

26 **Abstract**

27 This study explores the prejudices of Swiss residents toward consumers of canned wine in the
28 context of outdoor leisure activities. Despite the convenience and environmental benefits of
29 canned wine, it faces resistance from wine consumers based on prejudices. We investigate
30 whether holiday outdoor settings such as *beach resorts*, *ski stations*, *desert safaris*, and *outdoor*
31 *parties* could mitigate these prejudices, as leisure contexts might reduce the ritualistic
32 consumption patterns associated with wine drinking. Using a vignette study, Swiss residents
33 evaluated the personality traits of canned wine consumers across different scenarios. Our
34 findings reveal that, overall, canned wine drinkers are judged negatively, particularly in the
35 *beach resort* scenario, where traits like “health consciousness” and “environmental friendliness”
36 are rated lower. Demographic factors, including age, gender, and education, as well as cultural
37 background, significantly influence these judgements. Younger respondents and expatriates
38 showed less prejudice compared to older and more traditional Swiss residents, suggesting a
39 generational and cultural divide in attitudes. These results underscore the need for targeted
40 marketing strategies to address persistent stereotypes and foster a more positive image of canned
41 wine among diverse consumer segments.

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50 **Keywords:** consumer perceptions; wine packaging; outdoor leisure activities; sustainability.

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52 1. Introduction

53 Whether emerging from a busy week at work or embarking on an annual holiday, outdoor
54 spaces provide the perfect escape for individuals to refresh their minds and uplift their spirits [1,
55 2]. Traditionally, outdoor leisure encompasses stunning landscapes such as forests, coasts, lakes,
56 and mountains [3]. From the paradisiacal islands of the Caribbean to the winter wonderlands of
57 the Swiss Alps, these destinations offer diverse opportunities for relaxation and recreation [4, 5].
58 Whether enjoying a meal on a sun-drenched beach, savouring a drink after skiing, or camping
59 under a starry sky, these experiences are integral to holidays, inviting individuals to connect
60 with nature and indulge in specially chosen food and beverages [6, 7, 8]. Nevertheless, this
61 interaction with the environment can lead to significant waste, particularly from beverage
62 consumption. Millions of wine bottles are consumed annually during holidays, contributing to
63 greenhouse gas emissions and a larger carbon footprint [9, 10]. An eco-friendly alternative, such
64 as canned wine, could mitigate this impact, offering convenience and sustainability.

65 When compared to glass bottles, aluminium cans offer several advantages: they are infinitely
66 recyclable, lightweight, and convenient to carry over long distances, which can influence
67 consumption patterns [11, 12, 13]. While canned wine tins are typically smaller in size (ranging
68 from 187ml to 375ml -approximately two glasses of wine) compared to a standard 750ml bottle,
69 their portability can lead to a significantly higher number of cans being carried. Additionally,
70 cans, particularly those used for beers and spirits, have been linked to an increase in binge
71 drinking episodes, especially among young people [14, 15].

72 Despite these benefits, canned wine raises some quality concerns. Wines packaged in aluminium
73 cans may accumulate higher levels of hydrogen sulphide (H₂S), resulting in a "rotten egg"
74 aroma, and are more susceptible to issues such as leakage and compromised seals compared to
75 glass bottles [16, 17]. Additionally, aluminium's high thermal conductivity makes cans more
76 vulnerable to rapid temperature fluctuations during storage and transportation, potentially
77 affecting the wine's stability [18]. Consumer perceptions regarding the sustainability and quality
78 of wine in cans can also influence acceptance [19]. While aluminium cans are often praised for
79 their recyclability and lower carbon footprint, they still face resistance from consumers [20].
80 However, it is worth considering whether individuals might be more open to canned wines
81 during holidays and outdoor leisure activities, where the convenience of cans may be more
82 appealing.

83 This study aims to explore the potential for consumers to shift towards eco-friendly wine
84 packaging alternatives during outdoor recreation. Specifically, it investigates whether biases

85 associated with everyday wine consumption extend to perceptions of canned wine drinkers in
86 outdoor holiday contexts. We employed various scenarios representing outdoor leisure
87 destinations and surveyed a representative sample of Swiss residents.

88 ***1.1 Consumer attitudes towards wine packaging***

89 The packaging of a product fulfils several functions, playing an essential role as a protective
90 device as well as a bridge for the communication between the producer and the final consumer
91 [21]. This often impacts their purchase intentions and choices [22, 23]. In the case of wine,
92 packaging is especially important as it acts as a first extrinsic cue influencing the quality
93 evaluation of wines before the consumer tastes it [24]. In this case, the packaging works as a
94 visual stimulus through its shape, colour, label design, and written information [25, 26].
95 Interestingly, as demonstrated by Piqueras-Fiszman and Spence [27], the wine packaging is also
96 a tactile stimulus. These authors showed that only by holding the bottle in their hands consumers
97 can gauge the price and assess the quality of the wines, deciding that better, or at least more
98 expensive, wines come in heavier bottles. These results are important to keep in mind because if
99 consumers associate wines in heavier bottles as being of higher sensory quality, this presents an
100 environmental issue, as their positive attitude toward heavy bottles contributes to a larger carbon
101 footprint [28] and perhaps diminishes their likelihood of positively evaluating alternative wine
102 packaging options [29].

103 ***1.2 The prejudice towards canned wine consumption***

104 Historically, canned food began to emerge in the 19th century, with the utilisation of tin cans
105 developed to meet military needs during the Napoleonic Wars, which marked a significant
106 milestone in food preservation [30, 31]. Although commercial applications were initially modest
107 in the 1930s, canned wines have only recently made a substantial impact in the retail market.
108 The global canned wine market generated \$235.7 million in revenue in 2021 and is projected to
109 grow to \$571.8 million by 2028 [17, 32]. Despite its advantages and presence in the market, the
110 consumption of canned wines faces significant challenges. In a recent study, Ruggeri et al. [15]
111 investigated Italian wine consumers' preferences and willingness to pay for canned wine
112 through a survey and the contingent valuation method. The authors collected data from 551
113 consumers regarding attitudes and preferences about their wine consumption, alternative
114 packaging acceptance, and motivations for accepting and refusing to purchase it. The results
115 showed that only a minority of the respondents declared they would buy canned wine, while the
116 majority would refuse for reasons related to low-quality perception and poor consideration of

117 alternative wine packaging. Therefore, it seems stereotypes and prejudice linked to its
118 consumption could be an important casual factor discouraging the consumption of canned wine.

