

Research Article

Emergence of New Segments of Swiss Wine Consumers: A Comparison with a Segmentation Study from 2011

Thomas A. Brunner ¹, Thomas Schnetzer,² and Mathilde Delley ¹

¹Bern University of Applied Sciences, School of Agricultural, Forest, and Food Sciences, Länggasse 85, CH-3052 Zollikofen, Switzerland

²Thomas Schnetzer Consulting, Alte Landstrasse 18, CH-8800 Thalwil, Switzerland

Correspondence should be addressed to Thomas A. Brunner; thomas.brunner@bfh.ch

Received 27 January 2023; Revised 1 June 2023; Accepted 2 June 2023; Published 13 June 2023

Academic Editor: Anthony Saliba

Copyright © 2023 Thomas A. Brunner et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This study aimed to examine the various Swiss wine consumer segments, evaluate whether and how these segments had changed during the past decade, and formulate recommendations for targeted marketing. Data were collected through an online survey involving randomly selected Swiss households who were invited using flyers; the final sample size was $N = 512$. With the use of a shortened version of the questionnaire devised for a similar study published in 2011, we were able to compare the results of the said study with the present results. The results of the principal component analyses revealed eight factors. The factor scores were then used in hierarchical cluster analyses, which in turn revealed seven distinct segments of wine consumers. Four of these had already been identified 10 years ago: involved (21.9%), price-conscious (20.3%), lowbrow (16.0%), and image-oriented (5.3%) consumers. Three new segments emerged: local (15.2%), traditional (11.9%), and relaxation-seeking (9.4%) consumers. Our results show that each wine seller has its own place in the market and can benefit from the present study, which determines the appropriate marketing mix for a specific segment.

1. Introduction

Drinking wine has been part of the human culture for at least six millennia, and wine is one of the earliest processed foods that are widely consumed to this day. Grape domestication and winemaking were first practiced probably in southern Caucasus, possibly in Armenia [1], before spreading to other Caucasus regions, then to the Middle East to Egypt, and later westwards to southern European countries. While wine was used for religious purposes in ancient Egypt, it had gained the status of being a staple in the early civilizations of ancient Greece [1, 2]. Winemaking and consumption further developed, expanded, and evolved throughout Europe during the time of the Roman Empire and along with Christian traditions. Winemaking techniques have continually improved, and global consumption increased until the end of the 20th century. Since 2008, the global consumption has been slightly decreasing, dipping to 236 million hectoliters in

2021 [3, 4]. In terms of revenue, the market is expected to considerably grow in the coming years [5].

1.1. The Swiss Wine Market. Consistent with the trend observed in most traditional wine-producing countries in Europe [6, 7], both the absolute volume consumption and the per capita consumption in Switzerland peaked in 2000 [3] and then declined afterwards. Over the last 20 years, the per capita Swiss consumption fell by 28%, dipping to 28 liters in 2021 [8], although this consumption level remains to be one of the highest worldwide [9, 10]. The Swiss wine market is mature and saturated [11]. After consumption has declined over the past decades, the frequency of consumption and the share of regular consumers have stabilized at a relatively high level [12]. In 2021, Swiss residents aged at least 16 years drank an average of 35.3 liters of wine [10], equivalent to slightly less than a bottle per week. The

particularly high purchasing power and wealth of the Swiss consumers allow them to allocate probably the highest wine budget worldwide, approximately 260 CHF (1 CHF = 0.92 € in December 2019 [13]) per year per capita in 2019 [14–16]. This goes along with the fact that Swiss consumers buy virtually only premium wine sold in bottles and consume very few bulk or bag-in-box wine. A store-bought middle range wine typically ranges between 7 CHF and 15 CHF [17].

1.2. European Segmentation Studies. Brunner and Siegrist [18] published the first comprehensive segmentation study of Swiss wine consumers. To analyze the typology of Swiss consumers, they used a comprehensive set of criteria related to involvement [19], lifestyle [20], consumption motives [21], and purchasing, which resulted in six consumer segments identified as follows: price-conscious; involved, knowledgeable; image-oriented; indifferent; basic; and enjoyment-oriented, social wine consumer. Since then, other scholars have adopted a similar approach and combined different sets of criteria to segment wine consumer populations across the world. In Europe, such segmentation studies can be found, for example, for Germany [22], France [23], Italy [24], Spain [25, 26], Portugal [27, 28], Hungary [29], and Macedonia [30]. Depending on the variables taken to cluster the consumers, the clustering procedure itself, and of course the specificity and maturity of the market at hand, the outcome of the segmentation analysis will lead to different results, i.e., the number of consumer segments identified as well as the characteristics of each segment. Besides that, consumers and whole populations develop over time. Smith and Mitry [31] argue that by the globalization and similar marketing across different countries, at least within Europe, countries will become more similar. Villanueva et al. [32] contradict this by saying that there is a lasting difference between producing (e.g., France, Italy, and Spain) and importing countries (e.g., Germany and the UK). Therefore, it is not surprising that different segmentation studies from different countries conducted in different years using different variables and methods will vary in their results sometimes vary widely. Of all these studies, the segmentation study by Duarte et al. [27] comes closest to Brunner and Siegrist's [18] segmentation study. They found an enthusiastic segment which corresponds to the involved, knowledgeable one, a regular segment which parallels the basic one, an infrequent segment which mirrors the indifferent one, and a convivial segment which corresponds to the enjoyment-oriented one. Brunner and Siegrist's image-oriented segment has no counterpart in the study by Duarte et al.

Another study important to mention more in depth is a segmentation study by Chamorro et al. [26]. They found a consumer segment in Spain which they called it a "regional cava purchaser." These consumers were not price-sensitive, were involved, and knew a lot about wine, and as the name suggests, they were keen of locally produced wine. This finding corresponds well to the trend of consuming local foods and beverages, a trend that increased even more in the last few years [33].

1.3. Segmentation Studies outside Europe. Outside Europe, such comprehensive segmentation studies were conducted in Australia [34] and the USA [35, 36]. In the last few years, China [37–41] was in the focus of such research since consumers there discover more and more the enjoyment of wine drinking. The same is true for India [42, 43] but on a much lower level. It seems that even in a very different cultural setting like China, comparable consumer segments can be found when using appropriate measures since Masson et al. [40] found six segments they described as indifferent occasional, wine lovers, relaxed amateurs, social networkers, stay-at-home connoisseurs, and infrequent money-minded.

1.4. The Present Study. This literature review shows that we are well aware what kind of consumer wine segments exist throughout the world. However, to the best of our knowledge, no study examined how such consumer segments develop over time using the same measurement and method. Therefore, the goal of this study is to (a) examine the various Swiss wine consumer segments, (b) evaluate whether and how these segments had changed during the past decade by comparing them with those obtained by Brunner and Siegrist [18], and (c) formulate recommendations for targeted marketing.

