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Drinking with purpose: unveiling segmentation of Slovak wine market based on wine-related lifestyle

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Purpose. *Shifting consumer priorities in the food and beverage industry are increasingly shaping purchasing decisions, characterised by a marked tendency towards moderation and alcohol-free social activities. This phenomenon reflects a general trend towards healthy lifestyle and well-being, which contributes to declining alcohol consumption. The present article aims to undertake an assessment of the variety of consumer preferences and motives in the Slovak wine market using the wine-related lifestyle (WRL) approach to examine the current and future motivations of wine consumers.*

Methodology. *The consumer study is based on online questionnaire survey conducted on a sample of Slovak wine consumer (n = 580). Both factor analysis and cluster analysis were applied in consumer segmentation, where four clusters were identified: (“Practical (Standard) Wine drinkers”, “Wine Connoisseurs”, “Lifestyle-oriented wine consumers” and “Brand-oriented wine consumers”). To further validate and profile the segments, the chi-square test of independence (with Cramér’s V) was used to examine associations between segment membership and categorical variables, while the non-parametric Kruskal–Wallis test identified differences in consumption,*

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purchasing behaviour, and socio-demographic characteristics among segments.

Results. *The “Practical (Standard) wine drinkers” segment is characterised by its focus on the functional and value-oriented propositions, and its adherence to expert recommendations. Wine connoisseurs prioritise quality, placing significant emphasis on consumption rituals and the availability of detailed product information. Lifestyle-oriented wine consumers focus on the aesthetic and social aspects of wine consumption, where the overall experience remains the primary driver. Brand-oriented wine consumers, meanwhile, emphasise brand consistency, regional authenticity, and patriotism. The analysis further reveals that younger consumers showed a greater appreciation for the social and visual aspects of wine, while older consumers tended to prioritise quality and tradition.*

Originality. *This study was the first to segment the Slovak market by employing the wine-related lifestyle (WRL) approach adapted specifically for the Slovak wine market. It provides updated market data and detailed consumer insights to facilitate more effective business-to-consumer engagement and a clearer understanding of consumption patterns in smaller wine markets.*

Practical implications. *The findings provide actionable insights for wineries and marketers seeking to strengthen their market position and tailor their marketing communication to distinct consumer groups. Furthermore, the segmentation offers guidance for developing moderated- or low-alcohol alternatives in response to the evolving health-conscious behaviours of younger consumer groups.*

Key words: *consumer behaviour, factor analysis, market segmentation, Slovakia, wine-related lifestyle.*

JEL-Classification: *L66, M31, Q10, Q13*

1. INTRODUCTION

In the context of smaller European countries with a rich wine tradition, there is an increasing reflection of global trends, including reductions in vineyard areas and wine consumption (International Organisation of Vine and Wine, 2025). These phenomena signal a shift in consumer preferences and evolving lifestyles throughout the region. The consumption of wine in Slovakia underwent a precipitous decline between 2019 and 2023, with a decrease from 77.98 to 42.93 million litres. The per capita intake was observed to decrease almost by half, from 14.3 to 7.9 litres, thus indicating a shift in consumer preferences and significant challenges for domestic producers (Ministry of Agriculture..., 2024). As with other sectors, the development of the wine industry is influenced by several factors. These include shifting consumer patterns, policy regulations, public health considerations and macroeconomic trends. These factors interact to determine the production and trade dynamics (Santeramo et al., 2019; Meloni et al., 2019; Mariani & Pomarici, 2019). The complexity of wine is not limited by its sensory characteristics. It also encompasses cultural, social, and lifestyle meanings that vary across different contexts and influence consumer behaviour (Overby et al., 2005). The wine-related lifestyle (WRL) approach measures a set of psychographic constructs related to consumers’ wine consumption behaviours, preferences, and attitudes. Since the early 2000s, Bruwer et al. have further refined and validated the WRL construct, adapting it specifically to the wine context and demonstrating its usefulness in identifying meaningful consumer segments across different wine markets (Bruwer & Li, 2017; Bruwer et al., 2017; Yabin & Li, 2020).

Among beverages, wine holds a special place that transcends mere consumption. Many communities worldwide have a profound cultural, social, and symbolic

importance. Wine plays a significant role in many customs and rituals, ranging from religious services to festive occasions. It often symbolises joy, abundance, and refinement, and is synonymous with special occasions and important milestones. On a broader scale, moderate wine intake can also contribute to hedonistic health and well-being (Fiore et al., 2019). The act of sharing and toasting wine encourages a sense of community and friendship among many cultures. The function of wine has gradually switched from nutrition to pleasure (Hertzberg & Malorgio, 2008), and the century-long history of wine has added to its attraction as a means of maintaining and transmitting cultural legacy from one generation to the next.

Therefore, the purpose of this study is to segment Slovak wine consumers using the WRL approach and to profile the segments that are identified based on socio-demographic characteristics and wine purchasing and consumption behaviour. The significance of this study lies in its pioneering application of WRL segmentation in the Slovak wine market and its integration of psychographic, socio-demographic, and behavioural variables to enhance understanding of consumer heterogeneity and evolving wine consumption patterns.

2. LITERATURE REVIEW

2.1. Wine market segmentation

The concept of market segmentation was first presented by the American marketing researcher W. Smith in 1956 (Smith, 1956). Since then, market segmentation has been widely adopted in marketing strategies for a variety of goods. In order to divide the market into several segments, the most popular indicators are those that relate to geography, population, psychology, and behaviour (Yabin and Li, 2020). While traditional geographic, demographic, and economic differences among consumers have become less pronounced, individual tastes, consumption habits, and lifestyle-related preferences have become more relevant determinants of purchasing behaviour (Senauer, 2001).

Wine consumption is influenced not only by intrinsic product attributes but also by extrinsic factors such as consumption occasions, social norms, cultural context, and dining environments. For example, high-involvement wine consumers tend to dine in larger groups, order wine more frequently, spend more on wine purchases, and demonstrate greater knowledge of wine characteristics such as grape variety, wine style, and sensory properties (Bruwer et al., 2019). These findings highlight the importance of behavioural and lifestyle variables in understanding wine consumption patterns.

