

Article

Social TV Engagement for Increasing and Sustaining Social TV Viewers

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Abstract: With little known about how social TV (STV) strategies can be harnessed by the broadcasting industry in order to increase and sustain their viewers, this study brings new insight to the social TV phenomenon by investigating the effect of game uncertainty and social media use (SMU) on social TV engagement in generating network loyalty (NL). The study also analyzed the mediating effect of severity between game uncertainty and social media use with social TV engagement. SmartPLS 3 was used to analyze the survey data of 364 participants for the proposed model, and the findings from the study revealed that game uncertainty and social media use have a positive effect on social TV engagement, which positively influences network loyalty. In addition, it was seen that severity mediates the relationship between game uncertainty and social media use with social TV engagement.

Keywords: social TV; game uncertainty; perceived severity; social media; social media use; social TV engagement; network loyalty

1. Introduction

Social television is the union of television and social media. This has encouraged a massive rise in connectivity and content engagement among TV viewers via social media interactions [1]. Millions of people now share their TV experience with others on online social networking platforms such as Facebook and Twitter. Social TV is a multi-screening and multitasking environment that gives TV viewers the luxury of following their favorite programs, sharing TV-related content, converting TV viewing to online events, and connecting with other viewers before, during, and after the program [2]. This has encouraged content providers, major broadcasting networks, and streaming websites to integrate online social networking components into their system to help in promoting programs, attracting new viewers, engaging fan bases, and influencing their viewers [1].

Prior studies have shown that over 80% of primetime Twitter users constantly tweet about TV programs, with 72% of them tweeting in real time while watching live programs, another 58% tweeting while viewing content platforms (e.g., Netflix), and 60% tweeting while not viewing [3]. It has also been documented that over 60% of individuals using smartphones and tablets convert their gadgets into a second screen when viewing TV programs [1], with close to one-quarter of multi-screen activities related to TV programs [4]. Other studies have shown that social TV users prioritize the perception of their co-viewers as cues in interpreting the program they are watching on TV, despite them having the liberty of forming their own independent impression of the program [5].

The social TV concept has brought massive impact to the sporting world, as most fans have made it a habit to communicate with co-viewers online while watching the sporting event. As the authors of [6] and [7] have stated, over 47% of sports fans exhibit social TV viewing behaviors such that they get actively engaged in sharing sport-related comments, participating in online contests, and commenting on the sport-related photos and videos while watching the game on TV. Other research by [8] shows

that sports fans depend on social media in catering for their social, informational, and emotional needs while watching live sporting event on TV. Despite the dyadic chemistry existing between social TV and sports fans, it is surprising that little attention has been giving to the study of social TV in a sporting context especially in the area of soccer, resulting in authors calling for more research on social TV engagement in the soccer context [7,9]. To this end, the current study aims to contribute in two main ways to social TV studies by bringing new insight for increasing and sustaining social TV viewers. First, by improving the current knowledge on the determinants and outcomes of social TV engagement through conceptualizing the effect of game uncertainty [10] and social media use (SMU) [11] as determinants and network loyalty (NL) as the outcome. Secondly, to provide more insight into the determinants of social TV engagement by analyzing the role of perceived severity [12] as a mediator between game uncertainty and social media use in social TV engagement.

2. Literature Review

The relatively few scholars that have worked on social TV engagement have addressed it from different views. The authors of [13] showed that social TV engagement is in three dimensions, namely: functional engagement, communal engagement, and emotional engagement. Functional engagement is defined as the process of individuals interacting with others in real time on a social media platform while viewing the televised event. Emotional engagement is defined as the emotional feelings a viewer has with a TV program and also others on the social media platform. While communal engagement is seen as a state characterized by individuals advocating and collaborating with other individuals on social media platform while watching a televised event. The authors of [14] addressed social TV engagement in two perspectives: personal engagement and social interactive engagement. With personal engagement, individuals yearn for stimulation and inspiration by speaking about what they are watching with others on a social media platform; in addition to the fun they have while engaging, they have the feeling that the platform reflects their personal values. With social interactive engagement, individuals obtain more values from both socializing and participating, as well as from the input they can get from the other viewers. The authors of [7] portrayed social TV engagement to be either active or passive. Active engagement occurs when a viewer post contents (e.g., comment, pictures, and videos) on social media about the TV program they are watching, while passive engagement occurs when viewers just read and watch other active social TV viewers' posts. The authors of [15] explained social TV engagement as an interaction occurring between viewers and media whereby the viewers get to discuss with others on social media while watching a TV program. This was also in sync with the definition of social TV engagement in reference [1] as the process where viewers consume TV programs and actively take part in discussions and activities related to the program on social media.

