

# Alcohol versus sponsorship: effectiveness in sports posters

Alcohol versus  
sponsorship

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## Abstract

**Purpose** – The academic literature debates the desirability of sponsoring alcohol products at sporting events, a discussion that increases as major sporting events approach. This study aims to examine the influence that sponsorship of an alcoholic product such as beer has on the sports spectator, and the level of efficacy with respect to congruent, alcohol, and incongruent sponsorship.

**Design/methodology/approach** – The experiment was performed on 180 subjects considering three variables  $3 \times 3 \times 2$  (congruency type vs alcohol; sport discipline; placement). The experiment consisted of exposure to sponsored sports posters. Visual attention was recorded through eye tracking and then a self-reported questionnaire.

**Findings** – Through an experiment using eye tracking the results showed that the recall variable is higher among alcohol sponsorships and incongruent sponsorship, but it cannot be concluded either that the intention to buy or the attitude toward the brand differ among the sponsorships analyzed.

**Practical implications** – Alcohol brand is perceived as an incongruous brand in the context of sports sponsorship. Congruent sponsors attract more attention and recall, but no differences in terms of intention to buy. If purchase intent and consumption does not increase, perhaps sports sponsorship by alcohol brands should be reconsidered.

**Originality/value** – This research makes at least three relevant contributions to the scientific literature. (1) It examines the response to sponsorship in the media of the sports poster. (2) It analyses the consumer's response using neurophysiological means and provides new indicators in this area and (3) It compares performance indicators such as purchase intent, recall and brand attitude for alcoholic and non-alcoholic brand sponsors. These contributions could introduce new information about sponsorship performance.

**Keywords** Sponsorship, Posters, Sport, Alcohol, Eye tracking

**Paper type** Research paper

## 1. Introduction: sponsorship of sporting events and alcohol

Investment in sponsorship on a global scale has been growing in recent years. Investment increased from \$53.1 billion in 2013 to \$65.8 billion in 2018 (IEG, 2019). By investing in sponsorship advertising, sponsoring companies hope to influence consumer intentions, attitudes and purchasing behavior (Bennett *et al.*, 2006; Trivedi, 2020). Alcoholic beverage brands also sponsor sporting events (Chambers *et al.*, 2017), even more so than many other sectors. For example, in Australia, expenditure on sponsorship by the alcohol industry amounted to US\$228 million in 2012 (Kelly *et al.*, 2018), and in the United Kingdom it was the second largest industry to invest in sponsorship between 2003 and 2006 (House of Commons Health Committee, 2009). Since then, regulations have been applied at the international level,



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for example in France or Norway, the alcohol sponsorship at sporting events has been banned (Brown, 2016). In the Americas, approximately the 40% of countries did not have restrictions on alcohol marketing in 2012, and there were no countries in this region with a full comprehensive ban on all forms of marketing in media (PAHO, 2017). Only six countries had some restrictions on alcohol sponsorship content, and less than a half reported that there were sanctions for infringements (PAHO, 2015). Hence, the weak alcohol regulatory systems offer economic opportunities for the alcohol industry in these countries (Caetano, 2015). For these reasons, alcohol companies sometimes fund corporate social responsibility programs in Latin America countries, which is controversial with public health and philanthropic objectives (Pantani *et al.*, 2016).

Specifically, in Chile, there are restricted hours for television broadcasting of alcohol-related advertising; however, the Chilean Senate rejected the provisions prohibiting advertising in sports activities, on streets and highways (República de Chile-Senado, 2015). On the other hand, some academics believe that severe regulation could affect sports entities that have a strong economic base in alcohol sponsorship (Cody and Jackson, 2016). In conclusion, the disparity in government decisions and actions may be due to a lack of information about the influence of advertising and specifically sponsorship on consumer behavior. In addition, the involvement of other economic actors who may be affected by policy decisions increases the complexity of the decision and the importance of research in the area. In short, there is some academic and governmental controversy regarding the prohibition or non-sponsorship of alcoholic products. Because alcohol consumption is associated with medical and social problems, governments must better understand consumption drivers (Wang and Liao, 2020).

In addition, some scholars claim that the systems for measuring and evaluating the outcome of sponsorship in general, and sports in particular, have not yet been properly developed (Boronczyk *et al.*, 2018). Net screen appearances and the number of people attending events, for example, are still used, which are considered very poor and inefficient efficiency rates (Breuer and Rumpf, 2015). Meenaghan (2013) considers that sponsorship measurement systems and their credibility cause concern due to the lack of objective data assessing their effectiveness. The sponsorship industry has established the evaluation of effectiveness as one of the greatest challenges they face, with the analysis of print media being one of the most important bases for its measurement (Meenaghan and O'Sullivan, 2013). For those reasons, neuroscientific and psychophysiological techniques have emerged as a growing research edge for the study of consumer cognitive and emotional replies to advertising (Sung *et al.*, 2019). However, in the printed media sports poster, we have not been able to find any research to date, although some previous studies have highlighted that participants had significantly greater recall scores for alcohol marketing from digital media channels compared with media print sources (Gabrielli *et al.*, 2019).

