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MELBOURNE AUSTRALIA

*Facebook as a second screen: An influence on sport consumer satisfaction and behavioral intention*

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# **Facebook as a second screen: An influence on sport consumer satisfaction and behavioral intention**

## **Abstract**

Little research has examined the use of social media as people watch live sporting telecasts—an activity that has been referred to as the *second screen phenomenon*. The paper proposes and tests a second screen consumer engagement model that captures the actions of Facebook users (N=299) while watching a live sport telecast. Findings highlight the direct and indirect effect of social camaraderie, subjective norm, fan emotion and purposive needs on sport consumers' satisfaction and behavioral intention. The behavioral intention of consumers when using Facebook as a second screen was associated with the increased likelihood of using the platform to purchase team products, make recommendations and investigate sponsors. The proposed model contributes to the emerging literature highlighting the increasing importance of social media as an interactive support channel when people watch live telecasts. The findings have practical implications for managers by providing insights and understanding of consumers when watching telecast sport. Although tested with Thai English Premier League fans, the findings will have relevance across different sports and other business sectors.

## **Keywords**

Social media, Facebook, EPL, satisfaction, sport, behavioral intention, Thailand.

## 1. Introduction

The advent of social media has had a profound impact on how people consume sport (Filo et al., 2015). Notably, social media can act as an interactive channel between the individual and the sport itself, which has been increasingly used for relationship marketing and product consumption (Sellitto 2014; Stavros et al., 2014). Social media broadly refers to how Internet-based applications allow people to post, read and exchange user-content (McCarthy et al., 2014). In the context of sport, Filo et al (2015, p.167) define social media as “..new media technologies facilitating interactivity and co-creation that allow for the development and sharing of user-generated content among and between organizations...and individuals”.

Social media can be used during live sporting telecasts, enabling comments to be posted and exchanged with others online (Billings et al., 2017). This represents an interesting viewing scenario where the activity of watching television (TV) is augmented with the dynamic interactive communication capabilities of social media (Filo et al., 2015; Lim et al., 2015).

The use of social media in this manner has been termed a *second screen experience* (Billings et al., 2017)— allowing people to communicate and share real-time opinions even though not co-located (Bellman et al., 2017). This participatory activity of watching live telecasts of events while using social media (social viewing) can be considered to be a relatively new phenomenon (Lim et al., 2015).

The use of social media per se in sport has been reported from different perspectives. However, there has been limited research examining social media as a second screen, particularly in regards to watching live telecasts (Lim et al., 2015; Auverset and Billings 2016). Arguably, a greater understanding of second screen viewer activities during live sport telecasts provides important insights into the important issue of fan engagement and

behavior. In this study, we used Facebook as an augmenting entity that allowed us to investigate a second screen engagement model. The testing of the model occurred with a group of viewers of the English Premier League (EPL) in Thailand that used Facebook whilst they watched live telecast games.

## **2. Literature review**

Sport consumers can use social media as a concurrent channel to interact with others online while watching sport live on TV or via other telecast forms (Billings et al., 2017). This involves the live broadcast being the primary viewing screen, while a smartphone, tablet or laptop provides the second means of peer-interaction and communication. The second screen experience relies on the use of real-time mediated communication amongst TV program viewers, with social media activity typically achieved via some form of mobile device (Auverset and Billings 2016). Indeed, the use of a second device in conjunction with a primary sport broadcast embodies a different and new approach to the consumption of sport (Lim et al., 2015)— where the social second screen allows the consumer to be more deeply engaged with the events viewed.

Live sport telecasts will have periods of viewer excitement and drama that can potentially stimulate people to use social media as an expressive and interactive outlet during the telecast (Lim et al., 2015). The interaction undertaken in this situation reflects a form of sport consumer engagement that allows a person to draw benefits such as searching for purposive content or posting personal views while interacting with the online community (Stavros et al., 2014; Lim et al., 2015; Wang 2015; Oliveira et al., 2016; Billings et al., 2017). Indeed, consumer engagement via social media has been aligned with brand and product loyalty when an individual's satisfaction demands are addressed (Oliveira et al., 2016). Various

studies have noted a nexus between social media as a mediating factor influencing sport consumer satisfaction— satisfaction that is potentially associated with sport loyalty, pleasure and gratification (Mahan 2011; Lim et al., 2015; Wang 2015; Billings et al., 2017).

