Consumer Perception of Wine Labels: A Case Study of Vitis Pezinok

Vanesa Pospíšilová[1] – Petra Smetanová[2]
ORCID iD: 0009-0009-4792-1484[1], 0009-0008-1130-1171[2]
vanesa.pospisilova@euba.sk, petra.smetanova@euba.sk
[1,2] Bratislava University of Economics and Business, Faculty of Commerce,
Department of Tourism
Bratislava, Slovakia

Abstract: Wine branding refers to the perception of a wine product and its name in the consumer's mind. The main objective of this paper is to examine how customers perceive different wine labels from chosen winery Vitis Pezinok. The key method used in the paper is the method of enquiry, specifically a questionnaire and based on the survey results, we created a heat map of the label of the selected products. In the previous survey we found that consumers firstly notice the brand on labels. We compare the given results with the results of the current survey. Based on the findings, we formulate branding recommendations for winery. A key issue in the winery's branding was the inconsistency of the Vitis Pezinok logo. Based on this, we recommend that the winery establish a unified and consistent brand identity that is easily recognizable to consumers. This paper will contribute to a better understanding of consumer behaviour in the area of wine consumption.

Keywords: Wine branding, Consumer perception, Wine labels, Heat map

JEL Classification codes: D12, M31, Q13

INTRODUCTION

The wine market offers a wide choice of brands, which is why wine branding plays a key role (Vlachvei et al., 2012). Robinson and Harding (2015) state that wine product branding is "a series of complex marketing propositions intended to sell wine as a 'brand'– a product marketed much more thanks to its individual name and image rather than to its original quality". According to Nowak and Newton (2006), wine branding can be defined as the perception of a wine product and its name in the mind of the consumer. Creating a successful wine product branding strategy is very important because it makes the wine successful by linking all its components (quality, price, promotion and packaging) in a unique and memorable way that appeals to the target customer.

Brands may take the form of a term, name, symbol, sing or design, or a combination of these. The purpose of a brand is to identify a product easily and quickly and to differentiate it from competitors (Vrontis & Paliwoda, 2008). The wine sector is a very challenging market for brand differentiation due to the presence of thousands of brands and labels, and wine branding is much more than just a wine label. Branding in the wine sector mainly focuses on the characteristics or attributes of the wine product such as country of origin, grape variety, producer name or appeal (Johnson & Bruwer, 2007).

Pereira (2016) divides wine brands into two groups: classical and modern. Classical wine brands are linked to their reputation, which has been built up over many centuries and reflects

the success of these wines. At the same time, they are associated with the region, specific varieties and production methods. Typical examples of classical wine brands are the wines from the Champagne and Bordeaux regions. On the other hand, modern wine brands are focused mainly on the requirements of the international market, which is also reflected in their taste and price level. These brands are accessible on the market, do not include a specific geographical indication of origin, lack diversity and terroir typicity.

This study aims to explore the relationship between wine label design elements and consumer perceptions, with a particular focus on how visual cues, such as logos and textual information, influence purchasing behavior. By employing correlation analysis, we examine the extent to which these elements impact consumer preferences and brand recognition. Understanding these dynamics is crucial for wineries seeking to optimize their labeling strategies in an increasingly competitive market. The findings contribute to both academic discourse on consumer behavior in the wine industry and practical insights for producers aiming to enhance market positioning through effective label design.

1 LITERATURE REVIEW

The wine label is a strategic communication tool with a dual function: it serves as an information medium that provides consumers with basic product information, while also acting as a persuasive marketing tool to increase consumer engagement and influence their purchasing decisions (Thomas & Pickering, 2003). A well-designed label not only captures consumer attention but also conveys a compelling narrative that enhances perceived value and fosters a trustworthy connection between the winery and its target audience (Boyraz, 2023). Artistic labels, characterized by color and symbolism, play a crucial role in shaping consumer perceptions of wine quality, authenticity, and brand reputation (Anagnostou et al., 2025).

Four design elements define wine product packaging: the brand logo, brand name, front label details, and back label information. Modern wine packaging includes a front and back label along with a bottle design (Henley at al., 2011). The front label captures consumer interest, while the back label serves an informative role, providing details such as origin, grape variety, alcohol content, bottle volume (Hall & Mitchell, 2007; Rocchi & Stefani, 2005). Packaging design serves as a key differentiator that plays an important role both in marketing and in reaching consumers. The overall packaging - including the label, shape, size and colour of the bottle - significantly influences consumer perception and purchasing decisions (Henley at al., 2011). The most important elements of information on the label for consumers are taste, price, and information provided by the retailer (Chaney, 2000).

A significant influence of wine labels is their perception as indicators of quality (Lunardo & Rickard, 2019) and taste (Jaud & Melnyk, 2020). A crucial aspect of design in this context is the choice of colours used on the label. Previous studies has shown that colour is one of the most influential design elements that can shape consumers' perceptions of taste (Spence et al., 2010), aroma (Parr et al., 2003) and texture (Chylinski et al., 2015) of food and beverages, including wine.