In general, there is a trend in the literature that considers that sponsorship of alcoholic beverages at sporting events influences consumer behavior (Alonso-Dos-Santos *et al.*, 2019; Chambers, 2020; Brown, 2016; Kelly and Ireland, 2019). However, research examining the nature and impact of alcohol sponsorship on consumers remains relatively scarce (Kelly *et al.*, 2018), and there is still some controversy about its intensity and influence; and as mentioned before, about its measurement. Reports show a high increase in the investment in alcohol advertising without significant changes in consumption among the population (Wilcox *et al.*, 2015) or in the ineffectiveness of alcohol advertising bans (Nelson, 2010; Nelson and Young, 2001), although other research has had opposite results (Saffer and Dave, 2002). However, the distinction must be made between research on the influence of sponsorship on fans and adult spectators, and on athletes or participants (Kelly *et al.*, 2017). Note that much of the existing research is conducted on samples of individual students or minors (Brown, 2016). In conclusion, the literature review leads to believe that it is necessary to investigate

the process of behavior and influence of sports sponsorship of alcohol products among sports fans.

The research question is: What effect does sports sponsorship of alcohol-related products have on consumer behavior? This research makes at least three relevant contributions to the scientific literature. (1) It examines the response to sponsorship in the media of the sports poster. (2) It analyses the consumer's response using neurophysiological means and provides new indicators in this area and (3) It compares performance indicators such as purchase intent, recall and brand attitude for alcohol and non-alcoholic brand sponsors. These contributions could introduce new information about sponsorship performance.

## 2. Sponsorship signage

The sports sponsors hope that the image of the sports event will be transferred to their own brand, thus increasing the intention to purchase the products (Alonso Dos Santos *et al.*, 2016). However, this image transfer can only take place if the consumer recognizes or remembers the brand sponsoring the sports event (Cornwell *et al.*, 2006). In order to remember or recognize the brand, it would be necessary for the subject to visualize the brand first. In general, memory measures in social psychology have either been based on recognition or on recall paradigms (Stangor and McMillan 1992). According to Jagre *et al.* (2001), on the one hand, recognition measures evaluate the ability of the individual to identify whether previously presented information has been seen before or not. On the other hand, to evaluate recall, people are asked to list the information that comes to mind, requiring them to retrieve the information from memory. Thus, greater exposure to a sponsored event leads to higher recall and recognition of embedded advertisements (Maricic *et al.*, 2019). Therefore, repeated exposure to the sponsor's advertising message could be a key indicator in the study of sports sponsorship.

The frequency of exposure to the stimulus is the most important variable in the theory of mere exposure (Gail *et al.*, 2007); repeated exposure will positively affect consumers, influencing awareness and attitude toward the sponsoring brand of the event (Maxwell and Lough, 2009). The attention capacity of sports viewers is not unlimited; if so, it is a scarce chronological resource from the sponsor's perspective (Breuer and Rumpf, 2015). Thus, maximizing viewer exposure is one of the main challenges for sponsorship management (Breuer and Rumpf, 2012). The time of attention to the sponsoring brand that an individual maintains when exposed to a sports poster may be considered an indicator of exposure to the sponsorship stimulus. Moreover, attention has been identified as a significant driver of sponsor recall (Breuer and Rumpf, 2012). It would therefore be reasonable to propose as a first research question (RQ1): attention to alcohol sponsorship influences recall, attitude towards the brand (AttBrand), and intention to buy (IntBuy).

From the various studies on alcohol and sponsorship (Houghton *et al.*, 2014; Kelly *et al.*, 2017; Kelly and Ireland, 2019; O'Brien *et al.*, 2014) it can be partially concluded that exposure to alcohol sponsorship influences alcohol consumption, but only partially because the various studies do not find unanimity in the significance or published results (Brown, 2016). For that reason, there is a need to better examine and understand its effects on consumers' behavior (Kelly and Ireland, 2019). In this sense, the congruity theory could be a useful approach. This theory has been applied in social psychology sciences to analyses memory as well as for explaining attitude formation (Jagre *et al.*, 2001). Congruity theory suggests that the storage in memory and retrieval of information is influenced by prior expectations. However, results using this approach have been contradictory. Some studies have found that, in general, consistent information is better remembered than inconsistent information (Agnihotri and Bhattacharya, 2020; Bond and Farrell, 2020; Jagre *et al.*, 2001). However, other studies have found that inconsistent information is better remembered (Chen *et al.*, 2014; Cui *et al.*, 2012;

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Jagre *et al.*, 2001; Stangor and McMillan 1992; Torn and Dahlén, 2008). Thus, there is a necessity to compare alcohol sport sponsorship with other congruent and incongruent types of sport sponsorships. Therefore, the proposed RQ2 is: Alcohol-derived sponsorship differs significantly from that of other types of sponsors in the recall indicators AttBrand and IntBuy.

The sports poster follows an industry standard design that consists of dividing the communication into two parts in a vertical format. The first one occupies two-thirds of the poster from the top and contains information about the event and the conceptualization area. The latter may consist of the brand name of the event, popular competing players or typical sports scenes from the event's sports discipline. The sponsors are usually located in the lower zone. But sometimes, the main sponsors are located in the central area of the event where they have a role in the development of the action without expressly mentioning the characteristics of the brand, this situation is called implicit placement (d'Astous and Séguin, 1999) and is a concept adapted from advertising.