Consumer segmentation in the wine industry has traditionally been based on demographic, geographic, and behavioural criteria (Thach & Olsen, 2006). However, research has shown that these variables alone are insufficient to explain consumer behaviour fully. Psychographic characteristics, such as subjective wine knowledge (Ellis & Caruana, 2018), emotional drivers (Calvo-Porrall et al., 2020), and generational cohorts (Bruwer et al., 2011; Thach & Olsen, 2006), have become key variables in market segmentation. Behavioural segmentation has identified distinct consumer groups, such as variety seekers, loyal consumers, and switchers, each characterised by

different purchasing patterns and preferences. Variety seekers tend to experiment with higher-quality and more expensive wines, while loyal consumers consistently purchase familiar products and brands (Caracciolo et al., 2022)

Consumer risk-reduction strategies are influenced by factors such as wine knowledge, socio-demographic characteristics, consumption settings, and label information, including quality certifications and awards (Giacomarra et al., 2020). Similarly, willingness to pay is significantly associated with socio-economic and behavioural characteristics, particularly educational attainment, income level, and consumption frequency (Alonso & Candeias, 2022). Gender differences have also been observed, with women demonstrating stronger emotional engagement with wine and increasing consumption frequency over time (Horska et al., 2016; Rodríguez-Donate et al., 2020; Stelander et al., 2021). Generational differences further contribute to segmentation variability, as younger consumers, particularly millennials, represent an increasingly important market segment with distinct consumption preferences and behavioural patterns (Bruwer et al., 2011).

In addition to demographic and behavioural characteristics, sustainability-related attitudes have emerged as an important segmentation criterion. Consumers with strong pro-environmental attitudes show greater willingness to purchase organic and environmentally certified wines, although price sensitivity remains a barrier for some consumer segments (Carbone, 2021; Maesano et al., 2021; Schäufole & Hamm, 2018).

2.2. Wine-related lifestyle segmentation

The conceptual foundation of WRL originates from the Food-Related Lifestyle (FRL) framework developed by Grunert et al. (1997), which examines how consumers integrate food products into their daily lives. Building on this foundation, early empirical application of the WRL approach is commonly traced to Bruwer & Li (2017), who successfully applied lifestyle-based segmentation to the Australian domestic wine market.

The segments were created based on five criteria: wine consumption situations, shopping habits, quality attributes, drinking rituals, and the consequences of wine consumption. Five wine consumer categories were defined, and the researchers then created the research instrument to track changes in these segments over time (Bruwer & Li, 2017). This approach was also used in various market conditions, which are shown in Table 1.

Dynamic shifts in consumer segments are also evident in longitudinal studies. Shi et al. (2022) analysed changes in attendee profiles at Chinese wine festivals over several years, documenting a significant increase in the “wine-lover fest-enthusiasts” segment, indicating a growing sophistication in consumer tastes.

The diversity of these international studies clearly shows that wine consumption is rarely a monolithic behaviour. Instead, it is a complex expression of identity, social belonging and personal expertise. Understanding these demographic and lifestyle clusters is only the first step. To fully grasp the mechanics of the market, one must look beneath the surface of who is buying to investigate the underlying psychological drivers and external pressures that dictate individual choices.

Table 1

Overview of international studies applying WRL segmentation

Author	Country	WRL items	Segment solution
Bruwer & Li (2017)	Australia	80-item WRL algorithm	5 segments: (1) Involved, knowledge-seeking wine drinkers; (2) Younger, relatively inexperienced wine drinkers; (3) Enjoyment-oriented, social wine drinkers; (4) Basic wine drinkers; (5) Conservative, knowledgeable wine drinkers
Bruwer et al. (2017)	South Africa	48 AIO statements (WRL-based)	4 segments: (1) Conservative knowledgeable wine drinker; (2) Experimenter highly knowledgeable wine drinker; (3) Basic wine drinker; (4) Enjoyment oriented social wine drinker
Sharma et al. (2017)	India	37 WRL items	3 segments: (1) Cautious social drinker; (2) Loner regular drinker; (3) Highly engaged drinker
Risius et al. (2017)	Germany	WRL-based lifestyle variables integrated with consumer preference measures	5 segments: (1) Information-oriented consumers; (2) Lifestyle-oriented consumers; (3) Price-sensitive consumers; (4) Quality-oriented consumers; (5) Low-involvement consumers
Hlédik & Harsányi (2019)	Hungary	Lifestyle and behavioural variables	4 segments: (1) Wine experts; (2) Quality-oriented consumers; (3) Ordinary consumers; (4) Low-involvement consumers

Source: authors' elaboration.

2.3. Buying factors and motives

When buyers evaluate the worth and affordability of a bottle of wine, the price, quality, and appearance also come into play. In addition, the region of origin affects the experienced, expected, and perceived quality as well as the alignment between them (Sáenz-Navajas et al., 2014). Thus, the region of origin may offer good predictive value for a product, increasing consumer expectations (Ferreira et al., 2021). Country of origin was also significant in research in Slovenia, where more than half of the participants chose France and Spain if they had to choose a foreign country (Petek et al., 2021). Research comparing international retailers has shown that, in Australia, the closure type, age, medals and colour are key positive price determinants. Research comparing international retailers demonstrated that while age, medals, and alcohol content positively influenced prices in Germany and France, the Sauvignon Blanc variety negatively impacted price formation within the Italian market (Gonçalves et al., 2021). Research by Escandon-Barbosa & Rialp-Criado (2019) confirmed that the available information on the label can also be highly positive in suggesting purchase intention for different consumers: experts, non-experts, women, and men. Building on these findings, Janšto et al. (2024) demonstrated that the primary motivation for Generation Z when buying wine is its appearance and sensory experience. This group does not place as much importance on traditional awards and certificates, such as quality labels and medals.

Providing consumers with wine descriptions based on objective sensory information significantly increased their appreciation, willingness to pay (WTP), and elicited more intense positive emotions, while reducing negative ones compared to blind tasting (Danner et al., 2017). Using the international O.I.V. scoring system, a panel of trained evaluators rated Slovak wine samples the highest for appearance, aroma, and taste, with their average scores significantly exceeding those of comparable samples from Austria and Hungary. When there was a mismatch between expected liking evoked by packaging and blind evaluation (disconfirmation), and in the absence of an assimilation effect, some positive emotions significantly decreased in the informed condition compared to the blind condition (Spinelli et al., 2015).

Many factors affecting wine consumption seem to be context-related and, therefore, are expected to have short-term effects. Nevertheless, some may affect wine demand in the long term, mainly the emergence of virtual wine experiences and growth in online wine shopping (Gastaldello et al., 2021). The COVID-19 pandemic has changed consumers' shopping behaviour and preferences. Although the health risk associated with the virus has subsided, online shopping habits initially adopted to minimise physical contact and reduce contagion have largely persisted (Fihartini et al., 2021), becoming integrated into consumers' purchasing routines. The influence of gender was statistically significant: within the older cohort, women were more likely to buy wine online, while higher levels of education and income were associated with a lower likelihood of doing so (Balenović et al., 2021).

