

# **Investigating Narrative Involvement, Parasocial Interactions, and Impulse buying behaviours within a Second Screen Social Commerce Context**

## **Abstract**

Using mobile devices for additional information search before, during and after watching television (either factual news or fictional TV series) - is an increasingly significant information management phenomenon. This activity has been recognised by both TV media executives and academia as ‘second screen’ activity. This paper develops and tests a ‘parasocial interaction-impulse buying’ - model that captures the behaviours of consumers watching a Chinese TV drama series. These audience-consumers were also engaging extensively (most on a daily basis) during the broadcast period with series related influencer social media activities on a second screen. A structural equation model was developed to analyse the data. Findings indicate that TV series audience consumers who are also highly engaged with influencer- consumer ‘second screen’ content are likely to experience positive narrative involvement leading to engagement in parasocial interaction behaviours and ultimately impulse buying behaviour. These findings have implications for managers by providing insights into (1) the effects of influencer second screen content (2) the processes by which consumers’ involvement in a TV show’s narrative leads to impulse buying of products. Thus, influencer related second screen consumer engagement should be considered a significant opportunity for marketers, as such activity makes consumers become more involved in the characters and the narrative of a particular TV show, leading to increased impulse buying.

**Keywords:** Narrative Involvement, Second screen, Social media, Parasocial interaction, Impulse buying, Multi-channel mobile marketing.

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## 1. Introduction

Watching TV programmes and interacting with related social media content on a mobile device is an increasingly significant information management phenomenon defined as *Second Screen Activity* (Xiang et al., 2016, Zheng et al., 2019, Zheng et al., 2020, Phonthanakitithaworn and Sellitto, 2017; Billings et al., 2017). Second Screen activity refers to the act of being *motivated to search* for added information on a mobile device while watching a TV broadcast and can lead to *narrative involvement*. This paper proposes that Second Screen activity has significant effects on how audiences interact with and engage in the consumption of events (Segijn et al., 2017; Phonthanakitithaworn et al., 2017). Second screen activity refers specifically to activities such as consumers being *motivated to follow SNS related content*, making social media comments and searches related to Consumers viewing a TV programme, which consumers can also access (before, during or after broadcast) social media content linked to that programme, this enables interaction with influencers that can create deeper connections to the narrative (Xiang et al., 2016, Billings et al., 2017). Second screen activity excludes playing a video game for example or any unrelated screen engagement (Xiang et al., 2016). In the course of watching a TV series, consumers experience *narrative involvement* in the story lines, consumers become engaged and experience vicarious cognitive and perceptual responses to the narrative as it unfolds (Caputo and Rouner, 2011, Dulabh et al., 2017). These behaviours include *Parasocial Interaction* leading to *impulse buying*. Narrative involvement has been defined in differing ways across the literature, including transportation, which is defined as a convergent process where all mental systems and capacities focus on events occurring in the narrative (Green and Brock, 2000). This notion of being swept up into the storyline distinguishes entertainment-education message processing from that of persuasive messages.

Narrative involvement in storylines thus helps to build parasocial relationships with the characters, which are amplified and extended by social media, in particular by influencers. Parasocial interaction (PSI) is defined as an individual's 'illusion of a face-to-face relationship with a media personality' (Horton and Wohl, 1956: 188), where an audience encounters and engages with media performers and characters as a one-way, unreciprocated experience (Hartmann, 2008). In the context of a TV series audience, an influencer can produce social media content that allows and encourages users to exchange and participate in content specifically related to the TV broadcast (McCarthy et al., 2014). Followers have a tendency to compare their personal fashion taste with the influencers' taste, leading to parasocial interactions (PSI) between influencer and follower (Russell et al., 2004). Second screen activity facilitates the development of Multi-channel PSI. Multi-channel PSI is proposed to be PSI facilitated over multiple channels, inclusive of differentiated social media channels. These differentiated multiple channels interact to create highly influential PSI relationships that impact purchase behaviours. Multiple Channels can be deployed to influence specific, targeted, PSI interests.

Multi-screen screen and cross channel usage has a significant strategic communications potential and provides a noteworthy marketing communications opportunity (De Meulenaere et al., 2015, Cheung et al., 2015). Aragoncillo and Orus (2018) acknowledge the influence of social media networks (in this case on a second screen) on impulse buying. When TV viewers are also engaged with related influencers' content they become more active and engaged in the narrative, leading to greater connection and ultimately, greater tendency to purchase from that connection (McQuarrie, et al., 2012, Miell et al., 2018). For example, Lee and Watkins's (2016) work on visual communication (blogging) has demonstrated influencers' effects on shaping brand perception and stimulating follower purchase intention.

The narratives and relationships which are built up between the TV show's characters, social media influencers and consumers, combined with accessibility and ease of purchase through personal devices connected to the Internet, create a powerful environment for impulse buying. Social media marketing by influencers extends the narrative involvement both during and after the broadcast, and fills the influence gap by co-creating the narrative between broadcasts (Russell et al 2004).

As the number of global social media users (and by implication the number of second screen users) continues to grow exponentially, Consumer Second Screen (CSS) social commerce is in the process of becoming one of the most important areas of information management and marketing. China's Weibo, often referred to as Chinese Twitter, reached 480 million monthly active users by June 2019 ([www.Statista.com](http://www.Statista.com)), Twitter reached 330 million active monthly users in 2019 and 145 million daily active users ([www.brandwatch.com](http://www.brandwatch.com)). Despite global consumers rapid migration towards second screen activity (Statista, 2019; Brandwatch, 2020), there is a paucity of research into second screen initiated interactions between narrative involvement, parasocial relationships, and impulse buying. Little is known about how Second Screen engagement affects consumers' involvement in a TV show, how they develop parasocial relationships, and if such a relationship affects their intention to impulse buy. In an attempt to fill this important gap, the aim of this study is to demonstrate how consumers' use of two screens - a TV and a second screen on a personal device - contributes to impulsive buying behaviour, via narrative involvement, motivations to use SNS for information, subject involvement, social comparison, parasocial effects and influences. Implications exist for marketers who may use second screen activities to create more interaction to develop deeper connections with consumers.

The paper is structured as follows: First, the following section introduces relevant theory including the development of hypotheses. Next, the paper explains the sample and data collection. This is followed by an outline of the measurement model, which tests the relationship between second screen use, parasocial interaction and impulse buying. The paper concludes with a discussion section and recommendations for future research.

## **2. Theoretical background and hypothesis development**

Mehrabian and Russell's (1974) SOR framework aims to analyse consumers' perceptual reactions that occur as a result of exposure to stimuli in a specific environment. The SOR framework has been tested in studies focusing on the fashion industry (Eroglu et al., 2003), mobile brand messaging communications (Vazquez et al, 2017) and the social commerce context to investigate audience-consumers impulsive buying behaviour (Xiang et al., 2016). Kamboj et al (2018) also used the SOR framework to measure customer participation in brand communities, proposing motivations (building interpersonal relationships and information seeking) as stimuli, this paper similarly proposes that narrative involvement and motivations to be stimuli. Organism is proposed as the consumers' cognitive reactions and parasocial interaction as per Xiang et al. (2016). Response is impulse buying behaviour as per Xiang et al. (2016). This paper thus extends the work of Kamboj et al. (2018) and Xiang et al. (2016) into the fashion consumption context.