119 Stereotypes and prejudices are two concepts with old historical roots in the disciplines of
120 anthropology and psychology. Lippmann [33] first conceptualised *stereotypes* as ‘pictures in our
121 heads’ – later operationalised as cognitive schemas employed by social perceivers to interpret
122 information about others [34]. In contrast, *prejudices* encompass an affective or attitudinal
123 dimension, defined as a predisposition to respond unfavourably to individuals or objects based
124 on their membership in a particular class or category [35]. Beyond their cognitive functions of
125 simplification and categorisation, these shaping elements of ‘bias’ also generate behavioural
126 expectations and result in specific behavioural consequences [36], as it was recently
127 demonstrated by Depetris-Chauvin et al. [37]. In this study, the authors sought to investigate
128 whether the country of origin (COO) of wines induces implicit biases – shaped by the
129 stereotypes and the prejudices attached to the COO – in the judgments of wine experts. Twenty-
130 two wine traders from ten different countries were asked to evaluate their liking and provide
131 sensory descriptions of eight Pinot Noir wines sourced from Argentina, Brazil, France, and
132 Switzerland, under both blind and informed conditions. Their results reveal that COO bias
133 significantly influences wine experts' perceptions; once the COO was disclosed, the likeability
134 ratings for wines from Argentina and Brazil decreased as well as the evaluative language used
135 by assessors to describe the wines. Under informed conditions, Brazilian and Argentinean wines
136 were frequently described using negative hedonic terms. Conversely, when participants were
137 aware of the wines' origins, French and Swiss wines were often described by positive sensory
138 descriptors.

139 Following recent research by Trochtová et al. [38], which indicates that outdoor leisure activities
140 can transform an individual's values, particularly in relation to their educational and personal
141 development, one might consider whether these recreational occasions could contribute to a less
142 stereotypical perception of canned beverages and could potentially foster a more positive image
143 while reducing stereotypes and prejudices.

144 **1.3 Problematic and Research Questions**

145 There is a growing body of research [15, 39] that documents the existence of a negative
146 connotation associated with the consumption of wine in cans. For that reason, in the present
147 study we aim to examine whether outdoor scenarios could help to mitigate those prejudices. This
148 could be the case because when enjoying outdoor recreation, people are usually more relaxed,

149 experience less ritualistic consumption activities and are often more open to novelty than when
150 indoors in their everyday life. Furthermore, outdoor leisure spaces are typically shared among
151 individuals, and it is well established in the literature [40, 41] that individuals often engage in
152 social imitation. This tendency to align behaviours with those of their peers reinforces group
153 cohesion and facilitates collective decision-making. If this is the case, it could potentially
154 encourage others to adopt this specific drinking behaviour.

155 Therefore, the aim of this study is to evaluate whether different outdoor leisure scenarios would
156 lead people to judge the canned wine drinker more positively. Concretely, this research asks the
157 following two questions:

158 Question 1: How is the canned wine drinker judged in different outdoor leisure
159 scenarios, and does the judgment vary depending on the specific scenario?

160 Question 2: Do the demographic characteristics of the respondents influence their
161 judgements of canned wine drinkers?

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163 **2. Study Design**

164 The study explores Swiss residents' judgements of individuals consuming canned wine using a
165 vignette study methodology. Participants in an online questionnaire were randomly assigned to
166 one of four outdoor recreational contexts (*beach resort, ski station, desert safari, or outdoor*
167 *party*) and were asked to evaluate sixteen personality traits of an individual drinking canned
168 wine on a seven-point Likert scale. The survey data are analysed through a multi-step approach,
169 including t-tests, MANOVA, and OLS regressions, to assess potential prejudices in personality
170 judgements based on context and demographic factors.

171 **2.1 Respondents**

172 A total of 795 Swiss residents participated in the study, with demographic information detailed
173 in Table 1. Data collection occurred between October 2021 and January 2022. Invitations to
174 complete the online questionnaire were sent via email to a nationally representative database of
175 15'000 Swiss adults. This database is maintained by the Haute Ecole de Gestion de Genève for
176 different market studies, and it is updated periodically. The final sample excluded incomplete
177 responses and participants who identified as foreign residents. The sample size used in the
178 analysis is larger than those reported in comparable studies [42, 43]. Based on a medium effect
179 size (Cohen's $f = 0.25$), an alpha of 0.05, and a desired power of 0.80, the required sample size

180 per group for a study with four groups is approximately 179 respondents. This results in a total
 181 sample size of around 714 respondents. Given that our study includes 795 respondents, this
 182 exceeds the required sample size, ensuring sufficient statistical power to detect meaningful
 183 effects.

184 Table 1: Demographic information of the sample.

Variables	%
Scenarios	
<i>Beach Resort</i>	20.50
<i>Desert Safari</i>	36.73
<i>Outdoor Party</i>	20.63
<i>Ski Station</i>	22.14
Language of the respondents	
German	49.69
French	34.97
Italian	9.81
English	5.53
Female	52.45
Age cohort	
18 to 29 years old	12.70
30 to 39 years old	12.70
40 to 49 years old	18.11
50 to 59 years old	26.54
60 to 69 years old	17.23
70 years or more	12.70
Highest level of formal education achieved	
Primary school	0.38
High School	2.64
Tertiary education (technical, vocation)	33.46
University: Bachelor degree	29.69
University: Master/Doctorate degree	33.84
Wine consumption	
Never	8.18
Less than once a month	12.83
At least once a month	20.75
Around once a week	32.70
Several times a week	25.53
Have drunk canned wine	10.69
Number of Respondents	795

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 186 The decision to focus on a sample of Swiss residents for this study is based on several
 187 compelling justifications that enhance its relevance and impact. Although canned wine has yet to

188 achieve widespread popularity in Switzerland compared to Anglo-Saxon countries, it has the
189 potential to occupy a unique position in a market where wine consumption ranks among the
190 highest per capita globally [44]. This context provides a fertile ground for exploring emerging
191 trends, particularly the introduction of innovative packaging such as canned wine, which may
192 attract new consumers prioritizing convenience and sustainability [45]. Switzerland's diverse
193 wine landscape, with several production regions, presents an opportunity to examine consumer
194 judgements in a market characterised by openness and variety [46]. Notably, around two-thirds
195 of the wine consumed in Switzerland is imported, making it one of the more accessible markets
196 in Continental Europe for diverse wine offerings. This diversity allows for a more nuanced
197 understanding of how different wine styles, including canned options, are perceived against a
198 backdrop of traditional preferences. Additionally, the Swiss population's linguistic and cultural
199 variety offers a rich tapestry for examining how demographic and cultural factors influence
200 attitudes toward wine consumption. While this study focuses on Swiss residents, the diversity
201 within the Swiss population may provide valuable insights to inform broader discussions on
202 consumer behaviour in markets with high per capita wine consumption and openness to diverse
203 wine offerings. However, we present this as a potential hypothesis, recognizing that the
204 generalizability of these findings to other markets should be further explored in future research.
205 The insights gained from this specific demographic are nonetheless valuable for advancing both
206 academic understanding and industry practices in the evolving landscape of wine consumption.