The model of saliency-based visual attention suggests that objects in the visual field are not processed in an equal manner (Itti and Koch, 2000). Saliency-based attention is defined as an automatic mechanism that drives the viewer to select the stimuli found on the perceptual saliency of the visual characteristics (Pieters and Wedel, 2004). Only objects that the viewer perceives as visually salient grab the viewer's automatic attention; whereas other objects require the viewer's voluntary effort to be processed (top-down attention) (Itti and Koch, 2000). In this model, saliency is derived from the visual properties (color, intensity and orientation) that are extracted from the visual scene (Breuer and Rumpf, 2015). Based on this theory, previous research has empirically concluded that brand placement increases attention to the brand (Fernández Valenzuela *et al.*, 2015; Redker *et al.*, 2013), which could lead to greater attitude, recall and consumption. It is important to investigate the location in the sports signage since the results of advertising from television cannot be assumed and extrapolated as valid to sports sponsorship signage. Therefore, RQ3: The placement of the brands of products derived from alcohol influences memory, AttBrand and IntBuy. The following theoretical model for this research is proposed:

### 3. Method

#### 3.1 Image validation

The first methodological step was the creation of the stimuli. Both congruent and incongruent sponsor brands were selected after a three-stage selection. First, college students suggested sponsor brands for each category (congruence type) for each discipline (sport). Secondly, the brands were tabulated and selected more frequently. Then a questionnaire was developed on the Likert scale where another university group was asked the level of congruence and not the previous tabulated responses resulting from the previous test. Finally, the posters were prepared and subjected to three qualitative discussion groups with the aim of confirming the legibility of the posters, the reading time and possible editing errors. These posters did not show any images of real players or sports teams that could possibly influence the subjects' involvement in the study. No subject had previous experience with any poster. All posters are real from past events and available in [Table 1](#).

#### 3.2 Experimental design

The experiment employs a design based on Latino square (Hernández-Méndez and Muñoz-Leiva, 2015). The type of sponsorship is an inter-subject design for comparison between groups (type of sponsorship and placement of the sponsor) and the sport discipline is an intra-

| Group | Order     | Type        | Placement | Group name | Link  |
|-------|-----------|-------------|-----------|------------|---|
| G1    | Th-Sh-F1h | Alcohol     | In        | D          | <a href="https://goo.gl/H7duHz">https://goo.gl/H7duHz</a> |
| G2    | F1h-Th-Sh |             |           |            | <a href="https://goo.gl/GNRER2">https://goo.gl/GNRER2</a> |
| G3    | Sh-F1h-Th |             |           |            | <a href="https://goo.gl/BrxEks">https://goo.gl/BrxEks</a> |
| G4    | Tc-Sc-F1c | Congruent   |           | E          | <a href="https://goo.gl/bJEhr8">https://goo.gl/bJEhr8</a> |
| G5    | F1c-Tc-Sc |             |           |            | <a href="https://goo.gl/ByMC7N">https://goo.gl/ByMC7N</a> |
| G6    | Sc-F1c-Tc |             |           |            | <a href="https://goo.gl/1U8jkL">https://goo.gl/1U8jkL</a> |
| G7    | Ti-Si-F1i | Incongruent |           | F          | <a href="https://goo.gl/Dr8RyJ">https://goo.gl/Dr8RyJ</a> |
| G8    | F1i-Ti-Si |             |           |            | <a href="https://goo.gl/c9bQAK">https://goo.gl/c9bQAK</a> |
| G9    | Si-F1i-Ti |             |           |            | <a href="https://goo.gl/Fg9MiU">https://goo.gl/Fg9MiU</a> |
| G10   | Th-Sh-F1h | Alcohol     | Out       | G          | <a href="https://goo.gl/peQPXX">https://goo.gl/peQPXX</a> |
| G11   | F1h-Th-Sh |             |           |            | <a href="https://goo.gl/TgmWVf">https://goo.gl/TgmWVf</a> |
| G12   | Sh-F1h-Th |             |           |            | <a href="https://goo.gl/NBkyqi">https://goo.gl/NBkyqi</a> |
| G13   | Tc-Sc-F1c | Congruent   |           | H          | <a href="https://goo.gl/99deJp">https://goo.gl/99deJp</a> |
| G14   | F1c-Tc-Sc |             |           |            | <a href="https://goo.gl/SBgyYQ">https://goo.gl/SBgyYQ</a> |
| G15   | Sc-F1c-Tc |             |           |            | <a href="https://goo.gl/gZRFr7">https://goo.gl/gZRFr7</a> |
| G16   | Ti-Si-F1i | Incongruent |           | I          | <a href="https://goo.gl/JWMTBf">https://goo.gl/JWMTBf</a> |
| G17   | F1i-Ti-Si |             |           |            | <a href="https://goo.gl/AdiWN7">https://goo.gl/AdiWN7</a> |
| G18   | Si-F1i-Ti |             |           |            | <a href="https://goo.gl/yZJKVS">https://goo.gl/yZJKVS</a> |

**Table 1.**  
Experimental design  
(Placement  $N = 180$ ;  
Type  $N = 120$ )

subject stimulus. Three sports disciplines were included as manipulative variables to eliminate a possible linkage effect with a particular sport. The choice of discipline was a matter of convenience based on real posters (without real celebrities) that were available for manipulation. Table 1 contains the experimental procedure and is coded as follows: ( $h$  = alcohol,  $c$  = congruent,  $i$  = incongruent) and sport discipline ( $T$  = tennis,  $S$  = sailing,  $F1$  = Formula 1). Each subject was randomly assigned to the experimental group until completing a total of ten individuals ( $N = 180$ ). The groups were balanced according to their age and sex. Nine experimental groups contain the sponsor's brand inside the sports poster and three have it outside. This design also allows the addition of a greater degree of control over the experiment by manipulating an external factor.