The label on a wine bottle plays a crucial role in shaping positive consumer expectations by attracting attention and conveying a sensory experience associated with beauty, taste, and satisfaction (Workman & Caldwell, 2007). Additionally, it reinforces the authenticity and perceived quality of the product (Scholes, 2010). Less knowledgeable and inexperienced wine consumers are more likely to base their purchasing decisions on visible packaging cues, such as front and back labels, promotional elements, as well as the stated price (Leang et al., 2016). More experienced wine consumers are likely to base their purchasing decisions on direct wine knowledge, appellation, country and region of origin as well as expert reviews and wine

journalism (Atkin & Johnson, 2010; Famularo et al., 2010). Thus, wine labels also function as advertisements for the product or brand, with winemakers selecting designs that appeal to a broad spectrum of consumers, from novices to connoisseurs. Notably, an effective label design enhances the overall consumption experience (Mumcu & Kimzan, 2015), and consumer preference for a label is a strong predictor of wine selection (Chrea et al., 2010).

2 METHODOLOGY

In the wine industry, research has predominantly focused on the label, which is often closely linked to the brand or even used interchangeably with it, as it serves as the brand's tangible representation. In addition to the brand name, imagery, or logo, the label provides consumers with essential information about the wine's style (taste and aroma), a description of the product, recommended food pairings, awards and accolades, the winemaker, the wine region, and the vintage (Miller & Chadee, 2008). The main objective of this paper is to examine how customers perceive different wine labels from chosen winery Vitis Pezinok.

From a previous survey we conducted in 2024, we identified that the wines of Vitis Pezinok winery are among the most consumed on the Slovak market. As the name of the winery implies, it is located in the town of Pezinok in the west of Slovakia, right in the Malocarpathian wine-growing region. The mission of the Vitis Pezinok winery is the production of quality wine with a special character. The emphasis is also on the appearance of the bottles, which they present as works of art. Through the interplay of colour, aroma and taste, they try to find their way to the wine, which is also reflected in their Latin slogan 'via vinum' (Vitis, 2025). For the purpose of this study, we have chosen to evaluate the branding of Vitis Pezinok wines in the bottles shown in Figure 1.

Fig. 1 Selected bottles of wines from Vitis Pezinok winery

Source: Vitis, 2025

In the article, we focused on the differences in branding between the red wine Danube and the white wine Pinot Gris, which at first glance differ not only in the colour of the bottle, but also in the colour of the label, the wine cap and even the winery's logo. We focused our branding analysis exclusively on the front of the bottles and the front labels. Joshi et al. (2024) state that the front labels usually contain information such as brand, grape variety, country, region and vintage, as well as other important information.

2.1 Data collection

In order to write the article, the primary data collection method used was the method of inquiry. The questionnaire was created through Google Forms and distributed through social media between 15.01.2025 and 25.01.2025. The questionnaire consisted of 4 main sections, with the first section consisting of sorting the respondents into those respondents who are aware of the brand Vitis Pezinok and those who are not. The second section was oriented towards more detailed information about the chosen labels of winery (we examined the following attributes: such as consistency of labels, their recognizability, their style, colour scheme and graphic elements) and were enquiring what would respondents change on the labels and how would the change its design. The third section consisted of questions about black and white labels specifically and its attributes (specifically: attractiveness, representativeness, premiumness of the logo and interest), and in the last section they provided demographic data.

Tab. 1 Demographic characteristics of respondents

	Number of respondents (N= 150)	
	N	%
Gender		
Woman	116	77,33%
Man	34	22,67%
Age		
18-25	82	54,66%
26-35	46	30,67%
36-45	11	7,33%
46-55	8	7,33%
56+	3	2%
Average monthly income		
Up to 1000€	77	51,33%
1001-2000€	52	34,37%
2001-3000€	12	8%
3001€+	6	4%
n/a	3	2%
Highest level of education attained		
Primary education	4	2,67%
High school with apprenticeship certificate	7	4,66%
High school with diploma	59	39,34%
Bachelor's	28	16,66%
Masters'	48	32%
PhD.	4	2,67%

Source: own processing

The survey was carried out on a sample of 184 respondents in total. The data were then adjusted for the responses of participants who were familiar with Vitis Pezinok winery, thus only 150 responses were analyzed. Within the sample, there was a clear predominance of women, who represented a total of 77,33% of all respondents (Table 1). The vast majority of all respondents were aged 18-25 years and 26-35 years, which together accounted for approximately 85% of respondents. The average monthly income was mostly up to 1000€ and 1001-2000€, together with about 85% of the respondents. Most of the respondents were high school graduates with a high school diploma, followed by graduates of the second and first cycle of higher education (Bachelor's and Masters' degrees). Overall, respondents in the age categories 46-55 and 56+ years, respondents with an average monthly income above 2001€, and those with the highest completion of primary and upper secondary education with an apprenticeship certificate and graduates of PhD. studies were the least represented.

2.2 Heat map

A heat map is a graphical representation of the tested feature's value, based on its concentration level and size, visualized using a selected color palette (Rybak, 2021). We have constructed a heat map in the program Gretl, which can be constructed based on correlation analysis. Correlation analysis is a fundamental method that was used to verify the existence of a relationship between the examined variables. In general, the term "correlation" refers to the degree of association between two variables. If a correlation is identified between variables, it indicates that specific values of one variable tend to occur alongside specific values of the other. The strength of this association can range from no correlation to a absolute correlation (Montgomery et al., 2015). Correlation analysis serves as a tool for measuring the intensity of potential dependencies between two quantitative variables or the tightness of their relationship. The outcome of this analysis is the determination of the degree of dependence, achieved by calculating various types of correlation coefficients. In general, correlation coefficients range in an interval from -1 to +1, inclusive. A negative value signifies an inverse relationship between the variables (Linhartová, 2020).

