

Social media as a means to access millennial wine consumers

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Social Media as a Means to Access Millennial Wine Consumers

Abstract

Purpose

The purpose of this research is to gain insights of the use of social media (SM) in the wine industry. From the theoretical viewpoint to analyze wineries' social media segmentation, targeting and positioning (STP) to help the wine industry to improve the effectiveness of SM communication.

Design/methodology/approach

An observational study of Spanish wineries' SM presence and traffic was carried out during a three-month period in 2013 and repeated in 2016. During this period a questionnaire was distributed to 196 wineries. Logistic regression was used to model the dichotomous outcome variable of whether a winery "does" or "does not" utilise SM. Additionally, leader wineries were interviewed in April/May 2016 about SM segmentation, targeting and positioning (STP).

Findings

The results show that most wineries are starting in SM without a well-defined strategy. The presence of a webpage is significantly related to the use of SM. SM wineries do not segment and can take advantage of digital targeting strategies.

Practical implications

Segmentation and targeting SM can improve the effectiveness of the winery SM activities as well as the winery competitiveness in the wine industry.

Originality/value

This research is a first step in understanding the value of segmentation SM to reach millennial consumers and the importance of targeting to improve the effectiveness of winery on SM.

Keywords ICT, Spanish wineries, digital wine targeting and positioning strategy, wine SM segmentation.

Article Classification Research paper

Introduction

Researchers and marketers emphasize the importance of SM as an easy, low cost communication option that provides an immediate connection with a large number of consumers (Dolan *et al.*, 2016; Fiore *et al.*, 2016; Forbes *et al.*, 2015; Thach and Lease,

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3 35 2014). However, there is still a long way to go for the wine industry with regards to SM
4 36 management before it becomes a truly efficient marketing tool for the wine industry
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6 37 (Laverie *et al.*, 2011; Vinography, 2016).

7
8 38 It is generally accepted, even by wineries, that SM like Facebook and Twitter are a
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10 39 means to access millennial wine consumers. Nevertheless, the literature remarks that the
11 40 younger generations are embracing SM (Leigon, 2011). Facebook and Twitter are more
12 41 used by Generation X and baby boomers (Leigon, 2011; Reyneke *et al.*, 2011). Little
13 42 research has been undertaken to understand the segmentation and specific targeting of
14 43 marketing practices using SM to improve the competitiveness of wineries. Even less is
15 44 known about the effectiveness of SM communications in order to access target groups
16 45 like millennial wine consumers.
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23 47 **1. Background**

24 48 *1.1 Wine and Social Media*

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26 49 The 2008 Global Financial Crisis did cause many consumers to move downmarket,
27 50 which included purchasing wines that were less expensive, and from a greater variety of
28 51 wine regions (Gokcekus and Finnegan, 2013). This coincided with a surge in the use of
29 52 the internet and SM, which significantly expedited information sharing (Zickuhr, 2010;
30 53 Wilson and Quinton, 2012). SM has become an important tool that connects one third of
31 54 the world's population (Nelson Field and Taylor, 2012), more than one billion people
32 55 use Facebook and more than 280 million are active users on Twitter each month
33 56 (Stieglitz *et al.*, 2014). SM offers advertisers access to eighty per cent of global
34 57 consumer expenditures, a US\$29 trillion market (Nuttney, 2010) and more than 15
35 58 million brands are registered on Facebook (Koetsier, 2013). Wine and associated
36 59 business received its fair share of increased exposure from this surge in SM-based
37 60 interests, e.g. wine is the most frequently searched beverage on the web and is being
38 61 talked about daily and hourly by an international and diverse tweeting population
39 62 (Thach and Rosenberg, 2011; Storchmann, 2012; Wilson and Quinton, 2012). Many
40 63 wine consumers pay attention to the views and thoughts of "similar others" to seek
41 64 experts' opinions (Gokcekus and Finnegan, 2013; Cialdini and Goldstein, 2004); while
42 65 the UK's leading wine critic "tweets" regularly on Twitter who has more than 24,000
43 66 followers (Reyneke *et al.*, 2011). A study carried out by Szolnoki *et al.* (2014) showed
44 67 75% of SM users admitted that wine-associated SM interactions can influence their
45 68 purchases and increase spend on an individual wine purchase. Furthermore, their study
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69 also revealed that fans are 41% more likely to recommend those wines. It is estimated
70 that 90% of wine drinkers use Facebook 6.2 hours per week, and Google Analytic-2012
71 shows that wineries are the third most popular subject on Pinterest. The number of wine
72 blogs is now estimated to be around 1,300 (Thach and Lease, 2014). While a keen
73 interest in wine-related SM exists.

