Wine bottle design thinking modelling: An analysis of local wine brands within Urla vineyard road

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Abstract. Wineries always try different types of marketing strategies such as tasting rooms, promotion through the social media or websites. The main goal is to establish a way to win the consumers' loyalty and to keep them coming back or consuming their brand. In the last decades, the influences of the front and back label on consumers have largely been started to investigate. In this study, the wine bottles produced in the wineries located on Urla vineyard road were investigated in terms of their visual codes. The visual codes were identified in four classes: layouts and composition, typography, illustrations, and colours. Each label investigated based on the semiotics analyses. The findings suggested that the wine labels convey the feeling of tradition, seniority, elegance and history.

1. Introduction

Packaging is a communication tool between the producer and the consumer. Since the packaging design is used to affect consumers' intention to pay or purchase, package design just prior to the marketing should be well studied and performed to identify the brand or the quality of the product.

Earlier studies highlight the importance of wine product packaging for the penetration of wine brands in the markets and in consumers' buying decisions besides the product's intrinsic characteristics [1-3] and wine label information, both the front and the back, are significantly appreciated by consumers in their purchasing decision-making [4,5].

Region of the origin is the most significant effect on market prices of wines while wine packaging and front labelling are also considerable. These extrinsic cues have a strong correlation with consumers' perception of a wine's quality level [6–8] According to study; rather than grape variety and point of origin, images and statements on wine label also have a strong impact in wine purchasing decision [9].

Several studies have shown that wine label design is an important aspect in the consumers' choices for wine and an indicator for its quality. According to Boudreaux and Palmer [10]; label images are strong determinants for the perception of wine label and traditional images such as grape and chateaux drawings are appreciated at most while Lunardo and Guerinet [11] discuss how authenticity and traditional cues in the labelling of a bottle of wine are crucial in the buying of young consumers. The more authentic the label appears, the more likely it is that young consumers will purchase that bottle of wine. Mueller and Lockhsin [12] shows the importance of extrinsic cues in wine label design via discrete choice analysis. Extrinsic cues are an impact on consumers' quality perception but is not enough to motivate the consumer for purchasing. [13]. Deviations within wine marketing, such as design typicality, are seen as more appealing when there is a low-perceived risk. Ultimately, it is preferable to choose a more typical, well-known design when there is a higher perceived risk [14]. The factors on wines' back labels' appeals to consumers are pairing and descriptive information and these factors are effective on pricing as well [15, 16].

Environmental concerns are getting considerable in consumers' choice of wine. Consumers have a specific preference for the style of certification seal that guarantees eco-friendliness; certification labelling creates a premium in price [17, 18]. Besides, Maria L. Loureiro's study [19] highlights that in order for a wine bottle to be differentiated in the wine market through a premium price based on its eco-label, it must first be identified as a higher quality wine. For wines that are perceived as being of low quality, eco-labelling in an inefficient and costly marketing tool that is unlikely to yield successful profits. Organic wine producers are advised to keep a distinguishable approach in their wine bottles' design in order to present their products as uniquely recognizable at retails [20].

Recent studies show that graphical design is an effective tool to communicate with the consumers for the producers and wine producers can effectively express a unique graphic design labelling through the implementation of four specific strategies of brand positioning [21,22] Lick et al. [23] indicates that a wine label's colors greatly influence consumers' flavor expectations, which ultimately influences consumers' purchases. This study shows that effective visual representations are critical in satisfying consumers' wants and expectations through proper wine labelling.

Wine producers always aware of the roles of the labels in marketing. Unlike other food package design, wine label design can be totally based on wine producers' preferences instead of consumer preferences. In this study, the label design process is investigated for the local wine brands. Both the front and back labels were analyzed to understand the perspectives of wineries' owners in their labelling

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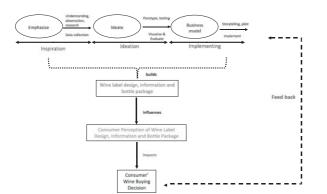


Figure 1. Design thinking modelling for wine package design.

design. For the analysis, visual codes and semiotic analysis were used to understand the wine producers' words that conveys the wine label and their thoughts.

1.1. Wine packaging elements

Wine packaging design has another aspect of view since the consumer do not have a chance to taste the wine itself just before buying it. The bottle itself, front and back label are the elements which consumer investigate before having an intention to buy it.