The relationship between sample pairs of data was tested using Pearson's correlation coefficient. The Pearson correlation coefficient is calculated directly from the observed pairwise values of the variables X and Y. Like the arithmetic mean and standard deviation, it is very sensitive to outliers. The Pearson correlation coefficient can be determined by the following formula (Hendl, 2012):

$$r(x,y) = \frac{\sum_{i=1}^{n}(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^{n}(x_i - \bar{x})\sum_{i=1}^{n}(y_i - \bar{y})^2}} \tag{1}$$

where:

n = number of observations

x, y = quantitative characters

Correlation relationships between variables can be interpreted on the basis of Table 2.

Tab. 2 Interpretation of the strength of the correlation relationship

| Interval	Strength of the correlation relationship
(0,9 – 1,0>	very strong correlation
(0,7 – 0,9>	strong correlation
(0,4 – 0,7>	mean correlation
(0,1 – 0,4>	weak correlation
<0 – 0,1>	insignificant correlation

Source: own processing according to Hendl (2012)

This study examines the strength of the relationships between the following input variables: brand, logo, variety, year (or vintage), origin, slogan and volume. The data was obtained from a questionnaire where respondents rated the different parts of the wine label on a Likert scale from 1 (least) to 7 (most) according to which parts they notice most on wine bottles. On the basis of the data obtained, we investigated the relationship between the variables. This part of the survey dealt with consumers' general perception of wine labels, in which case they did not evaluate individual wines, but independently created a ranking of the parameters they notice most on labels.

3 RESULTS AND DISCUSSION

3.1 Primary research results

The following graph 1 shows the evaluation of the overall design of the Vitis Pezinok label. As mentioned in the methodology of the article, we focus on analyzing and comparing the white and black labels of the selected wines. In this section, we evaluate both labels. Up to 41 respondents fout of 150 ind the label very attractive. The second most frequent choice was the average attractiveness of the label (38 respondents ot of 150). The label itself is generally rated positively and attractively, with respondents rating the label an average of 3.066. The strongest proportion is made up of respondents who find the label very attractive, which is a favourable result for the brand.

**Graph 1 The overall design of the label and attractiveness of graphic elements**
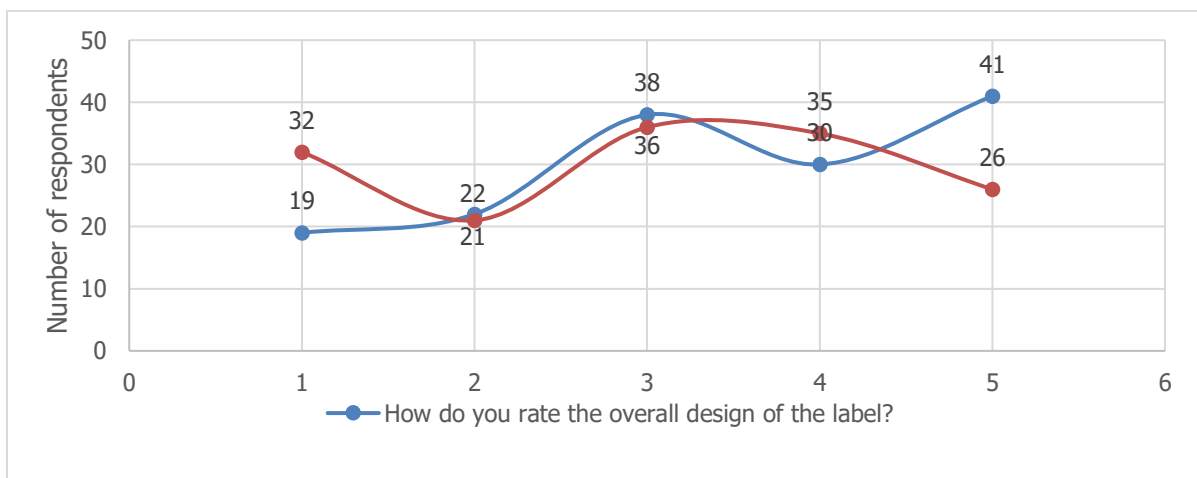
Source: own processing

The graph 1 also indicates that there are mixed views on the attractiveness of graphic elements. Most respondents gave a medium rating (3 - I am indifferent/I cannot rate them properly), i.e. a large proportion of respondents were undecided in their assessment of the graphic elements; and a score of 4 (I rather like them, or I like them more than I dislike them), indicating that the graphic elements are not extremely controversial, but neither are they clearly popular. Ratings of 1 (least attractive/not liked at all by respondents) and 5 (most attractive/liked extremely by respondents) are less well represented, which may indicate that only a minority of people find these elements completely unattractive or, conversely, extremely attractive. Although some respondents find the graphic elements extremely attractive, a large proportion perceive them neutrally or even negatively. It is important to note that perception is subjective and what one respondent likes may not be liked by another respondent.

The following graph 2 interprets how respondents perceive the style of the labels. The majority of respondents rate the labels as modern, elegant (27.4 %), or simple and minimalist (26 %), which is positive in terms of current design trends. However, nearly a quarter of respondents perceive labels as inconsistent (22.6 %), which may indicate a need for better visual brand unification.