2. Materials and Methods

2.1. Data Collection. Data were collected through an online survey conducted in two waves: the end of 2021 and the beginning of 2022. Participants were invited using flyers containing a brief introduction of the study purpose, a hyperlink, and a QR code that allows one to participate. Flyers were sent to all households located in 67 ZIP code areas (see Figure 1), comprising a mix of urban, semiurban, and rural localities spread across the three language regions (German, French, and Italian) of Switzerland. Within a household, a person aged over 16 and enjoying a glass of wine from time to time was asked to fill in the questionnaire. This procedure aimed to obtain a representative sample of the Swiss households. In winter 2019/2020, 89% of the Swiss population aged 14 years or older were regular Internet users [44]. Given the increasing percentage of this population over the last decade and given the lockdown in spring 2020, it is reasonable to assume that a fairly representative sample of the adult Swiss population could be reached through this online survey.

During the two waves, 693 questionnaires were collected, representing a response rate of 2.8%. Questionnaires missing more than 30 responses and respondents who failed a simple consistency check, along with those who identified themselves as abstinent, irregular, or extreme consumers (less than once a month or more than 300 bottles a year), were excluded, leaving 563 cases. In 512 of the 563 questionnaires, all questions related to segmentation variables were answered, and therefore, these cases finally made up the final sample.

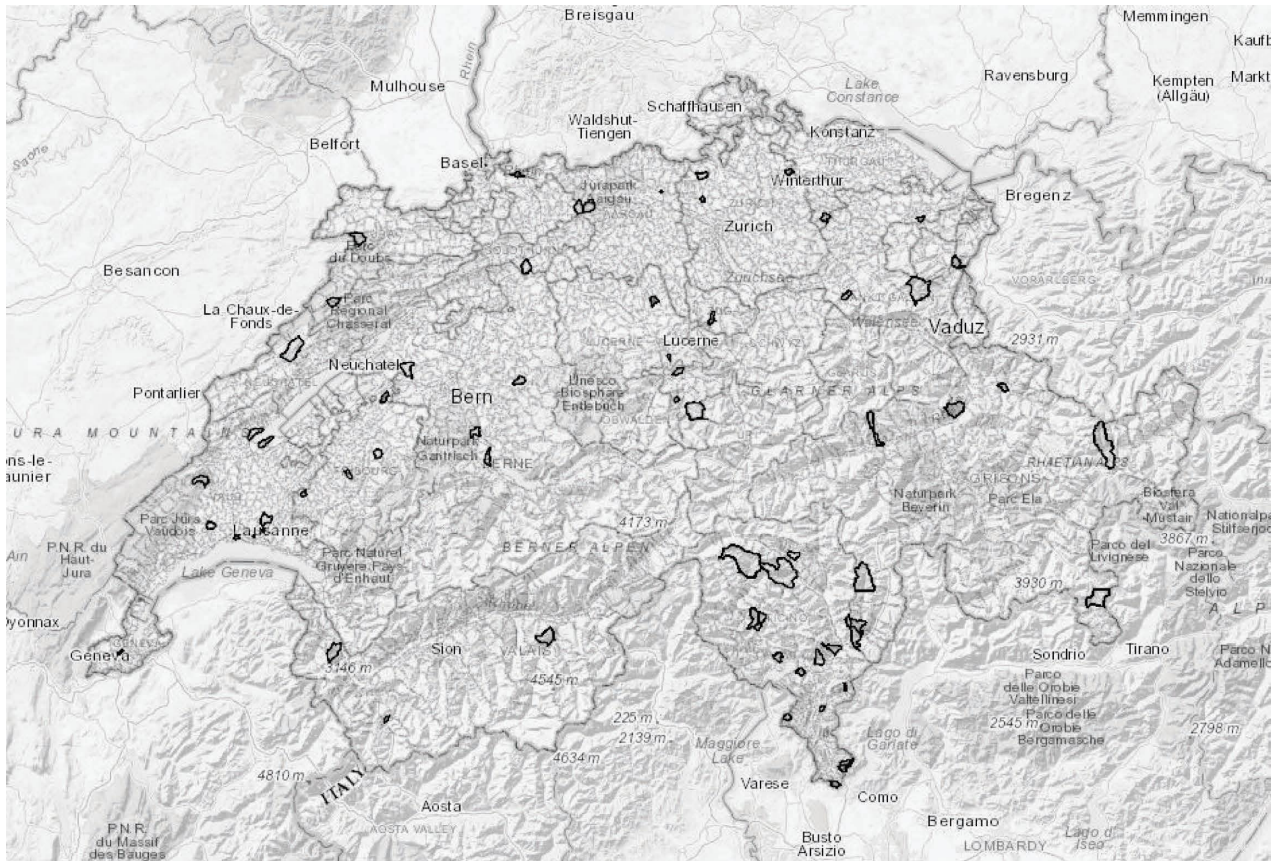


FIGURE 1: Map indicating the 67 ZIP code areas across Switzerland.

2.2. *Sample.* Regular wine consumers are not homogeneously represented across the Swiss population; unsurprisingly, men and older age groups are overrepresented in the sample. The characteristics of the sample population are detailed in Table 1.

2.3. *Questionnaire.* The general structure and elements of the questionnaire used in the study of Brunner and Siegrist [18] were adopted, and the questionnaire was shortened to render it suitable for an online survey. The survey comprised three sections. In the first section, participants were asked about their wine consumption behavior and purchasing habits. They had to indicate how often, how much, on what occasions, and what kind of wine they consume. Concerning purchasing, they had to indicate who is in charge of wine purchase in their household, as well as where, how many bottles, why they buy wine, and how much they spend on it. Consumption of other beverages was also queried. The second part of the survey focused on segmentation variables. In their study, Brunner and Siegrist used principal component analyses (PCAs) to reduce the number of items to nearly 100. Seventeen relevant factors were identified and were subsequently used as segmentation variables. In the present study, we selected two items of each factor and one additional item, reaching a total of 35 items, which allowed us to investigate (a) involvement, (b) purchasing criteria, and (c) lifestyle and drinking motives. Items were

formulated as statements in which participants had to indicate their degree of agreement using a six-point Likert scale (1 = do not agree at all; 6 = completely agree). The last part of the survey dealt with sociodemographic questions on gender, age, household composition, area of residence, occupation, education level, nationality, and income.

2.4. *Scale Development.* The initial data analysis revealed collinearity between items related to the same aspects (involvement, purchasing criteria and lifestyle, and drinking motives). Separate PCAs were conducted for each of the three aspects, similar to the procedure applied in the first study. The first PCA was conducted on the four items related to involvement, followed by varimax rotation. The Kaiser–Meyer–Olkin (KMO) criterion was used to measure the sample adequacy for the analysis (KMO = 0.81), and it yielded a score well above an acceptable limit of 0.5. This analysis identified a single factor with an eigenvalue higher than Kaiser’s criterion of 1, which explains 71% of the variance. A reliability analysis revealed a very satisfactory coefficient (Cronbach’s $\alpha = 0.87$). The factor, items, factor loadings after rotation, and reliability coefficients are presented in Table 2.

The second PCA was conducted on the 11 items related to purchasing motives. Three factors had eigenvalues exceeding 1, and together they explained 55% of the variance. The KMO criterion (KMO = 0.79) confirmed the sampling

TABLE 1: Sociodemographic characteristics of the sample compared with those of the resident population of Switzerland.