A passion for wine, ambition to create a wine cellar, or investment possibilities may also motivate people to buy wine for collecting purposes. Vineyards, wineries, and sommeliers contribute significantly to the economics, tourism, and cultural identity of many locations. Wine tourists are a highly attractive group of consumers who are well educated, affluent, and eager to buy when they experience "pleasure" (Bruwer & Rueger-Muck, 2019). Investments in alternative commodities such as wine have been commodities for a long time. The value of wine increases as it matures, with trading for such alternative commodities typically conducted via OTC markets. They do not have a market created on the stock exchange market (Majerčáková et al., 2019).

Based on the above-discussed literature, this research addresses the following research questions (RQ):

RQ1: Which segments of wine consumers (if any) can be detected based on the WRL approach in Slovakia?

RQ2: Are there differences between segments based on demographic characteristics (gender, age, education, occupation, and income)?

RQ3: Are there differences between the segments based on consumer and purchase behaviour?

3. METHODOLOGY

The survey was conducted for four months from January to May 2023. A non-probability convenience sampling approach was employed, leveraging network-based distribution via the Association of Vine Growers and Winemakers of Slovakia and

local producers, with voluntary recruitment conducted through online platforms. Participants were informed about the aims of the study, the voluntary nature of their participation, and the anonymity of their responses on the introductory page of the online questionnaire. Participants who chose to proceed and complete the questionnaire provided their informed consent. In total, 730 questionnaires were collected and completed. However, respondents under 18 years of age and those who do not often consume and purchase wine (at least once a month) were not included in the study. The final dataset used in the study was based on $n = 580$ wine consumers, which is a complete representation of the various demographic groups.

The questionnaire consisted of three parts: (a) sociodemographic characteristics, (b) consumer purchasing behaviour, and (c) WRL scale. The first section determined the demographic characteristics of consumers (Table 2).

Table 2

Socio-demographic characteristics of studied wine consumers

Category	Characteristics	N	%
Gender	Female	300	51.7
	Male	280	48.3
Age	18–25	216	37.2
	26–40	186	32.1
	41 and more	178	30.7
Level of education	High school or equivalent	207	35.7
	Bachelor's degree	133	22.9
	Master's degree	214	36.9
	Doctorate	26	4.5
Economic status	Employed	275	47.4
	Student	196	33.8
	Entrepreneur, self-employed	72	12.4
	Unemployed	7	1.2
	Maternity leave	8	1.4
	Retired	22	3.8
Place of residence	Rural	213	36.7
	Urban (till 30 000 inhabitants)	146	25.2
	Urban (more than 30 000 inhabitants)	221	38.1
Net monthly income	Less than EUR 300	121	20.9
	300–500 EUR	71	12.2
	501–750 EUR	57	9.8
	851–1000 EUR	112	19.3
	1001–1250 EUR	79	13.6
	1251–1500 EUR	59	10.2
	More than EUR 1500	81	14.0

Source: authors' elaboration.

The gender distribution of the sample reflects the national population structure of Slovakia, where women represent approximately 51.7% and men 48.3% of the population (Statistical Office..., 2024), indicating good representativeness of the sample in terms of gender. Consumers were categorised into three age groups: 18–25 (37.2%), middle-aged consumers 26–40 (32.1%), and the oldest group was 41 and

above (30.7%). The complex profile of research sample is shown in Table 2.

The second section consisted of questions about consumer purchase behaviour, such as preferred wine colour, sweetness (1 – totally preferred, 5 – not at all), and place of purchase (1 – very often, 5 – never), which were rated on a five-point Likert scale. Other semi-open questions were aimed at the frequency of drinking, amount, occasion, reason, and WTP. The last section of the questionnaire, which was adapted from WRL approaches, were used in previous research studies by (Bruwer & Li, 2017; Bruwer et al., 2017; Risius et al., 2019; Sharma et al., 2020). The items were adapted from a 48-item scale to a final 29-item scale to suit the Slovak context and were used to examine factors that influence WRL. Key dimensions (domains) identified in WRL studies include wine consumption situations, quality and product attributes, drinking rituals, social consumption, lifestyle attitudes, shopping and purchasing behaviour, and emotional and hedonic values. The statements were rated on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The methodology used was quantitative analysis, which was divided into three steps – non-parametric Friedman test, factor analysis (FA), and cluster analysis (CA):

1. The Friedman test and multiple pairwise comparisons using Nemenyi's procedure were used to determine the statistical significance of consumers' attitudes towards the 29 WRL statements.

2. Before performing FA, the data were assessed for suitability using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity. The results are shown in Table 3.

Table 3

Suitability of data for FA

Indicator	Acceptable result	Actual results	Status
Kaiser-Meyer-Olkin measure of sampling adequacy	>0.6	0.914	Acceptable
Bartlett's test of sphericity	p<0.05	0.000	Acceptable
-	Approx. χ^2	7296.868	-
-	Df	351	-

Source: authors' elaboration.

The Kaiser criterion (Kaiser, 1958) was applied to obtain factors with eigenvalues > 1.0. This ensures that the final model is accurate and reliable and that items with a factor loading (FL) of less than 0.5 are removed from the analysis (two items were excluded). Cronbach's alpha was used to calculate the reliability of the scale from the remaining 27 items. This should be a recommended threshold of more than 0.7 (Nunnally, 1978). Composite Reliability (CR) and Average Variance Extracted (AVE) were calculated to establish the reliability and validity of the constructs. It measures the consistency of the constructs, and values greater than 0.7 are considered acceptable. AVE is a measure of how much variance in the indicators is accounted for by the construct, and a cutoff of 0.5 is considered sufficient (Hair et al., 2012). These measures demonstrate the reliability of the constructs.

3. Latent factors were used as criteria for consumer segmentation by applying

K-means clustering. The clustering algorithm is one of the most popular partitioning clustering methods (Kansal et al., 2018; McCune et al., 2021). Ward’s method was used to determine the optimal number of clusters, and then the profiles of each segment were constructed based on socio-demographics, consumers, and purchasing behaviour. Similar approaches have been used in various consumer studies (Tleis et al., 2017).

IBM SPSS Statistics Grad Pack 28.0 (IBM Corp., Armonk, NY, USA) and XLSTAT 2022.4.1 (Addinsoft, NY, USA) were used to analyse the collected data.

