Analyzing the Readability of Consumer Brand Wine Websites

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Abstract

Purpose*: Wine brand websites, these days as commonplace as websites for almost any brand, often can be viewed as complex or unapproachable to many audiences. Wine-drinking is no longer a pastime of the affluent and elite; rather, it is becoming more and more popular with younger consumer groups and those from broadening socio-economic backgrounds. In order to communicate effectively with newer consumer demographics, wine brand websites must first and foremost be understandable and readable to these demographics.*

Design/Methodology/Approach*: To investigate the readability of consumer brand wine websites, website copy from the most popular wine brands in the United States was calculated across multiple readability indices using an online readability calculation tool.*

Findings*: Study results show that wine websites form two groupings based on readability – one targeted toward a broad audience and one targeted to more well-educated and refined consumers. Results are reported along with notable trends, managerial implications and limitations of the methodology, and directions for future research are identified.*

Key words: Wine, Websites, Internet, Readability, Communications

INTRODUCTION

1. ANALYZING THE READABILITY OF CONSUMER BRAND WINE WEBSITES

Some call it a "Virtual Vineyard" (Wiseman & Ellig, 2004), some a new world of "Wine 2.0" (Thatch, 2009). Whatever the title, it is becoming rapidly apparent that, like so many other products and services, wine is increasingly being discussed and marketed on the Internet. Wine is a unique, information-rich product that lends itself well to online representation because wine sales and purchasing decisions are in large part influenced by information-gathering by the buyer prior to sale (Berthon, et al., 1997).

Wine is an experiential product, with each varietal having a plethora of nuances and unique characteristics. Discussions, reviews and personal recommendations about wine are by no means new phenomena. But as technology and information networking evolve, Web platforms have come to lend themselves very well to continuing this communication online. There are several styles of wine-oriented websites on the Internet – wine review sites and blogs, discussion sites, price-hunting sites that compare multiple retail outlets, and B2B-oriented distribution sites. From a corporate marketing communications perspective one of the most intriguing types to study are company-run wine brand or winery websites.

Consumer brand wine websites take many shapes and forms. Some are simple, some complex. Some are oriented to representing branding and imagery, some to explaining offerings in detail, and some simply to online purchasing. Online communications have as much to do with subject matter and the intent of a website as they do with the target audience. The ways companies design and write their websites can make the user experience more attractive to certain demographics. It is important to recognize unique differences in online (versus offline) communications in that websites themselves essentially become the primary product and brand image of the organization, often the sales desk and point of purchase as well (Bruwer & Wood, 2005; Constantinides, 2002).

Wine and wine-drinking is becoming increasingly commonplace across broadening socio-economic consumer groups (Bruwer & Wood, 2005). While some studies reinforce the belief that the majority of wine buyers, particularly online, fit the ideal of middle aged, well-educated and affluent (Bruwer & Wood, 2005), recent papers have begun to explore the trend of younger consumers as wine drinkers and the correlated shifting landscape of wine marketing (Thatch, 2009; Nowak & Newton, 2008).

This paper will explore the approachability of consumer brand wine websites for these diverging target demographics by looking specifically at the websites' readability from the viewers' perspective. We will first provide as background an explanation of the concepts of readability and reader comprehension and then outline our study of readability measures for 20 popular consumer brand wine websites. Findings and conclusions will be discussed along with limitations of the study and avenues for future research.

2. THE RELEVANCE OF READABILITY TO CONSUMER BRAND WINE WEBSITES

In a study of the multiple dimensions of evaluating a website, Berthon, el al. (1997) discuss four key appraisal criteria: graphic design, products/pricing, ordering processes and additional service value. What is not discussed, though, are notions of content-viewer interaction and viewer engagement that we will attempt to address with a discussion on website readability.

Since wine websites can be structured for one or more of a multitude of purposes, including information, location, pricing, education, branding or sales, and geared toward diverse socio-economic demographic groups, readability becomes key to understanding efficacy of corporate communications (Burgess, Sellitto, & Wenn, 2005; Neilson, Madill, & Haines Jr., 2010). Fully 40% of wine website users in a recent study (Bruwer & Wood, 2005) found that wine websites were too complicated to navigate and comprehend. Because wine, in particular, is both price sensitive and information sensitive, a focus on user comprehension is paramount to ensuring the wine brand organization is communicating effectively with its current and prospective consumers. Nowak and Newton (2008; cf. Thatch, 2009) found that wine website construction and navigability had a direct impact on levels of trust and engagement with viewers of those particular sites. Bruwer and Wood (2005) find evidence to support this claim, in that fully 80% of wine website visitors do not revisit websites if they are found to be unimpressive or uninformative. The subjective nature of a site being informative, of course, ties back to readability and the correlation between user and site content.