Characteristics	Sample population (%)	Swiss population (%)
Gender		
Men	62	50
Women	38	50
Age groups		
0–19	0	20
20–39	18	26
40–59	42	29
60–79	36	20
≥80	4	5
Nationality		
Swiss	92	75
Other	8	25
Residence area*		
Urban	14	63
Semiurban	39	22
Rural	47	15
Education**		
None/compulsory	4	18
Secondary professional	18	33
Secondary general	5	9
Tertiary professional	28	18
Tertiary university	45	22
Household size		
1 person	15	37
2 persons	50	33
3 persons	13	13
4 persons	14	12
≥5 persons	8	5
Occupation***		
Full-time (≥90%)	45	40
Part-time	21	24
None	34	36

Notes. *FSO territorial typology may differ from the perception of the respondents; **resident population ≥25 years; ***resident population ≥15 years. Sources: [45–50].

TABLE 2: Involvement items including factor loadings, sources, and reliability coefficients.

Factor and items	Factor loadings	Source
(1) Involvement (Cronbach's $\alpha = 0.87$)		
Every now and then I participate at wine tasting	0.81	Brunner and Siegrist [18]
I have already visited several wineries	0.83	Brunner and Siegrist [18]
I have a good general knowledge about wine	0.87	Brunner and Siegrist [18]
I have a strong interest in wine	0.86	Kapferer and Laurent [51]

adequacy for the analysis. Reliability analysis was performed for the three factors. The results were satisfactory for two of them but lower than the recommended (0.48) for factor *bargain*. The latter was nevertheless maintained and used in the subsequent segmentation, as it allows us to measure a very relevant and central factor in purchasing decisions. The factor with their items, the factor loadings after rotation, and the reliability coefficients are presented in Table 3.

The last group of 20 items related to lifestyle and drinking motives was subjected to an initial PCA. Three items with a difference of less than 0.1 between factor loadings were excluded; only the items that are clearly loaded on a single factor in the analysis were included. A second PCA was run on the remaining 17 items. One more item showed a difference of less than 0.1 between factor loadings

and thus was excluded. The final PCA was performed on the remaining 16 items. Four factors had eigenvalues higher than 1 and together explained 59% of the variance; each item is now clearly loaded on only one factor. The KMO criterion (KMO = 0.81) confirmed the sample adequacy for the analysis. The factor, items, factor loadings after rotation, and reliability coefficients are presented in Table 4.

2.5. Clustering Procedure. The eight disclosed factors were then used to identify wine consumer segments.

In 512 of the 563 questionnaires, all questions related to segmentation variables were answered, and the cases could be included in the clustering procedure. The average factor scores were computed for each of the eight factors and were

TABLE 3: Purchasing motive items including factor loadings, sources, and reliability coefficients.

Factor and items (when buying wine, I pay attention to...*when buying wine...)	Rotated factor loadings	Source
(1) Intrinsic characteristics (Cronbach's $\alpha = 0.74$)		
Provenance	0.77	Bruwer and Li [20]
Grape variety	0.65	Jaeger et al. [52]
A well-established producer	0.63	Brunner and Siegrist [18]
Organic cultivation	0.60	Fotopoulos et al. [53]
Wine from local producers	0.78	Brunner and Siegrist [18]
(2) Third-party expertise (Cronbach's $\alpha = 0.69$)		
Reviews and ratings	0.81	Brunner and Siegrist [18]
Awards	0.80	Lockshin et al. [54]
Recommendations of the salesperson	0.56	Jaeger et al. [52]
Recommendations of friends and acquaintances	0.47	Jaeger et al. [52]
(3) Bargain (Cronbach's $\alpha = 0.48$)		
Bargains and special offers	0.83	Bruwer and Li [20]
I nearly always choose one of the lowest priced wines because they are also nice*	0.71	Brunner and Siegrist [18]

TABLE 4: Lifestyle and drinking motive items including factor loadings, sources, and reliability coefficients.

Factor and items (I drink wine...)	Rotated factor loadings	Source
(1) Sensory experience (Cronbach's $\alpha = 0.72$)		
For pleasure	0.84	Brunner and Siegrist [18]
Because I love the taste	0.82	Dubow [21]
To enhance the taste of food	0.67	Dubow [21]
Because it creates a special dining ambience	0.62	Thach and Olsen [55]
For an intellectual challenge (complexity of the tastes)	0.50	Charters [56]
(2) Image (Cronbach's $\alpha = 0.73$)		
To establish status	0.80	Charters [56]
To be stylish	0.78	Dubow [21]
To be respected	0.76	Brunner and Siegrist [18]
Because it is aesthetic	0.66	Charters [56]
(3) Heritage (Cronbach's $\alpha = 0.69$)		
Because it is a natural drink	0.73	Dubow [21]
Because of my cultural background	0.67	Charters [56]
Because I consider wine healthy	0.67	Dubow [21]
Because it is a tradition in my family	0.65	Brunner and Siegrist [18]
(4) Introspection (Cronbach's $\alpha = 0.69$)		
When I feel depressed	0.77	Dubow [21]
To relax	0.72	Thach and Olsen [55]
To feel good	0.68	Dubow [21]

first subjected to hierarchical cluster analysis involving the single linkage method, with squared Euclidean distance as a distance measure in the clustering procedure. This procedure aimed to identify potential influential cases (outliers). Four of them were identified and eliminated before running a second cluster analysis [57] this time using Ward's method and squared Euclidean distance. Solutions between two and ten clusters were assessed using the score plot and the agglomeration schedule by computing the percentage of change in the clustering coefficients. As is nearly always the case, the largest percentage increase occurred when merging two clusters into one. According to Backhaus [57], this solution should be neglected if an elbow further appears in the plot or if another large percentage increase occurs. The two largest changes occurred when merging three clusters

into two and when merging seven clusters into six. Therefore, the three- and seven-cluster solutions were selected for further considerations and were subjected to statistical analysis using general linear models (GLMs), followed by contrast analyses. Robust tests (Welch and Brown-Forsythe) were used due to unequal cluster sizes and heteroscedasticity. For both solutions, the clusters differed significantly ($p < 0.001$) across the eight factors. Contrast analyses revealed slightly more distinct clusters in the seven-cluster solution, indicating the presence of seven clusters and justifying the preference for this solution.

Robust tests (Welch and Brown-Forsythe) were used to compare the seven clusters in terms of their wine consumption behavior, purchasing habits, and sociodemographic features.

TABLE 5: Mean scores of the clustering variables and contrast analysis results by clusters.

	Traditional (11.9%) <i>n</i> = 61	Lowbrow (16.0%) <i>n</i> = 82	Price-conscious (20.3%) <i>n</i> = 104	Involved (21.9%) <i>n</i> = 112	Local (15.2%) <i>n</i> = 78	Relaxation-seeking (9.4%) <i>n</i> = 48	Image-oriented (5.3%) <i>n</i> = 27
Involvement***	3.81 ^D	1.89 ^D	3.16	4.62^D	2.41 ^D	3.60	3.62 ^D
Intrinsic characteristics***	4.23 ^D	2.13 ^D	3.54 ^D	4.56^D	3.69 ^D	4.00 ^D	3.76
Third-party expertise***	3.82^D	2.05 ^D	3.54 ^D	3.00	2.25 ^D	3.16	3.15
Bargain***	3.70^D	1.99 ^D	3.66 ^D	2.48 ^D	2.83	3.29 ^D	3.04
Sensory experience***	4.55^D	2.50 ^D	4.19 ^D	4.55^D	3.19 ^D	4.05	4.32
Image***	1.47 ^D	1.14 ^D	1.26 ^D	1.31 ^D	1.11 ^D	1.25 ^D	2.81^D
Heritage***	3.68^D	1.60 ^D	1.79 ^D	2.62 ^D	1.84 ^D	2.00 ^D	3.03 ^D
Introspection***	2.86 ^D	1.65 ^D	2.04 ^D	1.98 ^D	1.63 ^D	3.69^D	2.73

Notes. *** $p < 0.001$; bold = the highest score for the variable; italic = the lowest score for the variable; mean scores on a six-point Likert scale, 1 = "do not agree at all" to 6 = "agree completely"; ^D indicates the distinctiveness of the cluster against all others for the selected scale.