4. RESULTS

4.1. Identification of wine market factors

To determine the variety of preferences and behaviours of wine consumers, a Friedman test ($p < 0.05$) was used to compare WRL among 580 respondents. Because of the significant results, pairwise comparisons were performed using Nemenyi’s procedure. The results (Table 4) reveal several key insights into consumer preferences.

Table 4

Results of Nemenyi’s post-hoc test of wine purchase factors

Sample	Mean	Mean of ranks	Groups														
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	2	3															
I purchase wine to store it and enhance its quality	2.10	9.25	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I usually decant red wine before pouring it into a glass	2.28	10.59	A	B	-	-	-	-	-	-	-	-	-	-	-	-	-
I utilise special wine accessories, such as filters, bottle pourers, etc.	2.46	11.78	-	B	C	-	-	-	-	-	-	-	-	-	-	-	-
I read wine reviews online	2.46	11.78	-	B	C	-	-	-	-	-	-	-	-	-	-	-	-
I usually seek out unique wines for regular consumption	2.54	12.1	-	B	C	D	-	-	-	-	-	-	-	-	-	-	-
I am very selective when purchasing wine, especially when choosing from a specific vintage	2.57	12.35	-	B	C	D	E	-	-	-	-	-	-	-	-	-	-
I have a special space for wines, e.g., Wine racks to allow for wine aging/wine collection creation	2.55	12.44	-	B	C	D	E	-	-	-	-	-	-	-	-	-	-
I always buy the same brand of wine	2.63	12.56	-	-	C	D	E	-	-	-	-	-	-	-	-	-	-
I typically start with lighter wines and progress to heavier wines	2.61	12.77	-	-	C	D	E	-	-	-	-	-	-	-	-	-	-
I usually let wine breathe by letting it stand for some time before consumption	2.61	12.81	-	-	C	D	E	-	-	-	-	-	-	-	-	-	-
I usually buy wine in a supermarket because it is more convenient	2.65	13.4	-	-	C	D	E	F	-	-	-	-	-	-	-	-	-
I tend to buy cheaper wines	2.73	13.16	-	-	C	D	E	F	-	-	-	-	-	-	-	-	-
It is my preference to consult the tasting experience when purchasing wine in a wine shop	2.73	13.53	-	-	C	D	E	F	-	-	-	-	-	-	-	-	-
I am more attracted to wines in elegant, specially shaped bottles than to standard bottles	2.85	13.88	-	-	-	D	E	F	G	-	-	-	-	-	-	-	-

Continuation of the Table 4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
In selecting wines, I frequently rely on recommendations from sommeliers who possess considerable expertise in the field	2.79	13.93	-	-	-	-	E	F	G	-	-	-	-	-	-	-
A bad-looking label can put me off, even if the wine tastes good	3.1	14.85	-	-	-	-	-	F	G	H	-	-	-	-	-	-
Having wine knowledge provides me with a sense of satisfaction	3.7	15.70	-	-	-	-	-	-	G	H	I	-	-	-	-	-
I am convinced that wines that have won medals are of higher quality than those that have not	3.10	15.76	-	-	-	-	-	-	G	H	I	-	-	-	-	-
I purchase different wine styles based on the occasion on which they will be consumed	3.12	15.92	-	-	-	-	-	-	-	H	I	-	-	-	-	-
I usually drink wine to improve my mood	3.21	15.97	-	-	-	-	-	-	-	H	I	-	-	-	-	-
I always buy the same style of wine (sparkling, white, rosé, light red, etc.)	3.21	16.00	-	-	-	-	-	-	-	H	I	-	-	-	-	-
I am convinced that wines with a cork are of higher quality than those with a plastic seal	3.31	16.73	-	-	-	-	-	-	-	H	I	J	-	-	-	-
I always check my wine for cork or other impurities	3.29	17.2	-	-	-	-	-	-	-	-	I	J	-	-	-	-
I typically have an idea of which wine brand I want to buy before I even enter the store	3.53	18.29	-	-	-	-	-	-	-	-	-	J	K	-	-	-
When purchasing wine, it is important to me in which country the wine was produced	3.50	18.40	-	-	-	-	-	-	-	-	-	J	K	-	-	-
I usually use the correct type of glassware for different wine styles	3.58	19.6	-	-	-	-	-	-	-	-	-	-	K	L	-	-
I believe that Slovak wines should be purchased primarily	3.84	20.52	-	-	-	-	-	-	-	-	-	-	-	L	M	-
In making decisions regarding the purchase of wine, I use the information presented on the label	4.8	21.41	-	-	-	-	-	-	-	-	-	-	-	-	M	-
I think the combination of wine and food has a great effect on the overall taste	4.37	23.51	-	-	-	-	-	-	-	-	-	-	-	-	-	N
Cronbach alpha (29 items)																0.892

Source: authors' elaboration.

The combination of wine and food (mean (M) = 4.37) was the most preferred by consumers, indicating that people appreciate wine more when it is consumed with food as part of a meal. Information on wine labels (M = 4.08) and the preference for Slovak wines (M = 3.84) were also found to be important in consumers' decision-making. Thus, it would be useful for wineries to include more information about the wine they are offering, such as where it is from, what type of grape is used, how it tastes, and what food it goes well with. Thus, emphasising the link between regional wines and traditional cuisine, wineries can tap into the patriotic factor and sell the story. Using these factors as part of a unified marketing strategy will make it easier for local wines to prove their value and, thus, compete more effectively.

Our analysis further reveals that while most factors are of lesser importance for wine consumers, some are still rather important. Storage of wine for aging ($M = 2.10$), decanting red wine ($M = 2.28$), using special accessories ($M = 2.46$), and searching for special ($M = 2.54$) or unique vintage wines ($M = 2.57$) are of lesser importance to the average consumer. Marketing strategies should therefore focus on immediate consumption and ease of use, instead of special ways of handling wine.

Principal component analysis with varimax rotation (Table 5) revealed five factors influencing consumer wine consumption behaviour.