207 In our sample, 8.18% of respondents identified as non-wine drinkers. Their inclusion is
208 essential for capturing a broader perspective on societal perceptions of eco-friendly wine
209 packaging, particularly canned wine in outdoor recreational settings. The acceptance of wine
210 in cans may be influenced not only by individual preferences but also by the attitudes and
211 biases of others, including non-wine drinkers, who help shape social norms and purchasing
212 decisions. Understanding these external perceptions is crucial, as they can impact the
213 broader acceptance and integration of alternative packaging formats. By incorporating both
214 wine consumers and non-consumers, we aim to provide a more comprehensive analysis of
215 societal attitudes, offering deeper insights into the potential shift toward sustainable
216 packaging solutions.

217 **2.2 Methodology**

218 In this study, we employ a vignette study methodology, a common and effective approach for
219 examining people's social perceptions and attitudes in various contexts (see Atzmüller & Steiner
220 [47] for a literature review). Vignette studies allow researchers to present participants with

221 controlled hypothetical scenarios, enabling them to assess judgments and impressions based on
222 limited information. This method is particularly well-suited for our objective of exploring
223 judgements of individuals consuming canned wine, as it facilitates the examination of how
224 context influences personality attributions, prejudices, and stereotypes. Vignette studies have
225 been widely used in similar contexts, particularly in the field of consumer behaviour, to
226 investigate the social implications of food and beverage consumption. For instance, studies have
227 demonstrated how judgements of individuals based on their food choices can significantly
228 impact perceptions and attitudes [48, 49, 50]. These studies highlight that the context in which
229 food or beverages are consumed often shapes the social judgments that individuals make about
230 others.

231 In our study, participants were informed that they were being tested on how well they could
232 assess an individual's personality based on very little information. They were randomly assigned
233 to one of four conditions that differed in terms of the context presented. They read the
234 description: "*Imagine you are on holidays. You are at a beach resort /or/ ski station /or/ desert*
235 *safari /or/ outdoor party, and you see a person drinking wine from a can.*" After the description
236 of the context, participants were asked to project themselves into the scenario until they could
237 describe the person consuming the wine in a can. They were invited to rate their impression of
238 the drinker according to 16 personality attributes on a scale from 1 to 7 (see the personality traits
239 in Table 2). Additionally, participants indicated whether they thought the person was a man, a
240 woman, or either of the two, and how old they perceived the person to be. The instructions and
241 scenarios were presented in the native language of the subjects.

242 While vignette studies provide valuable insights, we acknowledge the limitations regarding
243 ecological validity, particularly the extent to which hypothetical scenarios reflect real-world
244 contexts. To address this, we carefully selected contexts familiar to the Swiss population,
245 ensuring a reasonable degree of relatability. Additionally, we conducted a pre-test with a smaller
246 sample to ensure the clarity and realism of the scenarios. This process helped refine the
247 scenarios, providing greater methodological transparency.

248 Given the familiarity of the Swiss population with the *beach resort*, *outdoor party*, and *ski*
249 *station* contexts and the potential unfamiliarity with the *desert safari* context, the randomization
250 consisted of a 20% chance of receiving one of the familiar contexts and a 40% chance of
251 receiving the unfamiliar *desert safari* context. In our final sample, 21% of respondents were
252 presented with the *beach resort* context, 21% with the *outdoor party*, 22% with the *ski station*,
253 and 36% with the *desert safari*. This strategic design enables us to explore the interplay between

254 context, beverage choice, and perceived personality traits, contributing valuable insights into
255 consumer behaviour and the social dynamics surrounding food and drink consumption.

256 We conducted preliminary checks on the distribution of key variables across contexts and found
257 that while most variables met strict homogeneity criteria, some deviations were present.
258 Recognizing the importance of addressing potential discrepancies, our primary approach
259 involves controlling for demographic factors such as language, gender, age, education, and wine
260 consumption within our regression models. By integrating these sociodemographic controls, we
261 ensure that any observed effects are adjusted accordingly, minimizing potential biases arising
262 from differences in sample composition, which remain marginal.

263 To minimize social desirability bias, we ensured the anonymity of responses and maintained
264 confidentiality throughout the data collection process. The use of randomization and multiple
265 context scenarios further reduced the likelihood of socially desirable responses. Nevertheless,
266 we acknowledge that social desirability bias remains a potential limitation of self-reported data,
267 and we will address this limitation in the discussion section.

268 **2.3 Data analysis**

269 The analysis aims to assess whether the perceived personality traits of canned wine drinkers are
270 subject to prejudice and stereotype, particularly negative ones, and whether these judgements
271 vary across different recreational contexts and are influenced by demographic and cultural
272 factors. To achieve this, a multi-step methodological approach is employed, encompassing t-
273 tests, Multivariate Analysis of Variance (MANOVA), and regression analysis.

274 The initial step involves conducting a series of one-sample t-tests to evaluate whether the
275 judgement of each personality trait significantly deviates from neutrality. Specifically, each trait
276 is tested against a neutral value of 4 (on a Likert scale ranging from 1 to 7) to determine if there
277 are any significant biases -positive or negative- in the judgement of canned wine drinkers. This
278 step is crucial for identifying any overarching prejudice and stereotype in how canned wine
279 consumers are judged. The results of these t-tests provide an initial understanding of whether
280 general stereotypes or preconceived notions about canned wine drinkers exist.