Graph 2 Respondents' perceptions of graphic elements attractiveness
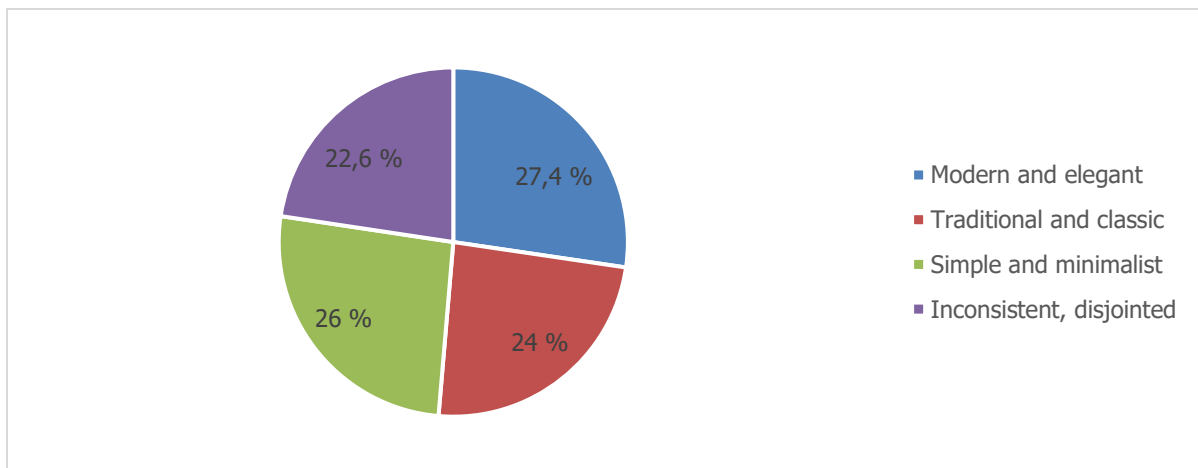
Source: own processing

Following the perception of label style on graph 3, we investigated possible changes to the labels and their design. Respondents would most change the colour combination that the winery currently uses and then modify or completely change the logo to make it more distinctive; and modify the layout of the information on the label and its overall readability. On the other hand, many respondents would not change anything about the label and logo or are not bothered by any particular elements.
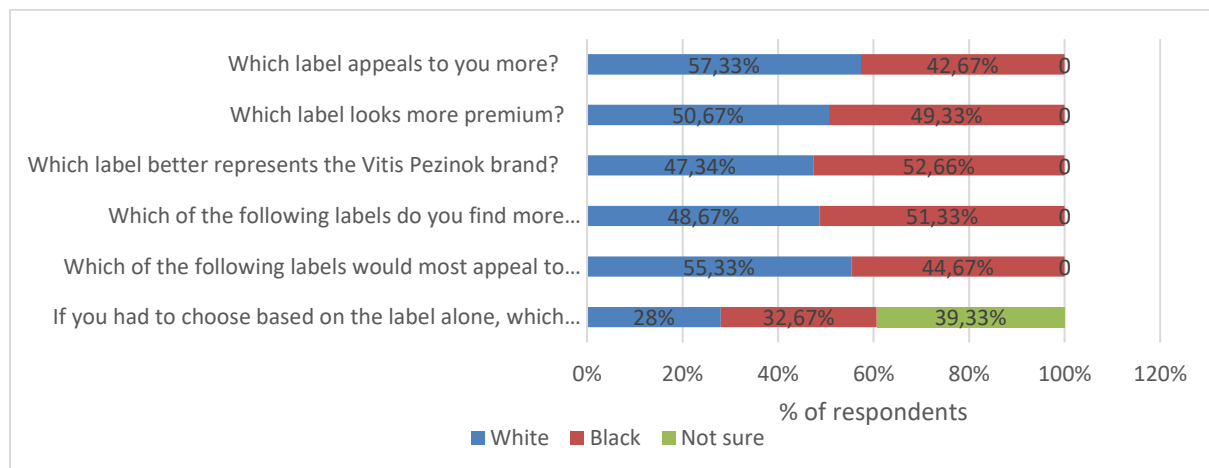
Graph 3 Changes on the wine labels and their design
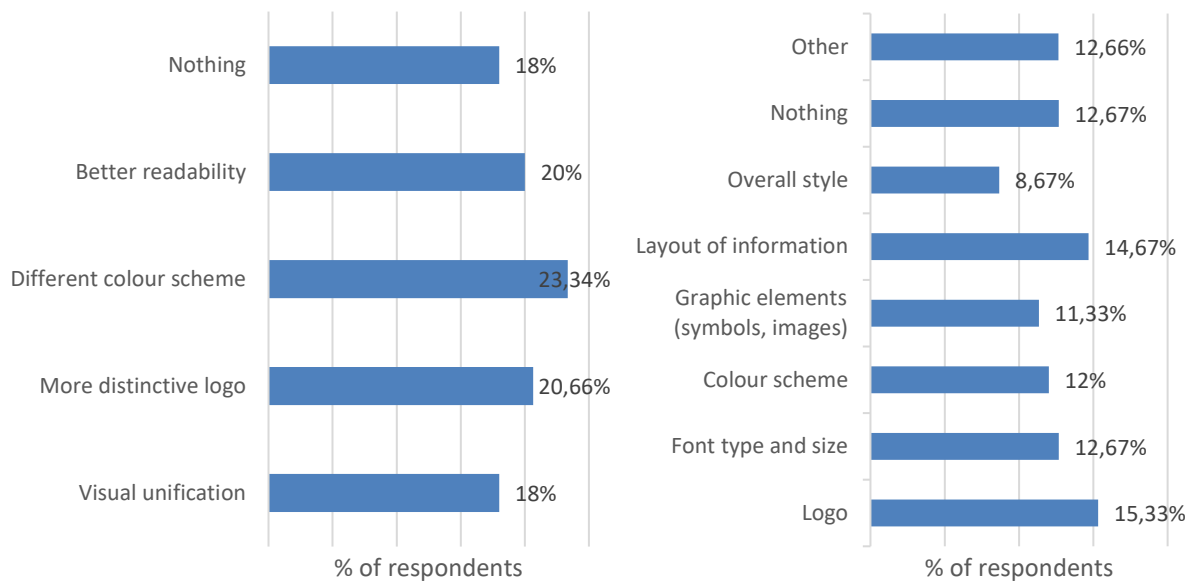
Source: own processing