75 *1.2 Millennial Generation and Wine Behaviour*

76 Millennial consumers are defined as: persons born between 1977 and 2000, who are the
77 “children of the baby boomers” (Atkin and Thach, 2012). The most prominent
78 characteristic is their technology savviness and use of that technology in almost every
79 aspect of their lives (Pate and Adams, 2013). Five years ago, they spent on average of
80 33 hours per week on the internet (Kilian *et al.*, 2012); with 83% being engaged with
81 online social networking sites (Zickuhr, 2010); and almost all millennials in developed
82 countries have a smart phone (Miller, 2014; Nicholls, 2012). The millennials’ interest in
83 technology might explain why many seek out wine groups on Facebook and other social
84 networking sites (Thach and Olsen, 2006).

85 While the millennials account for a 35% growth in wine consumption in US (Atkin
86 and Thach, 2012); in both France and Italy overall wine consumption among millennials
87 is decreasing (Charters *et al.*, 2011; Espejel *et al.*, 2011). Red wines appear to be the
88 preferred varietal among US millennials (Olsen *et al.*, 2007; Teagle *et al.*, 2010),
89 however they happily try previously unexplored wines from a range of different
90 countries. Millennials utilize ‘alcohol content’, ‘label imagery’ and ‘medals won’ as
91 points of interest; while older generations utilize ‘country of origin’, ‘vintage’ and
92 ‘region’ as cues to make purchasing decisions (Atkin and Thach, 2012). In this sense,
93 awards and medals, expert scores, and other on-package information all contribute to
94 increasing the probability of choice. In fact, consumers who spend more on wine
95 demand more information (Lockshin and Corsi, 2012).

96 When making purchasing decisions the millennials are especially susceptible to
97 opinions of others (Orth, 2005). They are readily influenced and are often concerned
98 about their own ability to choose the correct wine for the correct occasion (Barber *et al.*,
99 2006). In contrast, Teagle *et al.* (2010) pointed out that millennials were found to be
100 less risk averse than older wine consumers. Generally, the self-reported wine knowledge
101 by millennials is significantly lower compared to older people (Atkin and Thach, 2012).
102 Millennials rely more on advice from salespersons or waiters, and samples and in-house

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3 103 displays (Halls *et al.*, 2004). Hussain *et al.* (2008) found that wine consumption was
4 104 positively related to age and income.

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7 106 *1.3 Segmentation and targeting wine social media*

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10 107 In a strong competitive market a segment-based positioning strategy can be a
11 108 competitive advantage and can provide solutions for the selection of an appropriate
12 109 target group and the definition of a suitable offer (Natter *et al.*, 2008). Viberti *et al.*
13 110 (2014) emphasized the ability of SM to achieve a direct contact with a target market
14 111 characterized by an interest in wine consumption and belonging to a wine community.
15
16 112 However, Thach (2010) highlights the lack of scientific studies about the type of
17 113 consumer who reads and interacts with wine blogs. While Blasius and Brandt (2010)
18 114 noticed a higher proportion of younger and more educated internet users, Bruwer and
19 115 Wood (2005) remarked that wine-buying internet users' are mostly men in their mid-
20 116 thirties and in a high-income bracket. Apart from those, there is little evidence about
21 117 who the users of wine SM are.

22
23 118 Likewise, little is known about wineries' strategies for segmentation, targeting and
24 119 positioning (STP) in SM. Capitello *et al.* (2014) remarked that larger wineries are
25 120 targeting 'fun', "terroir" and 'quality' to attract potential consumers to their brands;
26 121 while the rest of the wineries are conveying sophisticated corporate values associated to
27 122 their brands, especially to young consumers. Capitello *et al.* (2014) classified wineries'
28 123 strategies as digital brand orientation and brand involvement, according to the
29 124 development and positioning of the brand on SM. The wineries that use multiple SM
30 125 channels, rather than only one or two are more probable to report increases in wine sales
31 126 (Thach and Lease, 2014). Leigon (2011) defends the ability of SM to communicate
32 127 directly with sales managers/representatives and distributors.

33 128 Wineries can take advantage of the surge in SM engagement on Fridays (Dolan *et al.*,
34 129 2016) and the increase in wine consumption on weekends. Wineries can also post
35 130 images, mental associations, and lifestyles to target young wine consumers in developed
36 131 countries (geo-targeting) (Fiore *et al.*, 2016; Wilson and Quinton, 2012). The data
37 132 provided by users through SM subscription, i.e. Facebook, can serve to segment and
38 133 access millennial wine consumers and exploit demographic targeting (Bruwer and Li,
39 134 2007). Google allows business to perform searches on millennials, including
40 135 millennials' interests on the messages by keywords targeting (Bauer *et al.*, 2011).
41 136 Internet 'cookies' allows the webhost to send messages/banners of a category of wine