### 3.3 Measuring instruments

Eye tracking technology is the basis of the designed experiment. This technology allows the study of the underlying process in consumer behavior by providing objective physiological data and eliminating possible behavioral biases. The eye tracker is a 60 Hz Eye Tribe with an accuracy of 0.5 degrees visual angle and a special resolution of 0.1°. Its characteristics make it suitable for scientific research (Ooms *et al.*, 2015; Popelka *et al.*, 2016). Calibration was performed on 16 points, the experimental system used was the free software Ogama (Voßkühler *et al.*, 2008). The eye tracker provides information about the time the subject was looking at the sponsor's brand (full time fixation, CFT).

For the survey, the intention to buy scale was adapted from Smith *et al.* (2008) (I am more likely to buy products from an organization that sponsors this event; I will always consider buying the products and services of the event sponsors before considering the products and services of non-sponsors; I would consider using the products or services of sponsors) and the Dees *et al.* brand attitude scale (2018) (I think favorably of companies that sponsor this event; The company that sponsors this event is successful; The company that sponsors this event is professional; The company that sponsors this event provides quality products/services). The recall of the brand (0 = does not remember any brand, 1 = remembers one brand, 2 = remembers two brands, and 3 = remembers the three brands) is adapted from Speed and Thompson (2000).

Three scales of manipulation check were included: perceived congruence, adapted from [Alonso-Dos-Santos et al. \(2018\)](#) and previously validated by [Speed and Thompson \(2000\)](#) (The sponsor and the poster event fit well; There is a logical connection between the poster event and the sponsor; The image of the sponsors is similar to the image of the events); attitude toward alcohol consumption ([Davies, 2009](#)) (Drinking alcohol is: bad-good; wise-foolish; healthy-unhealthy; unpleasant-pleasant); and attitude toward alcohol sponsorship ([Kropp et al., 1999](#)) (Alcohol companies make good sponsors for sporting events; I think an alcohol company would be a suitable sponsor for this event; Major sporting events should not allow alcohol companies to be sponsors; I think all alcohol advertising should be banned). All scales were five-point Likert type.

### 3.4 Procedure and sample

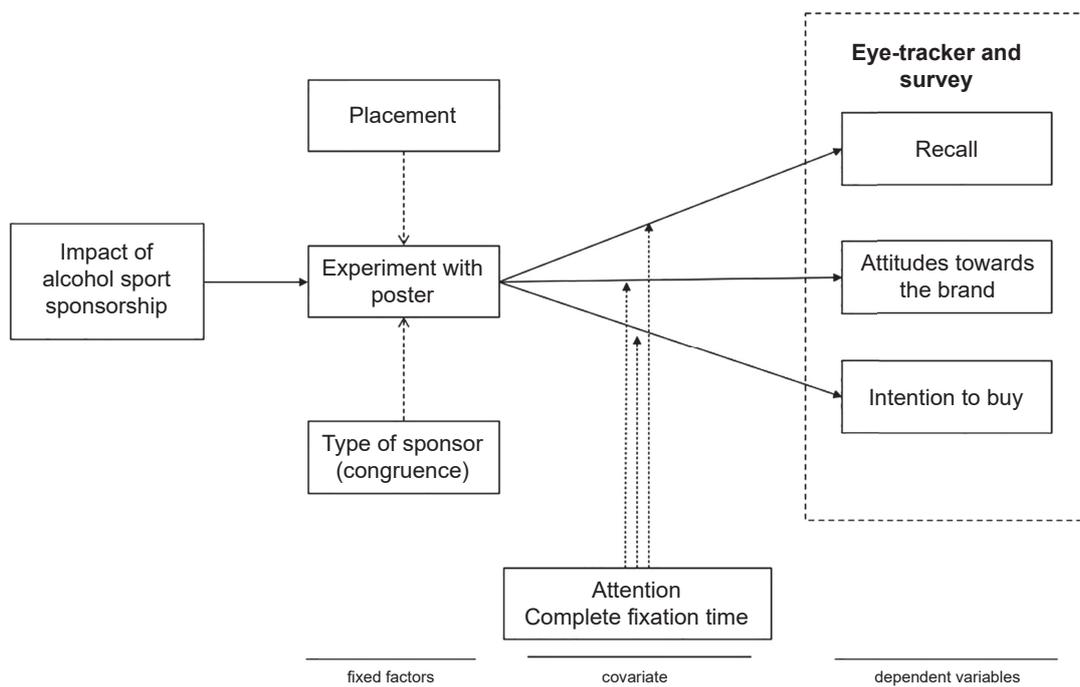
The experimental phase was carried out in a neutral room with controlled temperature and luminosity (artificial lighting) following the recommendations of the [International Telecommunication Union \(2002\)](#) in the downtown of a large Chilean city. The recruitment of the subjects was carried out in the street using an incentive (convenience sampling). Each subject was assigned to one of 18 age- and gender-balanced groups, while maintaining the random assignment of the test units to each group, and the groups to the congruent, alcohol or incongruent experimental set. All participants provided written consent prior to the experiment and were treated in accordance with the institution's ethical guidelines. The experiment begins with a pre-calibration for each individual and then displays the three sport posters for ten seconds, a time recommended in previous research under similar conditions and validated in a pre-test ([Alonso Dos Santos et al., 2018](#)). A black image is displayed between each poster for two seconds ([Gülçay and Cangöz, 2016](#)). At the end of the viewing of the posters, the subjects answer the questionnaire anonymously, but connected with their fixation data. The subjects spent an average of 5 minutes answering all the questions. The final study sample was made up of 180 responses (62% percent from male individuals). The participants in this study ranged in ages from 18 to 64 years of age ( $M = 28$ ,  $SD = 12.32$ ). There are no significant statistical differences between the groups according to age  $F(5.80) = 2.21$ ,  $p > 0.05$ . Twenty-one percent of respondents were high school graduates and 72% had some college education or were college graduates.

