



RESEARCH ARTICLE

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## The influence of the emotions produced by the wine offer, winery visits, and wine news on wine purchase intent in tourists

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### Abstract

Wineries are using wine tourism to sell directly to consumers and develop brand equity. Studies show that emotions directly affect the purchase of products. However, they do not know the degree to which the emotions produced by the winery visit, the wine offer, or news about wine influence wine sales. The aim of this study was to compare the influence of emotions produced by the wine, the emotions produced by the winery visit and the emotions produced by the wine news on wine purchase intent. This paper applied structural equation modeling to a sample of 600 wine tourists in order to explain the influence of the emotions generated by the wine, the winery visit, and wine news on wine purchase intent. The results show that the different types of emotions affect tourists' wine purchase intent differently. The percentage of variance explained was 34.6% for the model of the emotions produced by the wine vs. 10.3% for the model of the emotions produced by the winery visit and 6.3% for the model of the emotions produced by the wine news. The emotions produced by the wine offer have the greatest influence. The emotions produced by the winery visit were much less influential. Wine news had only a minor influence on purchase intent. Key findings for management are discussed.

**Additional keywords:** tourism purchase; wine tourism; wineries.

**Abbreviations used:** A (attentiveness); AVE (average variance explained); HTMT (matrix heterotrait-monotrait); IC (intention to consume); KMO (Kaiser-Meyer-Olkin test); lv (latent variable); m (model); NE (negative emotions); PANAS (positive and negative affect schedule); PE (positive emotions); PLS (partial least squares) path modelling; SEM (structural equation modelling); VIF (variance inflation factor).

**Authors' contributions:** The three co-authors participated in all stages of the work, including the conception and design of the research, the revision of the intellectual content, and the drafting of the paper.

**Citation:** Pelegrín, J.; González-Menorca, C.; Meraz, L. (2019). The influence of the emotions produced by the wine offer, winery visits, and wine news on wine purchase intent in tourists. Spanish Journal of Agricultural Research, Volume 17, Issue 1, e0104. <https://doi.org/10.5424/sjar/2019171-13524>

**Received:** 01 Jun 2018. **Accepted:** 18 Feb 2019.

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**Funding:** INIA (RTA2012-00092-C02); European Regional Development Fund (ERDF); the Spanish Office of Program Planning and Coordination; Spanish Ministry of Economy and Competitiveness; University of La Rioja and Banco Santander (REGI2018/22).

**Competing interests:** The authors have declared that no competing interests exist.

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### Introduction

Tourism and wine belong to two different economic sectors that have converged in wine tourism (Carlsen, 2004; Gibson, 2016). As examples, in 2015, Californian wineries were visited by 23.6 million tourists and wine tourism generated \$7.2 billion in annual tourism expenditures (Wine Institute, 2016), while French wineries received 7.5 million visitors in 2010 (Atout France, 2010). Wineries see these visits as a way to create brand equity and sell their wine directly to consumers (Alonso *et al.*, 2008; Howley & Van Westering, 2008; Yeh & Jeng, 2015). The wine tourism experience is important to generating a high positive emotional attachment to a

winery, its brand, and its wine (Bruwer *et al.*, 2013). In 2015, California wine tourism generated \$7.2 billion in annual tourism expenditures (Wine Institute, 2016).

To understand how emotions shape these decisions, it is necessary to consider the effects of three types of emotions (Garg *et al.*, 2005; Han *et al.*, 2007; Penz & Hogg, 2011; Pelegrín-Borondo *et al.*, 2015): (i) the emotions produced by the product/service being evaluated, *e.g.*, a wine; (ii) the emotions produced by the environment, *e.g.*, a guided tour at a winery; and (iii) induced emotions not directly related to the product on offer, *e.g.*, generic wine news.

Although emotion has been recognized as influential in tourists' purchase decision-making process, no

research has been done linking these three types of emotions to purchase intention in wine tourists visiting a winery. Using the wine available for purchase at a winery as a reference, the present study aims to determine the influence of the emotions produced by the wine on offer, the winery visit, and generic news about wine on wine tourists' purchase intent.

## Material and methods

### Theoretical framework

Bagozzi (2000) proposes an action theory model of consumption. Under this model, the consumer undergoes a rational process (conscious or unconscious) based on perceived stimuli, mentally appraising the anticipated outcomes. These outcomes are experienced as positive and negative anticipatory emotions. Desire is produced in a subsequent stage, where reasoning, emotional, and social processes are integrated and transformed into a decision to act or not to act. Finally, additional affective and reasoning processes are carried out, beginning in a stage called "trying to consume," in which decisions are planned and implemented and behaviors are directed toward achieving the desired goal.

In the context of food, Steenkamp (1997) highlights the influence of psychological factors in consumers' food-choice processes, and Shepherd (2011) examines the influence of affective aspects on food choice. Several studies have demonstrated the existence of a direct relationship between emotions and the evaluations consumers make (e.g., Oliver *et al.*, 1997; Reinares-Lara *et al.*, 2016; Salazar-Ordóñez *et al.*, 2018). This relationship has also been found in the context of wine (e.g., Barreiro-Hulé, 2007; Olarte *et al.*, 2017). To determine the influence of emotions in the "trying to consume" stage with wine, consideration has been given to three types of emotions:

(i) *Influence of the emotions produced by the product (the offered wine) on purchase intent.* Products create a mental image in people generated by emotions. This image, in turn, shapes their evaluation of the product (Mittal, 1994; Elliot, 1998; Laverie *et al.*, 2002; Pelegrín-Borondo *et al.*, 2016). In general, objects or events that produce a positive emotion are evaluated positively, while those that generate a negative emotion are evaluated negatively (Bagozzi *et al.*, 1999; Mano, 2004). When the products and services a consumer evaluates generate positive emotions, these emotions increase the value for the consumer (Yeung & Wyer, 2004; Yeh *et al.*, 2012), who thus becomes more favorably disposed to buy the product (Oliver *et al.*,

1997; Bagozzi *et al.*, 1999; Shiv & Fedorikhin, 1999). The opposite is true when negative emotions come into play (Elliot, 1998). In other words, consumers do not tend to purchase products and services that generate negative emotions in them (Schwarz, 2000; Han *et al.*, 2007).