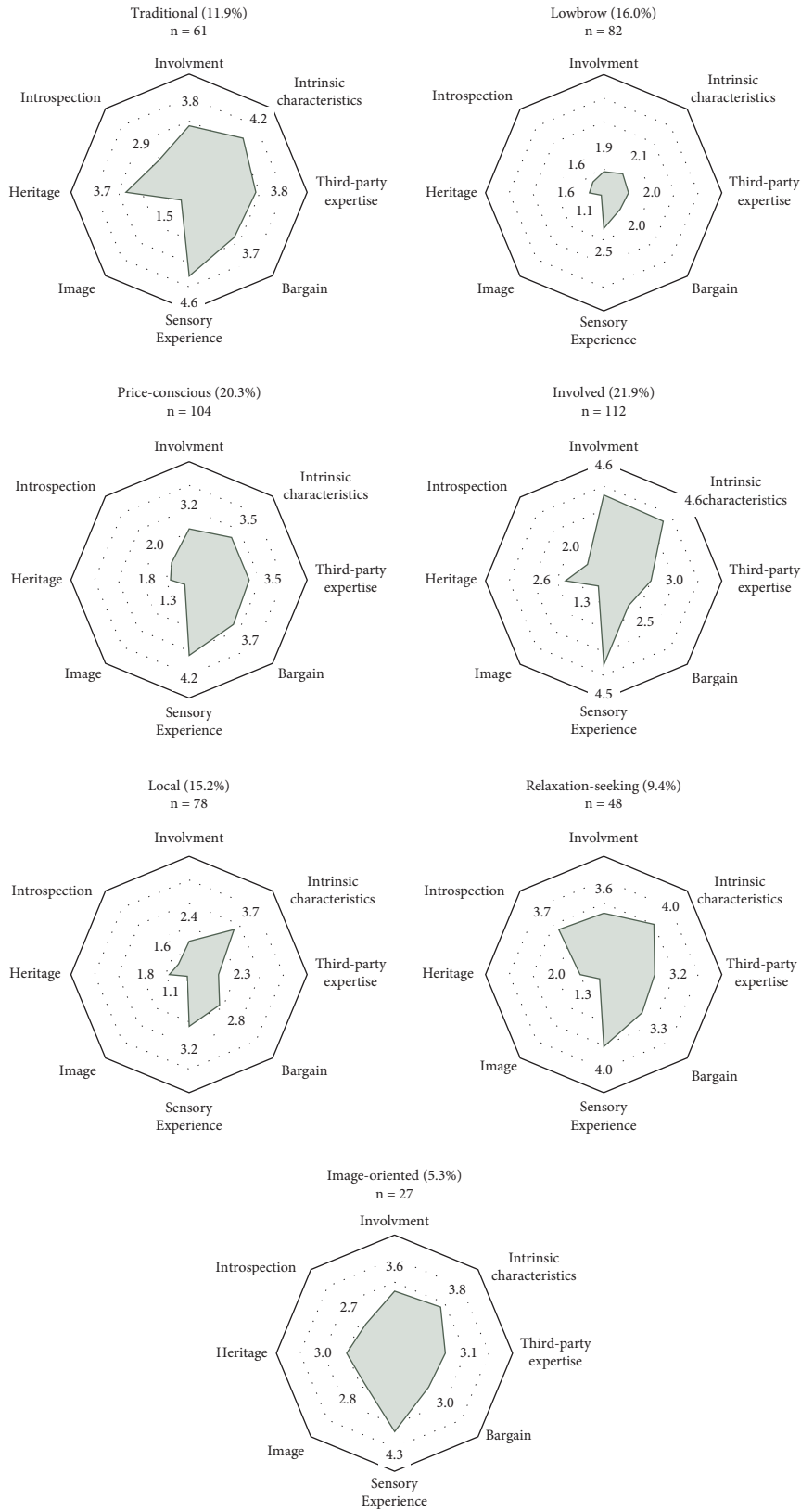


FIGURE 2: Representation of the seven wine consumers segments. Clustering variables mean scores are indicated on a six-point Likert scale, 1 = “do not agree at all” to 6 = “agree completely.”

3. Results

The clustering procedure revealed seven segments with distinct behaviors in terms of involvement, purchase motives, lifestyle, and drinking motives as follows: traditional (11.9%), lowbrow (16.0%), price-conscious (20.3%), involved (21.9%), local (15.2%), relaxation-seeking (9.4%), and image-oriented (5.3%) consumers. The results of the cluster analysis, including the mean scores for the eight segmentation variables, are summarized in Table 5, illustrated in Figure 2, and detailed in the following subsections. The mean scores and percentages of the selected describing variables by clusters are shown in Tables 6–8.

3.1. The Traditional (11.9%). For traditional consumers, wine has gained its place on the meal table. Wine consumption is part of cultural or family heritage and is possibly regarded as an aspect of a healthy lifestyle, as wine is considered a natural beverage. They drink about one to two glasses of wine preferably during or before dinner several times a week, including working days. Traditional consumers truly appreciate the taste of wine, its complexity, and the way it enhances a meal's experience. They prefer full-bodied and structured tannic red wines, but they also drink white wines possibly before dinner. Traditional consumers purchase wines mostly in supermarkets and at times in specialized stores; they are price-conscious and often buy wine on special offer. When making their choices, traditional consumers consider several aspects of wine, such as grape variety, provenance, cultivation methods, or winemakers, as well as expert opinions, such as reviews, ratings, awards, personal recommendations, or advice from salespersons.

Traditional consumers represent a significant target group in terms of willingness to spend and opportunities to influence the buying process. Their interest in the topic causes them to attend tasting events and wine fairs, especially those organized by retailers. They grab opportunities to get introduced to new wines and to deepen their knowledge about intrinsic wine characteristics and food pairing. These activities, along with promotions, allow supermarkets and possibly specialty shops to showcase a selection of tailored products and services and build loyalty among this possibly highly profitable consumer group through the customer-oriented sales staff.

3.2. The Lowbrow (16.0%). Lowbrow consumers do not really care much about wine; they show low consumption both in terms of frequency and the total amount. They are not interested in the topic, they do not like buying wine, and they are, unsurprisingly, less likely to be in charge in wine purchases in their respective households. They do not like complex, structured, or full-bodied red wines, but they might enjoy a glass of sweetish white wine, or they might go for a sparkling wine. The composition of this segment includes a higher proportion of women, individuals with the lowest education level, and those residing in urban areas compared with the composition of the other segments.