3. READABILITY AND READER COMPREHENSION

Readability, simply put, is means of measuring the understandability of written communication. Importantly, readability assesses the quality, content and style of a piece or pieces of writing in part from the technical or grammatical perspective of the author, but more so from the comprehensive perspective of the reader. Research has shown that written communications that are accessible and understandable to the audience improve reader comprehension and retention. While such technical characteristics as sentence structure, vocabulary, grammar and word length must be measured, so too must more subjective or qualitative features of the writing such as tone, reader competence and legibility (Klare, 1963; Klare, 1980). Therefore, any means of estimating readability must approach the textual analysis in terms of both syntax and semantics to determine accessibility for by various audiences; most often this is reported as relative to the readers' level of education (Gray & Leary, 1935).

From a management perspective, recognizing the relationships – and possible differences – between an author's intent and an audience's impression and understanding is paramount to effective business communications. The importance of readability has been discussed in several business disciplines, but none so much as marketing (Mackey & Metz, 2009; Milne, Culnan, & Greene, 2006; Kover, 2002; Clark, Kaminski, & Brown, 1990; Leong, Ewing, & Pitt, 2002).

There are a plethora of measurement formulae and techniques available for analyzing the readability of a given piece of text material but, perhaps in part due to the partially subjective nature of measurement, no one formula has been recognized as a universal methodology. This study employs six of the most widely utilized and recognized measurements for readability: the

FOG Index, the Reading Ease Score, the Grade Level Score, SMOG, the Coleman-Liau Index and the Automated Readability Index. Indices calculate readability by virtue of the number of complex words per sentence, sentence and word length, and characters per word with varying levels of complexity and technological aid. Most readability indices aim to calculate a "readability score" that approximates the US education system grade level correlated with the difficulty level of a given piece of text.

A key requirement for any wine brand website is that it will not only be readable but understandable to its viewers and therefore must consider both the writing style and target reader base in assessing readability. Failure of many wine brand websites to fully understand and balance these requirements, resulting in reduced levels of readability for one or more consumer groups, may fuel the sentiment that wine websites are often too complex or elitist in nature.

4. METHODOLOGY

Our interest with respect to readability lies in corporate communications aimed at public consumption, and therefore the purpose of this paper is to analyze the readability of consumer brand wine websites. We chose the wine brands for this study based on Restaurant Wine Magazine's (Restaurant Wine, 2008) report on the top wine brands sold in American restaurants, based on annual case volumes. Of the 100 wines listed, the top 20 brands were selected for this study, and branded websites were found through Internet search engines.

The text from the 20 branded websites was analyzed using the Readability Test Tool (www.read-able.com). This is a free service provided online that permits users to analyze the readability of a piece of text by uploading text directly or providing a hyperlink for an Internet address where the subject text may be found. Read-able.com then analyzes the text and reports readability measures based on the six formulae discussed above, as well as statistics such as number of sentences, number of words, number and percentage of complex words, average words per sentence and average syllables per word.

We compiled data from Restaurant Wine and the Readability Test Tool in Microsoft Excel and used a formula to average the multiple grade level indices to a single grade level score for each brand, then extracted this average grade level to loosely predict an average reader age associated with that grade level. Finally, we used Excel to calculate the minimum score, maximum score, average score and standard deviation for each of the 13 measures.

5. RESULTS

The results of the readability analysis of the consumer brand wine websites are presented in Table 1, for the 13 indicators discussed above. In the most straightforward sense, the data in Table 1 may be interpreted as follows: generally, lower scores indicate greater readability of the given website. The exception to this rule is the Flesh-Kincaid Reading Ease (the first column of data), which is inverse and therefore the higher the index, the greater the ease of readability.

