

# Label design for non-alcoholic wines in Germany – an eye tracking case study

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## **Abstract**

Wine bottles and labels compete for consumers' visual attention during the purchase decision process. This paper aims to understand the influence of four different wine label designs (artisan vibrant, traditional classic, simple elegant, modern contemporary) for non-alcoholic products on perception of wine. Non-alcoholic beverage innovations are increasingly determining the market. Consumers want to live a healthy life more than ever before. An eye tracking study with 80 participants from two target groups (young explorers and situational explorers) was conducted to measure the influence of different design factors (e.g. symbols, wordmark, non-alcoholic hint) on wine perception and purchase intention. The label design simple elegant performed best. By using eye tracking methods, this paper brings insights into the wine industry and the creation process of wine labels.

*Keywords: Wine Marketing – Wine Label design – Eye Tracking-Study*

*Track: Consumer Behavior*

## **1. The Influence of Wine Label Designs on Consumer Decisions – Introduction**

Wine is an emotional and highly successful product in many countries all over the world, the wine market a complex construct and the target groups are extremely diverse. In 2020, the worldwide wine consumption is estimated at 234 million hectoliters. Between 2000 and 2019, the global wine consumption increased (around 7%). Although sales declined because of the worldwide pandemic situation in 2020 (3%), the branch is expecting a slight annual sales volume increase (in liters) of 0.8% and a revenue growth (in millions) of approximately 5.6% until 2025 (Statista, 2020). In 2019, 23% of global market sales for alcoholic beverages was accounted for wine. 46% of the wine sales were intended for home and private consumption (Statista, 2020). These key figures show the economic relevance of the wine market.

In the last few years, wine has developed more and more into a luxury product with a sociability factor and symbol of prestige, which is emotionalized and often associated with a sophisticated way of life, joy and pleasure (Drennan et al., 2015; Lockshin & Corsi, 2012). Wine consumption is also heavily dependent on the occasion, the culture, past experiences with wine consumption, knowledge of wine and one's own taste-specific situational constitution. These are just a few reasons that describe the complexity of this product. There are around 65,000 wine producers worldwide (Wine Searcher, 2021). 11,000 of these productions are located in Germany (BSI, 2021). The five largest wine producers worldwide have (only) a market share of 8% to 9% (Statista, 2020). Despite the presence of major wineries, the market is extremely fragmented. Compared to the beer market there is not one or two powerhouse brands with which everyone is familiar. The largest beer brewer (in terms of production volume) has a market share of 30%. Wine is different. The exact number of grape varieties cannot be quantified, but it can be estimated at 10,000, of which 2,500 are approved for wine production. The majority of these grape varieties plays a minor role and are usually limited to a certain wine region. Around 50 grape varieties are of a greater importance and known beyond national borders. In Germany, alcohol-reduced and non-alcoholic beverage innovations are increasingly determining the beverage market. Consumers want to live a healthy life more than ever before. Reducing the alcohol consumption follows this trend. While there is already a large number of non-alcoholic and reduced-alcohol beverages in the beer segment, there are only a few products on the wine market but non-alcoholic wine has a high market potential and needs to be explored.

The variability and complexity of wine gives an initial hint on how difficult the situation is developed for consumers to make the "correct" purchase decisions (for alcoholic or non-alcoholic products). Therefore, buyers often rely on a few aspects during the process of buying wine. For some target groups, the wine packaging (label and bottle) is the most important element in their purchase decision besides the input of other persons or impersonal sources (e.g. wine guides, reviews, advertising, point of sale materials) (Barber & Almanza, 2006, Celhay & Remaud, 2018). This is especially the case when consumers only drink wine occasionally or rarely, are unexperienced and/or less informed about wine (see Wagner & Zajontz, 2021). The less involvement consumers show on the product the less time they take for the purchase decisions. Their decision process is particularly characterised by a cursory look at the wine packaging and the price. Hence, external visual signals have taken a crucial relevance in the market business. The wine label can generate attention and suggest quality at the same time. According to Kotler & Armstrong (2012), 40-70% of the purchasing decisions are made during the shopping process. Due to the large number of competitors in retail, the packaging should be able to influence consumer attention and at the same time the label has to provide sufficient information about the product itself (e.g. grape varietal, region, producer, and wine style) (Wang & Chou, 2011). Therefore wine labels work as advertisements for the product and can trigger a spontaneous buying intent. Besides packaging and labeling, famous brands, recommendations from experts, appropriated knowledge about wine or (high) prices (as a quality indicator) help in the decision (Spawton, 1991, Rasmussen & Lockshin, 1999).