In terms of marketing, lowbrow consumers are a difficult segment. They rarely buy wine, and when they do, they buy spontaneously in supermarkets or discount stores, where marketers may try to capture their attention by offering discounts or by prominently displaying cheap, mainstream, and sweetish white wines.

3.3. The Price-Conscious (20.3%). Price-conscious consumers are moderate consumers who like to share a glass of wine with others and enjoy drinking wine along with a meal or when dining in a restaurant; moreover, they drink more during holidays. A proportion of this segment (20%) indicated that they never drink during weekdays. Price-conscious consumers buy wine when their stock is empty and when they encounter special offers. They are price-sensitive in the sense that they are smart shoppers and often buy in supermarkets. When making a choice, they consider label information, such as awards and ratings, and they rely on recommendations.

Promotions and special offers are proven effective for price-conscious consumers. However, the central emotional motives for purchase must not be disregarded, such as wine as a food accompaniment. Professional and empathetic sales advice and recommendations for the combination of wine and food could influence the price perception and the purchase decision of this target group.

3.4. The Involved (21.9%). As the name suggests, involved consumers are quite interested in wine and consider themselves connoisseurs. They seek information about wines and take part in wine tasting events. They truly enjoy all activities related to wine, but they remain average consumers both in terms of quantity and frequency. They also appreciate sharing the pleasure of drinking with others. Involved consumers enjoy different types of wines, with a preference for well-balanced white and ample-rounded red wines to some extent. Light red, sparkling, and sweet white wines are not their type. When buying wine, they rely on their own knowledge while considering wine attributes, such as the grape variety, provenance, cultivation method, and producer. They prefer buying directly from producers (or from wine cellars), but they also make some of their purchases in supermarkets, specialized shops, and online stores. Price does not really matter to them, so they spend the most on average per bottle. Involved consumers show the highest average income and are male-dominated.

Involved consumers explore the world of wine inquisitively and enjoy visiting tasting events and wineries. When purchasing, they trust their knowledge and are happy to spend money on their chosen products. It is essential for sales staff to facilitate a professional dialogue and avoid providing superfluous information. This requires showing interest in their customers and mastering the sales process. Moreover, emails must have an enriching effect on this target group so that they are always opened and not deleted.

TABLE 6: Mean scores of selected behavioral variables by clusters.

	Traditional (11.9%) n = 61	Lowbrow (16.0%) n = 82	Price-conscious (20.3%) n = 104	Involved (21.9%) n = 112	Local (15.2%) n = 78	Relaxation-seeking (9.4%) n = 48	Image-oriented (5.3%) n = 27	Total (100%) N = 559
Consumption frequency days/ year***	190	107	123	134	121	153	118	133
Consumption volume dl/ occasion***	2.5	2.5	2.7	2.9	2.0	3.2	2.8	2.6
Consumption volume l/ year***	47	25	34	38	24	47	34	35
Red wine in %	64.6	59.2	60.1	61.5	64.6	51.1	61.7	60.7
White wine in %	20.6	21.8	22.6	25.9	21.0	28.1	22.0	23.2
Rosé wine in %	5.7	8.3	6.8	6.6	6.1	11.0	8.9	7.2
Sparkling wine in %	9.2	10.7	10.5	6.0	8.4	9.9	7.4	8.9
Price per bottle for personal consumption****a	16.3	16.4	16.9	20.5	15.1	15.4	19.0	17.3
Price per bottle for guest* ^a	18.4	17.8	17.3	20.5	17.1	17.2	19.5	18.3
Price per bottle for gifting ^a	21.4	22.0	23.3	23.5	21.0	21.9	26.6	22.7
Like to buy wine*** ^b	4.7	2.3	4.1	4.9	3.1	4.2	4.3	3.9
Prefer to drink wine at home*** ^b	3.7	2.2	3.5	3.7	2.9	3.5	3.9	3.3
Drink wine mostly in the company of others*** ^b	4.7	3.1	4.9	5.3	4.5	4.7	4.7	4.6
Enjoy a glass along a meal in a restaurant*** ^b	5.3	2.9	5.2	5.5	4.4	5.1	5.0	4.8
Drink more on holidays*** ^b	4.5	2.7	4.5	4.5	3.7	4.7	4.8	4.1

Notes. *** $p < 0.001$; * $p < 0.05$; ^ain CHF; ^bLikert scale; 1 = "do not agree at all" to 6 = "agree completely"; bold = the highest score for the variable; italic = the lowest score for the variable; mean scores on a six-point.

TABLE 7: Percentages of selected preference variables by clusters.

	Traditional (11.9%) <i>n</i> = 61 (%)	Lowbrow (16.0%) <i>n</i> = 82 (%)	Price-conscious (20.3%) <i>n</i> = 104 (%)	Involved (21.9%) <i>n</i> = 112 (%)	Local (15.2%) <i>n</i> = 78 (%)	Relaxation-seeking (9.4%) <i>n</i> = 48 (%)	Image-oriented (5.3%) <i>n</i> = 27 (%)	Total (100%) <i>N</i> = 559 (%)
Preferred red wine type								
Elegant-complex*	10	12	23	22	28	21	22	20
Full-bodied-heavy	46	40	<i>31</i>	38	37	40	37	38
Powerful-spicy-								
structured (tannin acidity)*	31	15	23	25	<i>10</i>	27	30	22
Light-fresh	7	23	10	3	13	4	0	9
Ample-rounded	7	10	13	13	12	8	11	11
Preferred white wine type								
Well-balanced-round	38	32	35	42	29	42	33	36
Light-fresh-crisp	33	38	35	35	49	35	41	38
Soft-sweet**	15	28	16	8	15	17	4	15
Full-bodied-riche*	15	2	14	15	6	6	22	11
Other drinks regularly consumed								
Nonalcoholic wine	3	5	6	1	1	0	7	3
Beer*	75	62	71	79	67	73	93	73
Cocktails, long drinks, alcopops	20	20	22	9	9	15	15	15
Spirits, liquors	52	43	44	48	<i>31</i>	35	56	44

Notes. * $p < 0.05$; ** $p < 0.01$; bold = the highest score for the variable; *italic* = the lowest score for the variable.

TABLE 8: Mean age and percentages of gender, nationality, and residence area by clusters.

	Traditional (11.9%) <i>n</i> = 61	Lowbrow (16.0%) <i>n</i> = 82	Price-conscious (20.3%) <i>n</i> = 104	Involved (21.9%) <i>n</i> = 112	Local (15.2%) <i>n</i> = 78	Relaxation-seeking (9.4%) <i>n</i> = 48	Image-oriented (5.3%) <i>n</i> = 27	Total (100%) <i>N</i> = 559
Age*	53.0	51.7	51.2	54.3	58.0	50.4	56.0	53.4
Gender*								
Male	62%	53%	55%	70%	62%	52%	81%	61%
Female	38%	47%	45%	30%	38%	48%	19%	39%
Nationality*								
Swiss	84%	88%	92%	96%	91%	98%	96%	92%
Non-Swiss	16%	12%	8%	4%	9%	2%	4%	8%
Residence area**								
City	15%	29%	12%	12%	9%	15%	19%	14%
Urban area	42%	38%	41%	36%	33%	50%	41%	39%
Rural area	43%	34%	48%	52%	58%	35%	41%	47%

Notes. * $p < 0.05$; ** $p < 0.01$; bold = the highest score for the variable; italic = the lowest score for the variable.