It becomes quite apparent from reviewing the data herein that the readability measures of consumer brand wine websites in this study vary dramatically. The Flesh-Kincaid Reading Ease

score, for example, has an average readability index of 63 which falls well within Flesch's recommended target range of 60-70, but with a standard deviation of 12.5. For reference, this is approximately the readability level of Reader's Digest Magazine (Kerr, 2007). The highest ranking in the Reading Ease Score is 82, or extremely readable for almost any audience. On the other hand, two scores fall below 36, which implies a significantly difficult read for most website viewers. These two websites have approximately the same readability level as the Harvard Law Review (Kerr, 2007).

Grade level scores also fluctuate greatly both within and across indices. The FOG measure has a particularly dramatic spread. The average is 7.5 which is slightly higher than Gunning's recommended target range, but still approachable by the majority of adults. However, the scores range from a minimum of 2, which can be considered extremely readable for any level of audience, up to 21, which can be considered verging on incomprehensible. Similar but even more dramatic are the Automated Readability Index scores, where data range from 0.1 to 21.

Overall, the average grade level for the group of 20 wine brand websites was equivalent to an 8th grade reading ability. To extrapolate, it becomes evident that there are two primary "groups" of sites based on average grade level readability. 40% of the sites fall in the 5-7 range, and 45% of the sites fall into the 8.5-11 range. We believe that this may suggest two schools of management thought regarding the authoring of wine websites for consumers, where one school advocates very approachable and readable websites (i.e., a younger and broader audience, as Nowak and Newton [2008] suggest) and the other school tends to focus on a slightly more sophisticated demographic, as per Bruwer and Wood (2005).

6. LIMITATIONS, MANAGERIAL IMPLICATIONS AND AVENUES FOR FUTURE RESEARCH

6.1. Limitations

Websites, of course, are only one of many ways in which wine brands communicate with their target demographic. This study does not take into account any other form of written communication (advertising, bottle labelling, social media activities, etc). Additionally, this study only analyzed data from 20 consumer brand wine websites. While this may be a reasonable sample based on the popularity of these particular brands, we do recognize that for the same reasons, these wine brands may be of a similar or homogeneous nature or size.

Lastly, and with particular respect to this study's analysis of technology-driven communications, we note that the data collected and resulting findings for this paper represent only a "snapshot" in time. The data and findings represent content on the 20 wine websites as of Summer 2010, and may not reflect any changes that may have occurred since.

6.2. Managerial Implications

The findings of this study suggest that, while certain target demographics may be assumed by grouping wine brand websites based on readability measures, there are dramatic fluctuations in readability across wine websites of a similar nature that only serves to reinforce consumer

confusion, rather than help remove it. It is our recommendation to management, then, to take into account the specific requirements of wine websites – both in purpose and in terms of target demographic – when writing and designing consumer brand wine websites. Marketing managers and website writers need to consider their brand's website as an extension of their overall communications plan and strategically plan the content based on target demographics, psychographics, education level, socio-economic background and so forth. In this light, readability predetermines the access levels for the public approaching the website. It can be used as a means to include or exclude certain demographics, or to make the site more inviting and approachable to certain consumers over others. There are two suggested means of assessing the readability of a site's content prior to launch. First, managers may conduct market research both on their target consumer (for example, demographic statistics) and on their competitors' websites (for example, SWOT analyses). Second, managers may conduct primary research with the target consumer group such as focus groups or, perhaps more appropriately, web-based feedback surveys.

In many cases, as this study highlights, unless the organization intentionally wishes to be exclusive of younger and newer wine-drinking demographics, wine websites may be written at a much higher reader comprehension level than is ideal to appeal to a broad consumer base and therefore serve to impede expansion of the brand's consumption and purchasing group.

That said, it can be and over-simplification to place greater weight on readability than is justified. While the audience's education, knowledge of the website's subject matter and reading skill levels will, intuitively, determine their comprehension, it can similarly be argued that levels of trust in a website and brand may be related to much more than the efficacy of branded website communication. It is our recommendation herein that website readability levels be factored into the organization's overall strategic communications plan for how and to whom product(s) are marketed.

6.3. Avenues for Future Research

As mentioned above, this study analyzed data from 20 very popular wine brands. Further studies might expand data collection to include the full 100 top wines by volume listed in Restaurant Wine Magazine's report (Restaurant Wine, 2008). Additionally, future studies might effort to include readability analyses of websites from smaller-volume wine brands that would not be included in a national ranking based on volume. Correspondence analysis might be used in an attempt to uncover correlations between website readability measures and characteristics such as winery size, average bottle price or country of origin.