3. Theoretical Foundations and Hypotheses

Media system dependency theory: Media system dependency theory was proposed in 1976 by Ball-Rokeach and DeFleur to explain the contingent effects of mass media on people [16]. Media systems dependency theory is based on the dynamics of people becoming more dependent on media to satisfy their needs, which in turn makes the media to become more important to them. This results in the media having a greater influence and effect on people [17]. The term "dependency" in the theory stands for the relationship existing between people [18]. The world today is one in which face-to-face interpersonal relationships are not enough for individuals to get updated and satisfied with information, as people now depend on social media to connect with others and get current information [19,20]. Using mass dependency theory, the enormous rise in the dependency and use of new forms of media (such as social media), coupled with the anxiety of a soccer game based on its severity and game uncertainty will drive individuals to engage in social TV.

Social cognitive theory: The loyalty of an individual to a network is seen by the extent to which the individual decides to view a specific channel instead of distributing his/her viewing time equally among other channels. Prior literature has shown that it is a challenging task to obtain the loyalty of

viewers to a particular network due to technological advancements and numerous alternatives [1]. Social cognitive theorists are of the view that people have a self-belief system which enables them to engage and develop loyalty [21]. With social cognitive theory, the engagement of people in social TV will lead to the exchange of information and perspectives that will raise the desire to conform to the anticipation of other social TV users, which will make them generate loyalty to the network.

3.1. Game Uncertainty on Social TV Engagement

Several authors have addressed the issue of game uncertainty in sport using different contexts, such as game outcomes [10], battles against relegation [22], and league dominance [23]. Game uncertainty refers to a lack of confidence in the outcome of a game. The level of game uncertainty is a determinant of individuals' assessment of severity [24]. Levels of game uncertainty drive fans' interest towards information-seeking from other fans on social media platforms [25]. Prior papers in social psychology have also suggested that individuals with high levels of game uncertainty avoidance exhibit a higher intention to engage on social networking platforms so as to seek information. As the game uncertainty of an outcome of a sporting game increases, the fans become more attracted to the game. Also, the desire to understand the outcome of a game serves as an intrinsic motivator for football television viewers to engage in real time with their peers, sharing their views and those of others, and their emotional reactions, while watching the televised football event. Therefore, this study is of the view that:

Hypothesis 1 (H1): *the game uncertainty of a football game positively influences social TV engagement.*

3.2. Social Media Use (SMU)

Social media has advanced to been one of the most vital means and information resources used by individuals to obtain information on the latest news or current events. Football fans use social media in order to get updated information about match predictions, match result, transfer news, and rumors, etc. [6]. Accessing such information will lead to fans exhibiting social TV engagement behaviors such as word-of-mouth, a display of sport fandom, fan-to-fan interaction in online fan communities, and reading comments about the match [7,8]. Social media has brought changes to the dynamics of sports viewing as fans now use it for the real-time spectatorship of live games while watching the game on TV [26]. The use of social media is generating efficient forms of social TV engagement such as sports commentary, match textual viewing, and sportscasting, etc. [26,27]. Thus, this study argues that:

Hypothesis 2 (H2): *SMU positively influences social TV engagement.*

3.3. Mediating Role of Severity

Using an interesting suggestion from [28], the severity of an event is a cognitive or affective appraisal of a situation which can be due to uncertainty and results in engaging in activities on social networking sites. More specifically, during the thrill of a match, individuals with a high level of uncertainty may perceive the threat to be more severe, compared to those with low uncertainty levels [28,29]. The current research therefore posits that a high level of a game uncertainty will increase the perceived severity of the game. The perceived severity of a game will drive individuals to engage in social TV activities, such as watching the match live on TV, and in the process interact with other football fans on online football group platforms [13,25]. Therefore, this study is of the view that:

Hypothesis 3 (H3): *severity will mediate the relationship between game uncertainty and social TV engagement.*

The use of social media might increase the perception of how severe an event is [30]. Prior studies have shown social media to be a popular and effective medium for the communication and consumption of information (news, events, activities, etc.) [31]. Social media users are prone to not just obtain

information, but also to stumble upon real-time information about real-world occurrences which in turn provide an understanding of the severity of the situations [31,32]. Prior literature has posited social media as an effective platform where its users can understand the severity of affairs [33,34]. This study therefore hypothesizes that:

Hypothesis 4 (H4): *severity will mediate the relationship between SMU and social TV engagement.*

