

Emotional impact of wine selling websites: An investigation of the online perception of wine web stores

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Abstract:

Purpose - The combination of online wine marketing and web design based on emotions is an important but neglected field of research. In order to get a better understanding of the potential of emotional web design, this preliminary study evaluates to what extent the emotional perception differs between online wine stores.

Design/methodology/approach - In this preliminary study, wine consumers of different German universities evaluated the websites of twelve wineries by rating 48 screenshots using the self-assessment manikin scale (SAM). This study included two analyses of variances (ANOVA) to indicate significant emotional differences between twelve domains and different website sections.

Findings - Websites differ significantly on the rating of felt “dominance” by consumers. This means that users experienced different levels of “being dominant” whilst judging the wineries’ websites. A second application of ANOVA indicates significant differences on felt valence and arousal between the website sections “landing page”, “product list”, and “product detail”. Interestingly, the non-commercial areas of websites were given higher emotional ratings than the web shops itself.

Practical implications - Websites with large images and happy-looking people as well as colourful and simple web design seem to create a stronger feeling of dominance. However, a pure reduction of the internet store on technical aspects and booking efficiency is not recommended.

Keywords: Wine, emotions, e-commerce, web design, self-assessment manikin

1. INTRODUCTION

In recent years, the internet became an omnipresent medium that impacts the way we communicate, gather information and purchase goods. In 2014, the worldwide B2C e-commerce sales rose to about USD 1.316 billion and are expected to increase to USD 2.489 billion by 2018 (eMarketer, 2014). Today, more than 72% of all Germans buy products and services online (IfD Allensbach, 2014). This development of e-commerce applies to a wide range of products, including the distribution of wine. According to the latest market evaluations, almost 32% of all Germans are interested in buying wine online (LZ, 2014). 29% even prefer the online channel over other distribution channels (BMWl, 2015). For this reason, the online sales potential in the wine industry is substantial. Despite this positive development, there is a lack of scientific research in the field of e-commerce as well as in the wine industry itself, especially concerning website elements which evoke emotions of consumers.

The shopping experience during a visit of a web shop can be crucial, because the attractiveness of websites is linked with commercial success (Gahne and Shokrizade, 2014). Therefore, we expect emotional reactions by users when they are surfing on well-designed websites (Wilhelm, 2012). Accordingly, this study tests the emotional impact of wine web shops on users, investigates where significant systematic or merely arbitrary differences are, and tries to gain a deeper knowledge of emotional web design in general. Based on the findings of this preliminary study, the main study will analyse the relationship between emotions and the willingness to pay, focus on sales possibilities and other website usage indicators, which are beneficial for the economic success of an online store.

1.1. Research on Emotions

Since the early 1980s, emotions have often been the subject of empirical studies (Vogel, 2013), including research on the effects in the decision making process (Hill and Gardner, 1987; Loken 2006; Cohen et al., 2008). Emotions affect, among other things, the willingness to take risks (Arkes et al., 1988), impulsive buying behaviour (Weinberg and Gottwald, 1982) and the willingness to pay (Lerner et al., 2004). At that time, emotionality was often a neglected field in marketing with the prejudice, that consumers' buying decisions are based on a pure rational information process (Holbrook and O'Shaughnessy, 1984). Yet, for products that are based upon fulfilling more emotional needs, the traditional view seems to be inappropriate. According to Zaltman (2003), consumers in general do not totally think deliberated, because up to 95 percent of human thinking happens unconsciously. This supports the theory that decisions are not only based on utilitarian motives, but can also be dominated by emotional desires, especially for some types of products and services (Singh, 1999).

Research on emotions is challenging because humans react to stimuli differently and struggle to describe and differentiate their subjective emotions that they have experienced. The research on emotion itself offers a large number of diverse and contradictory conceptions of emotions (Kleinginna and Kleinginna, 1981; Damasio, 2008; Rossiter, 2001). For this study,

we refer to the definition by Plutchik (1984): “an emotion is an inferred complex sequence of reactions to a stimulus, and includes cognitive evaluations, subjective changes, autonomic and neural arousal, impulses to action, and behaviour designed to have an effect upon the stimulus that initiated the complex sequence.”

