%	76%	*Not previously studied
Product variations, e.g., color, size	50%	75%	50%	100%	100%	76%	[13]
FAQ – list of 'Frequently asked	100%	100%	25%	60%	100%	76%	[56]

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questions'							
Product customization information	0%	25%	0%	100%	100%	48%	[6], [47]
Claims of product superiority	100%	75%	25%	80%	75%	71%	[56]
Comparisons to competitor's products or prices	50%	25%	0%	80%	25%	38%	[13]
'Side-by-side' comparisons of products offered by company	50%	0%	25%	0%	50%	24%	[32], [40]
Product Benefits (or negative avoided)	100%	100%	100%	80%	100%	95%	[13]
Product warnings (e.g. side effects, hazards)	0%	75%	50%	0%	0%	24%	*Not previously studied
Product Picture							
Static, 2D	100%	100%	100%	0%	100%	76%	[13], [47]
Dynamic, 3D	50%	0%	0%	0%	75%	24%	[13]
New Product Notification	100%	0%	50%	40%	75%	52%	[13], [47]
Owner's Manual, Assembly Instructions, etc.	100%	0%	0%	0%	0%	19%	[13]
Demonstration of the product in use							
Image	50%	100%	0%	0%	75%	43%	*Not previously studied
Multimedia	50%	0%	0%	0%	50%	19%	*Not previously studied
Product preview (e.g., sample chapters for a book)							
Text	0%	0%	0%	0%	75%	14%	*Not previously studied
Multimedia	25%	0%	0%	0%	100%	24%	*Not previously studied
Product reviews (customer, 3rd party, etc)	75%	100%	50%	40%	75%	67%	[32], [47], [56]
Product endorsement (Celebrity/Expert)	25%	100%	0%	40%	0%	33%	[47]
Product or general warranty information	100%	75%	25%	60%	25%	57%	[6], [8], [13]
Staff or service provider profiles/credentials	25%	75%	50%	80%	50%	57%	*Not previously studied
Sale information (sale prices, sale announcement, etc.)	75%	25%	50%	40%	75%	52%	[13], [47]
Purchase/Reservation Information							
Online	100%	50%	100%	80%	75%	81%	*Not previously studied
Offline	50%	100%	100%	100%	100%	90%	[40]
Product safety information, guidelines or warnings	25%	25%	50%	20%	75%	38%	[13]
Contest or giveaway information	25%	25%	25%	0%	50%	24%	[13]
PERSONALIZED INFORMATION							
Customer name appears on	50%	0%	50%	60%	100%	52%	*Not previously

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website							studied
Customer preferences tracked/used on site	50%	0%	50%	80%	100%	57%	[2], [6], [30], [47]
Product recommendations/suggestions made	100%	0%	50%	60%	75%	57%	[47]
ADVERTISEMENTS							
Banner Ad	25%	0%	0%	0%	0%	5%	[13], [56]
Side Ad	25%	25%	25%	0%	0%	14%	*Not previously studied
Embedded Ad	25%	0%	0%	0%	0%	5%	*Not previously studied
CUSTOMER SERVICE INFORMATION							
Company warranty policy (blanket, for all or most products)	100%	75%	50%	20%	25%	52%	[47]
Return/Refund/Exchange policy	75%	50%	50%	0%	100%	52%	[2]
Order Tracking	100%	0%	0%	20%	50%	33%	[47]
Customer Service contact info							[6], [47], [52]
Phone	100%	100%	100%	100%	100%	100%	*Not previously studied
email	100%	100%	100%	100%	75%	95%	[2]
Customer Service hours	50%	25%	0%	80%	25%	38%	*Not previously studied
Indication of customer service online conversation/chat capability	0%	0%	0%	0%	0%	0%	[43], [47], [56]
TRANSACTION INFORMATION							
Indication of online purchase functionality	100%	0%	100%	80%	100%	76%	[2], [30]
Taxes and other charges	100%	0%	75%	60%	100%	67%	[49]
Total price	100%	0%	75%	80%	100%	71%	[49]
List of individual items being purchased	100%	0%	75%	60%	100%	67%	[49]
Item-by-item price list of items being purchased	100%	0%	75%	80%	100%	71%	[49]
Delivery date estimation	75%	0%	50%	20%	75%	43%	[6], [49]
Shipping options	100%	0%	100%	0%	25%	43%	[47]
Payment options	100%	0%	100%	60%	100%	71%	[47], [49]
Third party security assurance (seal, endorsement, etc.)	100%	0%	25%	40%	50%	43%	[13]
Shopping cart status	100%	0%	75%	40%	100%	62%	*Not previously studied
Individual accounts with login and password	75%	0%	75%	80%	100%	67%	[40], [55], [54]

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Information on offline modes for conducting financial transactions	50%	75%	100%	60%	100%	76%	[40]
COMPANY INFORMATION							
Company logo	100%	100%	75%	100%	100%	95%	[17]
Company retail sites							
List	25%	100%	0%	80%	0%	43%	[17]
URL	0%	25%	25%	40%	0%	19%	*Not previously studied
Map	50%	50%	25%	60%	0%	38%	*Not previously studied
Partner-company retail sites							
List	75%	25%	50%	0%	75%	43%	*Not previously studied
URL	50%	25%	25%	20%	50%	33%	*Not previously studied
Map	25%	0%	0%	0%	25%	10%	*Not previously studied
Company contact information							
Phone	100%	100%	100%	100%	100%	100%	[2], [43]
email	100%	100%	100%	100%	100%	100%	[2], [43]
Mail address	100%	100%	100%	100%	50%	90%	*Not previously studied
HQ Address	50%	100%	75%	80%	50%	71%	[43]
Company history	100%	25%	50%	100%	75%	71%	[2], [43]
Press Releases	100%	25%	25%	100%	100%	71%	[43]
Company Goal, Mission or Vision	100%	50%	50%	80%	50%	67%	*Not previously studied
Celebrity endorsement of company/brand	25%	100%	0%	0%	0%	24%	*Not previously studied
MULTIMEDIA							
Does the site have 'Entertainment' content?							[30], [40]
Image	25%	0%	0%	40%	100%	33%	[13]
Game	0%	0%	0%	0%	0%	0%	*Not previously studied
Multimedia	25%	25%	0%	40%	100%	38%	[2], [6], [43], [56], [55]
SECURITY							
Does the site require login with user name and password?	75%	0%	50%	80%	75%	57%	[40], [55], [56]
Does the key/lock display on status bar for insecure pages?	100%	0%	75%	100%	100%	76%	*Not previously studied

*"Not previously studied" cues are information cues found on a significant proportion of the websites examined as part of the WICS development process but not identified in prior literature.