In the last few years label design became a relevant research area. Wine producers recognize the relevance of aesthetic factors concerning label design. Professional designers take over the creative process of labelling. They create and tell the story of the product, invent symbols appropriated to the context. In the past, the labels were kept very simple. Printed labels exist for more than 200 years. Around 100 years ago, the first artistic wine labels were designed. However, these had to be adapted to provide information due to the enacted wine laws (e.g. including winery, origin). In the 1950s, the labels were designed more elaborately (including embossing, gold lettering, coats of arms). Coats of arms still represent a down-to-earth attitude and convey trust (Auslese, 2020). Despite these developments, the changes over the past 100 years have been marginal. Only within the last few years, label designs got into focus. Labels have to form positive expectations, should generate attention, increase brand recognition and suggest a sensory experience. Nevertheless, to achieve a long-term customer

loyalty the quality of the wine is the crucial criteria— no matter how esthetic and attentive the label is designed.

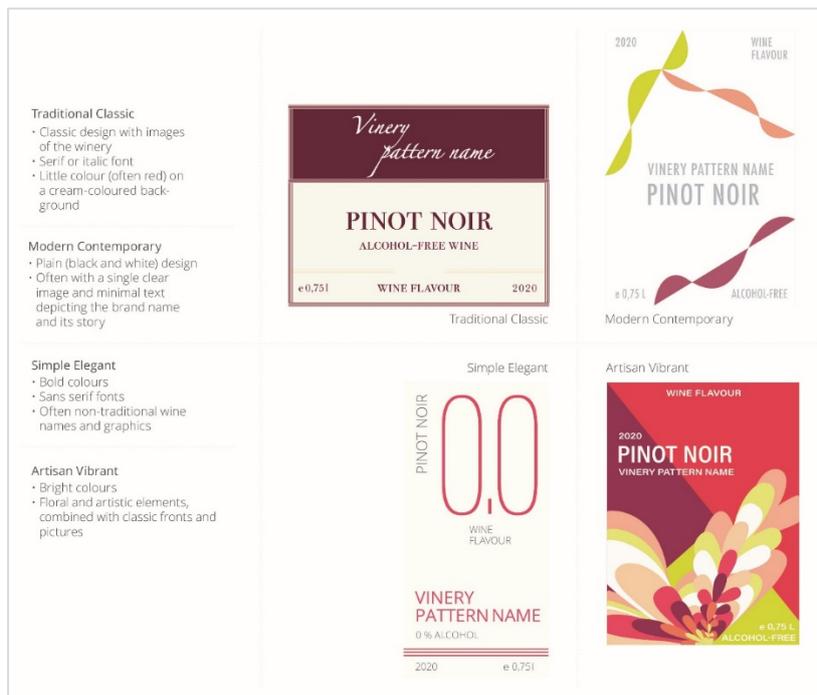
With the increasing relevance of non-alcoholic wines, labelling becomes a particular importance in the marketing process. Dealcolized wine is often placed horizontally next to alcoholic wines in German supermarkets. Block placement where non-alcoholic wines are grouped together with related products in the same area or commercial placement where marketers place the dealcolized wine in a more desirable location is still missing at the point of sale (Wagner & Zajontz 2021). The right placement paired with an attractive bottle label leads to visual attention and spontaneous impulse purchases. In contrast to regular wine, a clear declaration that this is a non-alcoholic product is crucial. This information has to be an eye catcher on the label.