1.2. Self-assessment-manikin

According to the investigations of Russell (1980) and Lang, Bradley and Cuthbert (1990), emotions can be summarised in three basic dimensions described as a feeling of *arousal*, *valence* (pleasure), and *dominance*. In order to measure the subjective emotional effect of a website, we use the self-assessment manikin (SAM) scale by Bradley and Lang (1994) in the following study. In general, self-reports are common in research on emotions and serve as a primary method for ascertaining emotion and mood. The SAM scale is used as a well-approved method for measuring emotional responses (Morris, 1995). Although the scale is not new, it is applied in numerous recent studies like Lueken et al. (2014), Suess and Rahman (2015), and Bublatzky et al. (2014). To overcome the textual difficulties in semantic differentials (Mehrabian and Russell, 1974), Bradley and Lang (1994) designed a picture-oriented instrument to assess the three dimensions *valence*, *arousal*, and *dominance* directly by a set of graphical and nonverbal manikins (see figure 1). The first row shows the icons for the evaluation of the dimension *valence* using a set of five smiley faces from “sad” to “happy”. The icons for the evaluation of the dimension *arousal* are represented in the second row starting with a “calm” manikin and continuous decreasing pictures which end as an “explosion” shape at the highest level of *arousal*. The third row for the dimension *dominance* contains five manikins with various characters’ sizes, beginning with a very small to an “out-of-the-border” manikin.

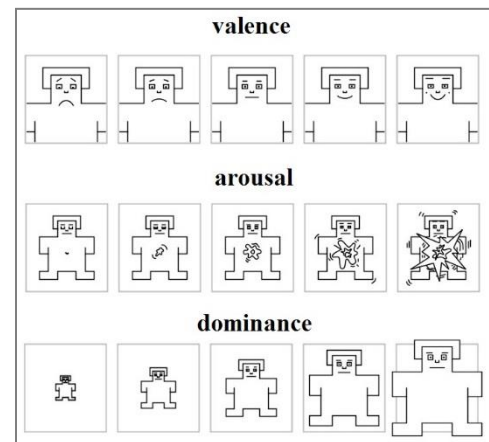


Figure 1: The Self-Assessment Manikin (SAM) used to rate the affective dimensions of valence, arousal, and dominance (Bradley and Lang 1994).

2. METHODS

For this study, we apply the SAM scale in the context of wine and e-commerce. As a first hypothesis, we assume that the rated emotionality of the selected domains differs significantly on valence ($H_{1.1}$) arousal ($H_{1.2}$), and on dominance ($H_{1.3}$). As a second hypothesis, we assume that four selected website sections differ significantly regarding valence ($H_{2.1}$), arousal ($H_{2.2}$), and dominance ($H_{2.3}$). In our approach, the hypotheses will be tested through the use of two analyses of variances (ANOVA).

Students and faculty staff from various courses of study at four universities in Germany took part in a ca. 45 min. computer assisted study between April and June 2015. As a criterion for exclusion, participants had to be wine consumers. Overall, twelve domains of German wineries were tested. An entire website was represented by four screenshots. The screenshots

were assigned to specific website sections: “*landing page*”, “*who we are*”, “*product list*”, and “*product detail*” (see figure 2). The first two sections represent the non-shop-area. They practically give a first overview about the winery, the owner, and the range of products. The other two website sections belong to the shop-area, where products can be purchased. All screenshots were rated successively on the three self-assessment manikin scales *valence*, *arousal*, and *dominance*.