Table 5

Results of factor analysis for wine purchase factors

Statements	FL	% of variance explained	CR	AVE
1	2	3	4	5
<i>Factor 1: High expertise with wine consumption</i>	-	33.813	0.947	0.545
I usually let wine breathe by letting it stand for some time before consumption	0.814	-	-	-
I utilise special wine accessories, such as filters, bottle pourers, etc.	0.804	-	-	-
I purchase wine to store it and enhance its quality	0.799	-	-	-
I have a special space for wines, e.g., wine racks to allow for wine aging/wine collection creation	0.782	-	-	-
I typically start with lighter wines and progress to heavier wines	0.779	-	-	-
I usually seek out unique wines for regular consumption	0.763	-	-	-
I usually decant red wine before pouring it into a glass	0.762	-	-	-
I am very selective when purchasing wine, especially when choosing from a specific vintage	0.759	-	-	-
In selecting wines, I frequently rely on recommendations from sommeliers who possess considerable expertise in the field	0.741	-	-	-
I read wine reviews online	0.734	-	-	-
It is my preference to consult the tasting experience when purchasing wine in a wine shop	0.711	-	-	-
Having wine knowledge provides me with a sense of satisfaction	0.687	-	-	-
I purchase different wine styles based on the occasion on which they will be consumed	0.671	-	-	-
I usually use the correct type of glassware for different wine styles	0.640	-	-	-
I always check my wine for cork or other impurities	0.599	-	-	-
<i>Factor 2: Visual presentation</i>	-	10.111	0.780	0.684
I am more attracted to wines in elegant, specially shaped bottles than to standard bottles	0.801	-	-	-
I am convinced that wines with a cork are of higher quality than those with a plastic seal	0.718	-	-	-
A bad-looking label can put me off, even if the wine tastes good	0.615	-	-	-

Continuation of the Table 5

1	2	3	4	5
I am convinced that wines that have won medals are of higher quality than those that have not	0.600	-	-	-
<i>Factor 3: Brand loyalty</i>	-	6.226	0.812	0.766
I always buy the same brand of wine	0.861	-	-	-
I typically have an idea of which wine brand I want to buy before I even enter the store	0.771	-	-	-
I always buy the same style of wine (sparkling, white, rosé, light red, etc.)	0.666	-	-	-
<i>Factor 4: Wine origin</i>	-	4.712	0.686	0.646
I believe that Slovak wines should be purchased primarily	0.739	-	-	-
When purchasing wine, it is important to me in which country the wine was produced	0.675	-	-	-
In making decisions regarding the purchase of wine, I use the information presented on the label	0.525	-	-	-
<i>Factor 5: Enjoyment</i>	-	3.968	0.698	0.732
I usually drink wine to improve my mood	0.760	-	-	-
I tend to buy cheaper wines	0.704	-	-	-
Cronbach alpha (27 items)	0.883			

Source: authors' elaboration.

The most relevant factor is “*High expertise of wine consumption*”, which explains 33.8% of the variance and focuses on a more sophisticated approach to wine. Consumers with a high load on this factor are well-oriented and have a sophisticated way of handling, storing, and consuming wine. In addition, they use special wine accessories (factor loading (FL) = 0.804) and prefer to decant red wine before serving (FL = 0.762), which indicates their passion for making the best wine. Moreover, they tend to store wine to improve its taste and have special places for wine maturation (0.799 and 0.782, respectively). They usually started with light wines and moved on to heavier ones (0.779), showing a good understanding of wine-tasting sequences. They are rather choosy when it comes to buying wine, especially vintages (0.759), and rely on the opinions of sommeliers (0.741). Moreover, they were satisfied with their wine knowledge (0.687) and sought wine reviews online (0.734).

The second factor, “*Visual presentation*”, explained 10.1% of the variance and was highly associated with wines that were offered in elegant and specially shaped bottles (0.801). This had a significant effect on the perceived beauty of wine. It was found that consumers may not purchase ugly labelled wine, even if it is a good wine (0.615). Furthermore, consumers appreciate wines that have won awards (0.600) or corks (0.718), as these are indications of a high-quality product.

Factor 3, “*Brand loyalty*”, which accounted for 6.2% of the total variance, was mainly composed of three statements that capture loyal buying behaviours and strong brand preferences. These consumers can be described as having a set of habits for buying specific types of wine and wine brands. The results show that these consumers always buy the same brand of wine (0.861) and are likely to know what brand they want when entering the store (0.771). This consistency is also visible in their liking for

the kind of wine they drink, including sparkling, white, rosé, or light red wine (0.666).

The fourth factor, “*Wine origin*”, explained 4.7% of the variance. This factor is used to emphasise the role of the region in the decision-making process of purchasing wine. In this category of consumers, the region of origin of the wine seems to be an important determinant. These consumers also closely look at the information provided on wine labels before making their purchases (0.525). This behaviour shows a national preference combined with the desire for authenticity and quality assurance in wine selection. Factor 5: “*Enjoyment*” (3.968% of the variance) is related to recreational and mood-related uses of wine consumption. Consumers who are in sync with this factor consume wine to have fun and to improve their mood (FL = 0.760). Moreover, they tended to buy cheaper wines (FL = 0.704), which means that pleasure does not have to be expensive.

4.2. Identification of wine market segments

We used factor scores to perform a cluster analysis to distinguish the four segments (Figure 1). In order to deliver a more detailed description of the distinct segments, data were extracted from the following tables: Table 6 described the socio-demographic characteristics; Table 7 identified consumers’ wine preferences; Table 8 showed purchasing preferences; and Table 9 described consumption habits and behaviours.