## 4. Results

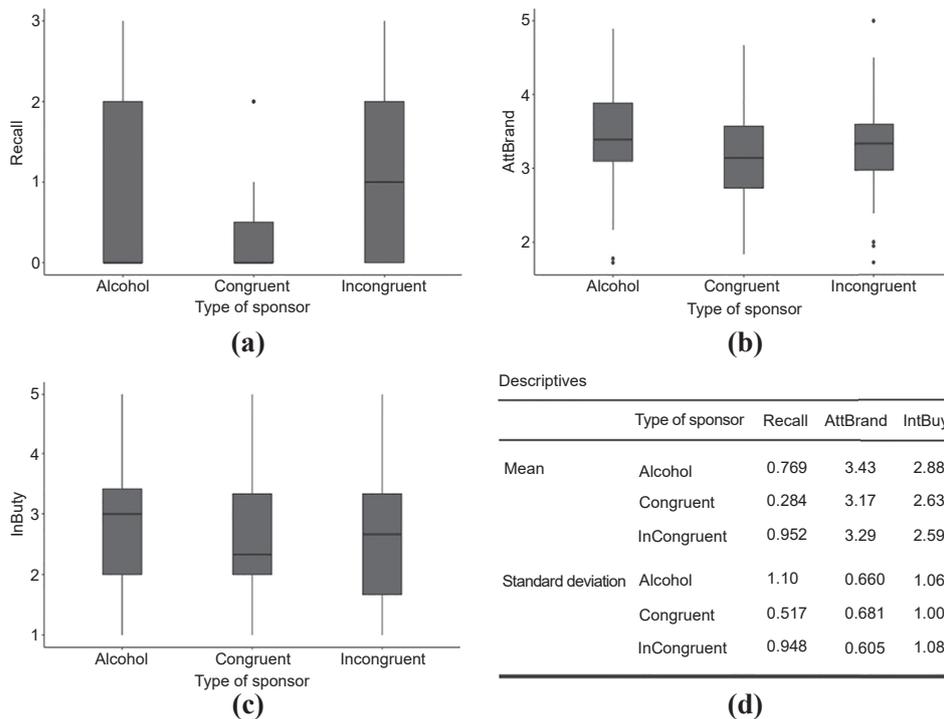
### 4.1 Manipulation checks and descriptive results

First, the control variable of perceived congruence manipulation was tested ( $M = 2.76$ ,  $SD = 1.18$ ). The result shows that there was no difference between the perceived congruence within each sport discipline according to the type of sponsor:  $F(2.176) = 0.140$ ,  $p > 0.05$  ( $\eta = 0.002$ ). That is to say, the subjects reported the same level of perceived congruence with respect to alcohol in the three sports disciplines. Equally for the congruent sponsor and for the incongruent sponsor. Regarding the attitude scale towards alcohol consumption ( $M = 3.37$ ,  $SD = 1.56$ ):  $F(2.177) = 0.316$ ,  $p > 0.05$  ( $\eta = 0.004$ ) and the attitude scale towards alcohol sponsorship ( $M = 1.97$ ,  $SD = 1.22$ ):  $F(2.176) = 0.047$ ,  $p > 0.05$  ( $\eta = 0.001$ ), no significant differences were found between the groups (alcohol, congruent, incongruent). Therefore, it is possible to affirm that the experimental groups are adequately conformed.

The box-plot graphs (A, B and C) in [Figure 1](#) show obvious differences between the mean distributions for AttBrand and IntBuy variables. For descriptive analyses, [Figure 2D](#) shows that the means of the AttBrand ( $M = 3.43$ ,  $SD = 0.66$ ) and IntBuy ( $M = 2.88$ ,  $SD = 1.06$ ) variables of the alcohol-based sponsor are higher than the other types of sponsorship. But for the recall variable, the average is higher for the incongruence type ( $M = 0.952$ ,  $SD = 0.948$ ).



**Figure 1.** Theoretical model for alcohol sport sponsorship experiment



**Figure 2.** Descriptive analysis by type of sponsor

#### 4.2 Results of multiple analysis of covariance (MANCOVA)

The MANCOVA analysis was conducted to answer the research questions. Recall, AttBrand and IntBuy were dependent variables. Type of sponsorship and placement were fixed factors. CFT were the covariate. The assumption of covariance homoscedasticity was confirmed:

BFJ

Box's  $M$  test  $215 = 13.5$ ,  $p = 0.564$ . The same applied to the assumption of multivariate normality: Shapiro–Wilk test  $W = 0.986$ ,  $p = 0.069$ .

The MANCOVA results (Table 2) reveal that there are multivariate differences between the dependent variables (Pillai's Trace and Wilks' Lambda  $< 0.01$ ). Specifically, the CFT co-variable influences memory, a positive correlation was to be expected (Strasser *et al.*, 2012). This relationship has been found significant for brand logos and pictograms, but not for text (Wedel and Pieters, 2000). Our results in the sports poster context would be supported by the previous academic literature (Breuer and Rumpf, 2012). CFT does not influence the IntBuy and CFT does not influence AttBrand. Although it may be possible for CFT to influence these variables indirectly through recall (Alonso Dos Santos *et al.*, 2019).