Often, consumers choose products without having tried them. These products produce emotions that influence the purchase decision. In this regard, the theory of bounded rationality holds that consumers make decisions about products in the absence of complete information (Kahneman, 2003; Thaler, 2008). Ariely (2008) argues that consumers mentally make their choice before trying a product.

With regard to food products, Siegrist (2008) includes psychological factors in models for innovative products. These factors include emotions, which are key to knowing why consumers choose to buy some food items but not others (King *et al.*, 2010; Barrena & Sánchez, 2013). King & Meiselman (2010) show that emotional intensity is related to food acceptance. Lockie *et al.* (2004) demonstrate that the sensory and emotional experiences involved are two of the determinant factors in the growing consumption of organic food products. Dalenberg *et al.* (2014) and Gutjar *et al.* (2015) observe that the emotions produced by food are a good predictor of its selection by consumers, while Organ *et al.* (2015) establish that positive emotions toward certain foods develop when the consumer associates positive experiences with them.

Several researchers have studied the influence of negative emotions on the acceptance of certain foods. Ronteltap *et al.* (2007) highlight the strong role played by negative emotions in consumer rejection of certain food innovations. This is quite clear in genetically modified food, where both perceived benefits and perceived risks have been found to influence the purchase decision-making process (Bredahl, 2001; Rodríguez *et al.*, 2013). Barrena & Sánchez (2013) demonstrate the importance of emotions in neophobic people when it comes to tasting a new product. Neophobic people avoid new foods for fear they might make them sick or cause some other malady (Jaeger *et al.*, 2003).

Specifically with regard to wine consumption, Horska *et al.* (2016) observe that people have positive and negative experiences during wine tastings. Ferrarini *et al.* (2010) demonstrate that wine consumption is more often associated with a positive experience than a negative one. Silva *et al.* (2016) compare the emotions associated with wine with the emotions associated with beer and find that wine is associated with positive low-arousal emotional responses, such

as calm and love, whereas beer is associated with higher-arousal emotions. Dhar & Wertenborch (2000) show that affective aspects can lead a person to buy a wine to taste it, even when he or she thinks it may be a bad choice. Barrena & Sánchez (2009) note that the emotions generated by wine are a good criterion for segmenting wine consumers. Olarte *et al.* (2017) establish that the negative emotions produced during a wine tasting are detrimental to the future purchase decision.

Watson *et al.* (1988) establish a two-dimensional model of emotions that can be measured by the Positive and Negative Affect Schedule (PANAS). These authors consider that positive and negative affect have consistently emerged as two dominant and relatively independent dimensions. Pelegrín-Borondo *et al.* (2017b) find that the PANAS scale has three dimensions: positive, negative, and anxiety. Anxiety is related to attentiveness toward the object that is producing the emotion. These authors establish that the emotions in this dimension are a subset of the negative emotions of the scale by Watson *et al.* (1988), and they are considered to have a negative effect on purchase intent. In this regard, Venkatesh *et al.* (2003) find evidence of a dimension related to anxiety that could influence purchase intention with regard to new technology. As for the emotions produced by wine, Olarte *et al.* (2017) likewise find that the PANAS scale can be separated into three dimensions: positive emotions, negative emotions, and attentiveness. These authors establish that the latter dimension refers to the emotion of feeling attentive or watchful toward the new type of wine that the consumer is evaluating (in their case, a new natural sparkling red wine).

In light of the foregoing arguments, the following hypotheses were proposed: H1) The positive emotions produced by a wine offer positively affect the intention to purchase it; H2) the negative emotions produced by a wine offer negatively affect the intention to purchase it; H3) the attentiveness emotions produced by a wine offer negatively affect the intention to purchase it.

(ii) *Influence of the emotions produced by the environment (the winery visit) on purchase intent.* The literature has demonstrated the influence of the emotions generated in the environment where a product is sold on its purchase (Machleit & Eroglu, 2000). Bagozzi *et al.* (1999) observe that stores play background music and use other stimuli to generate emotions that will influence their customers' purchase decisions. Penz & Hogg (2011) demonstrate that the sales environment influences the enthusiasm customers show toward products. Positive emotions produced in virtual environments on e-commerce sites have likewise been found to generate emotions that

influence customers' behavior. For example, Wang *et al.* (2011) show that the order, legibility, and simplicity of a website decrease the level of arousal, while aspects such as aesthetics increase it. They further observe that the level of arousal influences customers' responses.

Regarding negative emotions, Kim & Lennon (2011) find that difficulty finding products in a store generates negative emotions in customers, which, in turn, negatively affect their image of the store. Mano (2004) demonstrates that certain environmental conditions may cause negative emotions (*e.g.*, sadness) that reinforce the desire to buy so as not to feel the negative emotion.