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3 137 that the user has abandoned to purchase (re-targeting). Behavioral-targeting of a wine
4 138 consumer and their online fingerprint might allow the user of a digital device to be
5 139 prompted and send similar contents and advertisements (Barber, 2010). Businesses can
6 140 also buy internet search hits/occurrences through keywords of wines of interest, or
7 141 wineries, to receive all the information published about them, which is called semantic
8 142 priming (Labroo *et al.*, 2008). Despite this, Lockshin and Corsi, 2012, argued that we
9 143 are still at a very early stage in understanding the best way to use SM in wine
10 144 marketing.
11 145

146 **2. Research Objectives, Hypotheses and Methods**

147 The overall objective of the research is to gain insights of the use of SM in the wine
148 industry and to test the wineries SM segmentation and targeting to improve the
149 effectiveness of SM communication, but specifically to:

- 150 - Determine the SM strategy among Spanish wineries.
- 151 - Analyse the evolution of SM practices among the Spanish wineries.
- 152 - Measure the wineries awareness on segmentation and targeting SM.

153 To direct the research the following hypotheses were tested:

154 H₁: Most of the wineries are starting in SM without a well-defined strategy.

155 H₂: Wineries engaging in SM have a “digital” history.

156 H₃: Wineries engaging in SM do not segment SM on targeting wine consuming
157 millennials.

158 159 *2.1 Data collection*

160 This study employed a randomized and stratified sample of 196 wineries in the Spanish
161 wine region of ‘Castilla y León’ that counts twelve Origin Denomination labels. For a
162 total of 588 wineries in the region at the time of this study, the sample size (196)
163 yielded a 95% confidence interval with a 7.14% predicted margin of error.

164 Firstly, the wineries were selected from the Origin Denomination Board’s database.
165 Then a survey was conducted to collect wineries data in the light of i) business and ii)
166 SM management (Table 1). The survey was conducted by a mixed method. Some of the
167 business data were collected using the annual directory of Spanish wineries and then
168 completed by phone in 2013 and again in 2016; while some of the data were obtained
169 by observing SM content and activities. For instance: SM activities of wineries on
170 Facebook and Twitter were followed from January to March of 2013; and again for the

171 same period in 2016 during which Instagram was included (Instagram was not in use by
172 any of the wineries in 2013). Categorical and quantitative data were obtained.

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175 The study was completed with a qualitative study, consisting of deep interviews with
176 leading Spanish wineries to collect data in the light of i) management, ii) millennial
177 segmentation, and iii) success on SM.

178

179 2.2 Logistic regression model and significance analyses

180 SPSS 20.0 software package was used for statistical analyses. Absolute and relative
181 frequencies and accumulated percentages were obtained. To obtain the significant
182 variables to have SM a two-way dependence was calculated. The two-way dependence
183 between the business variable to be explained and the explanatory dichotomous
184 outcome variable, “use” or “do not use” social media by the winery was calculated by
185 means of a chi-squared (χ^2) test of significance between the items. To accept or reject
186 the hypothesis H_0 , which implies no relation between the variables, the value of the χ^2
187 statistics and the respective *p-values* were considered and dependence was determined
188 in the light of the frequencies expected and obtained and the corresponding residues.
189 For the significant variables obtained, a logistic regression, logit, was used. In the logit
190 model the log odds of the outcome was modelled as a linear combination of the
191 predictor significant business variables. The dataset has a binary response (outcome,
192 dependent) variable called SM, which is equal to 1 if the winery had social media, and 0
193 otherwise. Logistic regression was used to predict the odds of being a case based on the
194 values of the independent/business variables (predictors). The odds are defined as the
195 probability that a particular outcome is a case divided by the probability that it is a non-
196 case.

$$197 \ln \frac{p_i}{1-p_i} = x_i \beta$$

198 Where $x_i \beta$ is the linear probability model with linear combination of explanatory
199 variables $X_i = [1, X_{1i}, X_{2i}, \dots, X_{ki}]$ with k explanators and a vector of regression
200 coefficients $\beta_k = [\beta_0, \beta_1, \beta_2, \dots, \beta_k]$ as the parameters associated that will be all
201 estimated. Finally, two (for 2013 and 2016) overall logit models were calculated and the

202 determinant variables to have or not have SM for each year in the wineries was
203 obtained.