In Xiang et al. (2016), the SOR model provides an explanation to a phenomenon whereby stimuli from a shopping environment can trigger consumer responses, during which an organism initiates internal processes to prepare for outcome responses. In this case, the organism component relates to consumers' perceptual reactions to the environment while the response component consists of approach and avoidance behaviours. The two-stage processes consist of perceptual, physiological, feeling, and thinking activities (Fang, 2012). In other words, the consumer receives a stimulus, and then reacts to the environment perceptually,

which gives rise to consumer responses, including feelings of involvement and impulse buying tendencies. Xiang et al.'s (2016) SOR model is adopted in this study as a theoretical framework for investigating social media content on the second screen and its influence on consumer purchase behaviour through narrative involvement, subject involvement, social comparison and PSI interactions. This research adopts Xiang et al.'s (2016) SOR framework using narrative involvement and motivations to use SNS (Social Network Service) as an MR (Mood Related) feature within the SOR framework. Narrative Involvement in this context is proposed as creating consumers' mood related effects. Subject involvement, Social Comparison and PSI are proposed as organism elements and impulse buying as response. The context in this study was the TV series second screen related online content. The research framework then proposed to link these constructs with the online impulse buying model of Parboteeah et al. (2009) adopted by Xiang et al. (2016) in a broadly similar vein. The second screen TV series context also has Task Related (i.e. utilitarian motivations to use/ browse, price, convenience etc.) and mood related features (hedonic), in a similar vein to Xiang (2016), the pictures, features and interactions on the social media second screen are all considered impulse buying stimuli in this research. The organism elements of this study are also analogous to those of Xiang et al., (2016).

### *2.1 Narrative involvement*

Narrative involvement, a feeling of engagement in a storyline (Green and Brock, 2000) is partly the engagement process by which audience- consumers engage and it will ultimately lead to impulse buying (Xiang et al., 2016). The interactive functions of social media have provided opportunities for celebrities and influencers to communicate directly with their fans and followers (Tiwsakul et al., 2005; Olbrich and Holsing, 2011). In the context of fashion products, marketers have recognized the influence of TV characters' fashion choices on consumption (Patwardhan and Patwardhan, 2016) and the importance of second screen linked content. Clothing, is an important cultural element in the plotlines of a TV story (Choi, 2014; Han 2014; Gillespie and Joireman, 2016; Liang and Tukachinsky, 2017) and plays a role in expressing the social status of the characters (Choi, 2014). The clothes worn by the main characters are often conversational topics that are brought up and augmented by cultural influencers (bloggers), which in turn, influence audiences in the narrative (Choi, 2014). Audiences can then acquire detailed content related to the fashion product and characters and plots using a second screen, thus enhancing the impact of on-screen fashion product placement.

Thus:

H1. Narrative involvement will have a positive effect on audience-consumers subject involvement experience.

Narrative Involvement in a TV Series has long been recognised by marketers, as they have linked fashion content including branded apparel and accessories that have either been 'placed', through paid collaboration with a TV series, or worn by the characters. Such product placement on TV provides a benefit over traditional advertising through an embedded connection to the viewers' processing of consumption-related values (Sherman and Damien, 2012). Influencers on social network sites (SNS) then promote information about the celebrities' fashion choices to the consumers (Gong and Zhang, 2016). These influencers post fashion information within their SNS, for example within Chinese SNS Weibo (similar to Twitter), users acquire fashion information related to their favourite TV characters (Wolny and Mueller, 2013). Weibo has the advantage that it incorporates all twitter's microblog functions, with the advantage that 140 Chinese characters can convey two

paragraphs of information. Weibo incorporates additional Instagram stories and affiliate links functionality that provides influencer payment (CSM media research, 2017). Weibo also allows 9 photographs as opposed to Twitter's 4. The information potential for visual stimuli in Weibo is high and it is thus a highly significant information communications mechanism. Products and brands placed in the TV series are discussed and shared in social media platforms by large numbers of consumers, marketers and influencers (Chung and Cho, 2014). Weibo feeds have been noted to incorporate narrative involvement aspects that positively affect consumers interaction levels (Hwang et al., 2018). The influencers ensure that the fashion product placement is more prominent by discussing the narrative connection, which is postulated to have a significant effect on consumers parasocial interaction levels (Xiang et al, 2016).

Thus:

H2. Narrative involvement will have a positive effect on audience-consumers PSI interactions with TV characters.

The increasing use of a second screen activity (accessing Weibo feeds, during broadcasts for example) to access social media influencer content is postulated to extend a TV series' character and personalities influence (Jung et al., 2009; Hwang et al., 2018; Internet Advertising Bureau, 2018). Both media streams incorporate narrative involvement aspects (Jung et al., 2009; Hwang et al., 2018), which are shown to be a highly effective in persuasive communication especially in product placement campaigns where involvement in the storyline fosters audience product placement recall (Brechman and Purvis, 2015; Coker et al, 2018).

Narrative involvement engages viewers in the storyline, and consumers are able to experience vicarious cognitive and emotional responses to the narrative (Brechman and Purvis, 2015). In addition to the narrative structure, product placement on TV facilitates different forms of involvement with the characters (Sood, 2002). In this study, the term *narrative involvement* will be used to refer to the mechanism by which viewers interact with characters on the second screen. With the increasing interaction on a second screen regarded as an emerging marketing channel (Patwardhan and Patwardhan, 2016), some marketers effectively place their products and brands on screen in storylines in order to benefit from product placement effects (PWC, 2016; CSM media research, 2017). Thus:

H3. Narrative involvement will have a positive effect on audience-consumers social comparison with TV characters.

Second screen audiences are likely to be highly involved in the narratives of a TV series (Yuan et al. 2016). This narrative involvement includes (1) immersion, (2) care for the character (3) immediacy (Green & Brock, 2000). Motives for TV series SNSs usage within a gratification approach and a second screen research context have been identified as searching for information, social interaction and entertainment (Yuan et al., 2016). Geerts & De Grooff (2009) TV audience based research found that TV audiences' are highly motivated to communicate while watching TV. Audiences want to increase their textual presence on TV and link with others auditory communication and awareness cues. The research also found that TV audiences are motivated to share opinions continuously and without interruption. Wolny and Mueller (2013) further noted that second screen social TV SNS users provide four different kinds of comments including (1) Attention seeking (2) Information (3) Emotion and (4) Opinion. Audience attention seeking is focused on self-referencing. Their information needs are derived from messages on the program. They also noted that second screen audiences are also willing to express their emotions and opinions on SNSs comments with

subjective reference to themselves and their opinions on the program content. Krämer et al. (2015) also found that audiences were prone to make frequent SNS comments specifically regarding the narrative associated with characters while watching a TV drama. This research proposes that highly involved TV drama audience consumers are more likely to be motivated to use SNSs to support second screen behaviour. Thus:

H4 Narrative involvement will have a positive effect on audience-consumers motivations for TV series SNS usage.