From a wine tourism perspective, Bruwer *et al.* (2013) observe that the pleasing physical and natural aspects of the landscapes around wineries provide wine tourists with hedonic experiences that are associated with positive emotions. Referring to the environment cultivated at wineries, Yuan *et al.* (2008) find that positive emotions generated by the services offered to visitors increase their satisfaction. This increased satisfaction then generates positive emotions that influence their purchase decision and future visits. Charters *et al.* (2009) demonstrate that emotions generated by satisfaction with the winery visit are capable of mitigating the negative emotions caused by feeling obliged to buy wine at the end of the tour. This is because satisfied wine tourists feel grateful for their experience at the winery and thus feel the need to buy wine or a souvenir (Kolyenskikova & Dodd, 2008).

In light of the above, the following hypotheses are proposed: H4) the positive emotions produced by the winery visit positively affect the intention to purchase the wine on offer at the winery; H5) the negative emotions produced by the winery visit negatively affect the intention to purchase the wine on offer at the winery; H6) the attentiveness emotions produced by the winery visit negatively affect the intention to purchase it.

(iii) *Influence of induced emotions (wine news) on purchase intent.* Induced emotions refer to emotions that are not generated by the product or the environment and are independent of the subject (Pelegrín-Borondo *et al.*, 2015). Emotions induced through a text, news item, or video, among other things, have been shown to influence behavior. Griskevicius *et al.* (2010) conduct a set of experiments in which participants are induced to feel the emotions of pride and contentment. They find that pride generates interest in products that are used publicly (*e.g.*, clothes that are worn in public) but does not increase the desire for products used at home. In contrast, contentment increases the desire for products used inside the house. Kahn & Isen (1993) demonstrate that when customers are induced to feel a positive emotion, it increases their positive perception of the product's benefits.

Labroo & Patrick (2008) demonstrate the influence that induced states of mind have on consumers' judgment and ability to process information. It has likewise been shown that inducing individuals to feel emotions can affect their attention span, reducing their cognitive capacity (Mano, 2004) and resulting in a more heuristic decision-making process (Kahn & Isen, 1993).

Some researchers have failed to find evidence that induced emotions influence behavior. Garg *et al.* (2005) show that customers induced to feel sadness are not less likely to maintain their original choice, even when it is more difficult to evaluate the alternatives.

Several authors have demonstrated the capacity of news to produce emotions in consumers (*e.g.*, Nie *et al.*, 2015; Yu *et al.*, 2015; Myrick & Wojdyski, 2016). Park (2015) finds that negative news generates negative emotions that influence people's behavior. Wilkinson *et al.* (2005) show that fear of suffering an illness can result in acceptance of food items that might diminish the risk of the ailment. Thus, news about the health benefits of certain foods generates a tendency to consume them.

In the field of tourism, Labroo & Rucker (2010) induce negative emotions in participants by encouraging them to remember sad, angry, shameful, or anxious situations. They find that participants in a sad or angry emotional state are more likely to associate a ski resort with happiness than calmness, while participants in a state of anxiety or shame are more likely to associate it with calmness than happiness. Gnoth *et al.* (2000) demonstrate that emotions resulting from problems at work influence the decision to travel as a way of forgetting those problems (the work-related emotions are unrelated to the evaluated and chosen destinations).

Based on this literature review, the following hypotheses were proposed: H7) the positive emotions produced by a wine-related news item positively affect the

intention to purchase the wine on offer at a winery; H8) the negative emotions produced by a wine-related news item negatively affect the intention to purchase the wine on offer at a winery; H9) the attentiveness emotions produced by a wine-related news item negatively affect the intention to purchase it.

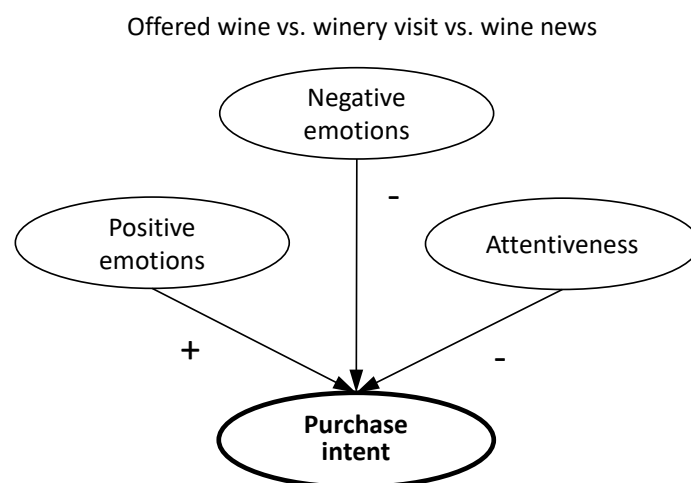
The conceptual model shown in Figure 1 reflects the comparative influence of the positive and negative emotions produced by the wine offer *vs.* the winery visit *vs.* wine news on wine purchase intent among tourists to a winery.

## Methods

The study was carried out at two wineries located in two distinct wine regions: La Rioja in Spain (Old World wine country) and Baja California in Mexico (New World wine country). A survey was conducted with a sample of 600 wine tourists (300 in each region). The data were analyzed using variance-based structural equation modelling (SEM) by means of partial least squares path modelling (PLS). G\* Power software was used for the power analysis. This software uses post-hoc power analysis to compute achieved power based on the level of significance, sample size, and number of predictors. For the purposes of the study, the same type of wine was offered at both wineries, with the sole exception of the winery brand. To this end, the wine tourists were told that the wine they were being offered had been produced at the winery but did not sample it. They were then asked about the emotions generated by the wine (product), the visit (environment), and the wine news (induced).