The following graph 4 shows the preferences of the respondents when comparing the white and black labels of Vitis Pezinok in different categories. The biggest difference was observed for the visual appeal of the labels and their partiality; up to 57,33 % respondents (86 out of 150 respondents) preferred the white label, 44,67 % of respondents (64 out of 150 respondents) the black one. The second largest split was recorded for the label's influence on purchase; 55,33 % of respondents would be more likely to buy a wine with a white label (83 out of 150 respondents), while 44,67 % of respondents would buy a wine with a black label (67 out of 150). Minimal differences are noted for the representativeness of the label, the premiumness of the label and the attractiveness of the label. The label is not always a deciding factor in the choice of wine; 28 % of respondents would choose a white label (42 out of 150 respondents), 32,67 % would choose a black label (49 out of 150 respondents), but up to 39,33 % could not decide in this case (59 out of 150 respondents). This suggests that other factories such as price, variety, vintage, volume of alcohol or brand reputation also play an important role in the final choice of product.

**Graph 4 Respondents' preferences of white and black wine labels**

Source: own processing

296

The following chart interprets how easily respondents can recognize the Vitis Pezinok logo on a wine label and how the design itself can influence a respondent's decision to purchase a product of a given brand. The highest number of respondents (37) indicated that they recognize the Vitis Pezinok logo very easily (value 1 - very easily recognizable). Based on the graph, it can be stated that gradually the recognizability decreases, while the lowest number of respondents (18) indicated that they do not recognize the logo at all (value 5 - not recognizable at all). In general, we can conclude that the logo of Vitis Pezinok winery is clearly and easily recognized and identified for the majority of respondents.

When examining the influence of label design on purchase decision, the majority of respondents (36) indicated that label design has a significant but not decisive influence (value 2 - major) and 34 respondents indicated that label design has no significance or influence on their purchasing decisions (value 5 - no influence), indicating that a certain proportion of customers are guided by other factors such as price, variety or brand. Label design therefore plays an important role in the choice of wine for many but is not always the main and deciding factor.

Graph 5 Recognition and influence of the wine label
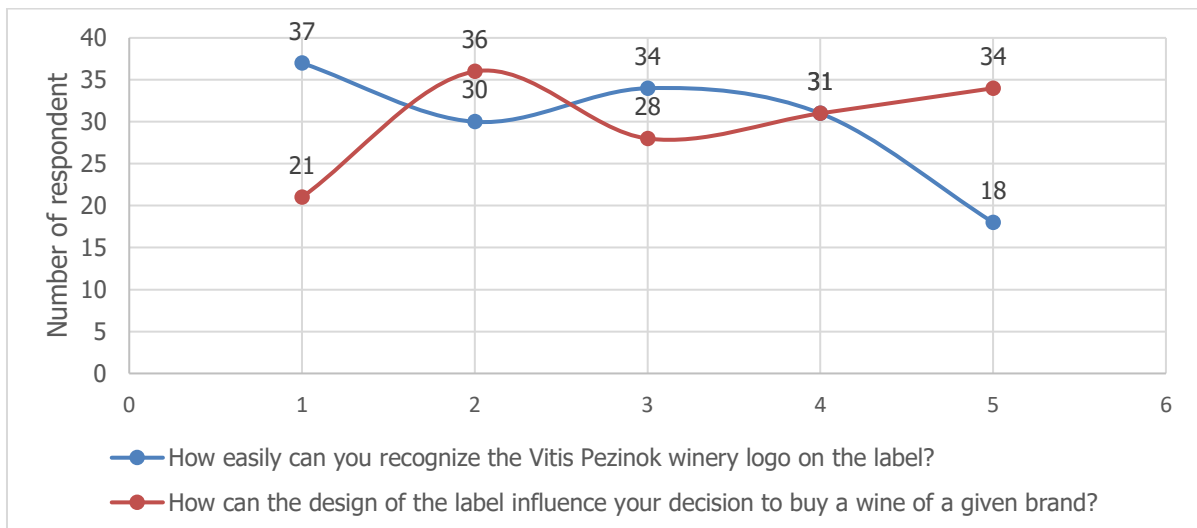
Source: own processing

3.2 Heat map results

Based on the results from the questionnaire survey, we identified the strength of the relationships between variables, in this case between the attributes shown on the front label of wine bottles. This study examines the strength of the relationships between the following variables: *brand, logo, variety, year (or vintage), origin, slogan and volume*. Since the front of the wine bottle does not indicate the price of the wine, we did not examine the strength of this variable in relation to the previously mentioned variables. The relationships between variables were examined using correlation analysis in Gretl. The results of this analysis are shown in Figure 2.