281 Building on this, MANOVA is employed to assess whether these judgements, once identified,
282 differ across various recreational contexts, such as *beach*, *desert*, *party*, or *ski*. MANOVA is
283 chosen for its capability to simultaneously test for differences across multiple dependent
284 variables (in this case, the sixteen personality traits), providing a comprehensive view of how
285 context-driven variations might alter these pre-existing prejudices and stereotypes. Four

286 common test statistics -Wilks' Lambda, Pillai's Trace, Lawley-Hotelling Trace, and Roy's
287 Largest Root- are applied to evaluate the overall significance of the contextual effect,
288 determining whether the leisure scenarios significantly influence the combined judgments of
289 traits.

290 Following the MANOVA, a series of ordinary least squares (OLS) regression analyses are
291 conducted to further investigate the role of individual characteristics and contextual factors in
292 shaping judgements. Sixteen separate regressions, one for each personality trait, are performed
293 to disentangle the specific effects of contextual variables and demographic covariates -such as
294 age, gender, education level, and cultural background- on perceived traits. Dummy variables
295 represent each leisure scenario, with the beach scenario serving as the baseline for comparison.
296 Additional predictors include self-reported familiarity with wine to control for experience-based
297 biases. This approach allows for a detailed exploration of how judgements of canned wine
298 consumers vary not only by context but also by individual respondent characteristics, providing
299 insights into the nuanced ways these factors interact.

300 Through this multi-step methodology, the study systematically tests the hypotheses that there
301 may be prejudices and stereotypes in the perceived personality traits of canned wine drinkers
302 and that these prejudices and stereotypes are context-dependent and influenced by demographic
303 factors, offering a comprehensive understanding of the drivers behind these judgements.

304 **3. Findings**

305 Our first objective is to establish which personality traits are perceived for a person that
306 consumes wine in cans in different outdoor recreational activities and to test if those traits are
307 context dependent. The results of the analysis are shown in Table 2. The table displays the
308 average judgements of a canned wine consumer's personality traits across our four leisure
309 scenarios. The scale proposed to the participants ranged from 1 to 7, with a midpoint of 4
310 representing a neutral assessment. Values above or below this midpoint indicate a positive or
311 negative skew in perception, respectively, and asterisks denote the statistical significance of the
312 difference from the neutral point.

313 In the *beach resort* scenario, the personality traits associated with canned wine consumers are
314 generally judged negatively (13 out of the 16 traits). For example, traits such as " Health
315 Conscious" (3.13), " Environmentally Friendly" (2.96), and "Vulgar" (2.99) are significantly
316 below the neutral point, suggesting that these consumers are not particularly health-conscious or
317 environmentally friendly and are perceived as less elegant. Traits like "Disciplined" (3.60) and

318 "Popular" (3.52), though still below the neutral point, suggest that while these consumers are not
319 perceived as highly disciplined or popular, they are not judged extremely negatively in these
320 areas. The strongest positive trait is "Extroverted" (4.49), showing these consumers as more
321 extroverted compared to the neutral assessment.

322 For the *desert safari* scenario, similar patterns emerge. Consumers are judged as less "Health
323 Conscious" (2.91) and less "Environmentally Friendly" (2.79), both significantly below the
324 midpoint. In total, eleven traits are considered negative, four are neutral, and only one is
325 positive. The perception of being "Imaginative" (3.84) or "Rich" (3.89) is slightly more
326 favourable compared to the *beach resort* scenario. Overall, the traits remain below or near
327 neutral, with "Extroverted" (4.53) standing out as a distinctly positive attribute.

328 In the *outdoor party* scenario, there are slightly more favourable judgements. There are nine
329 negative personality traits, five neutrals and two positives. The "Extroverted" trait scores the
330 highest (4.54), followed by "Satisfied" (4.26). Traits like "Gracious" (3.94), "Interesting" (3.92),
331 and "Emotional" (3.90), which, while not statistically different from the neutral point, suggest a
332 somewhat less negative image of canned wine consumers in this context. Despite this, negative
333 judgements persist for traits like "Environmentally Friendly" (3.00), "Vulgar" (3.05) and "
334 Education Level" (3.30).

335 In the *ski station* scenario, consumers are again perceived similarly to other scenarios, with
336 "Health Conscious" (3.11) and "Vulgar" (2.85) being notably negative traits. However, traits like
337 "Beautiful" (3.91) and "Conscious" (3.92) are perceived less negatively, though not statistically
338 different from the neutral. "Extroverted" (4.47) continues to be the most positively skewed trait,
339 suggesting a consistently extroverted image across scenarios.

340 Overall, the results in the table reveal that consumers of wine in cans are generally perceived as
341 more extroverted across all scenarios but are seen less favourably in terms of most other
342 personality traits, including "Health Consciousness", "Environmental Friendliness", and
343 "Elegance". The *outdoor party* scenario seems to offer slightly more positive judgements
344 compared to the *ski station* and *desert safari* contexts, and the *beach resort* scenario seems to
345 generate the worst judgement.

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349 Table 2: Personality traits of canned wine drinkers across outdoor leisure scenarios

Personality traits	Scenarios			
	<i>Beach Resort</i>	<i>Desert Safari</i>	<i>Outdoor Party</i>	<i>Ski Station</i>
Undisciplined - Disciplined	3.60***	3.28***	3.68***	3.60***
Not health Conscious - Health Conscious	3.13***	2.91***	3.29***	3.11***
Not Environmentally Friendly - Environmentally Friendly	2.96***	2.79***	3.00***	3.14***
Unimaginative - Imaginative	3.76**	3.84*	3.77*	3.66***
Unpopular - Popular	3.52***	3.50***	3.52***	3.67***
Boring - Interesting	3.65***	3.80**	3.92	3.72***
Unemotional - Emotional	3.82*	3.96	3.90	3.84
Vulgar- Elegant	2.99***	2.98***	3.05***	2.85***
Ungracious - Gracious	3.84*	3.69***	3.94	3.81**
Dissatisfied - Satisfied	4.17*	4.14	4.26**	4.05
Introverted - Extroverted	4.49***	4.53***	4.54***	4.47***
Unconscious - Conscious	4.07	3.87	3.91	3.92
Low Education Level - High Education Level	3.33***	3.42***	3.30***	3.41***
Poor - Rich	3.59***	3.89	3.22***	3.60***
Ugly - Beautiful	3.85*	3.74***	3.80**	3.91
Bad - Good	3.85*	3.73***	3.92	3.81**
Number of respondents	163	292	164	176

350 * p<0.10 ** p<0.05 *** p<0.01

351 Our previous analysis suggested some differences across scenarios, and we used Multivariate
352 Analysis of Variance (MANOVA) to explore this further. MANOVA is a statistical technique
353 used to examine the differences between groups on multiple dependent variables
354 simultaneously. In our case, it helps determine whether different consumption contexts (*beach*
355 *resort*, *ski station*, *desert safari*, and *outdoor party*) significantly influence the combined set of
356 dependent variables (the sixteen personality traits).