3.5. *The Local (15.2%)*. Local consumers, together with the lowbrow, show the lowest consumption of wine and other alcoholic beverages. They are moderately fond of wine and only drink within the context of a shared meal. They prefer red wine and show the highest share of Swiss wine consumption. Local consumers buy wine not because they enjoy drinking, but because their stock is empty, and they need a few bottles to offer or serve to their guests. They do their purchases in supermarkets, sometimes directly from producers, but not online. Local consumers work and earn less compared with the other consumer segments, and they are older and thus are possibly retired. They live on the countryside and in the Italian-speaking part of Switzerland, where Swiss red wine is produced.

Local consumers form an interesting new target segment for retailers selling local wines and possibly local producers with an on-site sales outlet. For local consumers, offering or drinking wine is a way to mark the special character of a meal or a shared moment. As Swiss wine mostly has a midrange price, the crux is that these consumers want local wine but do not want to spend too much. Therefore, they should respond particularly strongly to discounts on Swiss wine.

3.6. *The Relaxation-Seeking (9.4%)*. Relaxation-seeking consumers enjoy wine for its taste and relaxing effect. After a busy day, they can relax with a glass of wine. This segment drinks the most per occasion and in absolute quantity; they consume wine frequently at the end of the day with or after dinner, even more so during vacation. They prefer heavy red and well-balanced white wines. It is the segment with the highest consumption of white and rose wines. Relaxation-seeking consumers buy wine at supermarkets, wine cellars, or online when their stock is empty or when there are special offers. The proportions of women, young individuals, and highly educated people are highest in this segment.

Relaxation-seeking consumers seem to be a very special and potentially profitable segment given their high consumption. Thus, knowing their needs and trying to meet these in an optimal way are worth it. These consumers value the overall sensory experience that goes with wine consumption, from tasting to relaxation. The importance of the latter objective is confirmed by their propensity to consume relatively high volumes at times at the end of the day but not specifically in the context of a meal. Thus, wine clearly seems to be consumed for its own sake, perhaps as a kind of habit, to relax after working hard for a day. Creating or evoking an overall sensory experience that helps one to calm down seems to be a promising way to target this segment. Wine labels, attractive emails, or well-designed website might work. The high proportion of women, the low mean age, and the high level of education of this segment must be considered when developing the communication concept. Relaxation-seeking consumers must be treated as aspiring connoisseurs and must be educated regarding the optimal storage, preparation, and serving of different wines, so they fully benefit from their potential.

3.7. *The Image-Oriented (5.3%)*. Image-oriented consumers drink wine not only because they enjoy its taste but also because its consumption is rooted in a tradition. Moreover, drinking wine characterizes the lifestyle they aspire. They do not like light and fresh red wines; they prefer full-bodied and structured ones. When it comes to white wines, this segment shows the highest preference for full-bodied-rich wines. Image-oriented consumers also like beer and distilled spirits. They drink wine during meals and often before meals as an aperitif or at brunch. Generally, they drink more during vacation. Image-oriented consumers are almost always responsible for wine purchases in their households. They buy wine in various outlets, such as supermarkets, wine cellars, and specialized shops, often to replenish the stock of their favorite wine or when there are special offers. Consumers in this segment spend more money per bottle, especially if the wine is intended to be offered. This segment is male-dominated.

Image-oriented consumers look for wines that allow them to mark and highlight their status, level of expertise, financial means, and expression of generosity. Therefore, it is important to offer and present them with wines that have a reputation and recognized value, such as well-known brands, origins, or producers. Marketers must take care of this consumer segment and must build their self-esteem, treating them as connoisseurs even if they are not yet. They should be provided with accessible but impressive knowledge, which they can mention to their guests or during discussions. Special offers coupled with the tasting of expensive and prestigious wines can be an interesting strategy to attract image-conscious consumers in supermarkets. Large cellars, wine merchants, or specialized shops can consider creating clubs targeting this segment and inviting their members to high-end events.

4. Discussion

To the best of our knowledge, this is the first study to examine how wine consumer segments develop over time. Seven segments were identified in the present study. Among these segments, the involved and lowbrow consumers (called “the indifferent” in Brunner and Siegrist’s [18] study) are the most consistent over the years in Switzerland. The profile of the involved consumers in this study is quite similar to that of the involved and knowledgeable consumers in Brunner and Siegrist’s study, and they are comparable to the connoisseurs first identified by Spawton [58]. Besides their strong interest for wine and its related activities, the involved consumers display a recognizable consumption pattern (i.e., moderate consumption of a large array of wines) and purchasing behavior (i.e., they buy a fair amount of their wine directly from producers, and they allot the highest budget per bottle). In both studies, this segment has the highest income. At the opposite end of the spectrum, the lowbrow consistently showed low interest in wines, low consumption, and a dislike for complex, structured, or full-bodied red wines. They also show in both cases the lowest education level. An image-oriented segment was also identified both in the present study and in a previous Swiss

study. In both studies, the consumers belonging to this group like the image associated with wine consumption and spend the highest budget on wine bottles they intend to offer. The image-oriented consumers are clearly male-dominated and like to drink beer and other alcoholic beverages besides wine. The fourth segment that has a counterpart in Brunner and Siegrist's study consists of price-conscious consumers, who look for wine sales, which are quite common in Switzerland.

Compared with the study conducted 10 years ago [18], the present study revealed three new segments. The traditional consumers are seemingly a new important segment in the Swiss market. This segment should attract the attention of marketers, as it combines high consumption with a strong interest in the subject. In addition, their consideration of various information sources and their price sensitivity render them to be the main target of marketing activities. They support the trend of healthy hedonism [33, 59], where pleasure and health go hand in hand and define what is found on the meal table.

The local consumers do not drink the most, but when they drink, they prefer wine from Switzerland. These consumers might be associated with wine production in one way or another. They are likely the residents of the Italian-speaking part of Switzerland or some other regions in the countryside where wine is produced. Thus, if they go outside for a walk, they are likely to see vineyards, which lead them to buy local wines. The trend for local food and beverages has emerged strongly in the last few years [33]; therefore, it is not surprising that a new wine consumer segment has emerged. Chamorro et al. [26] identified a segment of the "regional cava purchaser," which might be an early detection of such a local buying segment.

The relaxation-seeking consumers are the last new segment identified in this study. The emergence of this segment, which consists of the highest proportion of women, exemplifies the gender shift trend. Wine, which has long been considered a typical beverage for males, has now been adopted by women. The relatively young average age and high income of this segment, as well as its dedicated consumption pattern, speak in favor of this hypothesis. The so-called female connoisseurs [33] may be included in this segment. When consuming wine, the relaxation-seeking consumers are looking for a holistic sensory experience, which positively influence their body sensation and mood. This behavior corresponds to the so-called sensual food and mood food trends observed at a more global scale [33, 60]. Masson et al. [40] described a segment of relaxed amateurs found in China, which seems similar to these consumers as they drink wine to create a relaxed atmosphere.