3.4. Social TV Engagement on Network Loyalty

Social TV engagement is the act of engaging with other social TV users, thereby co-creating, conversing, and sharing the TV-program-related content in the process [13]. Engagement in social TV occurs during football match viewing as football matches have lots of downtime and theatrics that drive the viewers of a televised football match go on social networking sites to seek more information, voice their opinions, and interact with other football fans [35]. Most television sports channels have online social networking platforms that are similar to social media brand communities as they provide a platform for sports fans to form a community where they can engage with each other even while watching the real-time TV event [13]. Effective engagement on social networking sites is a powerful motivator in influencing individuals' attitudes, preferences, and loyalty [36]. The viewers engage using various real-time communication gadgets, and marketing literature has shown that this type of engagement on social networking platforms increases loyalty for the brand (in this case the TV network) [37,38]. Activities that occur while engaging in social TV include comments, replies, likes, posts, and electronic word-of-mouth which have proven to be facilitators of loyalty [39]. Therefore, this study is of the view that:

Hypothesis 5 (H5): *social TV engagement positively influences network loyalty.*

4. Research Methodology

4.1. Participants

A survey method was used to obtain data from soccer enthusiasts on Facebook. Facebook was used to obtain data due to Facebook's reputation as being the most popular social media network [40] and a platform for virtual fandom, with several soccer pages having members engaging in social TV activities while viewing football matches [25,41,42]. In recruiting participants, the research utilized a purposive and snowball sampling technique as purposive sampling technique allowed the authors to make sure the participants were active Facebook users and soccer enthusiasts. With the snowball sampling technique, the respondents were told to recommend other potential respondents that would fit the participation criteria.

At the beginning of the survey, the participants were told to recall their most vital and followed soccer pages on Facebook before addressing the questions. In order to ensure that the selected soccer page was appropriate to the research project, the authors had to visit the selected pages after conducting the survey. Responses were then discarded if they did not meet following criteria: (1) comments are allowed on the page, (2) members of the page can share their views on a soccer game, (3) constant updates and release of soccer-related information.

4.2. Data Collection

In order to obtain data, this study used a web-based questionnaire that was distributed to Facebook users. Out of 420 questionnaires distributed, a total of 364 questionnaires were valid and used for the analysis of this study. Male respondents numbered 286 (78.6%), while female respondents numbered 78 (21.4%). In the age range, 111 (30.5%) were between the range of 16 and 20, 156 (42.9%) were within the range 22–25, and 97 (26.7%) were above 26 years of age. Finally, based on daily hours spent on Facebook, 168 (46.2%) were within the 1–2 hour range, 102 (28.0%) were within the 2–6 hours range,

and 94 (25.8%) were within the 6 and above hour range. The respondents were asked to denote that they indeed were soccer enthusiast and frequently watched soccer games.

4.3. Measurement Scales

The measurement scales in this study were adopted from previous related studies (as displayed in Appendix A) and each construct in the questionnaire had 4 items which were adjusted in accordance with the purpose of this study. Questions from game uncertainty were obtained from the work of [43,44] while those on SMU were adapted from the work of [28]. Severity questions were obtained from the work of [28,45], social TV engagement was adapted from the work of [13], and, finally, those on network loyalty were obtained from the work of [13]. A 5-point Likert scale was used for this study, ranging from 5 (strongly agree) to 1 (strongly disagree).

4.4. Data Analysis and Result

In analyzing the collected data and testing the hypothesized model, the current study made use of partial least squares structural equation modeling (PLS–SEM) using SmartPLS version 3. The study adopted the PLS–SEM technique because it obtains not just the weights of indicators (and hence construct validity) but analyzes the correlation between constructs in the model [46]. Additionally, models with small samples are analyzed effectively with PLS, and the current study had a small sample size. The measurement model was processed in which the values to determine the internal consistency, content validity, convergent validity, discriminant validity, and the hypothesis testing were derived.

The assessments of the reliability and validity of the survey items were done using Cronbach's alpha. Recommendations from a previous study have stated the Cronbach's alpha to be higher or equal to 0.70 [47]. This study proved to fit into the criteria as displayed in Table 1; thus, it was concluded that the internal consistency has been established.

Table 1. Measures and factor loadings.

Construct	Factor Loading	Cronbach's Alpha(α)	Composite Reliability	Average Variance Extracted (AVE)
Network loyalty (NL)	0.845 0.863 0.854 0.805	0.863	0.907	0.709
Severity	0.816 0.864 0.834 0.768	0.840	0.892	0.674
Social media use (SMU)	0.748 0.744 0.877 0.833	0.815	0.878	0.644
Social TV engagement (STV ENG)	0.810 0.774 0.820 0.773	0.805	0.872	0.631
Game uncertainty	0.896 0.880 0.894 0.784	0.887	0.922	0.748

The convergent validity was measured using the composite reliability (CR), average variance extracted (AVE), and factor loadings (λ). Previous studies by [47,48] have recommended that the

acceptable AVE for each construct should be higher than 0.50, while that of the CR should be above 0.70 and the factor loadings above 0.60. As shown in Table 1, the results fell in the accepted range.