## *2.2 Motivations for social media services (SNS) usage*

The motivation to use SNS varies and may include activities such as entertainment, information seeking, personal utility and convenience (Buschow et al 2014). When a consumer post on social media using a second screen while watching TV, it reveals behaviour associated with involvement in the TV series plots (Buschow et al. 2014). If the post is related to the TV show's content, it indicates a connection to that show. However, users with different motives tend to respond to different social media content (Krämer et al. 2015). Their motivation to post on social media depends on whether they are seeking information, attempting to develop a personal identity, have a desire for social interaction or simply seeking entertainment. In this study, we take into account the varying types of motives using the scale by Yuan et al. (2016) that reflects such behaviour. The scale shows that motives to use SNS positively affect the establishment of subject involvement and PSI relationships, relevant to this research (Yuan et al., 2016). Yuan et al (2016) noted that motivation is critical to the formation of subject involvement and parasocial relationships. An individuals need for companionship, information, and entertainment motivates them to use media to develop an expertise in a subject and form parasocial relationships with media hosts (Rubin, and Step, 2000). Thus:

H5. Higher levels of TV series social media usage motivations will have a positive effect on audience-consumers subject involvement experience.

SNS users' motivations for using media are closely linked with their development of social comparison behaviours and parasocial relationships (Rubin, et al., 1985). Yuan et al (2016) noted that individuals with higher usage of media for entertainment, information, and social connection, form stronger parasocial relationships including social comparison effects with the media personalities they connect with. This research accepts Xiang et al.'s (2016) application of PSI in a second screen context to measure the interactions between audiences and fictional TV characters. PSI studies in computer-mediated environments (Yuan et al. 2016) show that PSI is no longer restricted to traditional mass media. New online social media are designed to bring the viewer closer via interactions to a mediated persona. PSI was defined as individual's 'illusion of face-to-face relationship with a media personality' (Horton and Wohl, 1956 p.188). In a sense, the viewers of a TV program 'meets' with the performer by watching the program. As time goes on, these meetings may bring the viewer into the scenes of TV program and make the viewer form a feeling of intimacy with the performer as if they were close friends in real life. Xiang et al. (2016) support that predictability about the performer is increased, increased motivations to use SNS will increase the relationship interactions, and increased interactions leads to enhanced feelings of trust and loyalty. For this reason, Xiang at al. (2016) also state that PSI relationships are more easily formed in new media user spaces such as influencer/ celebrity SNS's.

Thus:



H6. Higher levels of TV series social media usage motivations will have a positive effect on audience-consumers PSI interactions with TV characters.

Social comparative theory (Festinger, 1954) shows that individuals rate themselves by comparing what they own and use. Studies have shown that individuals can be compared with others who are better than them or with others who are worse, which are identified as upward and downward comparison. For consumer behavior, upward comparison shows a willingness to consume and a desire to possess, resulting in an increase in materialism value (Chan and Prendergast, 2008). Individuals may compare themselves with other important people and their peers who have attractive outlook and values. Within the ‘second screen’ context, similar to the upward comparison, individuals compare their fashion possessions to that of fictional TV characters and perceive higher value for the character’s placed fashion products when they are using the dual screens. Social comparison is identified as an affective reaction between audience and TV characters (Eyal and Rubin, 2003). The more motivated audiences are to use SNS’s to access information regarding TV programmes, the more exposure they have to social comparison effects and the likelihood is that higher levels of social comparison will occur if consumers are highly motivated to use SNS to collect additional information. Thus:

H7. Higher TV levels of TV series SNS social media usage motivations will have a positive effect on audience-consumers social comparison with TV characters.

### 2.3. Subject Involvement

Hoffman and Novak (1996) noted that involvement can be considered as a common, non-differentiating factor of flow, peak experience, and peak performance. They further noted that peak performance is exemplified by focus, a sense of self and fulfilment, and that peak experience is characterized by a transpersonal/ spiritual quality that encompasses higher experience levels of joy than flow. Hoffman and Novak’s (1996) analysis of subject involvement within flow theory noted that flow experiences were characterized by “*a seamless sequence of intrinsic enjoyment facilitated by interactivity with computers.... accompanied by loss of self-consciousness*” (p. 57). Hoffman and Novak (1996) noted that interactivity and subject involvement positively affect focused attention which is a prerequisite of intuitive and spontaneous behaviours. Impulse buying behaviors are spontaneous purchase responses and therefore this study proposes *subject involvement as a reactive experience factor* as an intervening construct of PSI as part of flow theory. Celsi et al. (1993) noted that flow is a psychological state in which an individual becomes totally involved in a stimulus field scripted by the individual. In early studies, people in a flow state demonstrated absorption in their activity through their concentration on the activity, loss of self-consciousness and feelings of being in control of the environment in which they are immersed.

Huang (2016) identified that consumer’s experience of flow is a cognitive state reflected in a consumer’s product attentions or involvement (Huang, 2016). Jung et al. (2009) also linked subject involvement with mobile TV adoption and absorption, acknowledging that involvement had been applied in a diverse manner in many instances of IT and web environments. Jung et al. (2009) selected cognitive concentration as a construct relevant in a mobile TV context. This study accepts the premise that the subject involvement elements that have been previously used within flow theory studies are linked with mobile TV and social media use. Yuan et al (2016) also indicated that individuals with higher media use for entertainment and information form stronger parasocial relationships including social comparison effects with the media personalities they connect with. Thus:

H8. Higher levels of subject involvement have a positive effect on audience-consumers PSI interactions.

Coker et al. (2018) have postulated that product recall effects on TV are particularly strong in social settings that allow interaction between co-viewers. In addition, that placed brands were better recalled among friends than non-friends. Coker et al (2018) also found that interactive co-viewing with friends resulted in higher recall of placed brands than within solo viewing settings. Taking this idea into account, this study develops the premise that co-viewers can include other social media users and media influencers posting comments on their social media accounts. Specifically, in the second screen context, a consumer's attention is measured by their recall from both the TV series and SNSs content. A positive relationship between product placement on the characters and subject involvement attention has been affirmed (Huang, 2016), as well as the value of SNSs marketing content in affecting product involvement levels (Huang, 2016). Moreover, these subject involvement effects can also lead to impulse buying (Xiang et al, 2016). Thus:

H9. Higher levels of subject involvement experienced during second screen usage will positively affect audience consumers' impulse buying intention.