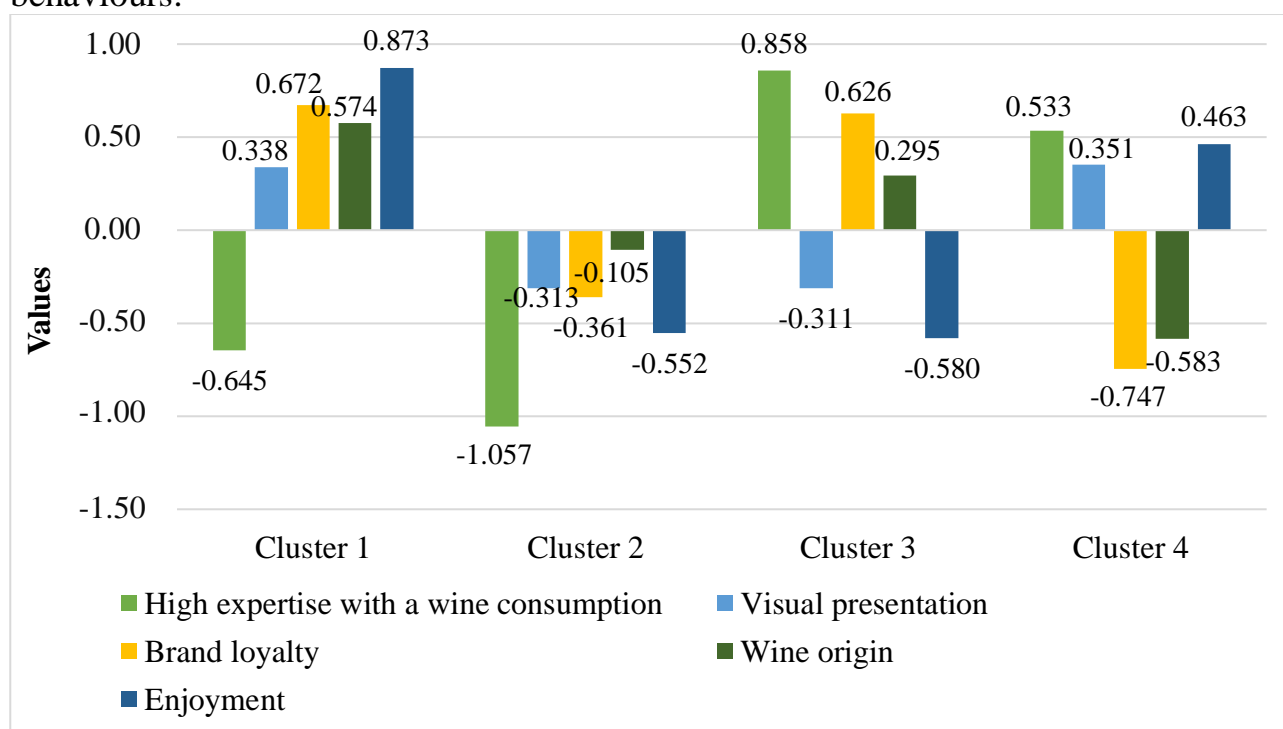


Figure 1. Segments of wine consumers

Source: authors’ elaboration.

Segment 1 (19.1%) “Practical (Standard) Wine drinkers”: people who have a moderate level of wine literacy and who functionally use wine. Such drinkers usually consume wine within a domestic setting, utilising it either as a culinary complement or a medium for relaxation. They prefer well-balanced dry to semi-dry white wines but also appreciate the complexity of full-bodied red wines, suggesting a quality-oriented

and sophisticated palate. Regarding the purchase process, the practical wine drinkers are frequent and selective buyers of wine, prefer vintage wines and tend to buy wines recommended by experts.

The purchasing behaviours show that the target buyers prefer buying wine from specialist wine shops and directly from winemakers, but they do not have a problem buying wine from supermarkets and general retail chains if needed. For everyday use, they are ready to spend EUR 7–10 per bottle for wine, looking for something reasonably priced, but at the same time of good quality. Conversely, for gift-giving or significant social events, their WTP increases substantially, gravitating toward premium, higher-end selections. Demographically, this segment is predominantly comprised of urban-dwelling males, aged 26–40, who are characterised by high educational attainment and a monthly net income exceeding EUR 1500. Marketers should perhaps concentrate on the accessibility of wine, including the affordability of the product, and the existence of various deals that provide added value to customers.

Table 6

Sociodemographic characteristics of segments

Variable	Sub-category	Segment 1, %	Segment 2, %	Segment 3, %	Segment 4, %
Gender	Male	52.3	63.4	38.1	42.1
	Female	47.7	36.6	61.9	57.9
Family status	Single	55.0	42.8	86.9	64.0
	Married	45.0	57.2	13.1	36.0
Age	18–25 years	28.8	15.2	63.8	36.6
	26–40 years	35.1	23.4	30.0	39.6
	41 and more years	36.1	61.4	6.2	23.8
Education	High school or equivalent	28.8	39.3	38.1	34.8
	Bachelor's degree	20.7	12.4	34.4	22.6
	Master's degree	45.9	43.4	25.6	36.0
	Doctorate	4.6	4.9	1.9	6.6
Residence	Rural	31.5	33.8	39.4	40.2
	Urban (up to 30 000 people)	27.0	22.1	26.3	25.6
	Urban (over 30 000 people)	41.5	44.1	34.3	34.2
Economic status	Employed	57.7	54.5	30.0	51.2
	Student	23.4	12.4	60.6	33.5
	Entrepreneur, self-employed	17.1	20.7	5.0	9.2
	Unemployed	0.0	2.8	0.6	1.2
	Maternity leave	0.0	0.0	3.2	1.9
	Retired	1.8	9.6	0.6	3.0
Net monthly income	Less than EUR 500	15.3	15.2	62.5	32.3
	EUR 501–1000	25.3	30.3	21.3	38.4
	EUR 1001–1500	33.3	33.1	13.1	19.5
	More than EUR 1500	26.1	21.4	3.1	9.8

Source: authors' elaboration.

Segment 2 (25%): "Wine Connoisseurs": the second cluster comprises consumers with the highest degree of viticultural expertise, self-identifying as connoisseurs. For this segment, wine consumption is a ritualistic experience. They derive enjoyment from

the act of drinking wine and often engage in traditions such as proper aeration, the use of specialised glassware, and precise gastronomic pairing. They consume wine several times a week with an annual intake exceeding 30 litres. While domestic consumption remains primary, this group exhibits a profound interest in technical specifications, critic ratings, and the aesthetic presentation of the product. In addition, they showed the same preference for various kinds of wine, like those of practical wine drinkers. This consumer group is especially likely to buy products from wine shops or direct vineyard acquisitions, often investing considerable time and financial resources into the selection process. This commitment frequently extends to memberships in exclusive wine clubs or subscription-based models for rare allocations.

Packaging and wine reputation serve as critical heuristics, though they are equally influenced by educational content and technical data. This segment is most likely to be married males over the age of 41. They are prepared to spend more on wine for both personal consumption and gift-giving, with a marked preference for prestigious, established brands. Retailers can increase their attractiveness by providing wine-tasting events and high-end products at both physical and digital touchpoints.