Fig. 2 Correlation analysis of the variables placed on the wine bottle

```
Correlation Coefficients, using the observations 1 - 7
Two-tailed critical values for n = 7: 5% 0,7545, 1% 0,8745

        brand          logo        variety           year         origin
       1,0000        -0,3448        0,4885         0,3022         0,5984   brand
                      1,0000        -0,2267        -0,7113        -0,0252   logo
                                    1,0000         0,6303         0,2037   variety
                                                   1,0000         -0,1506  year
                                                                  1,0000   origin

       slogan         volume
      -0,3398        -0,3968   brand
       0,2268         0,3703   logo
      -0,4784        -0,0046   variety
      -0,5666        -0,4294   year
       0,4301        -0,4590   origin
       1,0000        -0,0053   slogan
                      1,0000   volume
```
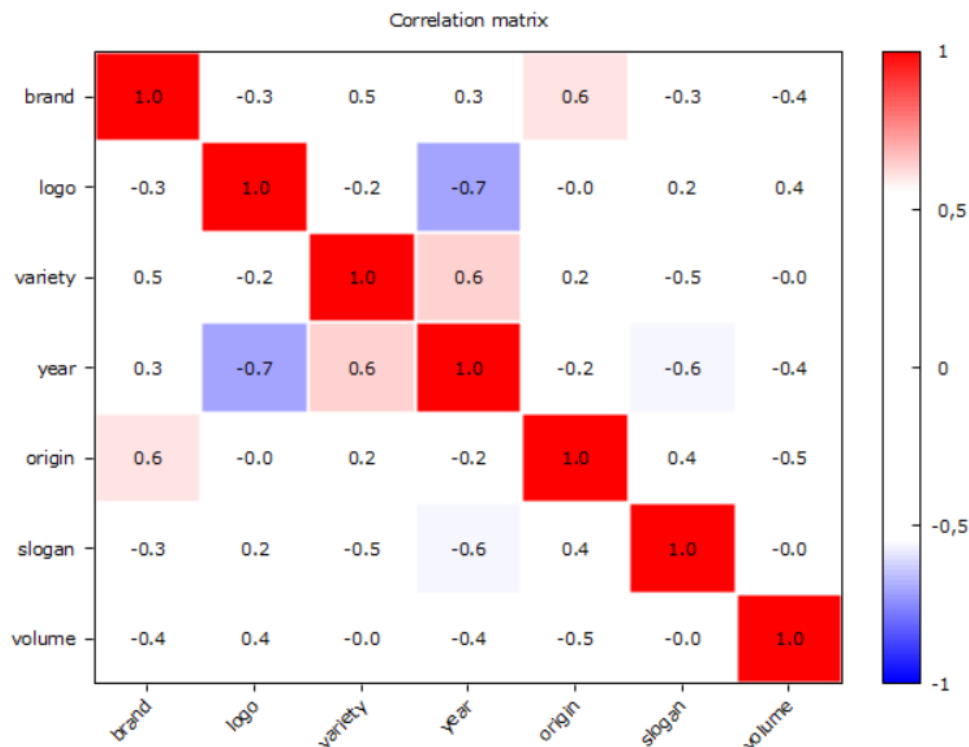
Source: own processing in Gretl

Since the results from Figure 2 are not clear, we proceeded to create a heat map through a correlation matrix. The heat map allows us to immediately see the strength of the relationships between the variables in the data. The advantage is that both strong and weak correlations can be identified at a glance using different colours. The red color shows a very strong positive correlation, close to the +1 value. The blue colour, on the other hand, indicates a strong negative correlation, close to the -1 value. White colour represents values close to zero, indicating weak or insignificant correlation.

Fig. 3 Heat map of the variables placed on the wine bottle

Source: own processing in Gretl

Based on the heat map, we identified a strong negative correlation between *logo* and *year* (vintage), with a value of -0,7. Older vintages are likely to rely on a classic label design with a dominant logo, which may be due to a desire to preserve tradition and brand credibility. Newer vintages, on the other hand, may follow modern design trends where logos are not as dominant, but rather minimalist or less visible. Creating an eye-catching logo is an important part of branding because according to Fernández-Serrano et al. (2022), consumers prefer the logo on the label more compared to the text part of the label.

Mean positive correlation with value of 0,6 is observed for:

- year (vintage) and variety
- brand and origin

Based on this, we found that newer vintages may contain different wine varieties than older vintages. Wineries may be changing the varieties they grow and process - trying to adapt to demand, changing product composition or experimenting with new varieties. For example, in recent years, organic wines, lesser-known varieties, or natural wines have become more popular. As Dejo-Oricain et al. (2022) state, wine consumers are increasingly becoming interested in sustainability in relation to viticulture and wine processing. Wineries have therefore started to apply more environmentally friendly viticultural techniques based on natural production principles and have reduced the use of synthetic chemical inputs.