#### *2.4 Social comparison: affective reaction and Parasocial Interaction*

According to social comparison theory, individuals evaluate themselves by comparing their own material possessions' and consumption behaviours with others' (Festinger, 1954). Upward comparison (i.e. in this case comparison of the self with TV or Influencer aspirational figures) is believed to arouse consumption intention and the desire for possession (Chan and Prendergast, 2008). PSI was initially conceptualised as a concept within TV and Radio communications research and has subsequently been embraced by researchers exploring online contexts (Labrecque 2014; Hwang et al., 2018). Consumers can 'meet' a TV performer by watching a TV series. Over time, a feeling of intimacy between viewer and performer (s) can develop, as if they were close friends in real life (Xiang et al., 2016). As exposure to the performer or performers increases on a daily basis in a streamed TV series, the performers take on the role of a reliable 'friend' whilst the viewers become more loyal (ibid.). This relationship is the crux of PSI interaction between audiences, TV characters and celebrities, and this relationship is strengthened by social media's frequency and 24/7 availability (Labrecque, 2014; Xiang et al., 2016; Gong and Li, 2017). Micro-blogs, including Weibo in China and Twitter in the US, have become indispensable tools for celebrities to develop and maintain relationships with fans (Gong and Li, 2017). Thus:

H10. Higher social comparison levels will have a positive effect on audience-consumer PSI interactions with TV characters.

Upward (luxury products) comparison with TV characters provides an explanation of the phenomenon whereby consumers compare their fashion possessions with those of fictional TV characters and thus begin to develop PSI relationships as they compare their possessions with those of the characters and imagine themselves in that lifestyle and feeling those emotions in the plot lines, (Lee and Watkins, 2016). These audiences acquire fashion information on the second screen from both the TV plot and social media (blogger) content. This dual comment and narrative context induces them to compare themselves and their clothing styles with the TV character's fashion styles.

This research postulates that social comparison with TV characters occurring on a second screen is likely to lead to multi-level PSI, with characters and Influencers, as consumers



discuss and compare their fashion choices in lifestyle situations with their own lives, and to impulse buying behaviour. Thus, the following hypotheses are proposed:

H11. Higher levels of social comparison experiences will positively affect audience-consumers impulse buying intentions.

### *2.5 Parasocial Interaction (PSI) and Impulse Buying*

Characters within a TV series provide fashion information by wearing products through both paid and unpaid product placements (PWC, 2016). Dias et al. (2017) propose that soap opera characters build up PSI relationships with their audience through the series narrative and this positively influences purchase decisions of featured products. The narrative involvement has a two-fold effect, once with the story line and then secondly, mediated and enhanced by the narrative involvement with the influencer themselves. The influencer will provide a second narrative linking the products into their own lifestyle choices. The Parasocial Interaction (PSI) therefore occurs with both the TV characters and the influencer and can be considered to have multi-channel PSI effects (Dias, 2017; Xiang et al, 2016). Yuan et al. (2016) suggest that social media content on a second screen becomes an essential platform for developing PSI relationships between audiences and characters. The characters within the TV series and the second screen mediate the developing PSI relationships, and influencer social media content provides communication and distribution channels for impulse buying. In addition, the PSI relationships can be extended through interactions with the influencer themselves, creating a complex set of multi-layered PSI interactions, involving TV characters, product content and blogger comments. PSI relationships therefore can be identified as an imagined friendship-like relationship with fictional TV characters that is generated in the audience's mind and is attributed to the long-term - three months or longer - daily interaction taking place on SNSs (Xiang et al., 2016).

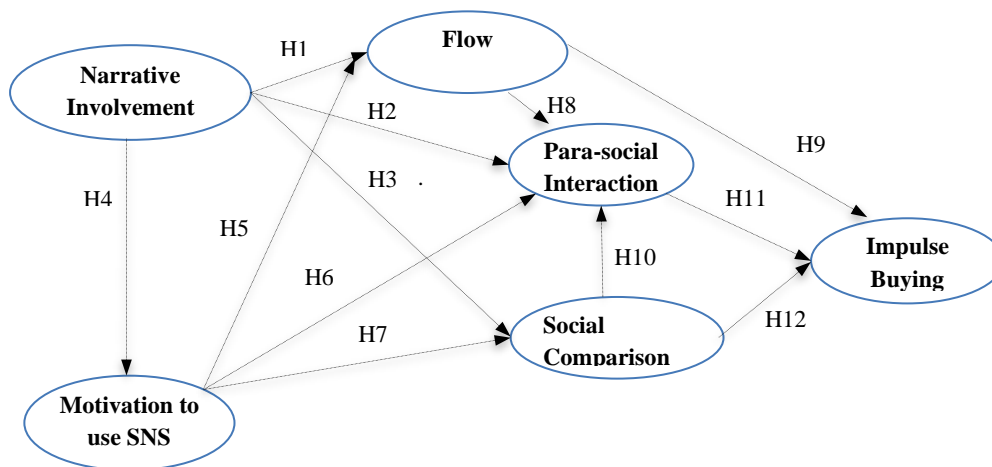
#### *2.5.1 Impulse buying*

Little is understood about a second screen's influence on consumer impulse buying behaviour. Rook and Fisher (1995) define buying impulsiveness as a hedonically complex process that is spontaneous, unreflective, immediate, and kinetic (Chan, Cheunga and Lee, 2017) which precludes thoughtful and deliberate consideration of its implications (Sharma, 2010). It demonstrates two attributes, affective reflecting an urge to buy and a desire for immediate gratification, and a cognitive tendency relating to a lack of planning (Lucas and Koff, 2017). Online impulse buying shares these attributes while emphasising the role of stimuli, defining impulse buying as an 'unplanned online purchase that is the result of exposure to a stimulus' (Vonkeman, Verhagen and van Dolen, 2017:1040) in which online product experiences are enhanced by interactivity. It is known that consumers use second screens to further investigate details of TV series content (Van Cauwenberge, Schaap and van Roy, 2014). Given the strong relatable narrative of the daily three month Chinese TV series under investigation in this study, it is likely that the second screen social comparisons inherent in the interactions will contribute strongly to the affective and cognitive attributes of impulse buying. Beatty and Ferrell (1998) note that consumers feel an urge to buy something before performing impulse buying behaviours. The actual purchase behaviour is then the action of spontaneously satisfying the desire or urge (Huang, 2016). In this research, actual impulse buying behaviour was measured as the response on the second screen, as the survey design purposively sampled influencer second screen followers that had purchased products. The aim was to measure the influence of PSI and Social Comparison on these purchases. Scale items are employed from the four distinct types of impulse buying (Stern, 1962),

including pure, reminder, suggestive and planned (*planned* occurs when consumers shop with the intention to purchase products, but also expects to make other purchases depending offers encountered) impulse buying. Thus:

H12. Higher levels of social comparison experiences will positively affect audience-consumers impulse buying intentions.

Based on the SOR framework (Xiang et al., 2016), the following conceptual framework has been developed (see Fig. 1).



**Figure 1** Conceptual Framework.

### 3 Research Method

#### 3.1 Data collection and sample

This research selected a leading, daily, 12 week, TV drama series in China and an associated leading Chinese influencer as the marketing media channels. The TV series PR agency had pre-selected the influencer to provide second screen content for the audience. The sample comprised of 523 young Chinese TV series audience and related Weibo content followers. The TV series ‘Ode to Joy 2’ was the leading TV series in China at broadcast (plot lines similar to Suits). Chinese viewing figures surpassed 2 billion in 2017 (IQIYI 2017) and the series was a trending topic on Weibo (analogous to Twitter/ Instagram) for two months with 8 million Weibo mentions/posts. Ode to Joy 2 had 53 million live viewers from PC/ TV platforms in April-July 2017 (CSM media research, 2017).