### ***2.1 Social Media and the Sport Consumer***

Social media has been shown to be a significant channel for managing relationships with consumers, Oliveira et al., (2016) suggesting consumer engagement via social platforms aligns with discrete levels of satisfaction and brand loyalty. In sport, social media applications have the propensity to improve sponsorship opportunities and are critical for engaging with tech-savvy followers (Dees 2011). Mudrick et al., (2016) suggest that social media is an influential forum that shapes sport fandom. Notably, the viewing of a telecast game or sporting event is no longer a linear activity, with social media tools allowing the consumer to simultaneously access a plethora of different “information, statistics, live feeds, replays, messages and insider observations” (Smith and Stewart 2015, p. 276)— potentially providing them with a more satisfying and fulfilling experience. Social media can be used to engage the sport consumer across several domains to provide *purposive needs* reflecting communication activities, such as creating content, gaining different perspectives about an event and having timely access to information (Mahan 2011; Park et al., 2014; Lim et al., 2015; Wang 2015; Billings et al., 2017). Social media may also provide an *emotional outlet* that allows people to express feelings and views via mobile devices while at sport events (Biscaia et al., 2012; Stavros et al., 2014; Wang 2015). Social media can also be used by sport consumers to interact with others online, reflecting an important form of communal engagement or what might be deemed as *social camaraderie* (Ruggiero 2000; Billings and Ruyhley 2014; Stavros et al., 2014; Lim et al., 2015; Wang 2015).

Sport consumer engagement can also be shaped by attitude at the behavioral level (Yoshida et al., 2014). Various approaches can explain the behavioral intentions of people to undertake tasks which subsequently shape attitudes toward a particular activity, such as adopting and subsequently using social media for sport-related functions. Clearly, in terms of social media adoption among sport consumers, a person's volitional behavior is important to acknowledge and the paper adopts what Fishbein and Ajzen (1975, p. 302) referred to as subjective norm—where subjective norm is a "... person's perception that most people who are important to him think he should or should not perform the behavior in question". Human behavior, from a social psychology context, suggests that a person's actual behavior is determined by his/her intention to actually undertake the behavior— with the subsequent behavioral intentions of an action reflecting an individual's attitude and subjective norm (Ajzen and Fishbein 1975). Hence, in the environment of using social media as a second screen, a factor such as *subjective norm* and its mediating action on *behavioral intention* to use social media is important to include and investigate.

## ***2.2 Sport Consumer Satisfaction***

Satisfaction reflects perceptions associated with comparing pre-conceived expectations with the actual experience of using a product— with positive or negative expectations directly influencing satisfaction levels (Oliver 2010). The notion of satisfaction refers to the 'pleasurable fulfillment response toward a good, service, benefit, or reward' (Yoshida and James 2010, p. 339). Satisfaction can be based on a specific customer experience or an aggregation of experiences (Biscaia et al., 2012)— with overall consumer satisfaction being an indicator of future behavioral intention.

Very few studies have directly explored how satisfaction is associated with social media use by sport consumers. This nexus is extremely important, as the engagement of consumers via social media platforms can foster satisfaction and subsequent brand loyalty (Oliveira et al., 2016). Some studies indirectly refer to the notion of satisfaction in the context of social media and sport. For instance, Mahan (2011) examined social media alignment with sports marketing, noting that a person's perceived favorable, good or positive views toward social media potentially aligned with product promotion. Wang (2015) related personal attitude to how good, enjoyable or pleasant an experience was when using social media at an event—again indirectly aligning what might be pleasurable or fulfilling responses to a stimulus associated with social media use. Lim et al., (2015) suggest social media use can support fan loyalty. Given that consumer satisfaction is a positive determinant associated with promoting consumer product or service loyalty (Yoshida and James 2010), it can be assume that sport consumer satisfaction was an implicit mediating issue associated with Lim and colleagues (2015) findings. Clearly, when using social media as a second screen, any *satisfaction* associated with using such platforms can be viewed as being an influencing factor. Implicit in the investigation of how social media might affect personal satisfaction are the previously noted consumer engagement attributes of *purposive needs*, *user emotions*, *social camaraderie* and *subjective norm* that may also directly influence satisfaction.

### **3. Research model and hypotheses**

The previous section's literature allows a model (Figure 1) to be proposed. The model includes independent variables that shape behavioral responses associated with the use of social media as part of a second screen scenario. Specifically, it is proposed that the use of social media by the sport consumer in a second screen scenario will be mediated by

purposive needs, user emotions, social camaraderie and subjective norm constructs that will influence consumer behavioral intentions and sport consumer satisfaction.

The model's dependent variables are sport consumer satisfaction and behavioral intentions. The issue of consumer behavioral intentions relates to the continual use of this type of platform as part of a consumer's live sport viewing activities. Arguably, the behavioral intentions that align with the continued use of social media during live sport telecasts can potentially influence how a person might recommend future games, the team's products and/or sponsor-promoted wares.

Insert Figure 1 here

### ***3.1 Purposive Needs***

Purposive needs reflects how people use social media applications to interchange information with others online (Oliveira et al., 2016). Social media can provide sport fans an opportunity to participate in content synthesis, co-creation and information sharing (Lim et al., 2015). Furthermore, social media can facilitate specific access to information on athletes, teams, an actual game or future sport events (Mahan 2011; Clavio and Walsh 2014; Smith and Stewart 2015; Billings et al., 2017)— addressing what might be considered to be information timeliness, currency and relevancy. Spectators use social media when attending games to access event-related information that allows them to be better informed so as to express their sport knowledge among peers also using social media (Wang 2015)— an activity that underpins bi-directional information flows. From a functional perspective, social media adoption by the sport consumer allows them to conveniently and unobtrusively access information for subsequent dissemination (Mahan 2011; Wang 2015)— reinforcing the



purposive value aspect of social media. Hence, with regards to the using social media as a second screen when watching a live sport telecast, the following hypotheses are proposed:

H1— There is a positive direct relationship between purposive needs and behavioral intention when using social media while watching a live sport telecast.