## **2. Wine design genres**

Purchasing a bottle of (non-alcoholic) wine is often guided by visual signals, mainly caused by the front label design, during the decision-making process without having sensory cues. As mentioned before, the labels play a major role for rare wine consumers or wine consumers without sufficient knowledge of wine. Within the purchasing process, the label on the front is more relevant than the label on the back of the bottle (Thomas & Pickering, 2003). Labelling of wines is strictly regulated by German law. The label must provide all mandatory information about the wine without turning the bottle (CVUA, 2020). While many wines from abroad will list only the producer, vintage, region and country, Germany labels will state the quality level of the wine, the grape, the vineyard, and a style or taste indication. For “average wine consumers” the alcohol content, producer and origin or allergens on the label play a minor role in their purchase decision compared to wine connoisseurs (Finkelstein & Quiazon, 2007). Further studies concentrate on the reasons for wine consumption. Consumers pay more attention to awards and certificates (associated to higher quality) on labels when the wine is intended for social events. However, awards are neglected for purchases for personal consumption. Consumers consciously take this risk. In the absence of an award, the authors suggest to highlight quality elements on the label. The higher the perceived quality of the wine (often triggered by the perception of the label) the higher the purchase intention (Monteiro, Guerreiro, and Correia Loureiro, 2019). Information on the wine label (e.g. brand, winery, variety etc.) (Chaney, 2000, Barber & Almanza, 2006) paired with the visual effects,

triggered by typography, layout design, color selection and images/symbols, lead to a final impression which triggers the buying impulses (Sherman & Tuten, 2011). Therefore, cooperating with designers and consultancies is becoming increasingly important for wine producers to differentiate. Boudreaux & Palmer (2007) show in their study that an image on the label has the greatest impact on the buying intension, followed by color and layout. Chateaux, grape motifs or vineyards received higher preference values than coats of arms, as well as traditional or unusual images of animals. They conclude that the purchase decision is higher with colorful, traditional labels than with monochrome and modern labels. Warm colors like burgundy red, red-orange and beige-gray promise the highest market success. These aspects were associated with high quality. Consumers tend to associate bright colors such as green, pink and navy blue with excitement factors. Other studies suggest dark and rich colors for high-quality and expensive wines rather than light colours which suggest a more fun-oriented consumer experience (Teague, 2004). An eye tracking study from Norway underlines these results that pictorial elements are most often fixed on wine labels. It shows that a higher visit duration on a label leads to a higher purchase preference (Laeng, Suegami, and Aminihajbashi, 2016). A Generation Z eye tracking study from the Czech Republic shows that the label is a decisive factor in the purchasing decisions, followed by grape variety and price. In addition to the label, the design of the level of sugar content plays for this target group an important role in their decision process (Mokrý, Birciaková, Slovácková, Stávková, and Nagyová, 2016). These findings are significant for the label design of non-alcoholic wine. With a market share of 60 to 66 percent, more women tend to consume alcohol-free (sparkling) wine than men (Deutsches Weininstitut, 2021). According to nutritional studies, women often pay more attention to the sugar content in food and drinks than men do.

This study is based on the label classification proposed by Batt & Dean (2000) and Finkelstein & Quiazon (2007). It identifies three categories of labels: traditional (chateaux, coats of arms, vineyards etc.), contemporary (modern, artistic design) and novelty (fun design, especially with animals). Their studies show that traditional designs were more likely to be associated with high quality and a pleasant appearance, while the other two labels were associated with cheap and less quality (especially novelty) (Sherman & Tuten, 2011). This paper extended the mentioned classification. In focus groups with 36 German wine producers, a fourth label genre was identified (figure 1).



**Figure 1: Classification of label designs**

The review of literature leads to the following research questions: Which wine label design (for non-alcoholic wines) influences the visual attention and triggers an buying impulse (in the different target groups)? Which elements on the label design are relevant for the perception of wine packaging? Which design should a producer choose for non-alcoholic wine? The empirical research is based on an experimental eye tracking approach.

### 3. Research Design – Eye Tracking Study

The infrared eye tracking technique permits observations and measurements of eye movements during a consumer view visual stimuli (Bojko, 2013). The eye tracking tests provide a number of different measures by recording the dwell time and the areas the consumers pay attention to such as time to first fixation (time between the moment the consumer first encounters a stimulus), total visit duration (duration of individual visit within defined areas of interests), percentage fixated. These data can be used to analyse the gazing behaviour of the consumers. The recorded eye movements are divided into fixations and saccades. During a fixation, the eye is relatively still and the stimulus is focused. The fixation lengths varies from about 100 to 600 milliseconds, during this stop the brain starts to process the visual information received from the eyes. Saccades are extremely fast jumps from one

fixation to the other and the average length of a saccade is about 20-40 ms (Husić-Mehmedović, Omeragić, Batagelj, and Kolar, 2017).