## Sample

To obtain a more diverse sample and mitigate the destination effect, two prestigious wineries were



**Figure 1.** Conceptual model.

sampled in two different wine regions: Bodegas Franco Españolas, in La Rioja (Spain), and Bodegas de Santo Tomás, in Baja California (Mexico). The wineries share certain similarities. Bodegas Franco Españolas was founded in 1890 by Frederick Anglade Saurat, of Bordeaux, on the banks of the Ebro River in the city of Logroño. In 1983, it was acquired by the Elguizábal family. Over the years, it has increasingly internationalized, and today its wines are sold in 65 countries. It has moreover cultivated a strong wine tourism culture. In 2013, it was named Best Wine Tourism Destination in the area of Innovative Experiences by Great Wine Capitals (Bodegas Franco Españolas, 2017). Bodegas de Santo Tomás was founded in 1888 by Francisco Andonegui and Miguel Ormart in Santo Tomás Valley, south of Ensenada, along the region's historical wine route (Quiñónez *et al.*, 2012). Today the company, which has been under the management of the Pando Group since 1962, exports about 14% of its production. Its top export destinations are the USA, Canada, Spain, and China. Already one of the most visited wineries in the area, it is currently developing wine tourism projects to attract new customers (Cervantes, 2012). Thus, both companies are historical wineries that were founded at around the same time, are oriented toward wine tourism, and export their wines.

The same procedure was followed to gather the data in both cases: upon completing the tour, tourists were invited to take part in a survey. The interview was conducted in the winery itself. Once a participant had agreed to take part, he or she was shown the wine offer and the corresponding documentation. The same offer was used at both wineries, with the sole exception of the winery brand name.

The documentation included only the following information, intended to elicit an emotional response: VARIETAL COMPOSITION: Tempranillo 100%. TASTING NOTE: Red wine, cherry colored with a ruby edging. A nuanced nose of red fruits and herbs over a licorice bottom. ALCOHOL: 13% Vol. SUGGESTED SERVING TEMPERATURE: 14° to 16° C [57° to 61° F]. TIME IN BARREL: 12 months in American and French oak. PRICE: €8.90/bottle (La Rioja) or \$268.00 Mexican pesos/bottle (Baja California).

At the end of a wine tour, tourists are often invited into the wine store, where the entire range of wines is available, including some they would have tasted as part of the tour and others they would not. As mentioned above, in this case, the participants were shown the wine offer, but did not taste the wine.

The participant was then read the following news item: *According to a study published in the Annals*

*of Internal Medicine, drinking one glass of wine with dinner may be ideal. Scientists selected 224 people who did not drink wine daily and divided them into three groups. The first group was told to drink one glass of red wine with dinner for two years; the second group was to drink one glass of white wine with dinner for two years; and the third group was told to drink mineral water. At the end of the study, the members of the first group had better cholesterol levels and decreased risk factors for diabetes. The participants who drank wine (red or white) had better triglyceride levels and better sleep quality than those that drank water.*

Immediately after, they were asked a series of questions about the emotions produced by the wine offer, the winery visit, and the news item. There is, unfortunately, no agreement regarding how many emotions exist. The idea that there is a set of basic emotions possibly invariant across cultures has been a prevailing view (Prescott, 2017). To measure how strongly these emotions were felt, the PANAS scale was used (Watson *et al.*, 1988), with scores ranging from 0 (not at all) to 10 (intensely). This scale includes ten positive emotions and ten negative emotions: interested, distressed, excited, upset, determined, guilty, scared, hostile, enthusiastic, proud, irritable, alert, ashamed, inspired, nervous, strong, attentive, jittery, active, and afraid. The scale was applied to each type of emotion (*i.e.*, “Think about how the wine offer makes you feel. Rate the degree to which you feel the following adjectives on a scale of 0 (not at all) to 10 (intensely).”). They were also asked about their intention to purchase the offered wine. This intention was measured using the scale developed by Venkatesh & Davis (2000) (*i.e.*, “If I could, I would try to buy the wine on offer”; “If I could, I anticipate I would buy the wine on offer”) with an 11-point Likert scale. The survey ended with a few questions designed to determine the participants' socio-demographic classification. Subsequently, three structural equation models were run linking the type of emotion to the tourists' wine purchase intent: (i) the emotions produced by the wine and purchase intent; (ii) the emotions produced by the winery visit and purchase intent; and (iii) the emotions produced by the news item and purchase intent.

The sample obtained in La Rioja consisted of 300 validated surveys, and the socio-demographic classification was similar to that obtained in the same region by Molina *et al.* (2013), which consisted of 598 wine tourists surveyed in five Spanish wine regions. In that study 48.5% of the respondents were female, and 51.5% were male. In the present study, the respective percentages were 55.7% and 44.3%. In Molina Collado *et al.* (2013), 44% of those surveyed were aged 34 and under, while 85% were aged 44 and under. In the present study, 46.3% were aged 34

and under, and 80% were aged 44 and under. With regard to educational attainment, in Molina Collado *et al.* (2013), 64.2% of the respondents had a college degree, and 30.6% had a high school diploma. In the present study, these figures were 65.7% and 28.7%, respectively.

The sample for the survey conducted in Baja California also consisted of 300 valid participants. The age bracket was similar to that obtained in the same region by Orta *et al.* (2016), who sought to understand the importance of satisfaction in the wine tourism experience. In that study, 340 people were surveyed, with respondents aged 39 and under accounting for 50% of the total. In the current study, respondents aged 39 and under accounted for 66.3%. It should be noted that only limited information is available on the sample used in Orta *et al.* (2016), as the authors do not provide a breakdown of the sample by gender or educational attainment level. In the present study, 51.3% of the respondents were female and 48.7% male. Furthermore, 81.7% had a college degree, while 17.3% held a high school diploma.