*Gogoboi* was the leading TV series fashion blogger on Weibo (Chinese Twitter with additional Instagram features such as stories and affiliate links) during broadcast with 7.5 million Weibo followers. His Weibo content was a trending topic for the three months of broadcast (SINA Weibo Data Center, 2017). The sample focussed on Ode to Joy 2 audience members who were also following and interacting with *Gogoboi*’s Weibo content on a daily/ frequent basis. An online survey was sent via *Gogoboi*’s marketing team to his 7.5 million followers. Screening questions excluded respondents who were not watching Ode to Joy 2, and did not interact with *Gogoboi*’s Weibo content on the second screen. The sample comprised 523 valid survey respondents, 69.4% female, 72% 18 to 34 years old. 28% were 35 to 54 years old, high users of social media. 94.5% checked *Gogoboi*’s Weibo Ode to Joy

content daily during the broadcast period. Over 90% had a degree. The average income was RMB 4000-8000 p.c.m, in line with Xiang et al.'s (2016) study.

Sina Weibo (similar to Twitter/ Instagram) was chosen as the media channel because it does not have restrictions on celebrity endorsements (Gong and Li, 2017). O'Neill (2015) noted that active social media users are more likely to be willing to share information within a new media platform. Social media users are also found to accept new media more quickly (Herrera-Damas and Hermida, 2014), and are also noted to be more influenced by marketing information on social media (Joo and Hyung-jin, 2008). Thus, the sample of Chinese TV series audience members who were following and interacting with the leading Chinese fashion blogger series posts on Weibo during the broadcast period is considered appropriate. The sample comprised of audience members of the series and also highly active followers of the leading Chinese Fashion Blogger. The survey was translated into Chinese and back again to check meaning validity. The survey link was posted onto the Influencers social media feed by the Influencers marketing team; it was posted in early June 2017 after two months of broadcast. After one week, 892 responses were collected, of these, 523 remained after screening for both respondents that had watched the TV series daily and had also been following the Influencer on a daily/ biweekly basis. The respondents were shown screen shots of all 5 female characters on the survey, and had also been following the weibo feed daily, that featured all five characters for several weeks. The social comparison measure was to a group of characters and their lifestyle.

### *3.2 Measures*

The study utilised six constructs in the conceptual model: narrative involvement, motives to use TV series related SNSs, subject involvement, social comparison, PSI and impulse buying. These were measured using 7-point Likert scales. Three items measured narrative involvement (Green and Brock, 2000), three items measured motives to use SNSs (Yuan et al., 2016, Rubin 1985), and six items measured PSI (Rubin et al, 1985, Dibble et al. 2015, Giles 2002). Our research included five items measuring subject involvement (Zaichkowsky, 1985, Huang, 2016; Wang et al., 2012) from a cognitive product involvement context and ten items that measured social comparison (McCroskey & McCain 1974, McCroskey et al 1975) McCroskey et al, 2006, Lee and Watkins, 2016) from an affective attitude homophily/social attractiveness perspective in order to capture the second screen context. Four items adopted from Verhagen & van Dolen's (2011) impulse buying tendency scales were used to measure the second screen consumers' impulsive buying responses. See Table 1. Data was collected April to June 2017 at the time of broadcast.

**Table 1. Constructs, and Scale Items**

Construct	Items	Sources
Narrative Involvement	1. I was really pulled into the story. 2. While viewing, I was completely immersed in the story. 3. I wanted to learn how the story ended.	Green and Brock (2000)
Motivation to Use TV series SNS	1. I use SNS to learn about things related to the TV series. 2. I use SNS to pass time when I am bored during the TV series broadcasting. 3. I use SNS to get along with people who have the same interest.	Yuan et al. (2016) Rubin et al (1985)
Subject involvement	1. Uninterested-Interested 2. Not involved-Highly involved 3. Of no concern-Of concern to me 4. Unimportant-Important 5. Irrelevant-Relevant	Zaichkowsky, (1985)
Social comparison (Attitude/social attractiveness)	1. These Characters think like me. 2. These Characters are similar to me. 3. These Characters are like me. 4. These Characters share my values. 5. These Characters have a lot in common with me. 6. These Characters behave like me. 7. These Characters have thoughts and ideas that are similar to mine. 8. I think they could be friends of mine. 9. I would like to have friendly chats with them. 10. These Characters treats people like I do.	McCroskey & McCain (1974) McCroskey et al (1975) McCroskey et al (2006)
PSI	1. I look forward to watching the TV series (on channel). 2. I think of the characters like old friends. 3. I would like to meet the characters in person. 4. If there were a story about the characters on social media, I would discuss it online. 5. The characters make me feel comfortable, as if I am with friends. 6. When the characters show his/her fashion, it helps me make up my own mind about fashion inspirations.	Rubin et al (1985)
Impulse Buying	1. My purchase of ..... was spontaneous. 2. My purchase of .....was unplanned. 3. I did not intend to do this purchase before watching this TV series. 4. I could not resist to do this purchase when I join the social media discussion.	Verhagen, van Dolen, (2011)

*All the constructs in the research model were measured using multiple-item scales validated from prior studies, with minor modifications to ensure contextual consistency.*

## 4 Results

Data analysis followed a two-stage approach to evaluate the reliability and validity of the measurement model, followed by fitting the structural model to test the research hypothesis.

### 4.1 Measurement model

The measurement model of the latent constructs was analysed by confirmatory factor analysis (CFA). The measurement model achieved good fit indices (Schumacker and Lomax, 2016). Convergent validity was established for all six constructs based on the average variance extracted (AVE) values, which exceeded 0.50 (Fornell and Larcker, 1981). Composite reliabilities of all six constructs were over 0.79, indicating high reliabilities. Discriminant validity was confirmed; the square root of the AVE is larger than the corresponding correlation coefficient between factors, see Table 2, (Fornell and Larcker, 1981).

**Table 2. Discriminant Validity Analysis Results**

	NI	MUS	FL	PSI	SC	IB
Narrative involvement (NI)	<b>0.76*</b>					
Motives to use SNSs (MUS)	0.42	<b>0.78*</b>				
Subject Involvement (SI)	0.44	0.09	<b>0.79*</b>			
PSI interaction (PSI)	0.52	0.49	0.21	<b>0.76*</b>		
Social comparison (SC)	0.30	0.63	0.07	0.46	<b>0.79*</b>	
Impulse buying (IB)	0.42	0.48	0.27	0.64	0.64	<b>0.78*</b>

\*Items in bold represent the Square Root of AVE.

This study used Harman's (1976) single-factor test in performing exploratory factor analysis, to test for common method bias. The result demonstrated that a single factor accounts for 33.92% of the variance among measures. This indicates that common bias does not occur in the dataset, and demonstrates the validity of the measurement model, for structural equation modelling.