In achieving the discriminant validity, the study assessed the Fornell–Larcker criterion and Heterotrait-Monotrait ratio (HTMT). For the Fornell–Larcker criterion, the square root of the AVE of each construct needed to be higher than the inter-construct correlation [49,50], while the values of the HTMT ratio had to be below 1 [51]. As displayed in Table 2, the square roots of the AVE met the required threshold, while Table 3 also shows the HTMT ratio met the recommended criteria.

Table 2. Discriminant validity (Fornell–Larker).

	NL	Severity	SMU	STV ENG	Game Uncertainty
NL	0.842				
Severity	0.390	0.821			
SMU	0.270	0.180	0.802		
STV ENG	0.426	0.389	0.404	0.795	
Game uncertainty	0.421	0.259	0.091	0.223	0.865

Table 3. Discriminant validity (HTMT).

	NL	Severity	SMU	STV ENG	Game Uncertainty
NL					
Severity	0.455				
SMU	0.318	0.208			
STV ENG	0.509	0.463	0.491		
Game uncertainty	0.483	0.294	0.106	0.258	

4.5. Common Method Bias

In order to make sure that common method bias is not present in this study, Harman’s single-factor test was applied to the constructs in the case whereby a single factor accounted for most of the covariance among the measures [37,52]. From the output, several factors were seen to emerge with the highest level of covariance of one factor explained at 27.35%, showing that the indicators could not be accounted by any single latent variable.

4.6. Structural Model Analysis

Figure 1 displays the obtained results from testing the various hypothesis in the current study. In obtaining the results, PLS was used in analyzing and generating the structural model, path coefficient (β) and the p -value of the structural model. Specifically, the results show that H1–H5 are supported by the data. H1 and H2 analyzed the effect of game uncertainty and SMU on STV engagement. Game uncertainty ($\beta = 0.115, p < 0.033$) and SMU ($\beta = 0.339, p < 0.000$) have a positive effect on STV engagement, thereby supporting H1 and H2. H3 and H4 analyzed the mediating effect of severity between game uncertainty with STV engagement, and SMU with STV engagement. The findings from the study showed that severity mediated the game uncertainty to STV engagement ($\beta = 0.073, p < 0.004$) relationship and the SMU to STV engagement ($\beta = 0.047, p < 0.004$) relationship, thus supporting H3 and H4. The results also show that STV engagement has a significantly positive effect on NL ($\beta = 0.426, p < 0.000$), supporting H5. The various relationships existing between the adopted constructs are shown in Figure 1 and Table 4.

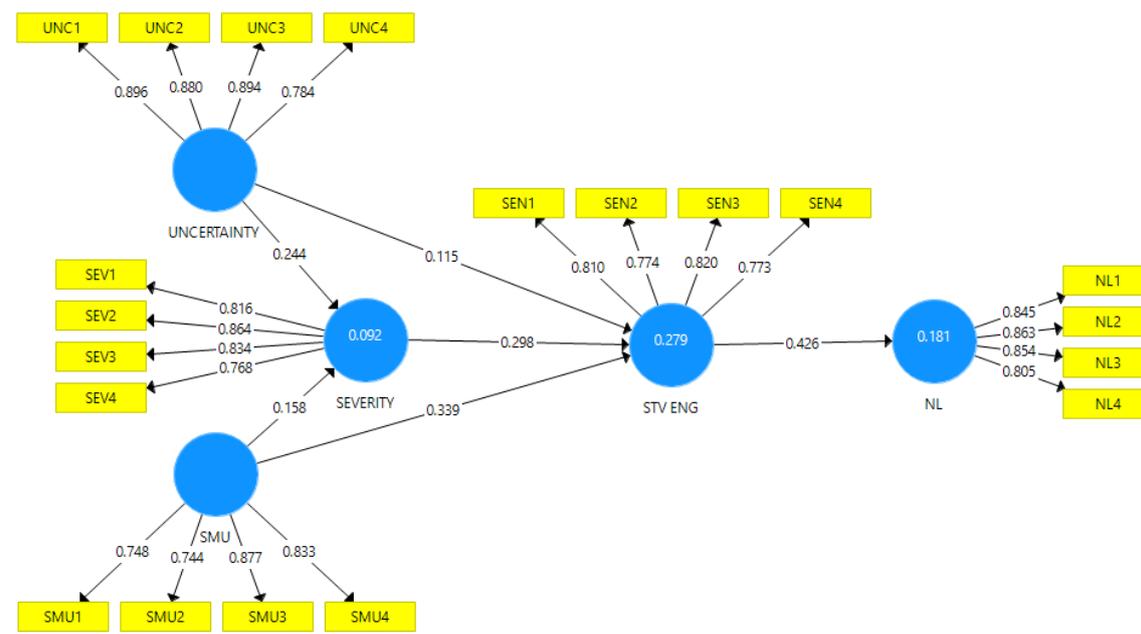


Figure 1. Path analysis.