204

205 *2.3 Profile of the sample*

206 Most of the wineries included in this study were established between 1996 and 2010
207 (57.7%) while only a few of them (3.6%) commenced operation before 1949 (Table 2).
208 A third of the wineries were deemed to be small or medium sized wineries (32.1%
209 produced less than 250 Hl per year); while 36.7% of the wineries produced between 250
210 and 2,990 Hl of wine. The remainder of the wineries (31.2%) achieved an annual
211 production volume in excess of 3,000 Hl of wine per year. A very large proportion of
212 wineries only produced a single type of wine (26% and 28.6% produced red and white
213 wines only respectively); while nearly 44% produce mainly red and/or rosé wines
214 (Table 2). Nearly one quarter of all wineries produced both red, white and rosé wines;
215 which allows them to satisfy a broad range of consumer demands. Although the
216 wineries were family-run business, most of them were 'private limited companies'
217 (64.3%), or 'public limited companies' (16.3%). In 2013 two third of the wineries
218 exported their wines; while in 2016 nearly all (98.9%) were exporting their wines. Most
219 of the wineries operated an independent webpage, 81.03% in 2016 which was slightly
220 up from 2013 (80.1%) (Table 2).

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223 *Research Limitations*

224 One of the limitations of the research is the wineries heterogeneity that biases the
225 sampling due to the geographical approach. The results could vary in another Spanish
226 region or another country. It could be interesting to study other regions or countries.

227 On the other hand, and due to the rapid-development of the technological environment
228 of SM, the results could easily become obsolete although it is still of interest because it
229 could be a first step in the use of technology for wine social media STP.

230

231 **3. Research Results**

232 *3.1 Social Media Usage*

233 Over the three years of this study (2013-2016), a large increase in the use of SM by the
234 wineries was observed, an additional 35 wineries (up from 42.8% to 60.7%) started
235 using SM. In 2013 the only SM sites used by wineries were Facebook and Twitter,

236 66.67% using only Facebook and the rest using both SM sites. By 2016 Facebook was
237 used by 94.12% of the wineries; Twitter by 56.3%; and Instagram by 19.33% of the
238 wineries. The prominence of Facebook as the dominating SM site used by the wineries
239 makes sense although some authors recommend using variety and more specific wine
240 SM (Thach and Lease, 2014; Wilson and Quinton, 2012). Facebook is the number one
241 global SM site followed by YouTube, QQ, WhatsApp, Qzone, Twitter, SinaWeibo,
242 WeChat, Google+ and Instagram (Web empresa, 2015; Dolan *et al.*, 2016). Moreover,
243 Facebook is the principal SM in America, Europe, Oceania, part of Asia and Africa;
244 while Twitter is the principal SM in Japan (Web empresa, 2015).

245 In 2016, 44 wineries (36.97%) had attracted over 5,000 followers; while in 2013 the
246 number of followers on SM of the same wineries varied from 31 to 4,939. For instance,
247 one winery attracted 307,556 followers on Facebook. Yet another winery attracted
248 19,400 followers on Twitter and 5,048 followers on Instagram. Among the examples of
249 positive uptake of SM among the wineries there were many wineries with a low number
250 of followers despite the early accomplishment to initiate a SM presence (Table 3).
251 These results confirm the engagement among the fans of wine SM (Dolan *et al.*, 2016).
252 Furthermore, apart from the number of followers that were linked to the SM sites of
253 various wineries; the basic active interaction that followers have with the companies can
254 be visualised through their indication of 'like' versus 'dislike'. In 2013: 53,738
255 followers clicked "I like it" on Facebook for at least one of the wineries. In 2016:
256 85,291 followers clicked "I like it" for at least one of the wineries in Facebook per
257 month; while well over 100,000 followers clicked 'like' on Twitter (Table 3).

258 Of all the SM interactions; 30.1% and 25.9% (in 2013 and 2016 respectively) of the
259 companies with an SM presence undertook no activity on their own SM sites with only
260 a very small proportion of companies communicating in excess of 50 interactions per
261 month (Table 3). An inefficient use of wineries SM is confirmed at this point, wineries
262 only send information to consumers, without a feedback loop and had not adopted the
263 Wine 2.0 methods (Forbes *et al.*, 2015; Reyneke *et al.*, 2011; Thach and Olsen, 2006;
264 OEMV, 2014). With this in mind a number of leader wineries were approached for their
265 opinion and insight into the use of SM in their companies. The 'Matarronera' winery
266 stressed the importance to communicate directly to consumers to avoid
267 misunderstandings that could damage the company image. The 'Martin Codax' winery,
268 reported that the company uses their SM daily and argues that it is important to send
269 relevant information to receivers to maintain their interest. Both 'Marques de Riscal'

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3 270 and 'Barahonda' wineries highlighted the importance to utilize SM in order to create
4 271 and build brand image to all the stakeholders, "the sales will arrive later from the image
5 272 created" (Remaud and Couderc, 2006). 'Barahonda' and 'La Purísima' wineries
6 273 remarked the importance of networks to communicate with remote consumers for
7 274 exporter industries. A loss of opportunities to create relationships with consumers were
8 275 found (Quinton and Harridge-March, 2008; Degen and Thach, 2015; Forbes *et al.*,
9 276 2015).