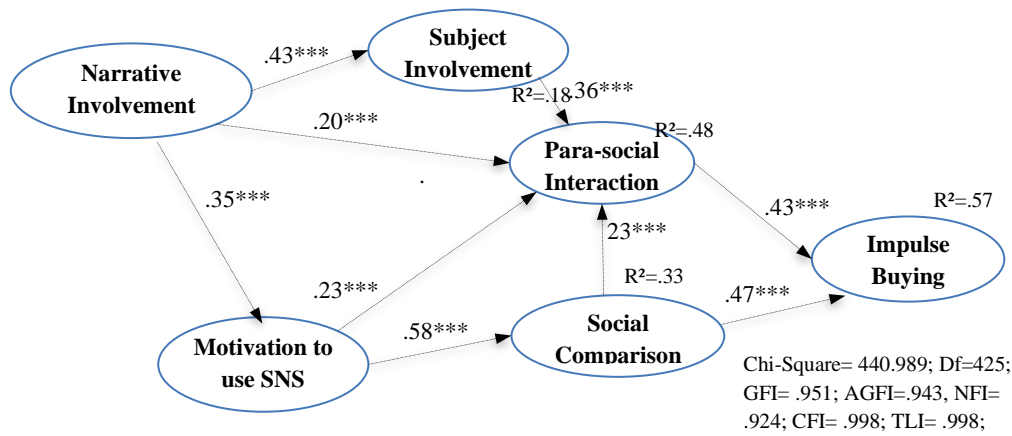
Table 3 provides the Cronbach's Alpha of the construct scale items, each construct scale achieved over 0.70, indicating that the scales are reliable (Field, 2013). The Cronbach alpha for five out of six constructs is above .80, indicating 'very good' consistency (Hair et al., 2014). Narrative involvement has a slightly lower alpha value, at .798. However, it is significantly over 0.70 and the value is relatively close to the 'very good' threshold, which means that all the scales are consistent, reliable internally and appropriate for further research analysis (Field, 2013). Moreover, four out of six constructs presented alpha scores in excess of .850, indicating that those constructs have relatively high levels of reliability (Hair et al., 2014).

**Table 3 Cronbach's Alpha Scale Score and Construct Scale Score**

Variables	Cronbach's Alpha	N of Items
Narrative Involvement	0.798	3
Motivation to Use SNS	0.825	3
Subject Involvement	0.891	5
Social Comparison	0.940	10
Para-social Interaction	0.887	6
Impulse Buying	0.875	4

#### 4.2 The Structural Model

Fit indices for the structural model indicate a good fit (Schumaker and Lomax, 2016; Bentler, 1990) see Fig. 2.



**Figure 2** Structural Equation Model.

Three hypothesis were unsupported, Narrative Involvement to Social Comparison, motivations to use SNS to Subject Involvement and subject involvement to impulse buying. Thus Narrative Involvement doesn't directly lead to social comparison effects, but it does link in strongly to social comparison if consumers are motivated to search for additional information via a second screen. Consumers' motivations to search for additional information are therefore an important influence on social comparison and consequently para-social interaction, which together lead to impulse buying. Subject involvement (SI) does not directly link with impulse buying, Subject Involvement has a PSI mediated relationship with Impulse buying. The most significant relationships were from narrative involvement via motivations to search on SNS, social comparison and then impulse buying. Another significant finding was that both parasocial interaction and social comparison lead to impulse buying.

The Subject Involvement r-square value is lower than the parasocial interaction and social comparison and impulse buying. However it is still significant at the medium level, according to Cohen (1992), with the remaining two r-square values indicate a high effect size. These results indicate that the subject involvement measure does not fully capture all activity, and may have some overlap with narrative involvement and that further research is needed to isolate all the effects. Full explication of these effects requires further research.

The results found that the exogenous variables (Narrative involvement and Motivation to use SNS) in the current research model explain the variances in endogenous variables (PSI interaction; subject involvement; social comparison; impulse buying) well. The integrated model accounted for 57% of the variance in impulse buying. Thus, 8 of 12 hypotheses were supported. The results demonstrated that the supported path coefficients were significant as hypothesized. Narrative involvement exerts significant effect on subject involvement and motivation to use SNS exerts significant effect on Social comparison (H1 and H4 were supported). Narrative involvement and Motivation to use SNS had significant impacts on PSI Interaction (H5 and H6 were supported). Subject involvement and Social comparison had positive influence on PSI (H7 and H8 were supported). Both social comparison and PSI exhibited strong effects on Impulse buying (H10 and H11 were supported). Table 4 provides a summary of the hypothesis testing.



**Table 4 Summary of Hypothesis Testing**

Hyp	Path			Non-standard	S. E.	C. R.	P	Standard	Results
1	SI	<---	NI	0.45	0.058	7.717	***	0.441	Supported
2	PSI	<---	NI	0.149	0.038	3.893	***	0.198	Supported
3	SC	<---	NI	0.022	0.048	0.459	0.646	0.022	Unsupported
4	MUS	<---	NI	0.822	0.137	6.01	***	0.347	Supported
5	SI	<---	MUS	-0.034	0.051	-0.666	0.505	-0.034	Unsupported
6	PSI	<---	MUS	0.17	0.04	4.238	***	0.234	Supported
7	SC	<---	MUS	0.557	0.053	10.417	***	0.568	Supported
8	PSI	<---	SI	0.263	0.035	7.525	***	0.356	Supported
9	IB	<---	FL	0.027	0.042	0.647	0.518	0.028	Unsupported
10	PSI	<---	SC	0.171	0.037	4.658	***	0.231	Supported
11	IB	<---	PSI	0.534	0.07	7.685	***	0.408	Supported
12	IB	<---	SC	0.46	0.045	10.244	***	0.474	Supported

## 5 Discussion

The purpose of this research was to explore the effects of narrative involvement and PSI relationships in the second screen TV series context. By developing Xiang et al.'s (2016) framework, it is the first study to consider the effects of PSI relationships on consumers' impulse buying in the second screen context. It has also brought social comparison into the second screen context, and indicates the extent to which these constructs affect target consumers' impulse buying tendencies.

### 5.1 Narrative involvement

Consistent with prior research (Choi, 2014; Gillespie and Joireman, 2016), narrative involvement has a significant link with subject involvement and elements of engagement and flow experience. This finding suggests that narrative involvement, in which stories involve audiences, lead to increased levels of consumer engagement with featured products.

Narrative involvement has a significant effect on PSI interaction. This finding has further developed the previous understanding regarding the influence of narrative involvement, suggesting that involving TV audiences into a scenario has a positive effect on the act of PSI interaction. Or, in other words, the deeper the audiences are absorbed in the narrative, the more dynamic the PSI interaction becomes. Narrative involvement offers a close link for audiences, making them believe that they are a part of the narrative context (Choi, 2014). As one of the most significant issues discussed in media research, PSI interaction then provides an explanation to what is going to occur after audience involvement.