7. CONCLUSIONS

We have attempted to begin to address the readability of popular consumer brand wine websites, with the goal of answering the question of whether or not these websites could be considered "readable" to primary consumption demographics. Our conclusion is that the wine brand websites generally appear to fall into two categories: one category that can be considered highly readable to most audiences, and a second category that can be considered approachable only to a more sophisticated audience.

If the goal of popular wine brand websites is indeed to reach a broadening socio-economic target consumer demographic, we argue that not all brand wine websites communicate effectively with the stakeholder groups for which they are intended. Armed with a general understanding of the premise that successful online marketing (including sales) requires consumer trust, and that trust is built in the online environment through clear and approachable communications, we believe that wine brand marketers could take greater steps toward engaging and motivating potentially massive consumer groups. Those who write the websites of popular consumer wine brands would do well to remember that they may be writing for an audience with far less wine knowledge and experience than the author, and communicating effectively with these audiences takes careful thought and execution.

REFERENCES

Berthon, P., Pitt, L., Berthon, J., Crowther, C., Bruwer, L., Lyall, P., et al. (1997). Mapping the marketspace: evaluating industry Web sites using correspondence analysis. *Journal of Strategic Marketing* , 5 (4), 233-242.

Bruwer, J., & Wood, G. (2005). The Australian online wine-buying consumer: Motivational and behavioural perspectives. *Journal of Wine Research* , 16 (3), 193-211.

Burgess, S., Sellitto, C., & Wenn, A. (2005). Maturity in the websites of Australian wineries: a study of varying website content. *International Journal of Electronic Business* , 3 (5), 3.

Clark, G., Kaminski, P., & Brown, G. (1990). The Readability of Advertisements and Articles in Trade Journals. *Industrial Marketing Management* , 19 (3), 251-260.

Constantinides, E. (2002). The 4S web-marketing mix model. Electronic Commerce Researh and Applications , 1, 57-76.

Gray, W., & Leary, B. (1935). What makes a book readable. Chicago: Chicago University Press.

Kerr, D. (2007). Information in diabetes care: is there a need to dumb down even more? Diabetic Medicine , 24 (5), 561-563.

Klare, G. (1980). A Manual for Readable Writing, 4th Ed. Burrnie: REM.

Klare, G. (1963). The measurement of readability. Ames: Iowa State University Press.

Kover, A. (2002). Readability. *Journal of Advertising Research* , 42 (2), 5.

Leong, E., Ewing, M., & Pitt, L. (2002). E-comprehension Evaluating B2B websites using readability formulae. *Industrial Marketing Management* , 31 (2), 125-131.

Mackey, M., & Metz, M. (2009). Ease of reading of mandatory information on Canadian food product labels. *International Journal of Consumer Studies* , 33 (4), 369-381.

Milne, G., Culnan, M., & Greene, H. (2006). Longitudinal Assessment of Online Privacy Notice Readability. *Journal of Public Policy & Marketing* , 25 (2), 238.

Neilson, L., Madill, J., & Haines Jr., G. (2010). The development of e-business in wine industry SMEs: An international perspective. *International Journal of Electronic Business* , 8 (2), 2.

Nowak, L. I., & Newton, S. (2008). Using winery web sites to launch relationships with Millennials. *International Journal of Wine Business Research* , 20 (1), 53-67.

Restaurant Wine. (2008). Restaurant Wine Top 100 Wine Brands Sold in USA Restaurants, 2007. Restaurant Wine (125-126).

Thatch, L. (2009). Wine 2.0—The Next Phase of Wine Marketing? Exploring US Winery Adoption of Wine 2.0 Components. *Journal of Wine Research* , 20 (2), 143-15.