Mean positive correlation between brand and origin shows that specific wine brands are closely linked to certain regions (origin of the wine). Wine brands are linked to their geographical origin, which is an important factor in branding and image building in the minds of consumers. Atkin et al. (2017) claim that some wines from different regions (such as Bordeaux, Champagne and Porto) have a reputation based on their strong association with the locality where they are produced. Based on this fact, wine can also be a good attribute to use when evaluating regional branding.

We identified an average negative correlation between slogan and year (vintage) with value – 0.6. This means that newer vintages of wines make less use of the slogan as an element of product branding. Newer wines place less emphasis on slogans and focus more on visual branding.

CONCLUSION

Based on the heat map results, we found that older wines have less distinctive or traditional logos, while newer vintages have undergone redesigns or use minimalist and innovative visuals, as evidenced by a strong negative correlation. The average positive correlation showed that newer vintages contain different varieties than older ones, indicating adaptation to demand, experimentation and change in product composition. We also found that wine brands are closely associated with the geographic origin from which they are grown, and newer wines place less emphasis on slogans and more on visual branding.

In general, the label is generally well-received and attractive, with an average attractiveness of 3,066 points out of 5. This is a favourable result for the brand. Also, the logo is generally well recognized, but the influence of label design on purchasing decisions varies; while many respondents (36) see it as having a significant influence, a significant part of respondents as well (34) believe it has no impact, emphasizing the role of other purchasing factors. Some respondents suggest changing the color combination, enhancing the logo's distinctiveness, and improving the layout and readability of the information on the label, however some respondents are satisfied with the current design and would not change anything. Generally, respondents rate and view logo as modern, elegant or minimalist. Opinions on the logo's graphic elements, specifically square-colored symbols, are mixed and not uniform, with most

respondents being neutral. Extreme views (very attractive or unattractive) were less common and not represented enough. Thus, we can conclude that graphic elements are not extremely popular, but neither are they extremely controversial. When it comes to choosing between white and black label, white label is generally preferred but there were minimal differences in terms of representativeness, premiumness, and attractiveness. Many respondents could not choose wine based on the label alone, indicating that other factors such as price, variety, and brand reputation also affect purchase decisions.

Based on the findings, we formulate branding recommendations for winery Vitis Pezinok:

- to create a unified and consistent branding, easily recognizable by the consumer;
- if not changing the logo, we recommend enlarging it, due to almost 1/3 of respondents' perception of logo as low in visibility, possibly unidentifiable;
- to consider making white label as primary and dominant, which is generally preferred in several categories (visual impression, attractiveness, purchase influence);
- to strengthen the link between branding and Malocarpathian wine-growing region.

The limitation of this article is that it does not cover the entire portfolio of products of the Vitis Pezinok winery, but focuses only on selected wines and their branding. Another limitation of the paper is the unrepresentative sample of respondents, as approximately 55% of young people aged 18-25 participated in the survey. The preponderance of younger respondents may not fully capture the perspective of the broader base of wine consumers' perceptions of wine labels. Future research could focus on comparing the branding of multiple Slovak wineries. This paper will contribute to a better understanding of consumer behaviour in the area of wine consumption.

ACKNOWLEDGEMENT

REFERENCES

Anagnostou, E., Tsiakis, T., & Zervas, I. (2025). Highlighting Wine Labels: A Systematic Literature Review of Dominant Informational Parameters as Communicative Elements. *Beverages, 11*(1), 12. https://doi.org/ 10.3390/beverages11010012

Atkin, T., & Johnson, R. (2010). Appellation as an indicator of quality. *International Journal of Wine Business Research*, *22*(1), 42-61. https://doi.org/10.1108/17511061011035198

Atkin, T., Wilson, D., Thach, L., & Olsen, J. (2017). Analyzing the impact of conjunctive labeling as part of a regional wine branding strategy. *Wine economics and policy*, *6*(2), 155-164. https://doi.org/10.1016/j.wep.2017.10.003

Chaney, I. M. (2000). External search effort for wine. *International journal of wine marketing*, *12*(2), 5-21. https://doi.org/10.1108/eb008706

Chrea, C., Melo, D. L., Evans, G., Forde, C., Delahunty, C., & Cox, D. N. (2011). An investigation using three approaches to understand the influence of extrinsic product cues on consumer behavior: An example of Australian wines. *Journal of Sensory Studies*, *26*(1), 13-24. https://doi.org/10.1111/j.1745-459X.2010.00316.x

Chylinski, M., Northey, G., & Ngo, L. V. (2015). Cross-modal interactions between color and texture of food. *Psychology & Marketing*, *32*(9), 950–966. https://doi.org/10.1002/mar.20829

Dejo-Oricain, N; Fernández-Olmos, M; Gargallo-Castel, AF (2022). Determinants of organic wine production: An application in the DOC Rioja wine industry. Spanish Journal of Agricultural Research, 20(3). https://doi.org/10.5424/sjar/2022203-19200

Enlarging storytelling methods to influence wine customer buying behavior / Boyraz, A. (2023). Retrieved 30 January 2025, from https://repositorio-aberto.up.pt/bitstream/10216/157069/2/659381.pdf

Famularo, B., Bruwer, J., & Li, E. (2010). Region of origin as choice factor: wine knowledge and wine tourism involvement influence. *International Journal of Wine Business Research*, *22*(4), 362-385. https://doi.org/10.1108/17511061011092410

Fernández-Serrano, P., Tarancón, P., Bonet, L., & Besada, C. (2022). Consumers' visual attention and choice of 'Sustainable Irrigation'-labeled wine: Logo vs. Text. *Agronomy*, *12*(3), 685. https://doi.org/10.3390/agronomy12030685

Hall, C. M. y Mitchell, R. (2007). Wine marketing: A practical guide. *Wine Marketing: A Practical Guide. Butterworth-Heinemann, Oxford*.