Media psychology research (Cohen, 2001) has defined PSI as an interactive process that entails merging with the character, sharing the character's knowledge about the narrated events, adopting the character's goals (i.e. hoping that they succeed), and sharing the character's emotions (Cohen 2004; Yuan et al. 2016). When audiences are attracted and psychologically involved in the narrative environment, a virtual connection to characters is likely to be built up. Audiences will actively engage in PSI interaction with certain character

or with others (i.e. influencers and friends) regarding a certain character, following or reacting to the character's point of view (cognitive empathy component) and feeling empathy and affinity towards that character (affective empathy component) within the narrative environment. In this way, audiences have gradually diminished their self-awareness and meanwhile been absorbed in the narrative scenario in a deeper sense.

The results indicate that Narrative involvement has no direct effect on social comparison. The mediated link between narrative involvement and subject involvement and PSI was however significant. This indicates that narrative involvement involves a complex process of reflection between the subject, the influencer and social comparisons with the TV series content, before consumers experience the development of parasocial interactions and relationships.

### *5.2 Motivation to use SNSs*

The results indicate that motivations to use social media have a positive effect on audience social comparison. The more highly motivated users are to use social media, the more likely it is that social comparison takes place. The motivations to use SNS's is a highly significant finding, consumers use SNS when they are bored during broadcast, in this way, the influencer content fills in narrative gaps, at a moment when consumers are likely to be susceptible to impulse purchase. In this study, social comparison takes place between the audience and the fashion related content from the fictional TV character(s). Ashley and Tuten (2015) noted that social media is an advanced communication technology because of the open and easily-accessible platform, where volume information sources are created, delivered and exchanged under the technological support of social media's interactive functions. While on this platform, social comparison is likely to take place in multiple ways. First of all, social comparison may happen between audiences and the information posted on social media, which ranges from character's personalities to product details. The comparison here refers to audiences' psychological measurement on the relevance of the information for their purposes or expectation. Thus, the more urgently users wish to seek information, the more information is capable of being found on a social media channel, which serves as a hub for social comparison.

Social comparison may also take place among audiences members sharing and commenting on the same content. The free exchange of information on social media enables 'two-way' communication, during which social comparison is enabled. The more audiences communicate with others, differences are then found, giving rise to social comparison.

The motivation to search for TV series-related content on social media positively affects the PSI interaction taking place between audiences and the characters appearing in the content. The distance between TV audiences and TV performers is likely to be shortened by the direct communication function on social media, so that direct interaction between audience and characters is now possible. However, it should be noted that PSI interaction can never replace real interactions because characters remain fictitious. Communications between fictitious characters and audiences remain theoretically achievable via social media. Connections can be strengthened by social media, which enables the advancement of 'two-way' communication and thus provides interactive communication that supersedes that of traditional 'one-way' delivery.

The relationship between motivation to use SNSs and subject involvement was not supported. The motivations construct was however directly and strongly linked to social comparison, which is an important finding. The narrative involvement sets up subject involvement

experiences which then influence feelings of PSI and latterly strongly influence impulse buying.

### *5.3 Subject Involvement and Social Comparison's effect on PSI*

This finding corroborates Horton and Wohl's (1982) results regarding the influence of PSI interaction on individuals. PSI interaction will positively emotionally affect the audience towards buying the product recommended by their favourite media personality, in order to keep staying in and / or enhancing the relationship (Horton and Wohl, 1982). In other words, the intention of buying 'the product recommended by' TV performers is influenced by levels of product concentration on the TV program. To the audiences who engage in PSI interactions with TV performers, product placement inspires the viewer to regard buying the same product as the one used by characters as an effective way of maintaining the relationship between them. In this way, the effectiveness of product placement, in this case feelings of subject involvement and engagement, has positively affected PSI interaction.

There is a relationship between social comparison and PSI interactions. This is the result of the resonance between the information delivered by the content and the audiences' expectation influencing PSI interaction. Higher degrees of relevance would reinforce the audience's belief that the character (s) is/are trustworthy; this strengthens the connection between the audience and the TV characters. Therefore, the higher social comparison relevance is, the stronger the relationship becomes.

Impulse buying behaviours are strongly affected by both PSI interaction and social comparison. Driven by the principle of social mobility (Chen and Qin, 2014), social comparison would lead to spontaneous consumption for upward simulation or, at least, homophily comparison. PSI interactions provide an enhanced level of trust in fashion choices, dispelling negative pre-purchasing concerns. In these circumstances perceptual cognitive and emotional preconditions relevant to impulse buying behaviours are emerging.

### *5.4 Theoretical contributions*

The current empirical work makes several important contributions. First, to the author's knowledge this work is original in integrating narrative involvement, PSI, subject involvement and social comparison applied within an extended SOR framework to explore second screen marketing communications. This empirical work extends Xiang et al's (2016) work linking parasocial interaction and impulse buying, by adding in the mediating constructs of social comparison and narrative involvement. The empirical work also extends Kamboj et al's (2018) results that link SNS motivations to participation in brand communities (PSI in this case).

To the author's knowledge the study is original in making a contribution by integrating the constructs of social comparison and narrative involvement with Parasocial interaction within the conceptual and empirical SOR frameworks, which extends the work of Zheng et al., (2019) in mobile impulse buying into the TV series second screen context, but also potentially adds narrative involvement as an additional construct. This work also adds to the results of Aragoncillo and Orus (2018) in that it explains that micro blogging social networks can, in fact, significantly affect fashion product impulse buying if they are associated with the narrative of a TV series and are posted by an influencer. Social networks alone do not strongly influence impulse buying as in Aragoncillo and Orus's study, but when integrated with the content of a TV series and delivered via an influencer, the effect on impulse buying is significant.

This study provides validated results to construct a new conceptual framework of second screen marketing communications for TV series audience-consumers. The constructs include

narrative involvement, motives to use SNSs, subject involvement, social comparison, PSI interaction and impulse buying, in order to provide further research directions in the second screen marketing communication context.

The study enriches existing literature on second screen communication and impulse buying in several ways. Firstly, it validates a model of second screen impulse buying that is grounded in media and psychological theories within a marketing perspective. More specifically, it extends previous research on impulse buying by examining this behaviour in a 'second-screen' context. As a relatively new form of social commerce, 'second-screen' activity has received little attention from researchers to date. Second screen research has investigated its impact and marketing influence by inferring objective data, and few studies have examined the role of second screen features in user behaviour via empirical testing. This research has developed a conceptual model to fill this research gap. Secondly, it extends a previous application of the SOR model in impulse buying research (Xiang et al., 2016), in which environmental features are replaced with second screen cues. These were the influencer's posts and the comments, in Xiang's work the social platform Mogujie was used as the environmental feature, in this second screen study, consumers were provided with the influencers second screen content as stimuli in order to measure the second screen effects. The research validates a framework for a second screen research context. In accordance with narrative transportation theory and motivation theories, second screen users' narrative involvement and the motivations to use SNSs have been verified as environmental stimuli that affect emotional reactions and interactions. Thirdly, the identification of consumer's reactions with cognitive product subject involvement-flow experience and affective social comparison with TV characters is novel within an impulse buying context. Prior studies applied either product flow experience or social comparison as the emotional organism, based on different research contexts, but to date, no study has combined these two theories. Within a second screen media communication, PSI interactions influence on impulse buying enriches impulse buying research.