### Consistent Partial Least Squares (PLSc)

SEM, specifically, the consistent partial least squares (PLSc) SEM technique, was used to assess the measurement model. PLSc is less sensitive than PLS to Type I and Type II errors and should be applied to models in which all the constructs are reflective (Dijkstra & Henseler, 2015), as in the present case. PLS tends to skew factor loadings upwards and underestimate regression coefficients (Gefen *et al.*, 2011). PLS was chosen as it is less sensitive to the violation of assumptions of data normality (Chin, 1998a; Ram *et al.*, 2014).

## Results

### Exploratory factor analysis

Exploratory factor analysis (maximum likelihood) was used to analyse the factors formed from the observable variables of the three scales (emotions produced by the wine on offer, emotions produced by the visit to the winery, and emotions produced by a news item on wine). Which allowed us to make a first exploration of how the theoretical framework is translated into the empirical data.

All three cases gave rise to the same factors comprising the same emotions. Together, these three factors explained 51.63% of the variance in the emotions produced by the wine, 45.25% in the

emotions produced by the winery visit, and 46.94% in the emotions produced by a news item about wine. The first factor, called “positive emotions”, included the following positive emotions from the Watson *et al.* (1988) scale: enthusiastic, proud, determined, excited, active, inspired, interested, and strong. The second factor, called “negative emotions”, included the following negative emotions from the Watson *et al.* (1988) scale: scared, upset, hostile, ashamed, guilty, distressed, irritable, afraid, and nervous. The third factor, called “attentiveness”, included the following emotions: attentive, alert, and jittery.

For all three scales, the Bartlett’s test of sphericity coefficient reflected a significance level less than 0.001 and showed good results for the KMO (0.92 for the emotions produced by wine, 0.91 for the emotions produced by the visit to the winery, and 0.90 for the emotions produced by the wine-related news item).

### Assessment of the measurement model

A permutation test was used to check the factorial invariance across the Baja California and La Rioja samples (Henseler *et al.*, 2016). Compositional invariance requires the correlation between composite scores ( $c$ ) across groups to be  $= 1$ . For the emotions produced by the wine,  $c$  was greater than 0.99 for all the variables and fell within the confidence interval, except for negative emotions, where  $c = 0.93$  and fell slightly outside the confidence interval (0.96; 1). The same was true of the emotions produced by the winery visit:  $c > 0.99$  for all variables and only fell slightly outside the confidence interval for negative emotions ( $c = 0.49$ , interval = 0.52; 1). For the emotions produced by the news,  $c$  was again  $> 0.99$  for all variables, falling slightly outside the confidence interval only for negative emotions ( $c = 0.61$ , interval = 0.76; 1). In the problematic cases, the  $p$ -values of the permutation test were as follows: emotions produced by the wine = 0.02, emotions produced by the visit = 0.05, and emotions produced by the news = 0.03. Therefore, the fractional invariance was minor. Additionally, it must be recalled that negative emotions had only a moderate effect in explaining wine purchase intent, explaining only about 1% of it.

According to Hair *et al.* (2013), to obtain a correct reliability indicator in reflective measurement models, the standardized loadings of the variables should be greater than 0.7 and significant ( $t$ -value  $> 1.96$ ). In the present study, variables that showed a value below 0.7 and  $t < 1.96$  were eliminated, and the model was respecified to obtain greater convergence (Anderson & Gerbing, 1988). Several variables also showed standardized loading values slightly below 0.7, but had  $t > 1.96$ . In these cases, it was thus decided to keep

the variables. The 0.7 standardized loading rule is flexible, particularly when indicators contribute to the content validity of the factor (Chin, 1998b). However, standardized loadings with values less than 0.4 should be eliminated (Hair *et al.*, 2013). Following this elimination, the factor “attentiveness” included only the emotion “attentive”. Table 1 shows the standardized loading values and *t*-values for all the variables ultimately included in each factor.

All constructs had a Cronbach’s alpha and composite reliability greater than 0.7, so the reliability of the constructs was adequate (Table 2). All constructs also had an average variance extracted AVE  $\geq 0.5$  (rounding to one decimal place); hence, the convergent validity criterion was also met. Finally, the HTMT values were correct in all cases and the square root of the AVE was greater than the correlations among constructs, which proves that the discriminant validity criterion was met, as well (Roldán & Sánchez-Franco, 2012).

### Assessment of the structural model

Bootstrapping with 5,000 resamples was used to assess the significance of the path coefficients (Hair

*et al.*, 2011). Figure 2 shows the overall results for the models: the  $R^2$  for the dependent variable, the standardized coefficients, and the *t*-values. As can be seen, the emotions produced by the wine, the winery visit, and the wine news had a significant positive effect on purchase intent. Support was thus found for hypotheses H1, H4, and H7. At the same time, the negative emotions produced by the wine, the winery visit, and the wine news had a significant negative effect on purchase intent. Support was thus also found for hypotheses H2, H5, and H8. The attentiveness dimension did not play a significant role in the emotions produced by the winery visit and news (no support was found for H6 and H9), but did significantly influence the emotions produced by the wine (H3).