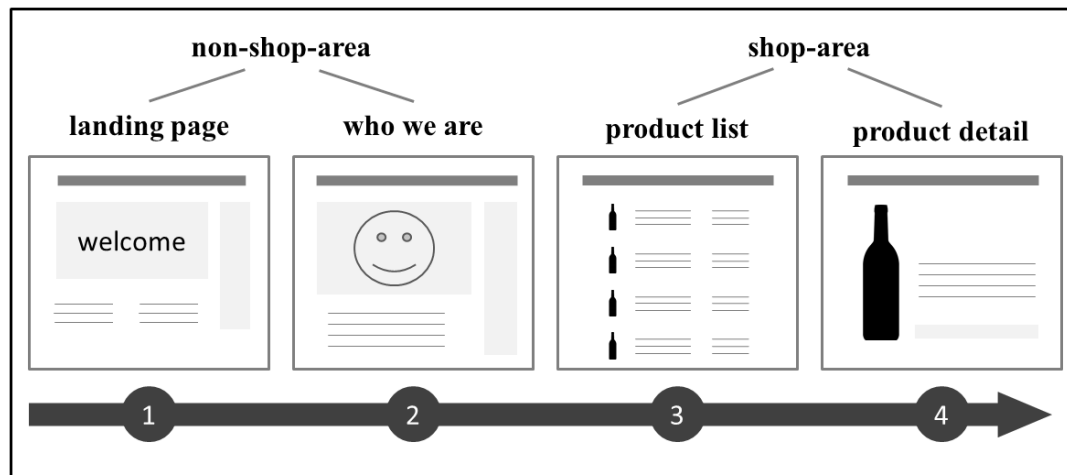


Figure 2: The four sections of screenshots and their sequence during the experiment.

3. RESULTS

Data was obtained from 147 participants of the survey. 14 participants declared that they “never drink wine” and were therefore excluded. Thus, the remaining sample consisted of 133 cases which took part in the experiment. 67 participants were male and 66 were female. Their age ranged from 18 to 66 years ($M = 29.78$, $SD = 10.20$).

Firstly, we conducted a one-way ANOVA to analyse significant differences between the emotional impacts on the selected websites. A one-way ANOVA between the **domains** (independent variable) and their ratings of *valence*, *arousal*, and *dominance* (dependent variable) at the $p < .05$ level was performed. There was no significant effect between the websites on *valence*, $F(11,36) = 1,120$, $p = .375$, and *arousal*, $F(11,36) = 1,877$, $p = .077$. Yet, the analysis revealed a significant difference of the websites’ *dominance* $F(11,36) = 2.475$, $p = .020$. Post hoc comparisons using the Tukey HSD test indicated that the mean score for domain number four ($M = 3.14$, $SD = .22$) was significantly different from the first domain ($M = 2.77$, $SD = .14$) and between domain number three ($M = 2.78$, $SD = .09$). Accordingly, hypotheses $H_{1.1}$, $H_{1.2}$ were rejected and $H_{1.3}$ was confirmed.

A second one-way ANOVA analysed differences between the four **website sections** (“landing page” etc.) of each domain and their ratings on *valence*, *arousal*, and *dominance* at the $p < .05$ level. The website section had no significant effect on the variance of SAM’s *dominance* level $F(3,44) = 1,237$, $p = .308$. But there was a significant effect for *valence* $F(3,44) = 4.971$, $p = .005$ and for *arousal* $F(3,44) = 3.634$, $p = .020$. Post hoc comparisons using the Tukey HSD test showed that the dimension *valence* of the “*landing page*”

($M = 3.56$, $SD = .34$) was significantly different from “*product list*” ($M = 3.04$, $SD = .38$) and “*product detail*” ($M = 3.05$, $SD = .29$). The post hoc analysis also revealed that the section “*landing page*” ($M = 2.77$, $SD = .36$) had a greater *arousal* impact than the section “*product detail*” ($M = 2.39$, $SD = .22$). Therefore, hypotheses $H_{2.1}$ and $H_{2.3}$ could be confirmed, whereas $H_{2.3}$ was rejected.

4. DISCUSSION

A comparison among the twelve different websites (domains) of the wineries shows a difference on the SAM dimension *dominance*. This is the case for the website of the first, third and fourth winery. The highly ranked fourth website had a clear, powerful design with striking colourful elements. A large proportion of the visible screenshot area is covered with images showing celebrating people with food and only small text elements. Products in the shop are presented extensively, without frills and with high quality. In contrast, the lowest rated winemaker website in this dimension is prosaic and pale coloured. The images tended to be very small and are spread randomly on the display, showing employees who look seriously in front of a dark and empty room. The third domain is also poorly rated regarding to the SAM criterion *dominance*. Here, the observers of the website see dark colours, small pictures and plenty of text. The main navigation bar is overloaded and divided the visible range horizontally in the middle. While the web design of the “*landing page*” is rated “average”, the web shop looks outdated. The observers read a lot of text and see tiny, unpretentious product images and a tabular list of wines with many screen splitting frames. These statements are confirmed by the average ratio between text and picture elements on the screenshot. The fourth website (with high ratings on “felt dominance”) has only 14.4% written content, 35.6% image elements and 50% other website elements on average, whereas website one (18.8% text, 35.6% images, 45.6% other) and website three (25.9% text, 15.9% images, 58.2% other) have more areas covered with words and in part less with photos – which could be an indicator for emotional web design too. The comparison of the high versus the low rated websites shows which elements of web design can cause feelings of domination, so users experience a feeling of personal strength or superiority.