H2— Purposive needs positively influence user satisfaction when using social media while watching a live sport telecast.

### ***3.2 User Emotions***

People experience different types of emotions as a result of undertaking sport-related activities (Jones et al., 2005). Emotions relate to the way people react to a particular stimuli which will generally invoke some cognitive, physiological or behavioral reaction (Biscaia et al., 2012). From a sports consumer perspective, social media has been associated with various user emotions. For instance, social media has been noted as promoting emotional connections, enhancing the excitement of attending an event (Thompson et al., 2016). An analysis of Facebook comments by basketball fans identified that certain emotional states underpinned various aspects of the content posted (Stavros et al., 2014). The experienced emotional states reflected features of team praise, love and expectations. At sport venues, social media can allow emotion-based stimuli associated with a game to direct social media exchanges of support or disapproval one's own team or the opposition (Wang 2015). In the context of using social media to gauge sport broadcaster loyalty, it has been suggested that social media allows people to express feelings of emotional engagement— embodied in behavioral elements of frustrations, disappointment, amity, joy and excitement (Lim et al., 2015). Arguably, the dramatic and evolving nature of a live sport telecast will generate

personal emotions— with social media acting as an expressive conduit for such emotions.

Hence, with regards to using social media as a second screen when watching a live sport telecast, the following hypotheses are proposed:

H3— There is a positive direct relationship between user emotions and behavioral intention when using social media while watching a live sport telecast.

H4— Emotions positively influence user satisfaction when using social media while watching a live sport telecast.

### ***3.3 Social Camaraderie***

Social media enables sport fans to engage with others in activities that can encourage relationship building (Stavros et al., 2014). Indeed, the authors identify a primary motivation for using social media is to foster community-directed comments that allow a person to interact and socialize with other sport consumers, fans and aficionados. Thompson et al., (2016) indicates that social media can be used to promote fan-to-fan interaction, with highly knowledgeable fans connecting with those who are less-informed. Typically social media can provide people an opportunity to experience social connectivity and reciprocal social interaction—allowing them to increase their reputation (Messhi et al., 2015). According to Popp and Woratschek (2016), a person's involvement with an online community can provide sporting sponsors and managers valuable opportunities to use social media as an important communication medium. Messhi et al., (2015) propose that when an individual posts social content it reflects a person's self-referential thoughts. Any commentary on these posts by social peers tends to result in a milieu of ideas. Stavros et al., (2014) suggest that using social media allows people to share positive or negative fandom experiences when interacting with

others. These experiences embody aspects of camaraderie that allow consumers to promote their sport knowledge, provide a sense of identification, enable peer socialization and encourage group affiliation. Billings et al., (2017) indicates that social media affords different opportunities for social interaction, with Facebook offering greater interaction than Snapchat, Instagram, Pinterest or Twitter. Wang (2015) examined the value-expressive nature of social media at a sport event— noting how social media enabled people to express sporting interests and affiliations through online social interaction. Arguably, using social media interaction to share fandom experiences, promote one's sport knowledge, interests and affiliations is a form of sport social camaraderie. Hence, with regards to using social media as a second screen when watching a live sport telecast, the following hypotheses are proposed:

H5—There is a positive direct relationship between social camaraderie and behavioral intention when using social media while watching a live sport telecast.

H6— Social camaraderie positively influences user satisfaction when using social media while watching a live sport telecast.

### ***3.4 Subjective Norm***

Subjective norm directly aligns with Fishbein and Ajzen's (1975) theory of planned behavior where the authors propose that the perceived values and views of others can direct what a person should or should not do in regards to a particular action. Byon et al., (2014) reiterates that subjective norm can be a significant mediator that directs behavioral intentions particularly when it comes to future purchase of sport products. Clavio (2011) used the theory of planned behavior to compare social and traditional media sport communications— proposing that subjective norm explained social media adoption across different age groups.

Wang (2015) used a person's attitude toward social media and functional utility to investigate spectator perceptions during sport events. The study identified that attitude, motivation and subjective norms influenced behavior with regards to using social media. Indeed, subject norms were shown to influence behavior by providing people with cues for appropriate conduct and how they might behave among friends and family. The engagement of sport consumers at the individual level, tends to be shaped by behavior and attitude (Yoshida et al., 2014)— which will invariably be shaped by peer-group norms and interactions. Hence, with regards to the using social media as a second screen when watching a live sport telecast, the following hypotheses are proposed:

H7—There is a positive direct relationship between subjective norm and behavioral intention when using social media while watching a live sport telecast.