357 The results of the four common MANOVA test statistics are as follows:

- 358 - Wilks' Lambda (W), which tests whether the consumption context accounts for a
359 significant portion of the variance in the personality traits, yielded a value of 0.9160.
360 This value is close to 1, indicating a moderate effect. However, the F-statistic (F(42,

361 2308.7) = 1.65) with a p-value of 0.0056 ($p < 0.05$) suggests a statistically significant
362 difference across scenarios.

363 - Pillai's Trace (P), a robust measure that sums the contribution of each canonical
364 dimension, was 0.0858 ($F(42, 2340.0) = 1.64, p = 0.0060; p < 0.01$). While the value
365 suggests a modest effect, the significant result confirms that the context has an influence
366 on judgments.

367 - Lawley-Hotelling Trace (L), sensitive to smaller samples, showed a value of 0.0897
368 ($F(42, 2330.0) = 1.66, p = 0.0051; p < 0.05$). This significant result supports the finding
369 that the perception of personality traits varies across different contexts, though the effect
370 size remains moderate.

371 - Roy's Largest Root (R), which focuses on the largest canonical correlation, was 0.0574
372 ($F(14, 780.0) = 3.20, p = 0.0001; p < 0.01$). This indicates a strong effect of context,
373 particularly on the dominant dimension.

374 Overall, these results suggest that the context of consumption significantly influences
375 judgements of personality traits associated with canned wine consumers (our first research
376 question), although the magnitude of this effect is generally moderate. This nuanced finding
377 highlights the importance of context in shaping judgements, while acknowledging that other
378 factors may also play a role.

379 Building on these findings, we further explore the role of additional factors that may influence
380 judgements of canned wine drinkers, as articulated in our second research question. We propose
381 that demographic factors -specifically age, gender, and social status (proxied by education
382 level)- and the respondent's culture (proxied by language) significantly affect participants'
383 judgements of individuals consuming wine from cans. A previous study [15] suggests that
384 younger participants and those with lower educational attainment are more likely to ascribe
385 positive, casual, and trendy characteristics to the canned wine drinker. In contrast, older
386 participants and those with higher education levels tend to attribute more negative or neutral
387 traits. The study did not find any difference across gender groups. Additionally, the cultural
388 background of respondents may also play a crucial role in shaping these judgements [51]. To
389 test the effects of these factors, we conduct a regression analysis in which age, gender, education
390 level, and culture of origin serve as predictors in addition to the context of consumption, and the
391 sixteen personality traits are the outcome variables. Furthermore, we include self-reported
392 familiarity with wine in our model to account for any experience-based biases that could
393 influence judgements.

394 The results of our regression analysis are presented in Table 3. We run sixteen regressions using
395 ordinary least square, one for each personality trait. The analysis is based on our sample of 795
396 respondents in all cases. The F-statistic indicates that the regression models are significant for 15
397 out of the 16 traits, except for “Beautiful”, where the model does not fit well. While context,
398 demographics, culture, and wine knowledge account for some of the variation in the perceived
399 traits of canned wine drinkers, much of the variation remains unexplained by these factors,
400 suggesting that additional influences are at play.

401 We first analyse the influence of consumption context on the judgments of the personality traits.
402 We use dummy variables to capture the effect of each scenario. *Beach resort*, the scenario for
403 which we found more negative prejudices and stereotypes, is the benchmark against which we
404 compare the other three scenarios. When we compare the *desert safari* versus *beach resort*,
405 those drinking canned wine in the desert are judged as less “Disciplined”, less “Health
406 Conscious”, and less “Conscious” but “Richer”. In the comparison between the *outdoor party*
407 and *beach resort*, there is only one significance difference, the canned wine drinker in the party
408 is judged “Poorer”. Interestingly, there are no significant differences in trait judgement between
409 canned wine drinker in *ski station* and *beach resort*. These results put our previous findings in a
410 better perspective, once we have controlled for several relevant covariates, the judgements of the
411 personality traits do not vary significantly across scenarios. On average, there seems to be a
412 negative bias among Swiss resident against those consuming canned wines across several
413 outdoor leisure activities.

414 Our dataset consists only of Swiss residents so we cannot extend our findings to other cultural
415 contexts. However, our survey was offered in four different languages, three of the four national
416 languages: German, French and Italian (Romansh, a language spoken by less than 1% of the
417 Swiss population, was not included) and English as lingua franca for the many foreigners living
418 and working in Switzerland. Our regression analysis allows us to compare Swiss respondents
419 from the French, German, and Italian speaking subpopulation *vis-à-vis* expats living in
420 Switzerland (those who responded in English). Here we found significant differences. In nine of
421 the sixteen traits the French speakers showed a significantly more negative judgement of the
422 canned drinker versus those answering in English. The same is the case for seven traits both
423 among the German and Italian speaking Swiss residents. The speakers of the three national
424 languages agree in four traits, they consider the canned wine drinker as less “Health Conscious”,
425 less “Environmentally Friendly”, less “Imaginative”, and less “Interesting” than those who
426 answered the questionnaire in English. It is worth noticing that our results also show two cases

427 where the estimated coefficients are positive. Swiss German speakers judged canned wine
428 drinkers more “Gracious” and “Extroverted” than the English speakers living in Switzerland.

429 Our estimations reveal a significant influence of age on the judgement of canned wine drinkers’
430 personality traits. For all traits except “Rich”, the estimated coefficients are negative, indicating
431 that younger respondents tend to have a less negative view of these consumers. Although only
432 nine out of these fifteen negative coefficients are statistically significant, the overall pattern
433 suggests a notable generational divide: younger respondents exhibit a markedly lower negative
434 prejudices towards canned wine consumers.