Between September 2019 and October 2020, a total of 80 people (all Germans) took part in the eye tracking study. The participants were categorized into two target groups for innovative wine products (Amann, 2020): Young explorers (under 25 years of age, average social status) and situational explorers (45-75 years of age, high social status). Due to the Covid pandemic, the survey had to be interrupted for several months during the lockdown in spring 2020. The participants were shown 24 wine bottles and labels of German and international origin as well as different wine colors (white, rosé and red). A viewing time of 10 s amount of time was deemed sufficient for each label to assess it immediately after it was seen. Four label genres were identified before the eye tracking test (figure 1). Eight label designs per category were used for the study. After the eye tracking test, the participants filled in a questionnaire (recall and recognition methods) to check which labels they remembered and how they evaluated them. Furthermore, the questionnaire also evaluate the consumption behavior.



**Figure 2: label design preferences – young explorers vs. situational explorers**

#### 4. Results and Implications

The clear favorite of the majority of the participants is a non-alcoholic wine in a glass bottle with a simple, elegant label and a clear identification of the wine as a non-alcoholic product. The Simple Elegant label design performed best compared to the other labels. Some participants positively remembered the wines that graphically represented a zero as a symbol on the label or used this in the brand of the wine. The zero gives a hint of 0 or less than 0.5 percent by volume of alcohol in the wine. The minimalism and the interaction with the simplicity of design elements and colors attracted visual attention and promoted the identification as a non-alcoholic wine. The wordmark/symbol attracted the highest attention

(figure 2). The time to first fixation provides information about the activation potential (young explorers: 0,5 s; situational explorers: 1 s). The short time for both target groups indicates a high activation potential. The total visit duration provides information about the duration of all fixations within a defined range. A longer duration indicates difficulty in extracting information, or it means that the area is more engaging in some way. The wordmark/symbol were fixed longer compared to other areas on the label (e.g. grape variety, non-alcoholic hint) by both target groups (young explorers: 9,85 s; situational explorers: 6,55 s). The last metric, the percentage of participants fixating an area of interest, gives an indication, if a low proportion of participants is fixating an area that is important to the task, it may need to be highlighted or moved. With 94% (young explorers) and 88% (situational explorers), the brandword/symbol were perceived by the majority of the participants. The other three tested label designs could only convince some of the target groups. The young explorers rated wine labels of the Modern Contemporary and Artisan Vibrant type with their floral, colorful and artistic labels as positive, while the situational explorers prefer classic designs with images of a chateaux more (Traditional Classic genre). The first results show that the "older" target group still appreciates traditional labels, but the current trend is more moving towards puristic, elegant labels and a clear indication of a non-alcoholic product. The simple elegant label design neglect multicolores. Using two and warm colors dominate. The label scores with its focus on the information and appears coherent and valuable with the selected typography and the simple, minimalist layout. The label is associated with quality and thus has an impact on willingness to pay.

## **5. Conclusions**

The wine market is a highly fragmented market. Purchase decisions are complex and different in each target group. The key element of successful marketing is understanding the target group(s) and the motivation of their wine buying behavior. Wine labels are a way of communication with the consumers. Attractive wine label designs have an impact on the perception of quality and leads to a purchase intent. Wine producers may benefit from the insights of the study to redesign their labels to capture individuals' attention. The label design „simple elegant“ scored well in both target groups although traditional designs still promise a high quality. This information should be taken into consideration during the designing process. Awards on labels are relevant factors to receive visual attention. The current study isn't finalized yet. After the pandemic further target groups, like the situational connoisseurs (25-45 years old, medium to high social status), the health-oriented (25-75 years old, high

social status) and the health-sensitive (25-75 years old, medium social status) are part of the ongoing research. The upcoming results provide new information about the remaining target groups.

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