H8— Subjective norm positively influence user satisfaction when using social media while watching a live sport telecast.

### ***3.5 Satisfaction***

Sport consumer satisfaction has been shown to have a positive impact on behavioral intentions, be it related to future purchase intentions, the re-use of stadium services or re-attending sport events (Biscaia et al., 2012; Chen et al., 2013; Theodorakis et al., 2013). The notion of satisfaction can reflect a response associated with attaining pleasurable fulfillment in regards to experiencing sport attributes (Yoshida and James 2010). Indeed, a significant relationship between the satisfaction experienced and subsequent behavioral intention of a person to undertake some further activity has been well established (Biscaia et al., 2012). Social media use by consumers can lead to satisfaction and subsequent loyalty in regards to

products, a service or brand (Oliveira et al., 2016). Several sport-related social media studies have indirectly examined satisfaction through the personal attitude construct which has subsequently shaped behavioral intention to undertake future actions (Mahan 2011; Wang 2015). Arguably, a person's satisfaction when using social media as a secondary screen during a live sport telecast can be a positive and pleasurable fulfilling activity— an activity that potentially affects future behavioral intention to continue to use this communication mode for sport related purposes. Hence, with regards to the using social media as a second screen when watching a live sport telecast, the following hypothesis is proposed:

H9— Satisfaction positively influences behavioral intention when using social media while watching a live sport telecast.

## **4. Methodology**

### ***4.1 Survey Items***

The proposed model items were selected from previous research that examined social media use in a sport consumer context (Mahan 2011; Biscaia et al., 2012; Clavio and Walsh 2014; Park et al., 2014; Stavros et al., 2014; Lim et al., 2015; Wang 2015; Oliveira et al., 2016; Billings et al., 2017). The model included 24 items (see Appendix) that were associated with purposive needs (PN), user emotions (UE), social camaraderie (SC), subjective norm (SN), behavioral intention (BI) and sport consumer satisfaction (SA). A survey questionnaire was used to collect data, with each item measured against a seven point Likert scale. Respondents were asked to indicate their agreement with item statements that ranged from strongly disagree (1) to strongly agree (7).

Survey questions were developed in English and then translated into Thai. The Thai version of the survey was pre-tested on a group of Thai sports consumers that used social media while watching live telecasts of the EPL (a typical second screen scenario). This allowed the authors to identify any anomalies associated with question ambiguity, wording, visual layout and instructions (Phonthanakitithaworn and Sellitto 2016). The survey was formatted for web-based delivery and pilot tested (N=30) to allow any further anomalies to be identified.

#### ***4.2 Sampling and Data Collection***

People can adopt a diverse number of social media channels to follow sport. We chose Facebook as the social media platform in this study as it was the most widely adopted social media site in Thailand— with activities on the site being much higher than the global average (Vichienwanitchkul 2015). Furthermore, over 90% of Facebook users in Thailand access the site via a mobile device. Notably, Facebook is a prominent hub for exchanging information and remaining in contact with others (Lev-On 2017). Hence, participants in the study were Thai sport consumers who used Facebook while watching live English Premier League (EPL) football games. The choice of EPL over other sports was underpinned by the popularity of English football in Thailand, where games tend to be watched live even though telecast late at night (Harris 2015).

The study adopted a convenience sampling approach with data collected via an online survey in mid-2016— resulting in 299 valid responses. Of the participants in the study, 71.6% (N=214) were male and 28.4 % female (N=85). The 18-29 year age group had the highest (N=259) sample representation with other age groupings being 30-39 years (N=36) and above 40 years (N=4).

## **5. Data Analysis and Results**

Structural equation modeling (SEM) was used to analyze the data. The data analysis used a measurement model to assess the reliability and validity of construct items, while a structural model was used to test the model's hypotheses.

### ***5.1 Measurement Model Assessment***

Confirmatory factor analysis (CFA) of all items was conducted simultaneously to evaluate the validity of the items and the six underlying factors. According to the recommended acceptance level by Hair et al., (2010), the resultant fit statistics indicated that the measurement model was a good fit to the data with  $X^2 = 5713.019$  and  $df = 276$  ( $p = 0.000$ ). Furthermore, the goodness of fit index (GFI) = 0.916, the normed fit index (NFI) = 0.941 and the comparative fit index (CFI) = 0.981 were found to be greater than the minimum acceptance value of 0.9. The root mean square error of approximation (RMSEA) = 0.039 was lower than the suggested limit of 0.05.

Validity includes convergent validity and discriminant validity. Convergent validity measures whether items effectively reflect the corresponding construct, whereas discriminant validity measures whether two factors are statistically different. Table 1 lists the standardized item loadings, the average variance extracted (AVE), composite reliability (CR) and Cronbach  $\alpha$  values. Most items loadings are larger than 0.7. The T-values indicate that all loadings are significant at 0.001. Each AVE exceeds 0.5 and CR exceeds 0.7. Thus, the scale has a good convergent validity (Hair et al., 2010). In addition, all  $\alpha$ -values are larger than 0.7, suggesting a good reliability (Tabachnick and Fidell 2006).