TABLE 1. Wine	Country	Company	FK RES	FK GLS	FOG	SMOG	CLI	ARI	Avg,	No. of sentences	No. of words	No. of complex words	Percent of complex words	Average words per sentence	Average syllables per word	Grade Level	Age Range
Yellow Tail	Australia	W.J. Deutsch & Sons, Ltd.	77.00	4.05	5.70	4.85	11.20	3.20	5.80	75.0	316.0	26.0	10.22	5.99	1.45	6.0	12-13
Cavit	Italy	Palm Bay Imports	60.30	6.15	4.45	5.85	11.45	3.05	6.19	104.5	275.0	69.0	20.66	5.31	1.66	6.0	11-12
Ecco Domani	Italy	E. & J. Gallo Winery	67.40	5.10	5.10	5.15	13.50	4.50	6.67	47.5	182.5	21.0	10.58	5.02	1.53	6.5	11-13
Mezzacorona, Sparkling	Italy	Prestige Wine Imports Corp.	63.60	7.30	10.20	7.90	8.30	3.70	7.48	27.0	214.0	34.0	15.72	11.70	1.56	7.5	12-14
Martini & Rossi	Italy/USA	Bacardi USA	35.30	18.80	21.40	14.60	11.10	21.10	17.40	5.0	210.0	32.0	15.24	42.00	1.52	17.0	22-23
Beringer Vineyards	USA	Foster's Wine Estates America	54.45	6.85	5.50	5.85	16.05	6.40	8.13	84.0	352.0	74.0	20.20	4.63	1.74	8.5	13-15
Kendall-Jackson	USA	Kendall-Jackson Wine Estates	76.10	3.80	1.90	4.60	8.10	0.10	3.70	10.0	45.0	5.0	11.11	4.78	1.49	4.0	9-10
Franzia Winetaps	USA	The Wine Group	70.45	6.60	8.50	6.90	13.30	8.25	8.71	7.0	102.0	13.5	10.60	12.79	1.46	8.5	13-15
Sutter Home	USA	Trinchero Family Estates	75.50	4.05	4.45	5.20	10.45	2.40	5.31	106.0	467.0	53.5	12.31	5.45	1.48	5.5	11-13
Inglenook	USA	The Wine Group	65.95	8.15	9.90	8.80	11.50	8.65	9.40	9.5	156.0	21.5	13.72	16.52	1.47	9.5	14-16
Copperidge	USA	E. & J. Gallo Winery	71.95	4.25	5.80	4.70	13.25	3.85	6.37	75.0	238.0	24.0	9.45	4.07	1.45	6.0	11-12
Robert Mondavi Woodbridge	USA	VineOne (Constellation)	55.65	8.30	7.40	8.55	13.85	7.90	9.20	79.5	897.0	175.5	17.58	11.27	1.64	9.5	14-16
Foxhorn Vineyards	USA	The Wine Group	63.50	8.30	11.80	8.80	12.20	8.90	10.00	11.0	175.0	25.0	14.29	15.91	1.50	10.0	15-16
Salmon Creek	USA	Classic Wines of California	34.10	10.20	3.30	7.70	21.80	12.20	11.04	32.0	157.0	35.0	22.29	6.95	1.93	11.0	16-17
Almaden	USA	The Wine Group	63.50	8.30	11.80	8.80	12.20	8.90	10.00	11.0	175.0	25.0	14.29	15.91	1.50	10.0	15-16
Chateau Ste. Michelle	USA	Ste. Michelle Wine Estates	66.95	4.95	4.30	4.40	13.25	3.90	6.16	51.5	136.0	16.5	11.64	4.09	1.55	6.0	11-12
Taylor California Cellars	USA	Centerra Wine (Constellation)	81.80	3.90	5.30	5.30	10.10	3.30	5.58	14.0	101.0	9.0	8.91	8.08	1.37	6.0	11-12
Stone Cellars	USA	Foster's Wine Estates America	59.40	6.15	5.50	5.55	14.35	5.10	7.33	55.5	242.0	56.5	18.54	4.76	1.69	7.5	12-14
Sycamore Lane	USA	Trinchero Family Estates	61.75	7.30	7.70	8.15	12.05	6.30	8.30	53.0	238.0	40.0	17.66	10.78	1.59	8.5	13-15
La Terre Table	USA	VineOne (Constellation)	49.50	9.80	9.60	9.80	14.60	9.70	10.70	109.0	1492.0	307.0	20.58	13.69	1.70	11.0	16-17
MIN			34.10	3.80	1.90	4.40	8.10	0.10	3.70	5.00	45.00	5.00	8.91	4.07	1.37	4.00	
MAX			81.80	18.80	21.40	14.60	21.80	21.10	17.40	109.00	1492.00	307.00	22.29	42.00	1.93	17.00	
MEAN			62.71	7.12	7.48	7.07	12.63	6.57	8.17	48.35	308.53	53.15	14.78	10.48	1.56	8.23	
ST DEV			12.54	3.39	4.30	2.48	2.94	4.56	2.94	36.39	331.73	70.27	4.20	8.61	0.13	2.87	