Table 7

Wine preferences of the four consumer segments

Category	Sub-category	Segment 1	Segment 2	Segment 3	Segment 4	P-value
Preferred wine colour	Red	1.98 ^a	2.04 ^a	2.48 ^b	2.62 ^b	< 0.001*
	White	1.59 ^{ac}	1.44 ^{ac}	1.89 ^b	1.64 ^{bc}	< 0.001*
	Rose	2.23 ^a	2.22 ^a	2.14 ^a	2.19 ^a	0.828
Preferred sugar content	Dry	1.72 ^a	1.71 ^a	3.04 ^b	2.48 ^b	< 0.001*
	Semi-dry	2.24 ^{ab}	2.03 ^a	2.44 ^b	2.36 ^{ab}	0.003*
	Semi-sweet	2.75 ^a	2.48 ^a	1.97 ^b	2.42 ^a	< 0.001*
	Sweet	3.19 ^a	2.89 ^a	2.46 ^b	2.87 ^{ab}	< 0.001*
Place of wine purchase	Specialised wine shop	2.66 ^a	2.58 ^a	3.69 ^b	3.18 ^c	< 0.001*
	Directly at the wine producer	2.84 ^a	2.56 ^a	4.15 ^b	3.56 ^c	< 0.001*
	Supermarkets	3.03 ^a	2.72 ^a	1.83 ^b	2.35 ^b	< 0.001*
	Websites	3.47 ^a	3.06 ^b	4.33 ^c	3.98 ^d	< 0.001*
	Delivery service	4.44 ^a	3.76 ^b	4.73 ^c	4.65 ^{ac}	< 0.001*
	Wine events	3.30 ^a	2.88 ^b	4.19 ^c	3.82 ^d	< 0.001*

Note. *Significant differences between segments according to the Kruskal-Wallis test ($p < 0.05$). Means in the same rows with different superscripts are statistically different according to the Dunn-Bonferroni post-hoc method ($p \leq 0.05$).

Source: authors' elaboration.

Segment 3 (27.6%): "Lifestyle-oriented wine consumers": representing over a quarter of the market, this segment is characterised by high social activity and a visual-centric approach to consumption. This group consumes wine several times a month, with a typical intake of 3–6 decilitres per occasion, and has a higher tendency to consume wine during social events. The main reasons for their wine consumption were parties, celebrations, and social meetings with friends. Consequently, they exhibit a preference for "approachable", easy-to-drink wine styles, particularly semi-sweet

varieties that align with their palate preferences. A defining characteristic of “Lifestyle-oriented wine consumers” is the emphasis on extrinsic aesthetic attributes. The visual appeal of the bottle and label is not merely a preference but a core component of the consumption experience, as they select products that enhance their social image. This demographic is likely to post about their wine experiences on social media and may be more likely to purchase products that are trendy and recommended by friends or influencers. Their procurement behaviour is centred on retail convenience, with a preference for supermarkets that offer a diverse and aesthetically pleasing assortment. Because they are cost-conscious, they prefer to purchase wines for daily consumption that cost less than six euros. However, they are WTP more on the wines that are going to be given away. A high proportion of this segment is female, single, and between the ages of 18 and 25. In order to reach this segment, retailers and marketers should pay attention to the visual branding and leverage digital trends to grab the attention and loyalty of this group.

Table 8

Purchase behaviour of segments

Category	Sub-category	Segment 1, %	Segment 2, %	Segment 3, %	Segment 4, %	X ² (p-value)	Cramer's V
Purchase wine	Yes, regularly	61.3	61.4	25.6	41.5	< 0.001	0.300
	Yes, occasionally	38.7	38.6	74.4	58.5		
WTP for a bottle of wine for normal consumption (on average)	Less than EUR 6	22.6	39.3	81.3	56.1	< 0.001	0.267
	EUR 7–10	46.8	44.8	16.3	37.2		
	EUR 11–15	18.0	10.3	2.4	4.9		
	EUR 16 and more	12.6	5.6	0.0	1.8		
WTP for a bottle of wine for gift giving (on average)	Less than EUR 6	9.9	15.2	26.3	15.2	< 0.001	0.194
	EUR 7–10	19.8	27.6	41.9	37.9		
	EUR 11–15	31.5	29.0	22.5	32.3		
	EUR 16 and more	38.8	28.2	9.3	14.6		

Source: authors' elaboration.

Segment 4 (28.3%): “Brand-oriented wine consumers”: have the highest level of brand loyalty and a clear preference for the countries of origin of wines. The last segment is characterised by low-to-moderate wine knowledge and a strong commitment to certain wine brands and areas. This level of moderate expertise is combined with a taste that favours familiarity over unfamiliarity. On average, they consume wine several times a month and drink white and dry wine at home. For those who can be classified as brand loyalists, the purchase of wine is not just a business transaction, but a purposive “performance” of loyalty. They tend to visit stores that sell only wines from certain regions or producers to obtain products they think are the most authentic and traditional. This segment was gender balanced, with a slight female prevalence. The majority of this group was single, although a significant proportion was married. The age range is diverse, with a notable concentration of consumers aged 26–40 years, indicating a mature and stable demographic. The consumers in this group are well-educated and have an average to high income, which allows them to regularly

spend on the wines they like. This group is primarily motivated by brand heritage and predictable quality, making them a foundational driver of market stability. Above all, they value consistency. Based on the characteristics of this segment, marketers and retailers should focus on brand narrative, naturalness of the products, and consistency of the quality they provide to their consumers.

Table 9

Consumption behaviour of segments

Category	Sub-category	Segment 1, %	Segment 2, %	Segment 3, %	Segment 4, %	X ² (p-value)	Cramer's V
Frequency	Every day	9.0	7.6	0.0	5.5	< 0.001	0.213
	Several times per week	35.1	42.1	13.1	20.2		
	Once a week	13.5	22.1	19.4	14.6		
	Several times per month	28.9	17.9	34.4	33.5		
	Occasionally	13.5	10.3	33.1	26.2		
The average amount of wine consumed per year	Less than 9 litres	17.2	14.5	35.6	31.7	< 0.001	0.173
	10–19 litres	27.9	24.1	36.3	27.5		
	20–29 litres	15.3	16.6	14.3	14.6		
	30 litres and more	39.6	44.8	13.8	26.2		
Place of wine consumption	Home	74.8	71.7	57.5	73.2	< 0.001	0.142
	On visit	15.3	15.9	34.4	17.7		
	Outside (bar, restaurant, etc.)	9.9	12.4	8.1	9.1		
Occasion of consumption	At home, just for taste	64.0	64.8	38.8	60.4	< 0.001	0.189
	At dinner in a restaurant	12.6	6.2	1.2	2.4		
	Celebration/party	14.4	16.6	37.5	21.3		
	Meeting with friends	9.0	12.4	22.5	15.9		

Source: authors' elaboration.