A second contribution to theory is the development of PSI, flow and social comparison theories in a second screen context, which enriches the theoretical development in the marketing communication field. Prior research has verified the relationship between PSI and impulsive buying in the TV shopping context (Park and Lennon, 2006). This research builds on this past study by examine the role of PSI on impulse buying behaviour, providing a meaningful contribution to second screen impulse buying research. PSI as a determining factor is examined in this study and is found to be an important driver of second screen impulse buying.

The third contribution is to flow and social comparison theories. The organism variables, subject involvement product flow experience and social comparison, are found to fully mediate the effects of second screen cues during impulse buying behaviours. The results highlight that the second screen cues do not directly influence behavioural-related outcomes. They only function as cognitive dominants of subject involvement and affective social comparisons with TV characters, which in turn influences impulse buying behaviour. In this sense, the results support the validity of using the S-O-R framework in modelling behavioural outcomes and suggest the necessity of including consumer cognitive and affective reactions in modelling impulse buying studies. Few studies have dealt with impulse buying and PSI in the SNSs shopping environment and social comparison in the TV narrative content.

### *5.5 Implications for Practice*

This study has generated managerial implications for social commerce managers and retailers. Firstly, narrative involvement is an important determinant of consumers' impulse

buying behaviours. Influencers and TV series writers are skilled in narrative creativity and are able to thus shatter the '*fourth wall*' (involving the audience- consumer) which in essence brings consumers into the story and creates involvement/ flow, social comparison, parasocial interactions and then impulse buying behaviours. Fashion Retail and Marketing Practitioners should therefore engage fully with the Narrative involvement of their product ranges, and in particular with shattering the '*Fourth Wall*' of fashion omni-channel retailing, at an early strategic planning point, by engaging early in the marketing planning processes with several leading influencers in online TV series related communities; this will attract consumers that are in the midst of co-creating communities of practice of artefacts (fashion, accessories, lifestyle products) with their TV series engaged followers. Practitioners should develop segmented and yet integrated global omni-channel microblogging media linking Twitter and Weibo (and other Chinese microblogging sites such as Wechat). Fashion retailers could set up initiatives whereby consumers can co-create the narrative with writers/influencers, or groups of consumers could co-create spin off narratives that allow retailers to develop new product ranges specific to that narrative. The potential for fashion retailers narrative involvement in fashion and other lifestyle products remains largely untapped by retail practitioners. Fashion Retailers need to embrace and integrate all media into their marketing strategies, in the way that Omni-channel retailers such as Amazon and Disney have, and indeed, in a similar vein to fashion influencers. Disney have long recognised the importance of narrative involvement in their product development strategies.

Secondly, parasocial interaction has a considerable effect on impulse buying intention. Audience-Consumers engage in reflective consumption practices of purchases in conjunction with influencers and with other social media users. Practitioners should develop collaborations with leading influencers and should engage them early the narrative process of product launches, using influencers to co-develop the characters costume boards and to suggest locations where the characters might wear the suggested costumes, also involving influencers in choosing the specific content tags in the microblogging post. The narrative build up needs to occur before, during and after broadcast and indeed have a sequel in the planning stage. Consumers are increasingly engaging a long running narrative, and feel loyalty towards long term narrative relationship based content. Narrative involvement is as important a product attribute as the product itself. The online and increasingly Omni-channel, Omni-media nature of retailing means that practitioners need to be active in all channels including influencer channels and streamed entertainment channels, simultaneously. Therefore, retailer / manager practitioners must be aware of the importance of narrative involvement in impulse buying, they could link in with narrative events that are occurring in both leading influencers' life story lines and also with TV series that feature lifestyle related storylines.

Thirdly, social comparison was also important in inducing individuals' impulse buying intention. Therefore, practitioners should pay great attention to their social media content so it has a strong narrative component and therefore an ability to create opportunities for social comparison and parasocial interactions. Practitioners could liaise with Influencers and streamed TV series creatives to ensure that product narratives are developed effectively in their social media channels, including influencer channels.

## 6 Conclusion

This research provides new perspectives to help marketers to develop practices for building PSI relationships between fictional TV characters and consumers through integrated 'second screen' channels. Attachment to TV celebrities does not just inspire celebrity adoration or imitation; it also drives consumers to purchase celebrity-promoted products or services to



keep enhancing the PSI relationship. By recognizing PSI effects, the study has provided a second screen perspective to impulse buying: social media content that allows consumers to feel connected with their favourite TV characters, the enhanced PSI relationship is likely to lead to impulse buying.

### *6.1 Limitations and future research directions*

There are several limitations linked to this research. First, it incorporates second screening perceptual states into the SOR framework to measure consumers' impulsive buying behaviour towards the second screens' using stimuli. The impulsive buying response presented a holistic view of consumers' second screen usage and related perceptual states, measuring consumers' narrative involvement, motives to use SNSs, subject involvement, social comparison with fictional TV characters and PSI interactions. Although the research framework measures three key perceptual states (Cognitive, affective and PSI) of consumers' second screen usage, the study was exploratory in nature and therefore only touched on some of the basic constructs of each of the media usage and emotional dimensions. For example, consumers subject involvement experiences in the study only focused on cognitive product concentration, and consumers TV usage in the study only focused on their narrative involvement with the considerations to adapt to research context.

Second, the research focuses on the Chinese market and the populations were confined to Chinese second screen users, which has a limitation in generalizing the findings in other cultural environments. Also, the sample had a gender bias, female (69.4%) and male (30.6%). Further studies with different gender samples would provide further insight. Furthermore, this study examines fashion products in the second screen context and therefore applying the findings to other product categories may be problematic. Since the study examined an actual TV series and the social media content created by the selected micro-blogger (GogoBoi), this may have had confounding effects on other variables such as product type and Weibo content that this study was not able to control.

This study has identified several future research directions. The sample consisted of Chinese consumers, which limits the generalisability of the findings in other cultural environments; future research could examine the findings in various cultural settings. Studies could be replicated with different gender samples and other social media platforms, excluding SINA Weibo could also be employed to enhance generalizability and cultural differences.

A future research direction could also address that idea that second screens actually have a negative impact on narrative involvement on the TV screen, that consumers are distracted. Conversely, the involvement aroused in the TV series may then transfer to the influencer and purchasing is increased. Alternatively, the distraction may cause audiences to then re-watch the programmes, which may increase narrative involvement with the TV series over time. Future research could conduct a controlled experiment to isolate audience members who do interact with an influencer on a second screen and those that do not, in order to measure differing levels of narrative involvement in the TV series.

PSI is the development of relationships that occur over time with media personalities. Support was found for PSI as a valuable construct in developing positive impulsive buying behaviour, but this study analysed consumers' reactions to a three-month exposure to the TV characters. Future research could take a longitudinal approach to studying the influence of PSI on marketing communications and PSI developed from mass media that included sustained, repeat viewing of a media personality. Studying the long-term exposure to a TV character's fashion product placement will help the development of PSI and social media research and have important practical implications for brand managers.



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