435 We also examine the influence of respondents' gender and educational level. Our findings
436 indicate that female participants tend to perceive canned wine consumers as less “Health
437 Conscious” and less “Environmentally Friendly” but judge them as more socially “Popular”
438 compared to men. Additionally, higher educational levels are associated with more negative
439 judgements of canned wine consumers regarding traits such as “Elegance”,
440 “Conscientiousness”, “Education”, and moral character (“Good”). However, respondents with
441 higher educational levels are more likely to judge these consumers as “Extroverted”.

442 Finally, we use an ordinal categorical variable representing self-reported familiarity with wine to
443 account for experience-based biases in judgements. This variable has five levels, ranging from
444 "Never" to "Several times a week," reflecting increasing frequency of wine consumption. In our
445 sample, this variable shows a positive and statistically significant association with three
446 attributes: “Health Consciousness”, “Environmentally Friendly”, and “Gracious”. However, this
447 construction may obscure the fact that both non-drinkers and very frequent wine drinkers might
448 judge canned wine drinkers negatively, albeit for different reasons. Indeed, when we replace the
449 ordinal categorical variable with dummy variables for each frequency category, we observe
450 more nuanced results. Those who never drink wine perceive canned wine drinkers as less
451 “Health-Conscious” and less “Beautiful”, while those who consume wine several times a week
452 judge them as less “Elegant” and less “Beautiful”.

453

454 Table 3: Determinants of perceived personality traits (OLS regression results)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	disciplined	health conscious	environmentally friendly	imaginative	popular	interesting	emotional	elegant
<i>Desert Safari</i>	-0.320*** (-2.76)	-0.254** (-2.13)	-0.174 (-1.26)	0.010 (0.07)	-0.0716 (-0.54)	0.0809 (0.59)	0.0678 (0.51)	0.0150 (0.12)
<i>Outdoor Party</i>	0.058 (0.44)	0.082 (0.61)	-0.032 (-0.21)	-0.038 (-0.23)	-0.016 (-0.11)	0.253 (1.64)	0.088 (0.58)	0.0212 (0.15)
<i>Ski Resort</i>	0.001 (0.01)	-0.056 (-0.42)	0.167 (1.10)	-0.081 (-0.50)	0.145 (0.99)	0.077 (0.50)	0.030 (0.20)	-0.124 (-0.87)
Swiss French	-0.391** (-2.00)	-0.662*** (-3.29)	-0.835*** (-3.59)	-0.832*** (-3.40)	-0.356 (-1.59)	-0.738*** (-3.18)	-0.249 (-1.10)	-0.403* (-1.85)
Swiss German	-0.302 (-1.54)	-0.568*** (-2.82)	-0.921*** (-3.96)	-0.950*** (-3.89)	-0.508** (-2.27)	-0.480** (-2.07)	-0.181 (-0.80)	-0.739*** (-3.40)
Swiss Italian	-0.278 (-1.23)	-0.629*** (-2.72)	-0.531** (-1.98)	-0.690** (-2.45)	-0.601** (-2.34)	-0.557** (-2.09)	-0.295 (-1.14)	-0.217 (-0.86)
Age	-0.033 (-1.11)	-0.082*** (-2.70)	-0.135*** (-3.83)	-0.184*** (-4.96)	-0.050 (-1.48)	-0.177*** (-5.04)	-0.169*** (-4.93)	-0.056* (-1.68)
Female	0.066 (0.76)	-0.243*** (-2.71)	-0.330*** (-3.19)	0.045 (0.41)	0.204** (2.05)	0.042 (0.41)	0.096 (0.96)	0.021 (0.21)
Education level	-0.075 (-1.53)	-0.055 (-1.10)	-0.091 (-1.57)	0.00003 (0.00)	-0.024 (-0.43)	-0.047 (-0.81)	0.031 (0.56)	-0.157*** (-2.89)
Wine experience level	0.021 (0.58)	0.091** (2.49)	0.075* (1.78)	0.072 (1.62)	0.035 (0.86)	0.026 (0.62)	0.016 (0.38)	-0.004 (-0.10)
Constant	4.226*** (12.63)	4.064*** (11.84)	4.539*** (11.43)	5.011*** (12.01)	4.024*** (10.55)	4.939*** (12.49)	4.429*** (11.50)	4.337*** (11.67)
N	795	795	795	795	795	795	795	795
Prob > F	0.0105	0.0000	0.0000	0.0000	0.0244	0.0000	0.0001	0.0001
R-square	0.032	0.044	0.059	0.065	0.025	0.053	0.044	0.050

455 t statistics in parentheses

* p<0.10

** p<0.05

*** p<0.01

456 Table 3 (cont): Determinants of perceived personality traits (OLS regression results)

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	gracious	satisfied	extroverted	conscious	high education level	rich	beautiful	good
<i>Desert Safari</i>	-0.133 (-1.20)	-0.106 (-0.76)	-0.0618 (-0.46)	-0.236* (-1.70)	0.152 (1.24)	0.332*** (2.72)	-0.110 (-1.09)	-0.102 (-0.96)
<i>Outdoor Party</i>	0.104 (0.84)	0.068 (0.44)	0.084 (0.56)	-0.198 (-1.26)	-0.037 (-0.27)	-0.371*** (-2.70)	-0.053 (-0.47)	0.064 (0.54)
<i>Ski Resort</i>	-0.031 (-0.26)	-0.142 (-0.92)	-0.049 (-0.33)	-0.170 (-1.10)	0.147 (1.08)	0.011 (0.08)	0.067 (0.59)	-0.007 (-0.06)
Swiss French	0.153 (0.82)	-0.534** (-2.28)	0.320 (1.41)	-0.738*** (-3.14)	-0.579*** (-2.80)	0.017 (0.08)	-0.175 (-1.03)	-0.266 (-1.48)
Swiss German	0.344* (1.84)	-0.079 (-0.34)	0.596*** (2.62)	-0.349 (-1.49)	-0.529** (-2.56)	0.050 (0.24)	-0.031 (-0.18)	-0.274 (-1.52)
Swiss Italian	0.340 (1.58)	-0.677** (-2.51)	-0.053 (-0.20)	-0.700*** (-2.59)	0.047 (0.20)	0.030 (0.13)	-0.129 (-0.66)	0.096 (0.46)
Age	-0.009 (-0.34)	-0.074** (-2.08)	-0.127*** (-3.67)	-0.092** (-2.56)	-0.008 (-0.25)	0.060* (1.93)	-0.0003 (-0.01)	-0.041 (-1.50)
Female	0.029 (0.34)	0.052 (0.49)	-0.040 (-0.40)	-0.091 (-0.87)	0.055 (0.59)	-0.034 (-0.37)	0.029 (0.38)	0.076 (0.95)
Education level	-0.073 (-1.55)	0.042 (0.72)	0.159*** (2.80)	-0.113* (-1.92)	-0.128** (-2.47)	-0.036 (-0.70)	-0.048 (-1.12)	-0.090** (-2.00)
Wine experience level	0.056* (1.65)	0.069 (1.63)	0.0005 (0.01)	0.052 (1.22)	-0.022 (-0.59)	-0.034 (-0.93)	0.008 (0.26)	0.014 (0.43)
Constant	3.684*** (11.56)	4.332*** (10.84)	3.974*** (10.24)	5.237*** (13.07)	4.336*** (12.27)	3.609*** (10.27)	4.083*** (14.03)	4.469*** (14.56)
N	795	795	795	795	795	795	795	795
Prob > F	0.0450	0.0007	0.0002	0.0015	0.0022	0.0000	0.5664	0.0275
R-square	0.021	0.037	0.042	0.033	0.034	0.046	0.018	0.026