As shown in Table 3,  $R^2$  was 0.346, meaning that the percentage of variance explained was 34.6% for the model of the emotions produced by the wine *vs.* 10.3% for the model of the emotions produced by the winery visit and 6.3% for the model of the emotions produced by the wine news. The Stone-Geisser’s cross-validated redundancy  $Q^2$  confirmed the model’s predictive relevance (*i.e.*,  $Q^2 > 0$ ), since “ $Q^2$  values larger than zero indicate that the exogenous constructs

**Table 1.** Standardized loading values (*t*-values).

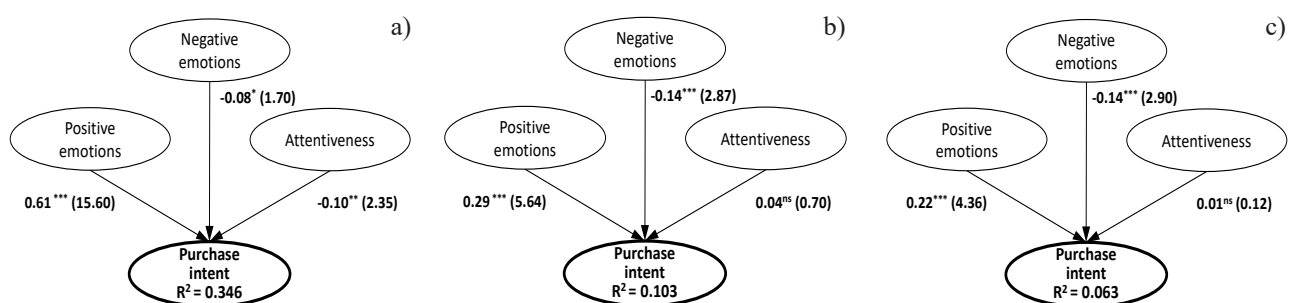
	Emotions produced by the wine <sup>(m)</sup>	Emotions produced by the winery visit <sup>(m)</sup>	Emotions produced by the wine news <sup>(m)</sup>
<b>Positive emotions<sup>(lv)</sup></b>			
Enthusiastic	0.69 (15.69)	Eliminated	0.61 (8.81)
Strong	0.66 (15.26)	0.67 (11.95)	0.78 (13.91)
Proud	0.58 (11.36)	0.67 (12.41)	0.69 (11.21)
Determined	Eliminated	Eliminated	0.56 (7.80)
Excited	Eliminated	Eliminated	0.65 (10.34)
Active	0.63 (13.21)	0.78 (16.52)	0.90 (17.24)
Inspired	0.62 (13.37)	0.69 (14.35)	0.70 (12.30)
Interested	0.93 (19.61)	Eliminated	Eliminated
<b>Negative emotions<sup>(lv)</sup></b>			
Guilty	0.72 (93.03)	0.71 (9.02)	0.53 (5.59)
Scared	0.82 (11.55)	0.81 (9.71)	0.88 (12.32)
Upset	0.65 (7.76)	Eliminated	0.63 (6.86)
Afraid	0.71 (8.78)	0.67 (9.36)	0.58 (6.58)
Hostile	0.75 (10.65)	0.73 (8.73)	0.75 (9.39)
Irritable	0.96 (16.60)	0.78 (9.85)	0.73 (8.09)
Ashamed	0.67 (7.56)	0.62 (7.19)	0.63 (6.88)
Distressed	0.54 (6.08)	Eliminated	Eliminated
Nervous	0.76 (9.38)	0.68 (7.13)	0.80 (8.75)
<b>Purchase intent<sup>(lv)</sup></b>			
Would try to buy it	0.94 (44.68)	0.91 (22.37)	0.98 (16.97)
Anticipate I would buy it	0.87 (28.08)	0.91 (19.93)	0.89 (16.10)

The dimension “attentiveness” is not shown as it contains only the variable “attentive”. m: model; lv: latent variable.

**Table 2.** Construct reliability, convergent validity, and discriminant validity.

Construct <sup>1</sup>	Composite reliability	Cronbach's alpha	AVE	PE	NE	A	PI
<b>Emotions produced by wine<sup>(m)</sup></b>							
PE <sup>(lv)</sup>	0.85	0.86	0.49	<b>0.70</b>	0.12	0.40	0.54
NE <sup>(lv)</sup>	0.91	0.92	0.55	-0.05	<b>0.74</b>	0.32	0.14
A <sup>(lv)</sup>	1.00	1.00	1.00	0.38	0.33	<b>1.00</b>	0.10
PI <sup>(lv)</sup>	0.90	0.90	0.82	0.57	-0.14	0.10	<b>0.91</b>
<b>Emotions produced by the winery visit<sup>(m)</sup></b>							
PE <sup>(lv)</sup>	0.80	0.80	0.50	<b>0.70</b>	0.11	0.43	0.29
NE <sup>(lv)</sup>	0.88	0.88	0.51	0.10	<b>0.72</b>	0.35	0.10
A <sup>(lv)</sup>	1.00	1.00	1.00	0.43	0.35	<b>1.00</b>	0.11
PI <sup>(lv)</sup>	0.90	0.90	0.82	0.29	-0.10	0.11	<b>0.91</b>
<b>Emotions produced by the wine news<sup>(m)</sup></b>							
PE <sup>(lv)</sup>	0.87	0.88	0.50	<b>0.71</b>	0.13	0.43	0.22
NE <sup>(lv)</sup>	0.88	0.89	0.49	0.11	<b>0.70</b>	0.35	0.12
A <sup>(lv)</sup>	1.00	1.00	1.00	0.44	0.36	<b>1.00</b>	0.05
PI <sup>(lv)</sup>	0.90	0.90	0.82	0.21	-0.12	0.05	<b>0.91</b>

<sup>1</sup> m: model; lv: latent variable. Diagonal elements (in bold) are the square root of the AVE (Average Variance Explained). The elements below the diagonal (in bold) are the correlations among the constructs. The elements above the diagonal are the HTMT (Matrix Heterotrait-Monotrait) values. PE: positive emotions. NE: Negative emotions. A: Attentiveness. PI: Purchase Intent.