5. Conclusion

The economic success of wine producers and various sales channels depends on the patronage of consumers. This study helps wine producers, retailers, and restaurateurs understand consumers, define the segments appropriate for

their business, design the right customer experiences and assortment, position themselves clearly vis-à-vis relevant competitors, and effectively influence one's willingness to pay during a purchasing process.

The results of this study highlight the diversity of consumption patterns and motives. Furthermore, it shows how these behaviors are dynamic and change over time, and as a result, new consumer segments emerge, and old ones disappear. This study, to the best of our knowledge, is the first to show how such consumer wine segments develop. The study, therefore, underlines the value of repeated market-specific segmentation studies and clearly illustrates that mass marketing is not appropriate, especially for a good that establishes a category on its own.

Future research should investigate the development of consumer segments in different regions with different wine cultures, as it would be interesting to see whether the changes observed in this study happen elsewhere similarly. To validate the identified consumer wine segments, marketing studies would help in measuring the effectiveness of targeted advertising messages. In the same respect, future studies could investigate the effectiveness of a segment-specific front label design as well as a segment-specific bottle design.

5.1. Limitations. As with all nonmandatory surveys, there is a risk of a self-selection bias. In the present case, it could be that only consumers with a very strong interest in wine participated. However, the fact that two segments were identified, which include consumers with little interest in wine, defuses this assumption. Furthermore, the comparison with the demographic characteristics of the Swiss population (see Table 1) indicates a certain degree of diversity in the sample and a good match in representativity that allows us to generalize the result for the Swiss wine market.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Acknowledgments

This work was supported by the Stiftung für eine Nachhaltige Ernährung durch die Schweizerische Landwirtschaft, Vereinigung Schweizer Weinhandel, and Swiss Wine Promotion.

References

- [1] I. Tattersall, *A Natural History of Wine*, Yale University Press, New Haven, Connecticut, 2015.

- [2] G. J. Soleas, E. P. Diamandis, and D. M. Goldberg, "Wine as a biological fluid: history, production, and role in disease prevention," *Journal of Clinical Laboratory Analysis*, vol. 11, no. 5, pp. 287–313, 1997.
- [3] Oiv, "2019 statistical report on world vitiviniculture. International organisation of vine and wine," 2019, <http://www.oiv.int/en/technical-standards-and-documents/statistical-analysis/annual-assessment>.
- [4] Statista, "Wine consumption worldwide 2021," 2022, <https://www.statista.com/statistics/232937/volume-of-global-wine-consumption/>.
- [5] Statista, "Wine market revenue worldwide 2012-2025," 2022, <https://www.statista.com/statistics/922403/global-wine-market-size/>.
- [6] P. Mora, *Wine positioning*, Management for Professionals, Springer International Publishing, Basel, Switzerland, 2016.
- [7] Oiv, "State of the world vine and wine sector 2021," p. 20, 2022, <https://www.oiv.int/public/medias/8778/eng-state-of-the-world-vine-and-wine-sector-april-2022-v6.pdf>.
- [8] E. Janner, "Rapport agricole 2021- vin. FOA (federal office of agriculture)," 2021, <https://www.agrarbericht.ch/fr/marche/produits-vegetaux/vin>.
- [9] Swiss wine, "Chiffres clés," 2016, <https://swisswine.ch/fr/vignoble/chiffres-cles>.
- [10] P. Roca, "State of the world vine and wine sector," 2022, <https://www.oiv.int/public/medias/8773/pptpress-conf-2022-4-def.pdf>.
- [11] P. Masset and J.-P. Weisskopf, "Producing and consuming locally: Switzerland as a local market," in *The Palgrave Handbook of Wine Industry Economics*, A. Alonso Ugaglia, J.-M. Cardebat, and A. Corsi, Eds., Springer International Publishing, Midtown Manhattan, NY, USA, pp. 507–522, 2019.
- [12] M. I. S. Trend, *Swiss Wine-Market Studies*, MIS Trend SA, Lausanne, Switzerland, 2021.
- [13] X-Rates, "Exchange rate average (Swiss franc, euro)- X-rates," 2022, <https://www.x-rates.com/average/?from=CHF&to=EUR&amount=1&year=2019>.
- [14] Fso, "Ménages privés selon la commune et la taille du ménage, 2010-2020- 2010-2020| Tableau," 2021, <https://www.bfs.admin.ch/asset/fr/18845792>.
- [15] Fso, "Dépenses détaillées de l'ensemble des ménages selon l'année- 2006-2019 | Tableau," 2021, <https://www.bfs.admin.ch/asset/fr/20024405>.
- [16] S. A. Export Entreprises, "La consommation de vin- suisse," 2022, <https://export.agence-adocc.com/fr/fiches-pays/suisse/vin/la-consommation-de-vin>.
- [17] W. Osmv, "Rapport annuel marché suisse des vins. Observatoire suisse du marché des vins, Changins," 2022, <https://www.changins.ch/prestations/osmv/rapports-annuels/>.
- [18] T. A. Brunner and M. Siegrist, "A consumer-oriented segmentation study in the Swiss wine market," *British Food Journal*, vol. 113, no. 3, pp. 353–373, 2011.
- [19] L. Lockshin, A. Spawton, and G. Macintosh, "Using product, brand and purchasing involvement for retail segmentation," *Journal of Retailing and Consumer Services*, vol. 4, no. 3, pp. 171–183, 1997.
- [20] J. Bruwer and E. Li, "Wine-related lifestyle (WRL) market segmentation: demographic and behavioural factors," *Journal of Wine Research*, vol. 18, no. 1, pp. 19–34, 2007.
- [21] J. Dubow, "Occasion-Based vs user-based benefit segmentation- a case-study," *Journal of Advertising Research*, vol. 32, no. 2, pp. 11–18, 1992.
- [22] S. Ghvanidze, N. Velikova, T. H. Dodd, and W. Oldewage-Theron, "Are sustainable consumers health conscious? A segmentation study of wine consumers," *Journal of Food Products Marketing*, vol. 25, no. 6, pp. 690–711, 2019.
- [23] E. Ginon, G. Ares, S. Issanchou, L. H. E. Laboissière, S. dos, and R. Deliza, "Identifying motives underlying wine purchase decisions: results from an exploratory free listing task with Burgundy wine consumers," *Food Research International*, vol. 62, pp. 860–867, 2014.
- [24] F. Caracciolo, M. Furno, M. D'Amico, G. Califano, and G. Di Vita, "Variety seeking behavior in the wine domain: a consumers segmentation using big data," *Food Quality and Preference*, vol. 97, Article ID 104481, 2022.
- [25] C. Calvo-Porralla, J.-P. Lévy-Manginb, and A. Ruiz-Vegac, "An emotion-based typology of wine consumers," *Food Quality and Preference*, vol. 79, Article ID 103777, 2022.
- [26] A. Chamorro, S. Rubio, and F. J. Miranda, "The region-of-origin (ROO) effect on purchasing preferences," *British Food Journal*, vol. 117, no. 2, pp. 820–839, 2015.
- [27] F. Duarte, J. Madeira, and M. M. Barreira, "Wine purchase and consumption in Portugal- an exploratory analysis of young adults' motives/attitudes and purchase attributes," *Ciência e técnica vitivinícola journal*, vol. 25, no. 2, pp. 63–73, 2010.
- [28] H. Trindade-Carlos, A. Chamorro-Mera, and J. M. García-Gallego, "What Portuguese consumers care about when buying wine. How important is the design of the bottle?" *Ciência e Técnica Vitivinícola*, vol. 34, no. 1, pp. 25–35, 2019.
- [29] E. Hlédik and D. Harsányi, "Towards quality consumption," *International Journal of Wine Business Research*, vol. 31, no. 4, pp. 602–617, 2019.
- [30] H. Hristov and A. Kuhar, "Subjective knowledge as a determinant of young adult consumers wine behaviour," *British Food Journal*, vol. 117, no. 12, pp. 2930–2946, 2015.
- [31] D. E. Smith and D. J. Mitry, "Implications of changes in the consumption of wine across the European continent," *Journal of Business and Behavior Sciences*, vol. 24, no. 3, p. 89, 2012.
- [32] E. C. Villanueva, J. S. Sebastián Castillo-Valero, and M. C. Carmen García-Cortijo, "Wine consumer profiles from producing and importing countries in Europe are different," *Ciência e Técnica Vitivinícola*, vol. 32, no. 2, pp. 115–125, 2017.
- [33] H. Rützler, *Hanni Rützlers Food Report 2023*, Zukunftsinstitut, Frankfurt, Germany, 2022.
- [34] J. Bruwer and E. Li, "Domain-specific market segmentation using a latent class mixture modelling approach and wine-related lifestyle (WRL) algorithm," *European Journal of Marketing*, vol. 51, no. 9/10, pp. 1552–1576, 2017.
- [35] D. Ellis and A. Caruana, "Consumer wine knowledge: components and segments," *International Journal of Wine Business Research*, vol. 30, no. 3, pp. 277–291, 2018.
- [36] E. Pomarici, M. Lerro, P. Chrysochou, R. Vecchio, and A. Krystallis, "One size does (obviously not) fit all: using product attributes for wine market segmentation," *Wine Economics and Policy*, vol. 6, no. 2, pp. 98–106, 2017.
- [37] H. Bo Liu, B. McCarthy, T. Chen, S. Guo, and X. Song, "The Chinese wine market: a market segmentation study," *Asia Pacific Journal of Marketing and Logistics*, vol. 26, no. 3, pp. 450–471, 2014.
- [38] A. M. Corsi, J. I. Modroño, P. Mariel, J. Cohen, and L. Lockshin, "How are personal values related to choice drivers? An application with Chinese wine consumers," *Food Quality and Preference*, vol. 86, Article ID 103989, 2020.