Insert Table 1 here

Discriminant validity compared the square root of AVE and factor correlation coefficients (Table 2). For each factor, the square root of AVE (in parentheses) is significantly larger than its correlation coefficients with other factors, suggesting a satisfactory level of discriminant validity (Fornell and Larcker 1981).

Insert Table 2 here

In summary, the results of the measurement model support the reliability and validity of constructs proposed in the model, which underpins the further testing of the research hypotheses.

## ***5.2 Structural Model Assessment and Hypotheses Testing***

The results of the full structural model showed that there was a good fit of data to the proposed model ( $X^2 = 5713.019$ ,  $df = 276$ ,  $GFI = 0.916$ ,  $NFI = 0.941$ ,  $CFI = 0.981$ ,  $RMSEA = 0.039$ ). Each hypothesis was tested by examining the path significance. Figure 2 illustrates the path diagram with the standardized structural parameter estimates included.

Insert Figure 2 here

As for the structural relations for sport consumer satisfaction, the effect of purposive needs ( $H2$ ), user emotions ( $H4$ ), social camaraderie ( $H6$ ), subjective norm ( $H8$ ) are supported ( $\beta = 0.202$ ,  $p < 0.001$ ,  $\beta = 0.237$ ,  $p < 0.001$ ,  $\beta = 0.162$ ,  $p < 0.01$ ,  $\beta = 0.429$ ,  $p < 0.001$  respectively).



In other words, purposive needs, user emotion, social camaraderie and subjective norm played a key role influencing sport consumer satisfaction when social media is used as a second screen. These constructs explained 74 per cent of the total variance in consumer satisfaction— the greatest effect being associated with subjective norm.

With respect to the effect on behavioral intention, there are three robust confirmations.

Consumer perception associated with social camaraderie, subjective norm and satisfaction all positively affected behavioral intention ( $\beta = 0.417$ ,  $p < 0.001$ ,  $\beta = 0.199$ ,  $p < 0.05$ ,  $\beta = 0.219$ ,  $p < 0.05$  respectively). Therefore, the findings significantly support H5, H7, and H9. The model explains 71 per cent of the total variance in behavioral intention, with social camaraderie contributing the greatest effect. The unconfirmed purposive needs (*H1*) and user emotion (*H3*) do not support the predicted relationship.

### ***5.3 Post-hoc Mediation Analysis***

A formal test of indirect effects using a bootstrap procedure examined the mediation effects associated with path analysis. Table 3 results indicate that there is no significant direct effect of purposive needs and user emotions on behavioral intention. However, the effect of purposive needs and user emotions are fully mediated via the satisfaction construct. The result also suggests there is significant direct and indirect effect of social camaraderie and subjective norm on behavioral intention. There is evidence for partial mediation of the effect through satisfaction. For the indirect path, the effect of subjective norm on behavioral intention is stronger than the effect of user emotions, purposive needs, and social camaraderie through the same mediated path ( $\beta = 0.094$ ,  $0.052$ ,  $0.044$ , and  $0.036$ , respectively). Among variables affecting behavioral intention, the total effect results indicate that social camaraderie has the highest influence with a  $\beta$  of  $0.425$ , followed by subjective norm,

satisfaction, user emotions, and purposive needs with  $\beta = 0.293, 0.219, 0.118,$  and  $0.113,$  respectively.

Insert Table 3 here

## **6 Discussion**

The paper proposed a model to investigate the concurrent use of social media by consumers while watching a live sport telecast. Facebook was the platform used as the social media platform in this study.

The results identified the key role of social camaraderie on sport consumers' satisfaction and behavioral intention when using Facebook while watching a live sport telecast. Prior studies (Stavros et al., 2014; Wang 2015; Thompson et al., 2016; Billings et al., 2017) noted social media as an interactive engagement channel for fans during sporting episodes and engagement. The results suggest that during a telecast, the concurrent use of social media increases the degree of fan-to-fan engagement and connectivity, thus leading to enhanced consumer satisfaction. All four constructs aligned with increased consumer satisfaction.

Of particular note was how the notion of social camaraderie was a leading influence on behavioral intention. Arguably, Facebook provides a significant interactive environment for telecast viewers, allowing them to not only promote their sport knowledge, but enabling peer socialization that encourages positive group affiliation. Indeed, the influence of social camaraderie with regards to behavioral intentions are such that consumers are highly likely to use this medium (Facebook) to promote future games, directly purchase products or explore sponsor's offerings. Subjective norm reflects the influence of social peers, family and

friendship groups on an individual's behavior (Fishbein & Ajzen, 1975). The findings indicate a strong effect of subject norm on satisfaction in the context of using Facebook during a telecast. Previous studies have indicated that consumers tend to be shaped or mediated by subjective behavior and attitude (Byon et al., 2014; Yoshida et al., 2014)— with Wang (2015) reporting that the subjective norm influenced social media use at a sport event. Notably, our findings identify the influence of friends, parents and peers as an important determinant in using and continuing to use the Facebook site as a second screen during telecasts— an issue that also underpins satisfaction.