Hendl, J. (2012*). Přehled statistických metod: analýza a metaanalýza dat.* 4., rozš. vyd. Praha. Portál.

Henley, C. D., Fowler, D. C., Yuan, J., Stout, B. L., & Goh, B. K. (2011). Label design: impact on millennials' perceptions of wine. *International Journal of Wine Business Research*, *23*(1), 7-20. https://doi.org/10.1108/17511061111121371

Jaud, D. A., & Melnyk, V. (2020). The effect of text-only versus text-and-image wine labels on liking, taste and purchase intentions. The mediating role of affective fluency. *Journal of Retailing and Consumer Services*, *53,* 101964. https://doi.org/10.1016/j.jretconser.2019.101964

Johnson, R., & Bruwer, J. (2007). Regional brand image and perceived wine quality: the consumer perspective. *International Journal of Wine Business Research*, *19*(4), 276-297. https://doi.org/10.1108/17511060710837427

Joshi, S., Mulcahy, R., Ladlow, C., Eskridge, B., Andonopoulos, V., & Northey, G. (2024). A curious tale of wine labelling: how the colour of a wine label influences purchase intention. *Journal of Wine Research*, *35*(1), 15-33. https://doi.org/10.1080/09571264.2024.2310302

Laeng, B., Suegami, T., & Aminihajibashi, S. (2016). Wine labels: An eye-tracking and pupillometry study. *International Journal of Wine Business Research*, *28*(4), 327-348. https://doi.org/10.1108/IJWBR-03-2016-0009

Linhartová, V. (2020). The effect of government expenditure on human capital in the Czech Republic. *Scientific Papers of the University of Pardubice-Series D, Faculty of Economics and Administration*, *28*(2). https://doi.org/10.46585/SP28021056

Lunardo, R., & Rickard, B. (2019). How do consumers respond to fun wine labels? *British Food Journal*, *122*(8), 2603–2619. https://doi.org/10.1108/BFJ-04-2019-0286

Miller, K. W., & Chadee, D. (2008). Does brand influence wine purchase? In *Proceedings of the 22nd Australian and New Zealand Academy of Management Conference (ANZAM 2008)*. Retrieved 11 January 2025, from https://research.usq.edu.au/item/9yy19/does-brand-influence-wine-purchase

Montgomery, D. C., Jennings, C. L., & Kulahci, M. (2015). *Introduction to time series analysis and forecasting*. John Wiley & Sons.

Mumcu, Y., & Kimzan, H. S. (2015). The effect of visual product aesthetics on consumers' price sensitivity. *Procedia Economics and Finance*, *26*, 528-534. https://doi.org/10.1016/S2212-5671(15)00883-7

Naše vína | Vitis. (2025). Retrieved 2 February 2025 from https://vitis.sk/nasevina/

Parr, W. V., White, G., Heatherbell, K., & A, D. (2003). The nose knows: Influence of colour on percep tion of wine aroma. *Journal of Wine Research*, *14*(2-3), 79–101. https://doi.org/10.1080/ 09571260410001677969

Pereira, B. A. (2016). The new wave of wine brands. In *BIO Web of Conferences* (Vol. 7, p. 03010). EDP Sciences. https://doi.org/10.1051/bioconf/20160703010

Robinson, J., & Harding, J. (2015). *The Oxford companion to wine*. American Chemical Society.

Rocchi, B., & Stefani, G. (2006). Consumers' perception of wine packaging: a case study. *International Journal of Wine Marketing*, *18*(1), 33-44. https://doi.org/10.1108/09547540610657669

Rybak, A., & Rybak, A. (2021). The impact of the COVID-19 pandemic on gaseous and solid air pollutants concentrations and emissions in the EU, with particular emphasis on Poland. *Energies*, *14*(11), 3264. https://doi.org/10.3390/en14113264

Scholes, T. (2010). *The art and design of contemporary wine labels*. Santa Monica Press.

Spence, C., Levitan, C. A., Shankar, M. U., & Zampini, M. (2010). Does food color influence taste and f lavor perception in humans? *Chemosensory Perception*, *3*(1), 68–84. https://doi.org/10.1007/ s12078-010-9067-z

Thomas, A., & Pickering, G. (2003). The importance of wine label information. *International journal of wine marketing*, *15*(2), 58-74. https://doi.org/10.1108/eb008757

Vrontis, D., & Paliwoda, S. J. (2008). Branding and the Cyprus wine industry. *Journal of Brand Management*, *16*, 145-159. https://doi.org/10.1057/bm.2008.1

Workman, J. E., & Caldwell, L. F. (2007). Centrality of visual product aesthetics, tactile and uniqueness needs of fashion consumers. *International Journal of consumer studies*, *31*(6), 589-596. https://doi.org/10.1111/j.1470-6431.2007.00613.x