457 t statistics in parentheses

* p<0.10

** p<0.05

*** p<0.01

458 4. Discussion

459 The present experiment, which examined how consumers of canned wine are judged across
460 different outdoor leisure scenarios and considered the potential for greater acceptance of this
461 alternative packaging, yielded several noteworthy findings. We discuss these below considering
462 our research questions.

463 4.1 How is the canned wine drinker judged in different outdoor leisure scenarios, and does the
464 judgment vary depending on the specific scenario?

465 Our first finding regarding the research question indicates that consumers of canned wine are
466 generally judged negatively by respondents across all scenarios. Even in relaxed holiday
467 settings, this context does not appear to consistently transform the act of drinking canned wine
468 into a positive experience. The results indicate that, while the personality trait being
469 “Extroverted” is consistently judged positively across all scenarios, many other traits are
470 negative and context dependent. Negative judgements are especially pronounced in the *beach*
471 *resort* setting, where consumers are seen as less “Health-Conscious”, less “Environmentally
472 Friendly”, and more “Vulgar”. This considerably negative judgement associated with the *beach*
473 *resort* scenario may be influenced by historical representation of beach parties, along with the
474 conflict between tourists’ desires to consume an untouched, pristine natural environment and the
475 remnants of beach parties, such as beer cans, as described by the concept of the ‘tourist gaze’
476 [52, 53]. In contrast, the *outdoor party* scenario elicited comparatively more favourable
477 judgments, though negative prejudices and stereotypes persisted.

478 A second interesting outlet is that the MANOVA results further suggest that the outdoor
479 scenario appears to play a role in shaping the respondents’ prejudice, albeit with a moderate
480 effect size. This suggests that while the context influences these judgements it does not
481 completely reshape them. The nuanced results, with varying degrees of negative and positive
482 traits across outdoor scenarios, go in the same direction of the results of Ruggeri et al. [15],
483 when studying the perception of Italians towards alternative packaging consumption acceptance,
484 underscore the complexity of consumer perceptions and indicate that factors beyond context,
485 such as underlying stereotypes or broader societal rules toward canned wine, might be at play.
486 Even though this was not tested in the experiment, these negative judgements may arise from a
487 general disapproval of the ‘drinking’ aspect within the scenario, rather than specifically targeting
488 canned wine. Several studies [54, 55, 56, 57, 58] have shown that outdoor drinking is not always
489 viewed positively by the public. Social drinking in public (i.e., in public outdoor spaces) is not

490 universally accepted [59], often restricted for religious reasons in countries such as those with
491 Muslim majorities, as well as for behavioural and political reasons in various Western nations.
492 For example, in Chile, consuming alcohol in outdoor public spaces, such as by the beach, is
493 prohibited, except on New Year's Eve when it is permitted. Similar restrictions are observed in
494 other Western societies, including Norway, Poland, and certain states in the US, where drinking
495 in outdoor public areas is frequently viewed as unacceptable or even outlawed.

496 4.2 Do the demographic characteristics of the respondents influence their judgements of the
497 canned wine drinker?

498 Our regression analysis provided deeper insights into the role of demographic factors, cultural
499 background, and wine familiarity in influencing these judgements. The generational divide in
500 attitudes is particularly noteworthy. Younger respondents consistently displayed a lower
501 negative prejudice towards canned wine consumers, suggesting a shift in attitudes that could be
502 leveraged by marketers targeting younger demographics. This generational gap may reflect
503 broader changes in social norms and the growing acceptance of non-traditional wine formats
504 among younger people.

505 Gender and education level also emerged as significant factors, though not always aligning with
506 our initial expected results. Findings from previous studies suggest that we might expect female
507 participants to associate more positive, casual, and trendy characteristics with canned wine
508 drinkers [60, 61]. Contrary to expectations, female participants judged canned wine drinkers as
509 less “Health-Conscious” and less “Environmentally Friendly”, despite being more likely to
510 attribute traits like “Popularity” to them. Similarly, previous studies suggest that participants
511 with lower levels of formal education would probably judge canned wine drinkers more
512 favourably than those with higher education. Our results partially support this. Education level
513 had a dual effect: while respondents with lower educational attainment judged canned wine
514 drinkers as less “Vulgar” and more “Conscious”, those with higher education associated them
515 with “Extroversion” but not with any other positive personality trait. These findings suggest that
516 demographic variables interact in complex ways with consumer judgements, reflecting both
517 individual experiences and broader societal values.

518 Cultural background, proxied by the language of response [62, 63], further complicates the
519 picture. The significant differences observed between Swiss respondents of different linguistic
520 backgrounds and expatriates suggest the role of cultural norms and regional identities in shaping
521 attitudes, a well-known factor in cross cultural literature [64, 65, 66]. French, German, and
522 Italian-speaking Swiss respondents generally held more negative views of canned wine drinkers

523 than expatriates, particularly regarding traits like “Health Consciousness” and “Environmental
524 Friendliness”. This finding indicates that judgements are not only context-specific but also
525 culturally contingent, shaped by regional values and social norms.