10 277 All the wineries that engaged in SM provided a link to the webpage of the winery;
11 278 however, only 3.36% linked to an email to contact someone at the winery. This number
12 279 is down from 4.6% in 2013.

13 280 Seventy-two percent of the wineries used their SM interactions as a simple publicity
14 281 tool. All showed awards and medals won and the label imagery, all associated with the
15 282 brand, as millennials appreciate; however, none of them revealed the alcohol content of
16 283 their wines (i.e. nothing about the product) (Fiore *et al.*, 2016). The latter could be a
17 284 concern, since information regarding alcohol content is something millennials look for
18 285 when making purchasing decisions (Atkin and Thach, 2012). Furthermore, other details
19 286 such as pricing or environmental practices were also missing from SM sources; while
20 287 again these were previously identified as important for millennials when choosing a
21 288 wine (Atkin and Thach, 2012).

22 289 More than half of the wineries (52.17%) presented quite technical information that was
23 290 not immediately of use for the general public, let alone understandable. Lockshin *et al.*
24 291 (2006) and Capitello *et al.* (2014) have previously remarked that wine professionals
25 292 need to recognise that consumers may find it difficult to comprehend technical
26 293 information, and that the wine professionals perhaps need to spend more time listening
27 294 to the language of the typical low-involvement wine drinkers, especially millennials.
28 295 Wine professionals may need to rethink the way in which they communicate with their
29 296 customers about wine in the light of the inaccuracies of what is said; the idiosyncratic
30 297 interpretation of commonly-used terms; and the scepticism some consumers have about
31 298 the jargon used to describe wine (Charters and Pettigrew, 2006; Marks, 2015; Zurbita,
32 299 2012).

33 300 In the 2013 part of this study 77.1% of the wineries indicated that their SM is managed
34 301 by a dedicated person, a role dedicated to a single person within the company that
35 302 increased in prevalence to 86.2% in 2016. It has to be clarified that regardless of being a
36 303 dedicated role, it is not the sole role of that person within the winery business – the

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3 304 same person has several functions to fulfil. This multiskilling requirement does not
4 305 mean that SM management skills are not considered as an important skill of
5 306 communication. On the contrary, the increase in dedicated persons acting as the SM
6 307 manager revealed that wineries are treating this function more and more as a
7 308 professional one. When interviewing the representatives of the key wineries, they
8 309 unanimously declared that having a dedicated communications manager to manage their
9 310 SM and other communication was vitally important. Furthermore, they all recognized
10 311 the need for a clear communication plan. Some of the representatives of the wineries
11 312 interviewed for this study recognized that many of their contemporary companies
12 313 commenced their SM activities with no clear objective of communication; while others
13 314 remarked the importance to create an overarching image for all the wineries in the
14 315 region and general society (Bouquet, 2012; Forbes *et al.*, 2015). Wineries might
15 316 frequently check and update the content and interactions of their SM, and adjust them
16 317 accordingly to fit their general consumers' profile (Lockshin and Corsi, 2012). Table 3
17 318 has confirmed the first of the hypotheses that the research study sought to test:

18 319 H₁: Most of the wineries are starting in SM without a well-defined strategy.

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22 323 3.2 Significant business variables to have SM

23 324 In light of the Chi-square analysis for significant variables, relationships ($\chi^2_{<0.95}$)
24 325 between size of the winery (**S**), exportation (**E**), webpage (**W**), origin (**O**), type of wine
25 326 (**T**) and "have SM" were found in 2013. In 2016, only to have a webpage (**W**), the
26 327 origin (**O**) and the type of wines (**T**) produced were significant to have a SM (Table 4).

27 328 In 2013, a strong relationship (typified and corrected residues t.c.r.=2.5) between the
28 329 non-use of SM and being a small winery (<250 Hl) was found. These results reinforced
29 330 the fact that larger the wineries, higher is the adoption of Web 2.0 (Rehm *et al.*, 2013;
30 331 Kolb and Thach, 2016; Mariani *et al.*, 2012).

31 332 In 2013, wineries exporting to international markets were more probable (t.c.r.=2.5;
32 333 *p-value* = 0.001) to have a presence on SM. Further significance analysis revealed that
33 334 is also highly probable that exporting wineries maintain a webpage. These exporting
34 335 wineries are highly probable to use SM to provide general ready-to-use information
35 336 with regards to their wines, the brand, and the company to potential customers in their

337 own country or abroad. A strong relationship (p -value=0.000) for both periods
338 (t.c.r.₂₀₁₃=5.2 and t.c.r.₂₀₁₆=7.4) was found in operation both SM and a webpage.