**Figure 2.** Influence of the emotions produced by the wine on wine purchase intent (a), by the winery visit on wine purchase intent (b) and by the wine news on wine purchase intent (c): standardized coefficients (Student's *t*-test),  $R^2$ . \*\*\*:  $p < 0.01$ ; \*\*:  $p < 0.05$ ; \*:  $p < 0.1$ ; ns = not significant. Student's *t*-values higher (in absolute value) than 2.58 reflect  $p < 0.01$ ; higher than 1.96,  $p < 0.05$ ; and higher than 1.65,  $p < 0.10$ . Values less than 1.65 were not significant.

have predictive relevance for the endogenous construct under consideration" (Hair *et al.*, 2011). In all cases the models explain the wine purchase intent, but the predictive power was much higher for the emotions produced by the wine. They also show the amount of variance that each antecedent variable explained in the purchase intent. In all three cases, positive emotions explained the largest percentage of variance. Negative emotions explained a much lower percentage of variance, and attentiveness explained virtually none of the variance. The negative value of attentiveness within the emotions produced by wine "is due to the fact that the original relationship between the two variables is so close to zero that the difference in the signs simply reflects random variation around zero" (Falk & Miller, 1992). The effect size ( $f^2$ ) of each latent variable in the three models was as follows: (i) for the emotions

produced by the wine,  $f^2$  was 0.461 for positive emotions, 0.008 for negative emotions, and 0.012 for attentiveness; (ii) for the emotions produced by the visit,  $f^2$  was 0.077 for positive emotions, 0.019 for negative emotions, and 0.001 for attentiveness; and (iii) for the emotions produced by the news,  $f^2$  was 0.221 for positive emotions, -0.143 for negative emotions, and 0.006 for attentiveness.

The results for the wine model (sample = 600), with an  $R^2$  of 0.346 and 3 predictors, showed that the test's power was  $> 99.99\%$  and the  $f^2$  was 1.44. For the winery visit model (sample = 600), with an  $R^2$  of 0.103 and 3 predictors, the test's power was  $> 99.99\%$  and  $f^2$  was 0.11. Finally, for the wine news model (sample = 600), with an  $R^2$  of 0.063 and 3 predictors, the test's power was  $> 99.99\%$  and  $f^2$  was 0.06.

**Table 3.** Effect on endogenous variables. PE: positive emotions. NE: Negative emotions. A: Attentiveness. PI: Purchase intent.

	$R^2$	$Q^2$	Direct effect	Correlation	Variance explained
<b>Emotions produced by the wine<sup>(m)</sup></b>					
PI <sup>(lv)</sup>	0.346	0.26			
PE <sup>(lv)</sup> → (+) PI			0.61	0.57	34.54%
NE <sup>(lv)</sup> → (-) PI			-0.08	-0.14	1.08%
A <sup>(lv)</sup> → (-) PI			-0.10	0.10	-1.06%
<b>Emotions produced by the winery visit<sup>(m)</sup></b>					
PI <sup>(lv)</sup>	0.103	0.07			
PE <sup>(lv)</sup> → (+) PI			0.29	0.29	8.41%
NE <sup>(lv)</sup> → (-) PI			-0.14	-0.10	1.40%
A <sup>(lv)</sup> → (-) PI			0.04	0.11	0.44%
<b>Emotions produced by the wine news<sup>(m)</sup></b>					
PI <sup>(lv)</sup>	0.063	0.05			
PE <sup>(lv)</sup> → (+) PI			0.22	0.21	4.31%
N <sup>(lv)</sup> → (-) PI			-0.14	-0.12	1.53%
A <sup>(lv)</sup> → (-) PI			0.01	0.05	0.05%

m: model; lv: latent variable.

To check whether the effect of the emotions produced by the wine was bigger than that of the emotions produced by the visit and the news, a joint model was run that included all three types of emotions (wine, visit, and news) as explanatory variables for wine purchase intent. To this end, the scores of the previously obtained latent variables (positive, negative, and attentiveness emotions for each model (single-item)) were obtained and incorporated in the joint model as formative variables of the corresponding type of emotion (wine, visit, news). In all cases, the variance inflation factor (VIF) was correct (the highest VIF for all the models was = 1.306). The results confirm that the emotions produced by the wine had the greatest influence on wine purchase intent (path coefficient = 0.631 and  $p < 0.001$ ), the emotions produced by the visit had a smaller effect (path coefficient = -0.107 and  $p = 0.060$ ), and the emotions produced by the news did not have a significant effect (path coefficient = 0.006 and  $p = 0.905$ ).

## Discussion

This research has analyzed the influence of the emotions generated by the wine itself, the visit to the winery, and a generic news item about wine on the intention to buy the wine on offer at a winery. To this end, participants were shown an offer for wine produced at the winery, without a tasting, along with a news item about wine in general. They were then surveyed on the

emotions generated by the wine (product), the winery visit (environment), and the wine news (induced).

The main finding is that it is necessary to differentiate between what is causing the emotion (the wine, the visit, or the news) when analyzing the emotions the tourist feels when buying wine. The emotions produced by the wine offer had the strongest influence on the intention to purchase that wine ( $R^2 = 0.346$ ). The influence of the emotions produced by the visit to the winery was much lower ( $R^2 = 0.103$ ). The influence of the wine news was very low ( $R^2 = 0.063$ ). This finding is consistent with the predictions of Garg *et al.* (2005), Han *et al.* (2007), Penz & Hogg (2011), and Pelegrín-Borondo *et al.* (2015), which distinguished at a theoretical level between the object being evaluated, the environment, and aspects unrelated to the company.