Package design mainly includes two different attributes: intrinsic and extrinsic product attributes. Intrinsic product attributes cannot be altered without changing the physical properties of the product itself whereas extrinsic ones are not the part or ingredients of the product [2,9, 13,15,24]. When the wine packaging is considered, the brand name and symbol, price, bottle form and colour can be shown as the extrinsic product attributes. Based on the cues, the consumer has not any choice but to relay on the extrinsic cues. On the other side intrinsic attributes include taste, texture, aroma and the ingredients of the wine that cannot be manipulated without altering the wine's physical properties.

Graddol [24] indicated that "a label is a complex communication tool by means of a variety of codes, symbols and verbal channel for the communication. A semiotic model includes a code of numbers, the bar code, nibbles around the label indicating the batch and time of bottling, graphic design features such as rules, word which are organized in space and typography – a visual coding of language. Thus, the label is a multi-model text." Therefore, the label design becomes an important issue in wine marketing. Main idea in the design thinking is to create a kind of communication tool between the consumers and the wine producers. Figure 1 summarizes the steps of design studies related to the wine packaging and marketing strategies.

A label should reflect the senses existing in wines to the consumers. The visual codes are not only used to reflect the quality of wine but also play a role as a decision maker for the consumers by sending the intended message. Design elements on front labels can be categorized into layouts, composition, colours and illustrations. The detailed information of the categories based on the studies are summarized in Table 1.

1.2. Wine labelling

In wine packaging there are two labels which work in the design. First, the labels categorized as front and back label. Second, Turkish labels have specific legislative requirements that are different from the both European and U.S. wine labels. The explanation of the difference between the front and back label seems difficult on a round bottle. The front label generally includes the elements that is used to sell the wine and get the attention of the consumers' visually whereas the back label provides the legal information that is restricted by the regulations. The back label generally includes the elements such as alcohol percentage, warning of alcohol content, sugar content with a given size depending on the bottle size, the geographical reference such as the region, the city or he wine producer's address and the declaration of sulfites. A health warning statement is also another required element that includes a warning for pregnant woman, kids under the age of eighteen and the drivers [31]. At front label, there is no strict rules about the visual elements, but a brand name, the varietal designation, vintage time and visual elements should be in an appropriate size that the consumers can easily get the cues.

2. Urla vineyard road

Viticulture and wine tourism are the alternative types of the tourism that considerably contributes to the improvement and promotion of wine regions'. Despite to its favorable climate and soil structure as well as cultural and natural heritage, Turkey is not still at desired level of recognition and demand as a wine tourism destination [32].

Urla is one of the premier viticulture regions in Turkey. Through the history, Urla is always counted as an important viticulture and wine making center regards to its convenient ecology and there are some grape varieties unique to this region. Viticulture almost stopped in Urla in the mid-century however with the increase in interest for wine and grapes in 1990s, the vineyards in the region began to be restored [33]. In this way, projects and the investments in viticulture have been accelerated to create a brand endemic to the Urla Peninsula [34]. Region is rich in grape varieties grown; worldwide known grapes such as Cabernet Sauvignon, Merlot, Syrah, Chardonnay, San Giovese, Nero D'Avola and Anatolian as well as Anatolian varieties such as Boğazkere, Sultana and local Bornova Muscat. The vineyards in the region are mainly family businesses and grow the grapes on their own vineyards and use a boutique vinicultural technique in wine making [35].

Urla Vineyard Route that consists of five small scale wine producers, is one of recent efforts created by "Association of Urla Wine Producers and Viticulture". The aim of this project is to gather around a synergy that leads to make Urla an important destination in wine tourism such as France's Bordeaux and Italy's Toscana [36] and contribute to Turkey's viticulture and wine tourism development.

Urlice is an organic certified boutique vineyard that respects both old vinicultural techniques and ecological principles in its vineyards of Cabernet Savignon, Merlot and Shiraz.