The application of WRL approach to the Slovak market reveals a complex landscape of four distinct consumer segments. The research revealed that while ritual, deep expertise and a high WTP are key among elite connoisseurs, the younger generation (Gen Z), in line with international findings, puts a higher value on visual appeal, social context and sensory experience than on traditional values. Across different groups, people still care a lot about regional authenticity and prefer domestic wines. Across these segments, a strong patriotic preference for domestic Slovak wines and the functional importance of wine-food pairing emerge as universal drivers of purchase intent. This shift toward a four-segment solution in a smaller European market underscores the ongoing democratisation of wine – specifically, the rise of the “Stylish Relaxation” group indicates that for a growing portion of the population, wine has transitioned from a technical product to a lifestyle-driven social accessory, suggesting that future growth for Slovak producers lies in balancing traditional quality

narratives with modern visual branding to capture this experience-oriented demographic.

5. DISCUSSION

To understand what is important in buying wine, more than just the product attributes are important. Wine is a complex product with many attributes and levels (Lockshin & Cohen 2015). Wine bottles typically have a front label that includes a brand or producer name, the region and country where the grapes were grown, often the grape variety, and the alcohol level required by law. Many wine bottles also have a back-label where more about the winery, the wine, what foods it matches, and other details are provided.

In contrast to the more common usage of values and lifestyle or secondary characteristics gathered for other purposes, segmenting customers based on how they select a product is more likely to produce actionable subgroups (Cohen & Neira 2003). Studies such as Thach & Olsen (2015) and Danner et al. (2020) explore specific segments and contextual influences similar to ours. Thach & Olsen (2015) discovered significant differences based on gender, age, income, wine involvement, shopping channels, ecommerce/social media usage, and other key areas. In this research, the oldest segment was discovered to have the least wine knowledge, as opposed to our findings for Segment 2. Moreover, the two-studies consumer research (Danner et al., 2020) oriented of lifestyle segmentation revealed differences between emotional and hedonic responses regarding wine during tasting. The results indicate practical implication of the Fine Wine Instrument towards revealing diversity in behaviour of wine consumers.

The same results as in our segmentation for lifestyle-oriented wine consumers were also obtained by Batt & Dean (2000), who found that price was more important for those consumers who drank wine less frequently and for those who purchased wine below EUR 15.00 per bottle. They also stated that for those consumers who drank wine more regularly, the importance of the brand as a means of selecting wine increased, which does not align with our findings, because our research showed that brand loyalists are not regular drinkers.

Similar to our findings for the young consumers in Segment 3, where they prefer to buy bottles of wine mostly as a gift and less expensive, Silva & Rebelo (2019) discovered that more than half of the young consumers did not buy expensive bottles of port wine within the year. The few who bought a bottle were to give someone else as a gift. Interestingly, the criteria for the choice of port wine in their research are mainly dependent on the age of the person to whom the gift is. They are also the market segment that mostly uses digital tools in the decision process and buying, anticipating what will be the wine market in the future.

The results of our research, which indicated that consumers consistently purchase the same brand of wine, align with a similar study by Lockshin et al. (2000) and highlight the fact that brand name acts as a surrogate for several attributes, including quality. The brand name by itself is usually not a strong enough cue for the purchase

decision, as much more information is available on the label, but the brand is important for wine purchase in all New World countries and is growing in the Old-World wine markets. The largest segment is that of cognitive-based buyers, which averages about 50% of those surveyed in the research. These buyers read the labels and made decisions based on grape variety, origin, brand name, and awards. Muñoz et al. (2019) highlights the importance of adopting a consumer-oriented approach for long-term success, and that future wine trends indicate a dual focus on value-for-money deals and high-quality, experience-driven products, urging companies to diversify their portfolios to appeal to sophisticated wine drinkers.

This study contributes to lack of studies analysing Slovak wine market segments, considering is a topic which has received limited academic attention. By identifying distinct consumer profiles, the study offers a clearer understanding of the heterogeneity of wine consumers and highlights how different motivations, attitudes, and purchasing behaviours coexist within the same market. By empirically identifying four differentiated consumer segments, the study expands current knowledge and provides a basis for future research exploring consumer behaviour, preferences, and market evolution in the Slovak wine sector. However, the study relies on self-reported data and focuses primarily on segmentation techniques, so additional statistical approaches should be implemented in future studies. From a practical perspective, the results provide useful insights for wineries, marketers, and industry stakeholders. The identification of different consumer segments can support more targeted marketing strategies and communication approaches.

6. CONCLUSIONS

This study provides a comprehensive analysis of Slovak wine consumers by determining lifestyle factors and distinct consumer segments that define contemporary consumption patterns. Through the application of robust statistical methodologies (specifically factor and cluster analyses), this research identifies five dimensions of WRL behaviour and four consumer segments: practical (standard) wine drinkers, wine connoisseurs, lifestyle-oriented wine consumers, and brand-oriented wine consumers. These findings underscore the multidimensionality of consumer decision-making, where variables such as subjective expertise, aesthetic appeal, brand equity, and cultural orientation intersect to influence purchase intent.

Beyond its theoretical contributions, this research offers actionable insights for wineries and marketers seeking to navigate an increasingly fragmented marketplace. By recognising segment-specific preferences, enterprises can enhance the strategic positioning of regional products, loyalty, visibility, and dissemination of accurate consumer information. It is suggested that policymakers and producer associations should use scientific knowledge to develop easily understandable messages for consumer education to increase the acceptance of regional wines. Given that younger consumers are more likely to be influenced by the social and visual aspects of advertising, it is recommended that promotion campaigns be targeted at this group, while older consumers should emphasise heritage, provenance, and intrinsic quality.

Encouraging consumers to try to embrace new preferences is advised.

7. LIMITATIONS AND FUTURE RESEARCH

This study is based on self-reported measures and uses a non-probability sampling technique; thus, the findings may have limited generalisability. Although the sample was sufficiently large and diverse to include a representative population of Slovak wine consumers, it should be acknowledged that biases may be present in self-reported data. Future work should employ probability sampling methods to provide more generalisable findings. From a statistical point of view, analysis performed in this work (Friedman test; FA; CA) despite allowing us exploring consumer patterns, additional statistical approaches could provide further insights. Statistical techniques, such as regression analyses or mean comparison tests, to deepen the interpretation of the future studies across consumer groups.

Future work should extend the present study by conducting a cross-national analysis. This would allow for a more holistic examination of the impact of cultural factors on consumer behaviour. For instance, one could compare wine consumption patterns in Mediterranean countries, where wine is culturally significant, to Central Europe. This comparison yields some interesting contrasts. Furthermore, a comparison of countries where wine consumption is predominant with those where beer is more prevalent could also help clarify the role of cultural norms in determining beverage choices.

AUTHOR CONTRIBUTIONS

Conceptualisation: E.J., P.S.

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Project administration: P.S., E.J.

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