526 Our analysis of self-reported wine familiarity adds another layer of complexity to these
527 judgements. Regular wine consumers displayed more nuanced views, associating canned wine
528 drinkers with lower “Elegance” and “Beauty” but not necessarily other negative traits. This
529 suggests that experience with wine might mitigate certain prejudices and stereotypes, though it
530 does not eliminate them entirely. These results indicate that familiarity with traditional wine
531 consumption may influence judgements of alternative formats in both positive and negative
532 directions, depending on the attribute in question. These results are consistent with previous
533 findings in the literature [15, 29, 39].

534 Overall, our findings suggest that while context and demographics are significant, they do not
535 fully explain the variation in judgements. The persistence of negative prejudices and stereotypes
536 across different scenarios and demographic groups indicates that canned wine still carries a
537 stigma, despite its growing popularity.

538

539 **5. Conclusions**

540 Our study offers valuable insights into the complex, context-dependent perceptions of canned
541 wine consumers. The data reveals a consistent pattern of negative prejudices, particularly in
542 relation to “Health Consciousness,” “Environmental Friendliness,” and “Elegance,” with
543 variations across different leisure scenarios. While outdoor party settings generated slightly
544 more favourable judgments, the overall outlook remains skewed toward the negative. This
545 suggests that despite the rising popularity of canned wine, there may still be significant barriers
546 to altering public perception, even in more informal or unconventional contexts.

547 Demographic factors further complicate these judgments. Younger respondents are generally
548 less critical, indicating a potential generational shift in consumer attitudes. This could signal the
549 emergence of a more favourable market for canned wine among younger consumers, who may
550 be more open to innovative packaging. Gender and education also play important roles, though
551 not always in predictable ways. These insights suggest that marketers could benefit from
552 adopting more nuanced strategies, targeting specific demographic groups in ways that address
553 the varied and often unexpected nature of consumer biases.

554 Cultural factors are equally influential. The observed differences in perception among Swiss
555 linguistic groups highlight the importance of aligning marketing strategies with regional cultural
556 norms. Swiss respondents were generally more negative in their assessments compared to
557 expatriates, suggesting that local cultural dynamics may either hinder or facilitate the acceptance
558 of canned wine. These findings underscore the importance of developing marketing approaches
559 that not only appeal to younger, more open-minded consumers but also address entrenched
560 prejudices among more traditional segments of the population. Tailoring strategies to these
561 varying cultural contexts will be critical in reshaping consumer perceptions.

562 To mitigate negative biases and capitalize on the growing consumer interest in sustainability,
563 wine marketers should emphasize the environmental benefits of canned wine, such as
564 recyclability, reduced carbon footprints, and the convenience of lightweight packaging.
565 Campaigns that highlight these environmental advantages are likely to resonate with an
566 increasingly eco-conscious consumer base. Moreover, incorporating sustainability labels or
567 certifications could play a significant role in shifting perceptions, as they have been effective in
568 positively influencing consumer attitudes toward other eco-friendly products.

569 Promotional strategies will be key in overcoming stereotypes and encouraging trial purchases
570 within the wine sector. Tasting events could provide consumers the opportunity to challenge
571 their preconceived notions about canned wine, while eco-labelling would reinforce the
572 sustainability message. Given the evident generational divide in perceptions, focusing on
573 younger consumers, who are more open to innovative packaging could serve as a crucial entry
574 point into the market. Producers might also benefit from positioning canned wine at the centre of
575 sustainability-focused campaigns, particularly in contexts where convenience and environmental
576 impact are paramount, such as outdoor leisure activities or travel.

577 Beyond the immediate marketing strategies for canned wine, it is essential to consider broader
578 societal shifts, including changing attitudes toward convenience, health, and environmental
579 concerns, all of which significantly influence wine consumption trends. As consumer
580 preferences increasingly prioritize convenience and sustainability, the demand for innovative
581 packaging such as canned wine may grow. Canned wine offers a convenient, portable, and easy-
582 to-store option, appealing to consumers seeking practicality, especially in outdoor settings or on-
583 the-go lifestyles. Additionally, the shift toward healthier consumption patterns may contribute to
584 a broader acceptance of alternatives to traditional wine bottles, as consumers may perceive
585 canned wine as a lighter, more manageable option. With its recyclable packaging and reduced
586 carbon footprint, canned wine aligns with the growing eco-consciousness of today's consumers.

587 By highlighting the intersection of convenience, health, and sustainability, marketers can tap
588 into evolving consumer priorities and strengthen the appeal of canned wine.

589 This study also offers important insights for industry stakeholders and policymakers,
590 underscoring the role of public policy in supporting sustainable innovation within the wine
591 sector. As consumer attitudes shift towards convenience and health-conscious choices, it
592 becomes vital for policies to encourage eco-friendly packaging and sustainable production
593 practices. Industry players can benefit from policies that incentivize the development of
594 convenient and sustainable packaging solutions, while governments can help educate the public
595 on the health and environmental benefits of alternatives like canned wine. By aligning marketing
596 strategies with these broader societal shifts, the wine industry can better meet consumer demand
597 for convenience, health, and sustainability, positioning itself as a progressive sector that meets
598 the needs of modern consumers while contributing to environmental and societal goals.

599 While our study illuminates the complexities of consumer perceptions, it also highlights areas
600 for further research. Understanding the underlying reasons for these prejudices and stereotypes
601 will be critical for future marketing efforts. Social identity, media portrayal, and the role of
602 tradition may all play a part in shaping these judgments, and further investigation into these
603 factors could provide deeper insights. Additionally, exploring consumer attitudes beyond
604 Switzerland would offer a more global perspective on the market potential for canned wine. We
605 acknowledge the limitations inherent in our study, particularly the low R^2 values in our
606 regression models and the reliance on self-reported data, which may be influenced by social
607 desirability bias. Despite these limitations, the statistically significant findings and model
608 validity underscore the broader patterns identified. Future research could refine our
609 understanding of these consumer attitudes and address the challenges associated with measuring
610 perceptions and prejudices.

611 In conclusion, while there is clear potential for expanding the market for canned wine -
612 especially among younger, more open-minded consumers -significant challenges may remain.
613 Overcoming the negative associations tied to health consciousness, environmental impact, and
614 elegance will be crucial for gaining broader acceptance. To this end, producers and marketers
615 should develop targeted messaging that highlights the practical advantages of canned wine, such
616 as its convenience and sustainability, while also addressing the deep-rooted stereotypes that
617 persist, particularly among older and more traditional consumer segments. By doing so, they can
618 help reshape consumer perceptions and position canned wine as a viable and responsible choice
619 for modern, eco-conscious consumers.

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