339 In 2013, it was very probable that wineries producing only red wine (t.c.r.=2.3) had
340 SM. Three years later (in 2016) the uptake of SM by wineries had broadened to also
341 include a high probability that white wine producing wineries (t.c.r.=2.2) were utilizing
342 SM. In 2013, there was a significant interaction (t.c.r.=2.8) between wineries that
343 operated in the largest red wine producing areas and the use of SM (Wilson and
344 Quinton, 2012). Whereas wineries from small viticulture areas producing both red and
345 rosé wines were less likely (t.c.r.=−3.0) to use SM. By 2016, the interaction between
346 wineries that operated in the largest red wine producing areas and the use of SM
347 increased to t.c.r.=3.5; while wineries in the largest white wine producing areas had also
348 become very likely to utilize SM (t.c.r.=2.2).

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352 The significance analysis concludes a shifting pattern in the use of SM by the wineries
353 over this three year period.

354 The principle aim of the logistic regression analysis was to run an overall model with
355 the significant variables obtained in 2013 and 2016, and to describe the determinant
356 variables associated with operating SM. The original dataset in the logit model included
357 the following variables in 2013: viticulture origin area (**O**); type of wine/s produced
358 (**T**); exports (**E**); size of the winery (**S**) and the existence of a winery webpage (**W**). For
359 2016, the dataset in the logit model included the variables: viticulture origin area (**O**);
360 type of wine/s produced (**T**) and the existence of a winery webpage (**W**).

361 The analysis was developed in two steps. The first model in the output is a null model,
362 that is, a model with no predictors, a univariate logistic regression analysis. The second
363 model output the determinant variables to have SM (p -value<0.05). The odds ratio in
364 2013 revealed that being a winery in a small viticulture area producing red and rosé
365 wines versus a winery in a large and specialized red wine region decreases the log odds
366 of having SM by 0.029. Being a winery with webpage versus not webpage winery
367 increases the log odds of SM by 18.979 (Table 5). The overall test for the 2013 model
368 includes these predictors. The chi-square value of 43.847 with a p -value of 0.000, less
369 than 0.005 tells that the model as a whole fits significantly better than an empty model
370 (a model with no predictors). The deviance of the overall model $G=223.853$ in

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3 371 comparisons of nested models is significant. The presence of a webpage (**W**) and the
4 372 origin (**O**) provides significant variables in the overall model equation to have SM in
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6 373 2013 ($p\text{-value}=0.000$; $p\text{-value}=0.005$). The outcome overall logit model for 2013 is:

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$$\ln \frac{P_i}{1 - P_i} = -0.384 + 2.943W - 3.549O$$

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11 375 The odds ratio in 2016 revealed that being a winery with a webpage versus a none
12 376 webpage winery increases the log odds of SM by 28.693 (Table 5).

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15 378 **Note to typesetter: Insert Table 5 here**

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19 380 The overall test for the 2016 model includes this predictor. The chi-square value of
20 381 71.873 with a $p\text{-value}$ of 0.000, less than 0.005 tells that the model as a whole fits
21 382 significantly better than an empty model (a model with no predictors). The deviance of
22 383 the overall model $G=187.001$ in comparisons of nested models is significant. The
23 384 presence of a webpage (**W**) provides significant variable in the overall model equation
24 385 to have SM in 2016 ($p\text{-value}=0.000$). The outcome overall logit model for 2016 is:

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26 386
$$\ln \frac{P_i}{1 - P_i} = -3.42 + 3.357W$$

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28 387

29 388 The results indicate that to have a webpage is the single most determinant factor linked
30 389 to operating a SM site (Velikova *et al.*, 2011). Although 81.0% of wineries have a
31 390 webpage, these observations revealed that not all of them use this tool to its best
32 391 potential (Bruwer and Wood, 2005).

33 392 It can be concluded that operating a webpage, would be a requirement in order for
34 393 wineries to utilise SM. Hence, the digital environment influences the winery to have
35 394 SM. 37.8% of the wineries with webpage in 2013, and the 20.8% in 2016, do not have
36 395 SM.

37 396 Additionally, the increase in wineries that utilise SM in 2016 compared to 2013 has
38 397 reduced the number of determinant variables to have a SM. The marked increase (from
39 398 67% in 2013 to nearly 100% (98.9%) in 2016) of wineries that export their wines made
40 399 exportation an unsuitable determinant factor. However, not all of the wineries make
41 400 similar use of SM.

42 401 Table 4 and 5 have confirmed the second of the hypotheses that the research study
43 402 sought to test: H_2 : Wineries engaging in SM have a “digital” history.