The placement variable presents significant differences between the different configurations for the recall of the sponsor. Figure 3B shows that sponsors placed within the action zone have a higher fixation time, but sponsors located outside the action zone are more effective if we consider the relationship recall-CFT ratio. This is in line with the model of saliency-based visual attention that suggest that saliency is derived from the visual properties extracted from the visual scene, in this case orientation (Breuer and Rumpf, 2015). However, we found no significant differences with respect to IntBuy or AttBrand in terms of placement. These findings are not in line with previous studies that suggested that brand placement increases attention to the brand (Fernández Valenzuela *et al.*, 2015; Redker *et al.*, 2013).

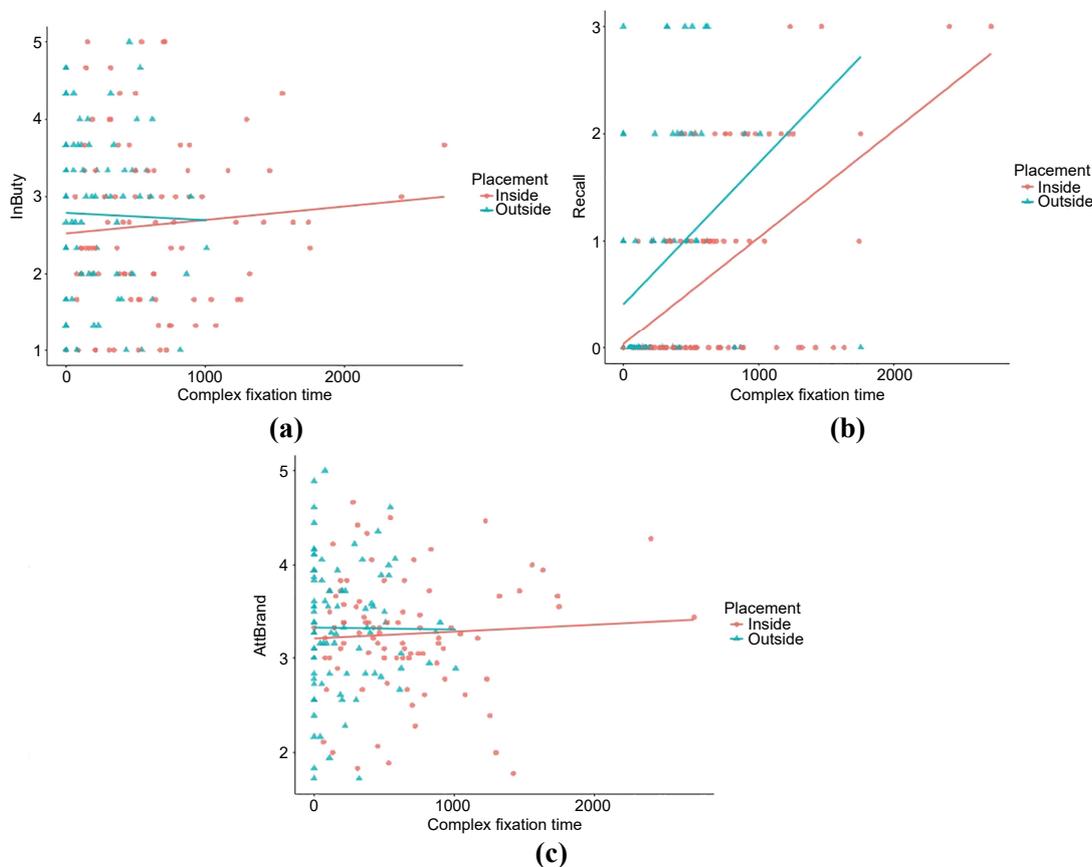
Considering the type of sponsor, we do find significant differences in recall:  $r(192) = 0.43$ ,  $p < 0.01$ . A subsequent ANOVA and post hoc comparisons (Tukey HSD) show that the congruent sponsor is the only one showing differences between the rest  $F(2.191) = 9.89$ ,  $p < 0.01$  ( $\eta = 0.094$ ). Figure 3 shows that with the same fixation time, the incongruous sponsor and the alcohol sponsor have higher recall rates. In other words, incongruent sponsorship and alcohol sponsorship show higher recall rates as brand fixation increases. Other research found that incongruent sponsorships receive more attention and processing time (Alonso Dos Santos and Calabuig, 2018). Incongruent sponsorships need more time to fix, which could lead to better efficacy rates. In the results, alcohol sponsorship resembles the incongruous type, at least in terms of recall and fixation time. Despite their obvious differences, they seem to share these characteristics.

Regarding the interaction effect, only the recall variable has differences between groups. Figure 4H shows that when sponsorship is congruent, the recall is lower than the rest regardless of placement. However, for the alcoholic brand and the incongruous brand the level of recall varies depending on the placement. When the placement is outside the alcoholic brand has a higher recall rate. When the placement is inside, the incongruous brand is the most recalled. This is in the same vein to previous studies that found that inconsistent

|                                 | df      | Univariate $F$ -values |        |          |
|---------------------------------|---------|------------------------|--------|----------|
|                                 |         | Recall                 | IntBuy | AttBrand |
| <i>Covariate</i>                |         |                        |        |          |
| CFT                             | (1.173) | 46.73***               | 0.49   | 0.01     |
| <i>Effects</i>                  |         |                        |        |          |
| Type of sponsorship             | (2.187) | 8.63***                | 1.34   | 2.39*    |
| Placement                       | (1.187) | 10.67***               | 1.22   | 0.38     |
| <i>Interaction effect</i>       |         |                        |        |          |
| Placement * Type of sponsorship | (2.187) | 4.07***                | 0.01   | 1.54     |