In this sense, the most significant and innovative aspect of the present research is the capacity to explain wine purchase intent with all three types of emotions. As noted, the emotions produced by the wine on offer were the ones that best explained purchase intent. This is in keeping with previous findings concerning the importance of the emotions generated by the product with regard to purchase intent (Bagozzi *et al.*, 1999; Mano, 2004; Pelegrín-Borondo *et al.*, 2015). The emotions generated by the winery visit clearly explained purchase intent much less, indicating that the visit has less persuasive power. It may also be indicative of the existence of different types of wine tourists. For instance, some wine tourists may simply be curious and visit a winery to learn how wine is made without

any particular interest in buying wine (Charters & Ali-Knight, 2002; Bruwer, 2003; Mitchell & Hall, 2006). Finally, the emotions generated by wine news have very little explanatory power. This is also consistent with previous research explaining the influence of these types of emotions on consumer behavior (Griskevicius *et al.*, 2010; Park, 2015) or finding them not to have such an influence at all (Garg *et al.*, 2005). In other words, although these emotions do have an influence, their influence on wine tourists explains much less than that of the emotions produced by the wine (the product being evaluated) and the winery visit (environment).

The present findings also show that the influence on wine purchase intent differs depending on whether the emotions generated are positive or negative. Together, the positive emotions produced by the wine (34.54%), the visit (8.41%), and the news (4.31%) explain a total of 47.26%. This result is much higher than the influence of the negative emotions produced by the wine (1.08%), the visit (1.40%), and the news (1.53%), which total only 4.01%. The greater influence of positive emotions has already been reported in relation to technological products (Olar-te-Pascual *et al.*, 2016; Pelegrín-Borondo *et al.*, 2016). The positive emotions felt upon visiting a winery are related to enjoyment; it is thus normal that no negative emotions are felt.

The results confirmed that the positive emotions produced by wine had a positive influence on purchase intent. This finding is consistent with previous findings reported elsewhere (Oliver *et al.*, 1997; Shiv & Fedorikhin, 1999; Yeung & Wyer, 2004; Yeh *et al.*, 2012; Pelegrín-Borondo *et al.*, 2017a). The results also underscore the positive influence on purchase intent of the positive emotions generated by the visit to the winery itself, a finding similar to those reported by Yuan *et al.* (2008) and Charters *et al.* (2009), who showed that the positive emotions generated by a winery visit influence the intention to buy wine. The positive news item also positively affected purchase intent. Similar results were obtained by Kahn & Isen (1993) and Griskevicius *et al.* (2010), who showed that consumers are more likely to evaluate a product more positively when they are induced to feel positive emotions about it.

Support was also found for the hypothesis on the negative influence on purchase intent of negative emotions. This finding corroborates the finding by Olarte *et al.* (2017) regarding a new wine that the consumer tastes. It is likewise in line with those reported by Jaeger *et al.* (2003) and Mano (2004). Negative emotions also negatively influenced wine purchase intent. In this regard, Charters *et al.* (2009) found that negative emotions may be generated during the winery visit that detract from visitors' overall experience and

would negatively affect wine purchase intent at the winery. In the present study, the negative emotions induced by a news item about wine negatively affected purchase intent at the winery. This finding expands that reported by Park (2015), who demonstrates that the negative emotions generated by news influence the reader's behavior. It also lends support to Garg *et al.* (2005), who found that customers do not change their minds even when they are induced to feel sadness.

Attentiveness was found to have little influence on wine purchase intent; only in relation to the emotions produced by the wine did it have any influence at all, specifically, a negative one. This is consistent with the findings of Olarte *et al.* (2017), who similarly found that attentiveness does not influence the intention to purchase a new natural sparkling red wine.

In conclusion, this study confirms that the influence of emotions on tourists' wine purchase intent varies depending on the type of emotion: (i) the emotions produced by the product/service being evaluated, in this case, the wine offer; (ii) the emotions produced by the environment, in this case, a guided tour of a winery; and (iii) induced emotions not directly related to the product on offer, in this case, generic wine news. The emotions produced by the wine offer have the greatest influence.

The management implications of this research are related to the fact that wineries have traditionally used wine tourism as a means of selling wine. The findings point to an important implication for these wineries: if the goal of the winery is to sell wine, efforts should be concentrated on the wine offer itself, rather than on tours. This is because how the sale is carried out is a bigger determinant in the wine sale than the winery visit.

Separately, the emotions induced by wine news barely explained purchase intent. Wineries should therefore similarly concentrate their efforts more on their offer than wine news.

The limitations of this study are related to the fact that the wine news it used was generic. The influence of the emotions generated by an article or advertisement about wine specifically developed for the wine on offer remains unknown. The present study used generic wine news in order to separate the influence of the wine itself from that of the wine news. Future research could compare the emotions generated by a wine offer and a news item about it. Similarly, the wine news used in the present study reported a positive finding about wine. Future research could compare the effect of emotions induced by positive as well as negative wine news.

In the models, the influence on purchase intent of the positive and negative emotions related to each of the three emotion types (wine, visit, and news) was analyzed

separately. Although this was intentional, it means that the joint influence on purchase intent of the positive and negative emotions taken as a single construct was not determined. Additionally, the present study sought to determine the percentage of explanatory power of each emotion type (wine, visit, and news) with regard to purchase intent separately; therefore, their influence in a joint model likewise remains unknown. Future research should examine these other aspects by means of models with second- and third-order constructs.

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