403

404 *3.3 Targeting wine millennial consumers*

405 The wineries unanimously thought that SM is the best media to access to younger
406 consumers. Nevertheless, wine culture has not achieved its position amongst younger
407 audiences who however, are the principal users of SM, especially the generations
408 known as millennials (Matellanes, 2014). Wineries must focus their strategies on
409 millennials; be positioned through all sales channels, especially in e-commerce (Portelli,
410 2016). The representatives of the wineries interviewed for this study expressed their
411 concern that wine consumption among Spanish youth is lower than in countries like the
412 UK or the USA. Only 5.5% of the Spanish youth drink wine on a regular basis (OEMV,
413 2014). The wineries' representatives indicated that they sponsor events, promote brand
414 images and design wines to encourage young consumers. To this effect, wine festivals
415 are organized each year, like the Madrid based "enofestival", which is organised by
416 wine large producers not only to increase the wine consumption among millennials but
417 also to impart some of the traditional Spanish wine culture to the nation's youth. Other
418 wineries include this approach onto the product design by the use of vibrant colours,
419 branding, bottle design, etc. to be attractive to millennial consumers. Such as the "San
420 Millán of Codorniu" brand. "Fancy gulps" like "Iglup" have been designed by the
421 "Grandes Vinos" brand that meant to be a low graduation "slurp of fresh grapes"
422 oriented to millennial consumers. These innovative products emerge with an offer for
423 millennials that includes an attractive image and creative communication with the
424 quality of traditional Spanish wineries.

425 None of the winery representatives interviewed, recognized the need to undertake any
426 SM practices that specifically appeal to millennial wine consumers. The wineries
427 acknowledged that SM is itself a young people's media although they do not consider
428 targeting strategies or segmentation of SM users to ensure and enrich communications
429 with millennials. To start with, in order to reach millennials, wineries could post on SM
430 over the weekends and between eight and ten in the mornings, because millennials are
431 proven to check their SM when they wake up (Wilson and Quinton, 2012). They should
432 also select the proper SM outlets (Leigon, 2011) and adapt to SM language and create a
433 dialogue with younger users (Laverie *et al.*, 2011). It is relevant to enhance a
434 personalised communication with and to their SM community users (Dolan *et al.*, 2016;
435 Degen and Thach, 2015).

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3 436 Interviews confirmed the third hypothesis that the research study sought to test: H₃:
4 437 Wineries engaging in SM do not segment SM on targeting wine consuming millennials.

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6 438

7 439 **4 Conclusions, Applications and Future Research areas**

8 440 *Conclusions*

9
10 441 A digital environment like a webpage was found to be a strong determinant to have SM
11 442 used by the wineries. An explosion in the use of SM over the three years between 2013
12 443 and 2016 was found. The gap between digital and non-digital wineries in the sample has
13 444 been reduced over the same period, which was evident by the greater interest in the use
14 445 of SM. The profile of a digital winery in 2016 includes the utilisation of a webpage,
15 446 SM, on-line services and e-commerce. The need and the opportunity were the main
16 447 factors, in 2013 to use SM by the wineries. A need to look for new markets and
17 448 millennial consumers forced the wineries to implement different tools. The opportunity
18 449 of resources drove the wineries to use SM. The larger wineries, with more resources and
19 450 opportunities, were more likely to have started using SM in 2013. Three years later, the
20 451 large and daily increase of the use of SM and follower's interest originated an explosion
21 452 in the use of SM by wineries. Moreover, wineries use SM so as not to lose the
22 453 opportunities of this communication tool but most of the wineries are starting in SM
23 454 without a well-defined strategy. The wineries do not segment and target their SM.
24 455 Targeting would allow wineries to focus on task groups increasing the efficiency of
25 456 each action. In the era of communication with plenty of information available to focus
26 457 on the target group SM communication strategy could be optimized. SITE must be
27 458 encouraged by the wineries for competitiveness and an efficient communication.

28 459 S-egmentation- of the target niche of consumers.

29 460 I-dentification- of the proper social media where the niche of consumers are.

30 461 T-ools- of communication implementation for the niche of consumers and SM.

31 462 E-valuation- of the engagement and response of consumers.

32 463

33 464 *Practical implications for wineries:*

34 465 - Well-defined and continuous SM actions will allow wineries to locate the
35 466 winery's public image into SM.

36 467 - Digital technologies can be considered an important driver that affects and
37 468 impacts firm decisions related to improving a winery's marketing management.