**Note(s):** \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$

**Table 2.**  
MANCOVA results



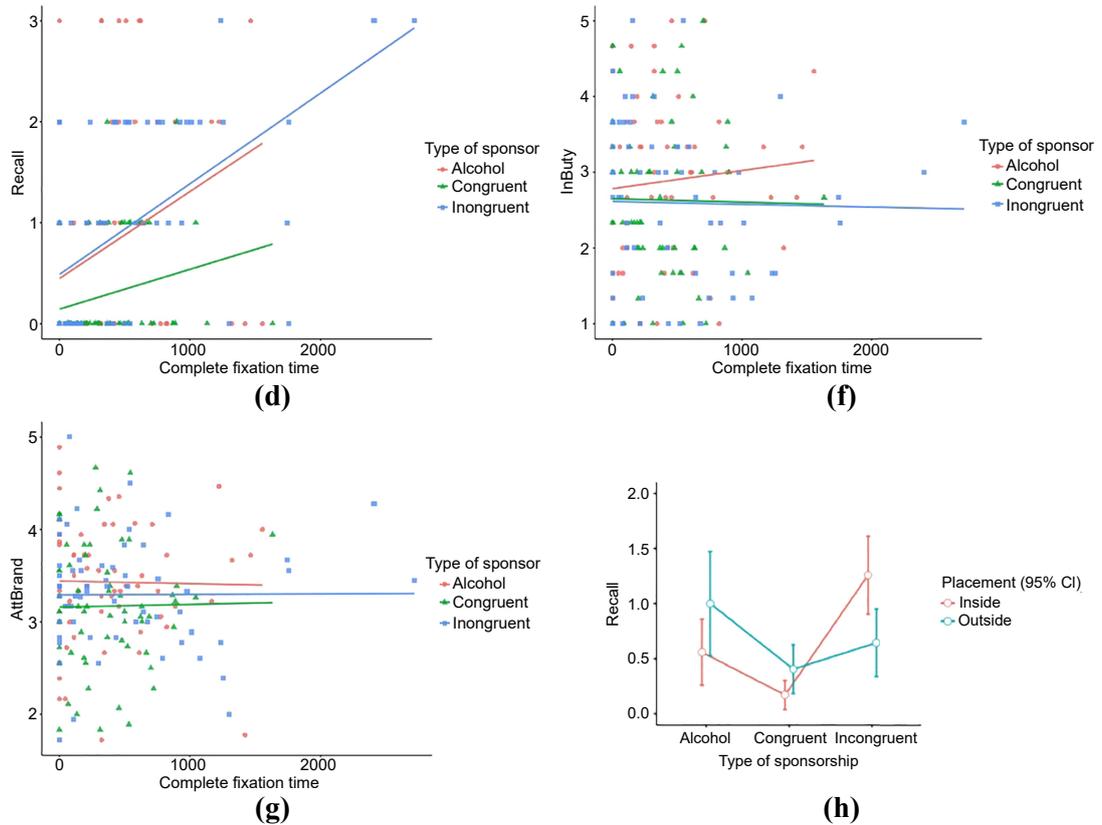
**Figure 3.** Scatterplot for IntBuy, AttBrand and recall by placement

information is better remembered (Chen *et al.*, 2014; Cui *et al.*, 2012; Jagre *et al.*, 2001; Torn and Dahlén, 2008). However, it is not in line with other literature on congruence in sports sponsorship that shows that congruent sponsorships exhibit higher recall rates than incongruent sponsors (e.g., Agnihotri and Bhattacharya, 2020; Bond and Farrell, 2020; Jagre *et al.*, 2001; Gwinner and Eaton, 1999; Wakefield *et al.*, 2007). Our results are not in line with previous research, however, to our knowledge, this is the first time that the time of fixation variable is included.

No significant differences were found at 5% in the other configurations and variables. However, we did find significant differences at 10%. Figure 4G shows that AttBrand is greater for alcohol sponsorship than for the rest, although the post hoc differences between them are not significant. The IntBuy (F) is also larger depending on the type of sponsor for the same fixation time and gradually increasing as the fixation time increases.

## 5. Discussion

Despite the economic importance of sponsorship (Eddy and Cork, 2019), the influence of alcohol on health and the economy, and the lack of information on the effectiveness of sponsorship in decision-making, knowledge of the influence of sport sponsorship of alcohol on amateurs is still deficient, and academic research in the area needs to be increased (Alonso-Dos-Santos *et al.*, 2019). Alcohol marketing is controversial due to its relationship with increased consumption and its role in the initiation of drinking habits among youth and young adults (Kelly *et al.*, 2015). Hence, it is specifically relevant to incorporate new mechanisms for obtaining information, based on experiences and emotional aspects



**Figure 4.** Scatterplot for IntBuy, Recall, and AttBrand by type of sponsor

(Meenaghan and O'Sullivan, 2013; Sung *et al.*, 2019) that allow the identification of underlying processes responsible for decision-making processes, with objective physiological data, thus eliminating the socially accepted response.