However, it seems that online shops are less capable of having the same emotional impact than non-shop-areas. Only three of twelve websites did not decline in emotionality between the “*landing page*” and the online store of the observed screenshots. Contrary, to the non-commercial web areas, the online store has a more technical understanding of the purchase process because its main purpose is basically selling products. It makes sense to build the display area as organised as possible, in terms of navigation, filtering, comparing and product listing. Those familiar “must-have-features” ensure simplified handling, efficient navigation and a better shopping experience, but simultaneously limit the emotional design of a web shop.

The analysis among the four screenshot sections on our examined domains indicates that the SAM dimensions *arousal* and *valence* scored higher in the category “*landing page*” than in the categories “*product list*” and “*product detail*”. In general, shop area screenshots use less space for pictures and focus more on text boxes and listings in tabular form to create a lower feeling of joy and excitement. However, in some cases the web design is inconsistent

between the general website and its shop, so users might have assumed to look at websites from different winemakers. Overall, “*landing page*” screenshots have larger images, more striking headlines, less text elements and minor empty space. Some wineries try to sell their wines by telling their personal story. Personal facts could add emotional value and generate user attraction. Users are therefore able to identify themselves better with the winemakers as they were able to sympathise with the people around the winery and to share similar values.

4.1. Practical implications

This evaluation emphasizes that web stores with a purely functional focus and without an emotional perspective, can misguide. Especially for emotional products like wine, sterile web pages can lower the positive customer’s perception. According to our psychological evaluation, online stores should not only be reduced on technical aspects, but should also be carefully designed to create an exciting or pleasant atmosphere. Large, high quality images showing happy people or inspiring moments like a panoramic view of the vineyard have the potential to create an emotional impact on consumers. Colourless or text-heavy web design causes the opposite effect. The structure should be clear and easy to pick up, without using prosaic tables. The entire website should have a homogeneous and consistent appearance – from the landing page until the end of the shopping experience. These results go along with the conclusion of Childers et. al. (2001), who claimed that images, colours, animations, sound, music, humour, games, etc. contribute to a better shopping experience and help to create a more pleasant ambience. Winemakers’ online stores should not only win the customer’s mind, but also their hearts.

4.2. Limitations and need for further research

The limitations to our research are the basis for subsequent studies to enhance our knowledge regarding online retailing success factors and interactive online shopping experience. Instead of rating static screenshots, the participants could rate the website after “real browsing”. This would be more complex, but offers a more authentic valuation basis - because some “look and feel” elements of an interactive medium may also have an emotional impact. Another limitation is the non-representative sample and the domain selection that we used for our study. We selected only twelve websites of wineries from a particular niche product (wine), in a single country (Germany), and for a single primary intended benefit (shopping). In addition, this experiment involved a disproportionate number of young students, who were wine consumers as well. The outcomes of our study can therefore not be seen as fully representative and needs to be confirmed with a larger amount of participants of all age groups and with a broader selection of websites. In further studies, the relationship between “emotional shopping” and its financial impact for shop owners and winemakers should be further examined. Therefore, we need stronger evidence how web design characteristics affect purchase behaviour and other usage indicators. In addition, it would be interesting to gather more information on users about their rational evaluation of the websites, their purchase interests, demographics and psychographics in order to get a better picture among different preferences of consumer groups. Finally, the methodology of the SAM scale as a self-reporting tool is associated with limitations such as a time delay between the felt emotion and consumers’ reported emotions. This can lead to a softer degree of the indicated emotion.

To determine these complex emotions in several situations further research could perform repeated measurements which can analyse stimuli to various moments. Moreover, the application of implicit measurements such as electromyography or facial scanning software would help to get deeper insights of consumers' emotional reactions regarding web design.

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