There is a strong effect of user emotions on sport consumer satisfaction when using Facebook while viewing a telecast game. This finding is important in that it illustrates how the simultaneous use of a second channel by viewers can be an enabler for expressing emotive feelings that might be stimulated by the telecast. Indeed, live EPL football telecasts will have elements of excitement, drama and unpredictability that can all heighten viewer emotions. Wang (2015) noted that social media could be used by fans to express their feelings and emotions while attending a sporting event. We contend that our findings reinforce this feature— identifying that Facebook can provide an expressive communication conduit during live telecasts to release emotions. The findings also highlight how social media platforms like Facebook allow viewers of the primary sport consumption channel (the telecast) to achieve a heightened level of satisfaction that further influences behavioral intention to continue using the medium as a second screen.

Finally, consumer purposive needs influenced sport consumers' behavioral intention through satisfaction. We propose that sport consumers when using Facebook while watching a telecast have an opportunity to reciprocally exchange sport information with other people

online, thus contributing to their satisfaction levels. This finding is not only consistent with previous studies that examined social media use by venue spectators (Mahan 2011; Park et al. 2014; Billings et al. 2015; Lim et al. 2015; Wang 2015), but also re-iterates the value of social media in creating content, acquiring perspectives about an event and having convenient access to timely information.

### *6.1 Managerial Implications*

The study has certain practical implications for managers who wish to understand the influence of Facebook (and social media per se) when used as a second screen.

Social camaraderie enacted via Facebook during a sport broadcast reflected fan-to-fan engagement that influenced satisfaction and behavioral intention. Ideally, managers should seek opportunities to promote camaraderie and interaction between fans using social media. For instance weekly match quizzes or interactive forums to encourage and foster interaction will potentially lead to more intense levels of camaraderie and engagement. This increased camaraderie activity enables an environment where consumers are potentially encouraged to explore sponsors' products and/or promote a sport.

The effect of subjective norm on satisfaction and behavioral intention demonstrates the crucial role of a person's peers, family and friends (personal network) in directing the adoption of social media platforms such as Facebook while watching broadcasts. Managers will not be able to alter the intricate relationships established as part of a person's personal network. However, they need to recognize that people's personal networks will tend to influence their social media activities, which are associated with it being suitably used as a second screen channel when consuming sport. Given the contributing influence of subjective

norm on the second screen experience and the associated high levels of consumer satisfaction identified in the study, managers should ideally explore novel ways to promote social media interactions amongst viewers and their peers, friends and family.

Viewer emotions will significantly affect satisfaction and subsequent behavioral intention—highlighting an importance aspect of Facebook as an outlet for expressing personal views, values and feelings about a game. These expressions tend to occur through the posting of comments, pictures or videos. Therefore, managers should make a concerted effort to ensure that any social media channels they control (for instance, a team's own Facebook, Snapchat or Twitter accounts) be designed to easily capture and record the diverse range of fan-generated content. Such content will invariably have emotional threads, which our results suggest will heighten satisfaction and influence behavioral intentions.

Purposive needs were related with behavioral intention when Facebook was used during a telecast. Sport consumers tend to utilize social media in general to acquire information about a sport they watch. This enables them to be better informed about sport— which in turn allows them to exchange their sport knowledge through online personal and peer networks. Clearly, the availability of information that is timely, current and relevant is important to the sport consumer. The intrinsic value of this type of information provided via social media during live telecasts should not be underestimated.

## *6.2 Theoretical Implications*

Very few studies have provided insight into the adoption of social media platforms such as Facebook as a secondary conduit while watching live telecasts. Hence, the conceptual model presented in the paper contributes to the nascent literature on understanding the influence of

social media use as a second screen channel— particularly within the domain of live sport telecasts. The direct application of the model to sport consumption is important given that sport consumers do not behave like the typical business customer (Sellitto and Hawking 2015). Sport product consumption is strongly directed by personal emotions, entertainment and team identity— highlighting some of the unique features that directly shape the behavior of the sport consumer (Billings and Ruihley 2014). Indeed, sport consumers have been shown to closely identify with teams, players and even a particular sport code that can direct them to be unconditionally committed to a sport product and brand (Hoye et al., 2012). Many of these unique aspects of the sport consumer reflect part of the sport milieu where fans are unlikely to desert or abandon a sporting code, the team they follow or a player they may support— regardless of performance. Contrast this with the typical business consumer who when confronted with poor product performance and dissatisfaction is likely to seek an alternate (Buttle and Maklan 2015)

Notably, the proposed model's specific focus and applicability to the second screen scenario during a telecast draws its constructs from the existing literature to shed further insights regarding consumer engagement. The model's constructs of purposive needs, user emotions, social camaraderie and subjective norms are all significant factors that potentially affect consumer satisfaction and/or behavioral intention while watching a broadcast. Therefore, the proposed model should serve as primary research framework in its current form. Alternately, the model can incorporate newly conceived constructs or be refined after further investigation across different contextual situations.