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3 469 - Accomplish the winery's own education in SM management and possibilities as
4 470 a marketing tool that can improve the efficiency on SM.
5
6 471 - The target group for SM output must be millennials, but also other consumers
7 and distributors that use SM.
8 472
9
10 473 - Segmentation and targeting on SM can improve the effectiveness of the winery
11 SM activities, but also the competitiveness of the brand in the wine industry.
12 474
13 475 - Wineries might use big-data analysis for SM segmentation, targeting and
14 positioning.
15 476

16 477 *Future Research Areas:*

17
18 478 There is a need to classify wine SM due to customer segmentation and to identify the
19 best SM to focus the winery SM activities regarding its wine sales. Moreover the
20 479 characterization of SM millennial users by interests, motivation to use SM and
21 480 purchases would be interesting. Researchers might hold focus groups with users of the
22 481 various SM sites in order to gather in-depth feedback on their involvement in these
23 482 media.
24 483

25
26 484 It would be useful to analyse the number of followers that become consumers of the
27 brand and measure the level of conversion of awareness to action. Evidences of the
28 485 consumers' responses for different type of SM interactions are needed and develop
29 486 skills to measure the marketing impact of SM. Moreover, not only economic criteria but
30 487 social and environmental benefits need to be evaluated of the use of SM.
31 488

32
33 489 It would also be important to explore new functionalities of SM and applications to
34 reach task customers and develop marketing tools applied to SM.
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Table 1. Business and social media management variables, classified by categorical and quantitative for the 196 wineries sampled in Old World region of Castilla and Leon in 2013/2016

Variables	Business (obtained through survey)	Social media management (obtained through online observation)
Categorical	Location	Products
	Year of foundation	Map and directions
	Company format	Languages
	Webpage	Content
	E-commerce	Link to webpage
	Social media	Link to email
	Organic production	Target public
	Wine tourism	Institutional or product publicity
	Direct sales	Professional site management
	Type of wines	Forum
Quantitative	Size	Followers
	Shareholders	Actualizations in 1 month
	Distribution	Number click "I like it"

Table 2. Profile of wineries in the Spanish wine producing region of Castilla and Leon, percentage (%) and distribution (n=196)

Wineries variables		Percentage 2013-2106	Wineries variables		Percentage	
					2013	2016
Year of foundation	Before 1949	3.6	Company format	Natural person	5.1	
	1950-1965	4.6		Public Limited company	16.3	
	1966-1980	6.6		Private Limited company	64.3	
	1981-1995	26.0		Community property	7.2	
	1996-2010	57.7		Cooperative	7.1	
	After 2010	1.5		Shareholders	Only owner	62.2
Annual production (HI)	Less 250	32.2		1-10	36.8	
	250-990	12.2		11-25	0.5	
	1,000-2,990	24.5		26-50	0.5	
	3,000-10,000	19.4	Distribution	National	32.2	1.1
	More 10,000	11.7		International	67.8	98.9
Type of wine/s	Red only	26.0	Web page	Yes	80.1	81.0
	White only	28.6		No	19.9	19.0
	Red and rosé	19.9	Social Media	Yes	42.8	61.0
	Red and white	0.5		No	57.2	39.0
	Red, white and rosé	25.0				

Table 3. Distribution and percentage of social media variables measured in a sample of 196 wineries in a Spanish wine region of Castilla and Leon

Social media items	Percentage	Social media items	Percentage
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		2013	2016			2013	2016
Followers	<100	17.85	8.77	Activity in one month	0	30.1	25.89
	101-1000	39.29	29.82		1-10	30.1	31.25
	1001-2000	21.43	16.67		11-50	36.14	41.07
	2001-5000	21.43	19.30		51-100	1.26	1.79
	>5000	0	25.44		>100	2.4	0
Followers clicked "like"	0	21.69	7.46	Media manager	Community manager	77.1	86.21
<100	20.48	25.37	Non expert		22.9	13.79	
	101-1000	34.94	41.79	Languages	Spanish	95.18	90.52
	1001-2000	8.43	11.94		Spanish and English	3.62	7.76
	2001-10000	10.85	8.96		More languages	1.2	1.72
Target group	10001-53738	3.61	4.48	Links	Webpage	100.0	100.0
	General Public	46.99	47.83		Email	4.6	3.36
	Technicians	53.01	52.17				

Table 4. Chi-square analysis for significant variables relationships ($\chi^2_{<0.95}$) between business variables and "have" or "not have" social media

Business variables	p-value	
	2013	2016
Size of the winery (S)	0.016*	0.056
Origin (O)	0.006**	0.000**
Type of wine/s (T)	0.022*	0.002**
Webpage (W)	0.000**	0.000**
Exports (E)	0.001**	0.259

* p -value<0.05, ** p -value<0.01

Table 5. Significance analyses of the logistic model in two steps: Wald Forward. Logistic regression analyses for 2013 and 2016 significant business variables

Business variables	2013			2016		
	Coef.	p-value	Odds ratio	Coef.	p-value	Odds ratio
Origin (O)	-3.542	0.005**	0.029			
Webpage (W)	2.943	0.000**	18.979	3.357	0.000**	28.693
Constant	-0.384			-3.42		

* p -value<0.05, ** p -value<0.01