Table 4. Hypothesis Testing Result.

Hypothesis	Tested Path	Coefficient (β)	T Statistics	p Values
H1	Game uncertainty \rightarrow STV ENG	0.115	2.129	0.033 *
H2	SMU \rightarrow STV ENG	0.339	7.078	0.000 **
H5	STV ENG \rightarrow NL	0.426	8.677	0.000 **
<i>Indirect Effect</i>				
H3	Game uncertainty \rightarrow SEVERITY \rightarrow STV ENG	0.073	2.891	0.004 *
H4	SMU \rightarrow SEVERITY \rightarrow STV ENG	0.047	2.886	0.004 *

Note: * = $p < 0.05$; ** = $p < 0.01$.

5. Discussion and Managerial Implication

Due to the scarcity of studies in the sustainability of soccer viewers to a sports network using social TV, the current study brings new insight to the determinants of social TV engagement in generating network loyalty to a sports network. The authors assert that media system dependency theory and social cognitive theory give a representation of the relationship existing between game uncertainty, severity and SMU on social TV engagement in generating network loyalty. Based on the derived results, both game uncertainty and SMU were seen to have a positive influence on social TV engagement. The study also found the mediating effect of severity between game uncertainty and SMU on social TV engagement. Finally, STV engagement had a positive effect on NL.

The findings revealed that the game uncertainty of a football game leads to more STV engagement. To the best of our knowledge, this study is the first to show this result. This shows that game uncertainty should be a major variable considered by network marketers in creating their marketing strategies. In modeling marketing strategies to build up the network, football games should be given intense and captivating adverts that portray the game in an unpredictable manner so as to increase the game uncertainty of the game and in doing so enhance STV engagement.

The results from the path analysis show that the use of social media is one of the facilitators of STV engagement. This result is in agreement with other studies positing SMU as a driver of activities on social networking sites [26,27]. Network managers should take cues from this result and ensure

that their network has an active and interactive social media presence so as to attract soccer fans that engage with social media platforms while watching the soccer game on their network.

Severity was seen to mediate the relationship between game uncertainty with STV engagement, and SMU with STV engagement. To the best of our knowledge, this study is also the first to demonstrate this result. This output affirms the importance of soccer network managers and marketers to ensure that their network has an active social networking platform where soccer fans can constantly interact and get updated with soccer activities. Intense interaction on the platform will raise the severity of the game and make social media users and fans curious to engage on the platform while watching the game.

As shown in other social media engagement studies [37,38], STV engagement had a positive influence on NL. This result lays more emphasis on the importance of networks giving greater attention to engaging their viewers on their social media platforms, as this strategy can be used as a tool for generating and securing viewers' trust in the network.

6. Conclusions

The study provided theoretical and empirical evidence of the relationships existing between game uncertainty, severity, and SMU on social TV engagement in generating network loyalty. The results derived from the study showed game uncertainty and SMU have a positive impact on social TV engagement. Severity mediated the relationship between game uncertainty and SMU to social TV engagement. These findings are significant, and they contribute to the body of knowledge in social TV, so that network marketers and managers can be geared towards creating and maintaining more viewers for their network.

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Appendix A

Table A1. Construct Measurement Items.

Constructs	Items	Sources
Severity	Severity in a football game makes me engage in social TV The seriousness of a football game makes me engage in social TV The gravity of a football game makes me engage in social TV The tension of a football game makes me engage in social TV	[28,45]
Uncertainty	Rapid changes in a football game makes me engage in social TV Unpredictability in a football game makes me engage in social TV Uncertainty in a football game makes me engage in social TV Inconsistency in a football game makes me engage in social TV	[43,44]
Social media use	I use social media to read news concerning the football game I use social media to post information concerning football games I use social media to search for information concerning football games I use social media to read postings concerning football games	[28]
Social TV engagement	When am watching a football game, I usually participate in social TV When am watching a football game, I read other people's comments and conversations on social media I like, share, and comment on posts on social media when I am watching a football game I bring up things I watch on TV in conversations on social media	[13]

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