## **7. Conclusion**

The paper proposed a model to explain the influence of social media on sport consumers while watching a live telecast. Facebook was the social media platform used to explore the model's proposed constructs. We reported that social camaraderie, subjective norm, fan emotions and purposive needs all had a key role in influencing satisfaction when social media was used in conjunction with viewing live TV games. However, not all constructs directly influence consumer behavioral intentions to promote, investigate and/or purchase sport related products.

Little research has examined the use of social media platforms while people watch live sporting telecasts. The proposed model highlights the significance of social media platforms such as Facebook as a powerful support channel for people to express themselves when concurrently viewing a live TV telecast. The findings have practical implications for managers by providing insights and understanding of consumers during live TV telecasts, particularly in regards to sport.

## **8. Limitations and Future Research**

The study focused on satisfaction and behavioral intention as the dependent variables to interpret sport consumer behavior. Therefore, further work may consider improving measurement reliability by employing additional methods, such as a field study and/or a longitudinal study to more closely observe and investigate the difference between current intention and future intention in consumer use of social media as a second screen. We sourced our constructs from the literature and, given the evolving nature of social media research, other potential unreported constructs may become evident over time. Hence, future research using a richer research methodology combining quantitative and qualitative methods is called for.

People can use a diverse number of social media channels to watch live TV. We chose Facebook in this study as the most widely adopted social media in Thailand. However, different social media platforms will have different functional communication and content creation features. Hence, the model can potentially be used with different platforms such as YouTube, Twitter and Snapchat in order to explore how these media influence viewer behavior. In the study, we assumed an equivalent experience across broadcast viewing mediums (internet streaming, cable TV, etc) and viewing environments (home, sport bar, etc). These issues may have potentially affected satisfaction and behavioral intention findings. Ideally, future research should explore these differences.

The study focused on EPL fans in Thailand. Given that football has a passionate following in Asian markets (Bodet and Chanavat 2010), the model may be found to be unsupported when tested in other sports settings— for instance, user emotions may not be an influencing factor in sports that are passive when compared to EPL games. Hence, comparative studies between different sports may identify differences and/or new constructs.

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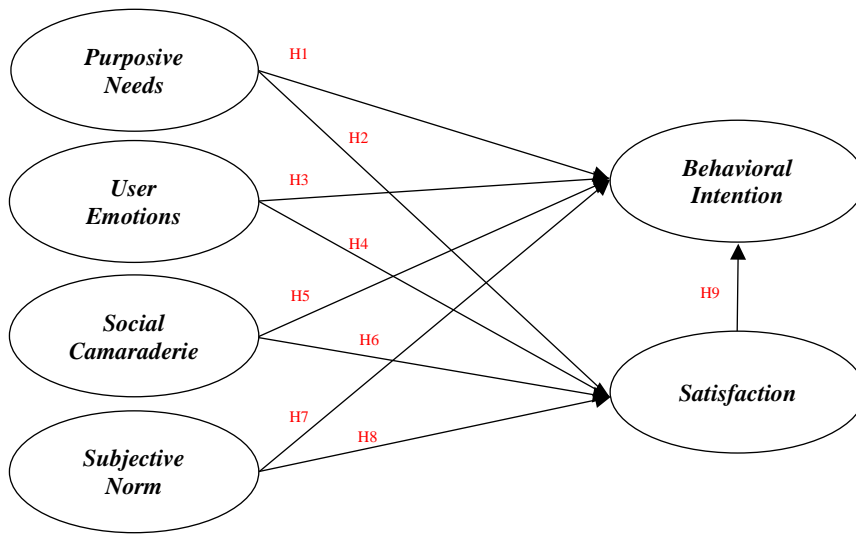
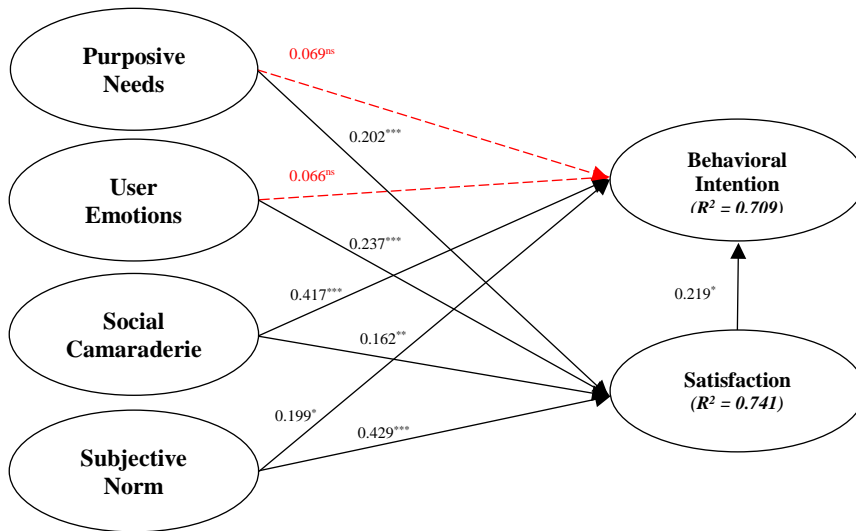


