Eye Tracker Technology in Sports Sponsorship Research

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INTRODUCTION

Sports sponsorship is a common marketing strategy for many commercial organisations. While the objective for sponsoring a sports event can vary across companies, many companies see sponsorship as a means to raise awareness and increase profit (Fullerton, 2010; Mullin, Hardy, & Sutton, 2007; Walliser, 2003). Coupled with the large financial cost in sponsoring sports events, there has been much interest in examining the effectiveness of sports sponsorship particularly in terms of the recall rate of sponsored brands (Walliser, 2003). While it has been established that sports sponsorship is generally effective, there are still many unanswered questions in this area.

In recent years, eye trackers have been employed to provide deeper insights in sports sponsorship research. While the use of eye trackers is established in other research areas, its use in sports sponsorship research is still relatively new. The aim of this paper is to provide an overview of the potential contributions and methodological challenges in the use of eye trackers in sports sponsorship research. The paper will conclude with a discussion on the future directions of sports sponsorship research using other technologies.

BACKGROUND

Many research studies in sports sponsorship have focused on whether spectators are able to recall the sponsors after watching an event (Chadwick & Thwaites, 2005; Cornwell & Humphreys, 2013; Meenaghan & O'Sullivan, 2013; Walliser, 2003). As spectators of sports events are exposed to sponsors at the sporting venues for a prolonged period of time, it is not unexpected that spectators will be able to recall sponsors (Bennett, 1999; Walliser, 2003). Research across many sports including American football (Moore, Pickett, & Grove, 1999; Newell, Henderson, & Wu, 2001), basketball (Maxwell & Lough, 2009; Turley & Shannon, 2000), car racing (Kinney, McDaniel, & DeGaris, 2008), cricket (Boshoff & Gerber, 2008), soccer (Bennett, 1999; Biscaia, Correia, Ross, & Rosado, 2014; Dekhil, 2010; J. H. Lee & Bang, 2005), swimming (Leng, 2017) and tennis (Herrmann, Corneille, Derbaix, Kacha, & Walliser, 2014) have largely established that sports sponsorship is effective. The proportion of respondents who correctly identifies at least one sponsor ranged from 60% of respondents (J. H. Lee & Bang, 2005; Stotlar & Johnson, 1989) to more than 85% of respondents (Biscaia et al., 2014; Moore et al., 1999; Turley & Shannon, 2000). Other studies using the mean number of correctly recalled sponsors as an alternative

measure of sponsorship effectiveness have also found that sports sponsorship can be effective (Dekhil, 2010; Kinney et al., 2008).

Such measures of sponsor recall are based on explicit memory. Explicit memory refers to the intentional and conscious effort to recollect a specific past event (Balasubramanian, Karrh, & Patwardhan, 2006; Herrmann, Walliser, & Kacha, 2011; Holden & Vanhuele, 1999; Yang, Roskos-Ewoldsen, Dinu, & Arpan, 2006). As such, spectators will need to devote cognitive resources in order to recall a sponsor as a substantial degree of mental construction is required (Johar & Pham, 1999; Walliser, 2003). It is thus not surprising that some studies have found that spectators are unable to recall sponsors (Maxwell & Lough, 2009). Mere exposure within the sports venue does not necessarily lead spectators to process the message extensively and encode it for retrieval at a later stage (Lardinoit & Derbaix, 2001). According to the Limited Capacity Model of Mediated Message Processing, spectators have limited cognitive capacity for processing information and will need to allocate cognitive resources between watching a game and processing other peripheral information (Lang, 2000). When spectators are attracted to the game, they will be less likely to attend to peripheral messages from sponsors and as a result less likely to recall sponsors.

It becomes apparent that there is a need to examine the relationship between exposure and brand recall further. Eye trackers have been used in research studies in other fields including advertising and marketing communications. In such studies, the physiological responses of eye movements to advertising stimulus is examined to determine what the respondents is attracted to and how the visual stimuli becomes memory (J. Lee & Ahn, 2012; Taylor & Herbert, 2013). It is only recently that eye trackers are used in sports sponsorship studies (Breuer & Rumpf, 2012). Eye movements are typically characterised by 2 distinct components; fixations and saccades. Fixations are defined as a state where the eye is relatively still for a minimum amount of time typically for a duration of 200 to 500 milliseconds. Saccades, on the other hand, refer to quick and sharp movements, or 'jumps' of the eyes lasting around 20 to 40 milliseconds (Wedel & Pieters, 2008).

EYE TRACKER IN SPORTS SPONSORSHIP RESEARCH

The following describes a sports sponsorship study using an eye tracker to examine the relationship between glance duration and sponsor. This will serve to illustrate the potential contributions of the usage of eye trackers in this field of research.

60 respondents were recruited from a tertiary educational institution in an Asian country for the study. They were asked to watch a five-minute video clip of the FINA World Championship Shanghai 2011 50 meters men's Freestyle finals swimming event. The video clip was played on a computer desktop equipped with a 19-inch monitor, a headset and the SensoMotoric Instrument Remote Eye-tracking Device 250mobile (SMI RED250m). The SMI RED250m can track eye movement at a rate of 250 Hz with a gaze position accuracy of 0.4 degrees. By projecting an infrared light to the surface of the eye, the mini camera in the eye tracker detects the resulting corneal reflection to measure and record the position of the pupil as well as gaze direction. A nine-point calibration and four-point validation process for the participant's eye movements was carried out prior to watching the video clip. This was consistent with other studies using eye tracker (Breuer & Rumpf, 2012; Taylor & Herbert, 2013). The participants were not informed of the actual purpose of the study. This was essential so as to ensure that the participants were not primed to pay attention to the perimeter boards while watching the swimming event (Leng, 2011; Schneider & Cornwell, 2005). At the end of the video, respondents completed a survey instru-

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