Urla Şarapçılık adopts organic and good agricultural practices in its production blending modern and traditional

Design Elements	Traditional	Modern
Colour	– Dark (burgundy, navy, red) – Neutral (brown, black, grey)	- Bright/Light (orange, wasabi green, pink)
Layout and composition	 Unprinted (white background), Full colour, Centred placement, horizontal straight lines 	 Half printed, half solid colour, left or right alignment, justified or asymmetric composition curved lines
Typography	 Standard type-size serif capital letters 	 Clear, modern visual typeface, style non-serif
Illustration theme and colour	 chateau, vineyard, grape motifs, coats-of-arm, animals one colour etching 	 painting, etching, photograph unusual animals associated to fun and humorous acts. no wine or winey related colourful, bright colours (gold, silver)

Table 1. Categories of design elements: layouts and compositions, colours and illustrations [10,23,25–30].

approaches. The winery also focuses on reviving lost grapes of Urla region; renovating antique local grapes such as Gaydura and Urla Karasıis a reference for this effort.

USCA is an organic agriculture certified winery that produces international species such as Cabarnet Savignon, Merlot, Chardonnay and Syrah as well as local species such as Bornova Misketi and antique Foça Karası. Usca is the first producer of the red wine produced with antique Foça Karası.

Mozaik Şarapçılık cultivates wine with less known grape varieties in the world. Some the grape varieties of Mozaik Şarapçılık are new hybrid grape varieties of the modern viticulture that brought them awards in international competitions. An irrigation system is not available in the winery likewise Toscana and Bordeaux wineries. The roots are moving deep into the ground until they reach the water that provides the transfer of minerals of different earth layers to the grapes.

MMG Şarapçılık offers the wines that are produce of grape varities such as Bornova Muscat, Mourvedre, Cabarnet Savugnion, Merlot, Syrah, Viogner, Black Muscat. All varieties of garepes are "Night Harvested" and the red wine production is made as unfiltered. It is the first producer of Bornova Muscat white wine in the region.

3. Research methodology

3.1. Identification of Urla vineyard road wines visual codes

The first step of the study was to identify the visual codes used by the wineries located on the vineyard road. All the wine bottles without wine types classification were used as the main materials to be analysed. Totally 31 labels were analysed through content analysis [37]. Both authors analysed in the determination of the visual codes on the labels and the results were compared for the consistency.

Content analysis is a research technique that describes the manifest content of communication in objective, quantitative and systematic way [22,29,37]. Each label is observed by codifying the visual attributes in terms of composition, layout, colour, typography, illustration etc.).



Figure 2. Labels investigated in determination of visual codes.

the frequency of appearance of the different colours, layouts, font and images was calculated to identify the most frequent visual attributes in the wine labels produced by the wineries. Figure 2 and 3 shows some example of the front and back labels used in the study.

3.2. Semiotic analysis of Urla vineyard road's wine labels

Semiotic analysis was run to deconstruct the package design into its various visual attributes. Each of them was studied individually to investigate the contribution to create a specific meaning. There are different strategies for semiotic analysis [38]. The general used method includes the signs which are used to describe the meaning. Therefore, there are two facets: a signifier and a signified [22,29,39]. The signifier is the part of the brands' expression with the help of the verbal (a sound) and visual (an image, a colour) codes or elements. The signified part is the part of the brands' content that has a meaning deconstructed from the signifier. The analysis can be run studying with each visual codes or elements.



Figure 3. Back labels of the wine labels.

4. Results and discussion

After the determination of the attributes of visual codes (layout, composition, colour, brand typography, illustrations and their style), each label were analysed to determine the two facets. In the study, interviews with the wine producer or winery owner were performed to understand the messages of them to the consumers.

All the labels with regards to layout and composition show centred layout on horizontal straight lines. The structured graphic composition layout on horizontal lines generally conveys calmness, secure and stability that the consumers feel the impressions of trustworthiness [29]. A centred layout instead of versus left or right alignment, justified or asymmetric composition is signifier refers to a signified of classicism or tradition [38]. The brand name is generally either on top-middle or full-middle on the labels. They are so visible that signifies the brand name with competency and self-confidence. Therefore, Urla vineyard road wine labels based on the layout and composition signify tradition, seriousness, prestige and expertise.

Concerning the typography existing on the labels investigated in two different ways: case of letters (capital or lower) and type of the letters (serif, non-serif, formal, gothic etc.). The labels generally contain 39% lowercase letters, 61% capital letters in whole text. The wine brand typography 77% of the labels have serif while the rest does not. Using serif letters signifies tradition, history or seniority while non-serif letters indicate simpler and more geometrical shape. The usage of capital letters generally indicates the part that is needed to signify. On the other side, lowercase does not mean that the quality is lower, it only shows the modesty or the simplicity [28,30]. Urla vineyard road wines regrading to their typography indicates tradition, seriousness, prestige.