Figure 1 Hypothesized model of consumer engagement via the second screen



Note: (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; ns = not significant)

Figure 2 Results of structural path analysis for the research model and hypotheses

Table 1 Confirmatory factor analysis of the measurement items

<b>Factor</b>	<b>Item</b>	<b>Standardized loading</b>	<b>CR</b>	<b>Cronbach <math>\alpha</math></b>	<b>AVE</b>
<b>Purposive Needs (PN)</b>	PN1	0.771	0.805	0.803	0.580
	PN2	0.816			
	PN3	0.693			
<b>User Emotion (UE)</b>	UE1	0.767	0.903	0.910	0.700
	UE2	0.843			
	UE3	0.893			
	UE4	0.838			
<b>Social Camaraderie (SC)</b>	SC1	0.858	0.901	0.899	0.752
	SC2	0.895			
	SC3	0.847			
<b>Subjective Norm (SN)</b>	SN1	0.802	0.897	0.886	0.684
	SN2	0.838			
	SN3	0.846			
	SN4	0.822			
<b>Satisfaction (SA)</b>	SA1	0.874	0.931	0.932	0.693
	SA2	0.878			
	SA3	0.863			
	SA4	0.855			
	SA5	0.764			
	SA6	0.752			
<b>Behavioral Intention (BI)</b>	BI1	0.762	0.869	0.876	0.625
	BI2	0.876			
	BI3	0.747			
	BI4	0.770			

Table 2 Squared correlations and the average variance extracted (AVE)

	SA	PN	UE	SC	SN	BI
SA	<b>(0.833)</b>					
PN	0.603	<b>(0.762)</b>				
UE	0.737	0.612	<b>(0.836)</b>			
SC	0.689	0.439	0.634	<b>(0.867)</b>		
SN	0.776	0.431	0.637	0.671	<b>(0.827)</b>	
BI	0.751	0.510	0.661	0.773	0.720	<b>(0.790)</b>

Table 3 Direct, indirect and total effects of the relationships

Independent variables	Satisfaction ( $R^2 = 0.741$ )			Behavioral Intention ( $R^2 = 0.709$ )			Post-hoc mediation analysis results
	Direct effect	Indirect effect	Total Effect	Direct effect	Indirect effect	Total Effect	
Purposive Needs	0.202***	-	0.202*** (H2)	0.069 <sup>ns</sup> (H1)	0.044*	0.113*	Full mediation
User Emotions	0.237***	-	0.237*** (H4)	0.066 <sup>ns</sup> (H3)	0.052*	0.118*	Full mediation
Social Camaraderie	0.162**	-	0.162** (H6)	0.417*** (H5)	0.036*	0.425***	Partial mediation
Subjective Norm	0.429***	-	0.429*** (H8)	0.199* (H7)	0.094*	0.293*	Partial mediation
Satisfaction	-	-	-	0.219* (H9)	-	0.219*	Direct effect on BI

Standardized coefficients \*p<0.05; \*\*p<0.01; \*\*\*p<0.001; ns = not significant

## Appendix

<b>Measurements</b>
<i>When I watch telecast EPL games I use social media because...</i>
PV1. It allows me to be more knowledgeable about the game
PV2. It allows me to search for new information about players, teams and the game
PV3. It lets me to keep track of scores
<b>User Emotion</b>
<i>When I watch telecast EPL games I use social media because...</i>
UE1. It allows me to get excited
UE2. It allows me to be joyful
UE3. It allows me to share experiences about a game
UE4. It allows me to express my emotions about a game
<b>Social Camaraderie</b>
<i>When I watch telecast EPL games I use social media because...</i>
SC1. It helps keep the social group attention on me
SC2. It show others that I am knowledge/expertise about sport
SC3. It will make me appear more popular
<b>Subjective Norm</b>
<i>When I watch telecast EPL games I use social media because...</i>
SN1. My friends expect me to use social media
SN2. My friends also use social media
SN3. My generational group expect me to use social media
SN4. My generational group also use social media
<b>Satisfaction</b>
<i>When I watch telecast EPL games I use social media because...</i>
SA1. It is satisfying
SA2. It is pleasant
SA3. It is enjoyable
SA4. It is exciting
SA5. It is relaxing
SA6. It makes me feel overall good
<b>Behavioral Intention</b>
<i>When I watch telecast EPL games I use social media because...</i>



BI1.	It is likely that I will use social media to recommend my team's games to others
BI2.	It is likely that I will use social media to encourage friends to watch
BI3.	It is likely that I will use social media to purchase my team's products
BI4.	It is likely that I will use social media to further investigate my team's sponsors