- [39] Y. Hu and W. Ruimei, "A clustered-based segmentation of Chinese wine consumers by means of kernel fuzzy C-means," *Italian Journal of Food Science*, vol. 31, no. 4, 2019.
- [40] J. Masson, C. R. S. Sánchez, and F. Celhay, "Is mianzi the only face of Chinese consumers of wine?: a typology of Chinese consumers of imported wine," *International Journal of Market Research*, vol. 59, no. 5, pp. 625–654, 2017.
- [41] W. Yabin and J. Li, "Segmentation of China's online wine market based on the wine-related lifestyle," *British Food Journal*, vol. 122, no. 8, pp. 2385–2401, 2020.
- [42] V. N. Kelkar, K. Bolar, V. Payini, and J. Mallya, "Modelling lifestyle-based segments of Indian wine consumers using the latent profile analysis approach," *International Journal of Wine Business Research*, vol. 8, 2022.
- [43] P. Sharma, S. Singh, and R. Misra, "Wine-related lifestyle segmentation in the context of urban Indian consumers," *International Journal of Wine Business Research*, vol. 32, no. 4, pp. 503–522, 2020.
- [44] Fso, "Utilisation d'Internet- 1997-2021 | tableau," 2020, <https://www.bfs.admin.ch/asset/fr/22404519>.
- [45] Fso, "Ménages privés selon le canton et la taille du ménage, 2010-2020- 2010-2020 | Tableau," 2020, <https://www.bfs.admin.ch/asset/en/18845804>.
- [46] Fso, "Population résidante permanente selon l'âge, par canton, district et commune, de 2010 à 2020- 2010-2020 | Tableau," 2020, <https://www.bfs.admin.ch/asset/fr/18344317>.
- [47] Fso, "Structure de la population résidante permanente selon le canton, de 1999 à 2020- 1999-2020 | Tableau," 2020, <https://www.bfs.admin.ch/asset/fr/18344202>.
- [48] Fso, "Grandes régions: personnes actives occupées à plein temps et à temps partiel selon le sexe et la nationalité- 1.4.2002-31.3.2022 | Tableau," 2021, <https://www.bfs.admin.ch/asset/en/22709633>.
- [49] Fso, "Formation achevée la plus élevée en Suisse (série temporelle)- 1970-2020 | Tableau," 2022, <https://www.bfs.admin.ch/asset/fr/20964143>.
- [50] Fso, "Statut d'activité selon diverses caractéristiques socio-démographiques et le canton- 2020 | Tableau," 2022, <https://www.bfs.admin.ch/asset/fr/20944926>.
- [51] J. Kapferer and G. Laurent, "Consumer involvement profiles- a new practical approach to consumer involvement," *Journal of Advertising Research*, vol. 25, no. 6, pp. 48–56, 1986.
- [52] S. R. Jaeger, P. J. Danaher, and R. J. Brodie, "Wine purchase decisions and consumption behaviours: insights from a probability sample drawn in Auckland, New Zealand," *Food Quality and Preference*, vol. 20, no. 4, pp. 312–319, 2009.
- [53] C. Fotopoulos, A. Krystallis, and M. Ness, "Wine produced by organic grapes in Greece: using means-end chains analysis to reveal organic buyers' purchasing motives in comparison to the non-buyers," *Food Quality and Preference*, vol. 14, no. 7, pp. 549–566, 2003.
- [54] L. Lockshin, W. Jarvis, F. d'Hauteville, and J.-P. Perrouy, "Using simulations from discrete choice experiments to measure consumer sensitivity to brand, region, price, and awards in wine choice," *Food Quality and Preference*, vol. 17, no. 3, pp. 166–178, 2006.
- [55] E. C. Thach and J. E. Olsen, "The search for new wine consumers: marketing focus on consumer LifeStyle or LifeCycle," *International Journal of Wine Marketing*, vol. 16, no. 3, pp. 44–57, 2004.
- [56] S. Charters, *Wine and Society: The Social and Cultural Context of a Drink*, Elsevier Butterworth-Heinemann, Oxford, UK, 2006.
- [57] K. Backhaus, B. Erichson, S. Gensler, R. Weiber, and T. Weiber, *Multivariate Analysemethoden: Eine Anwendungsorientierte Einführung (16. Aufl.)*, Springer Fachmedien, Wiesbaden, Germany, 2021.
- [58] T. Spawton, "Marketing planning for wine," *International Journal of Wine Marketing*, vol. 2, no. 2, pp. 2–49, 1990.
- [59] H. Rützler, *Hanni Rützlers Food Report 2019*, Zukunftsinstitut, Frankfurt, Germany, 2018.
- [60] H. Rützler and Zukunftsinstitut, *Future Food: die 18 wichtigsten Trends für die Esskultur der Zukunft*, Zukunftsinstitut, Kelkheim, Germany, 2003.