For the colours, there are mainly three groups for the labels in Urla vineyard roads' wine classified as: 36% the solid white colour background then black, gold colour for the text; 45% one colour etching (red, blue, black, orange etc.) background then black, gold, white for the text, 5% pale yellow or white colour background then black, gold colour for the text. At the end it appears that mostly the labels use the black and gold colours for the text whereas a few of them uses blue, white colours. From the studies, the decision of background colours signifies the level of the wine quality or the age of the brand. The

pristine white paper signifies the high quality and signify a premium product, yellowish white paper signifies the age of brand including the level of being traditional or historical [28,39]. The solid one colour etching signifies different levels of feeling such as: blue refers calmness, freshness, red indicates vitality, passion or aggression, black generally is used to indicate the luxury, special product for special group, orange-yellow includes the level of happiness, joy or optimism. The colour of the text or illustrations generally used as in gold or black colour. Gold colour shows the strength or luxury level just as in black. However black also signifies the negative ideas such as death, silence [28,29]. Urla vineyard road wine labels convey signified of luxury, elegance, tradition and seniority.

The illustrations used in wine labels are grouped in two classes: the visual illustrations (a castle, a vineyard, a coat of arms, an animal or a leaf); the display illustration format (an etching, a photograph, a painting) [10,27]. Based on the investigation, 10% of labels contains, vineyard, 10% of them coat of arm, 29% of the labels contain animals related to the wine or wineries and lastly 16% of the labels have paintings. The illustration has higher influence on consumer compare to the layout and composition. Based on the studies, traditional label style has a higher impact factor on consumer which leads to higher knowledge feeling and trustworthy. The unusual animals such as cats, hippopotamus with funny or humorous actions give lowquality feeling about the wine. The consumers think that the illustrations are used to keep the attraction of the them while they try to decide on the brand [10, 25-27]. The images or photographs of grape or grapevine also cause neutral, organic trustworthy feeling. Finally, Urla vineyard road communicate tradition, history and seniority based on the illustration themes.

5. Conclusion

Wine label design is one most complex and difficult process in packaging design industry. Wine producers often research their target consumers in order to be sure that their wine will be the best seller among the hundred different types of wine brands. However, small wineries unlike the large producer consider about their preferences in label design not the consumers'. The decision-making step generally remains at personal level which is also generally seen in small businesses. The owners of the small wineries reflect their story on the labels.

In this study, the visual codes of wine labels with the help of the content analysis and the meaning of the codes with the help of the semiotic analysis were studied. This study focused on the colour, layouts and illustrations as the visual codes in view of wine producers. Based on the semiotic analysis, the signifier and signified were determined.

Table 2 shows the summary of the semiotic analysis of Urla vineyard road wine labels based on the visual codes investigated under the four main titles: layout and composition, colour, typography, and illustrations. Based on the results, it can be stated as Urla Vineyard road's wines convey the feeling of tradition, seniority, elegance and history.

In this study, there are also some drawbacks. The total number of the wineries is so small that cause difficulties

Element	Signifier	Signified
Layout and composition	 – centred layout horizontal lines 	- tradition, seniority
Colour	 white yellow paled white black red blue gold yellow-orange 	 purity, high quality tradition, seniority elegance red wine, vitality, power harmony, truth relax strength, luxury optimism, joy
Illustration theme	 a chateau, coat of arms, animal related to the wine photograph, motifs, painting 	 tradition, seniority modernity
Typography	 capital case letters lower case letters serif non-serif 	 importance, tradition simplicity modesty tradition, history, seniority simple, modern
Illustration colour	– one colour etching– two colour	– tradition – modern

Table 2. A summary of the semiotic analysis of Urla vineyard road wine labels' visual codes.

in the generalization of Urla vineyard road wine labels' visual codes. In order to get a detailed explanation in terms of visual codes the wineries located in Aegean region and their products should be studied. Package design also includes the bottle shape, transparency, printing techniques or paper structure as part of the visual codes. Therefore, the classes of the visual codes can be expanded with the new visual elements such as paper quality and printing techniques.

In the future all of these visual codes will be analysed and the contribution of these visual attributes in communication with the consumers will be studied. After getting all the results a general knowledge about the wine packaging design thinking modelling can be created.

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