Under this premise, this research posed three research questions with the aim of comparing several traditionally accepted performance indicators (recall, AttBrand, IntBuy) of two types of sponsorships (congruent and incongruent), with the sponsorship of alcohol-derived brands (beer). The results show that alcohol sponsorship was higher in the AttBrand and IntBuy variables. This is in line with previous studies (Chen *et al.*, 2014; Cui *et al.*, 2012; Jagre *et al.*, 2001) that pointed out that incongruent information is best remembered. However, these results should be taken with caution because no significant differences were found with respect to the rest of the sponsors for any sponsorship category or placement. These findings are not in line with the model of saliency-based visual attention that suggest that saliency is derived from the visual properties extracted from the visual scene (Breuer and Rumpf, 2015). These findings are contrary to another research that suggested that brand placement increases brand attention (Fernández Valenzuela *et al.*, 2015; Redker *et al.*, 2013). Nonetheless, the results are in line with previous studies that pointed out that although investment in alcohol advertising has increased, no significant changes in consumption among the population have been found (Wilcox *et al.*, 2015).

However, the recall showed a significant relationship with the time of fixation to the brand. The recall of the brand was also significantly higher for incongruent sponsorships and alcohol, and when it was located outside the action zone. This may be because if an advertisement matches one's expectations, the evaluation tends to be positive, but it is less intense and emotional than if it is experienced with inconsistent advertisements (Torn and Dahlén, 2008).

According to the results of this research, we cannot confirm that there are significant differences that make sponsorship of brands that market alcohol products more effective than other brands on the market depending on the indicators used. Therefore, the research questions are only partially resolved. Even assuming the limitation that we have not distinguished between utilitarian-hedonic products or other types of classification and have only classified sponsorships as congruent and incongruent, the differences are only significant for the recall variable. Additionally, this only increases as the time of fixation increases, something otherwise expected. The results seem more likely to show that an alcohol brand is perceived as an incongruous brand in the context of sports sponsorship. But it does not prove that it is statistically different from the latter.

Concerning the implications of this research, the findings suggest that alcohol sport sponsorship should be re-considered by administrations, due to the fact that they do not affect the buying intention of sport consumers. Alcohol sport sponsorship does not seem to increase the alcohol consumptions levels, thus, legislation about sport alcohol sponsorship should be reviewed. Moreover, these brands should consider their location in the poster when they invest in sport sponsor if they want to increase the recall levels. To be more effective, they should be located outside the action zone. Moreover, the sport industry seems to be a good industry for alcoholic beverages to invest in if they want to increase their recall levels.

The placement variable presents significant differences between the different configurations for the recall of the sponsor. [Figure 2B](#) shows that sponsors placed within the action zone have more time to fix, but sponsors located outside the action zone are more effective if we consider the relationship recall – CFT ratio.

The academic literature reports relationships between exposure to alcohol sponsorship and the type of alcohol consumption and attitude toward it ([Alonso-Dos-Santos et al., 2019](#); [Gabrielli et al., 2019](#); [Kelly et al., 2014](#)), but at the same time, evidence of significant relationships between exposure and consumption reports varies between studies ([Brown, 2016](#); [Kelly and Ireland, 2019](#)). Therefore, future lines of research could investigate the actual choice processes of sports fans (versus spectators) after exposure to sponsorship, for example by offering advertised products versus financial incentives as an incentive to respond or by adding discrete choice models for the study of results. In either case, it is still necessary to analyze how cultural variables, habits, involvement and reference groups influence consumption and choice processes (especially in products derived from alcohol). As mentioned previously, the use of new neurophysiological methods may shed light on the underlying processes of consumer behavior ([Sung et al., 2019](#)), for example by using galvanic response, electroencephalogram or facial coding. In any case, it has not been shown that the sponsorship of alcoholic products is more influential than incongruous sponsorship. We hope that these results will serve as a basis for future research in the area to support policy decisions aimed at protecting spectators and encouraging investment in sport.

This research is limited to the sports poster media, so it would be interesting to study the effect of alcohol sponsorship on media such as radio, advertising or social networks. This is important, because some previous research has pointed out differences for alcohol marketing depending on the media channels ([Gabrielli et al., 2019](#)). Also, it should be interesting also to explore sport sponsorship in the context of e-sport. In any case, extrapolation of the results of this experiment must be taken with caution, as we have not sought to reach a representative sample of the population or to understand all its cultural or geographical circumstances.

## 6. Conclusions

There are few studies that analyze the effects of alcohol sponsorship in the sports industry and these present contradictory results. This is worrying, because increasing the consumption of alcoholic beverages is not a desirable behavior for society, and several

organizations are trying to legislate such practices. Therefore, it is interesting to analyze the effects of this type of sponsorship on the consumer's response using other more reliable methods, such as neurophysiological techniques. Through this methodology, the data in this study has shown that an alcohol brand is perceived as an incongruous brand in the sports sponsorship context. However, in comparison with other congruent sponsors in the sport sector, they attract more attention and recall to their brands. Nonetheless, it should be noticed that no differences in terms of intention to buy were found.

Therefore, due to the fact that purchase intention does not increase, perhaps alcohol brands should be reconsidered in the sport industry. It seems that alcohol brands use sport sponsorship as a way to increase their visibility, awareness, recall and/or engagement, but increasing sales is not the main goal (Cornwell, 2019; Meenaghan, 1991). Also, it seems that sponsorship is used to improve the brand image by associating it to a specific sport (teams or sportsmen/sportswomen), and to grab people's attention. It seems that these alcohol brands throughout sport sponsorship seek to be remembered by people when buying alcohol to choose their brand, to be part of the set evoked, but not to increase people's alcohol consumption. Therefore, it is worth mentioning that these results are good for both health and governmental institutions, due to the fact that sports sponsorship does not seem to foster alcohol consumption. Thus, maybe alcohol sport sponsorship restrictions should be reconsidered by policy makers. However, these results should be taken with caution because this research was carried out in a specific context, sample, procedure, and more research is still needed to make that assumption.

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