

ANTECEDENTS AND CONSEQUENCES OF ENGAGEMENT WITH TELEVISION
CONTENT IN A SOCIAL MEDIA CONTEXT: A STUDY OF PRIMETIME NETWORK
PROGRAMMING

By

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To my parents, who made all of this possible, for their endless love, support and encouragement

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Today television audiences are experiencing greater control over how they consume television in a multiple media environment. In particular, how they interact with television content through multiple social media platforms has emerged as a noteworthy phenomenon. This study investigated the social viewing experience of audiences by introducing the social engagement construct and validating its measurement scale. Two online consumer panels of 655 social media users were sampled to complete the three-stage research plan. Through conceptualization and operationalization of social engagement, this study identified four underlying dimensions in social engagement as vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. The four dimensions represent a continuum in which audience social engagement behaviors range from the lower levels (i.e., vertical involvement and diagonal interaction) to the higher levels (i.e., horizontal intimacy and horizontal influence), suggesting that the social viewing experience starts with the relationship between audiences and the branded television content and continues to extend that relationship to other audience members.

The findings of this study illustrated that the social engagement process is a composite result, which is determined by multiple components jointly under the integrated framework of active audience behavior. Specifically, audience attributes were found to be most salient in predicting the four social engagement dimensions. The audiences who demonstrate higher innovative tendencies and more social activities in their real lives are more likely to engage in different levels of social engagement behaviors surrounding television programming. Further, audiences' affinity towards programming, genre preference, and program involvement were found to significantly predict the overall social engagement experience. Finally, the higher levels of social engagement dimensions exhibited more salient predictive effects on program loyalty, audience satisfaction, and product purchase likelihood compared to the lower levels of social engagement behaviors.

It appears that the broadcast culture of the late twentieth century is quickly evolving into a multi-media community of communication on many levels. The digital multi-media culture of the 21st century seems to be growing at near-light speed. Therefore, the theoretical and practical implications of this study have immediate applications as well as challenges for future research.

CHAPTER 1 INTRODUCTION

Today television audiences are experiencing greater control over how they consume television in the platforms that best suit their needs. Particularly, as online social media like blogs and social networks gradually enter the mainstream and reach a broad demographic spectrum (Stephen & Galak, 2009), consumers interacting with television content through an expanding array of social media has emerged as a noteworthy phenomenon. The marriage between traditional television and the emerging social media platforms can be attributed to the growing adoption of social media tools by the consumers and their increasing cross-platform, multitasking media consumption patterns (Nielsen, 2010a, 2010b; Toy, 2010). The trend of simultaneous television/Internet usage is especially meaningful for broadcasters, program producers, and advertisers in their justification of investment in content, retaining and acquiring customers, enhancing brand affinity and program loyalty, as well as identifying and marketing the most valuable audiences (Epps, 2009; Harris Interactive, 2008).

Emerging Multimedia Consumption Pattern

In recent years, research found that the consumer' multiplatform consumption behavior, especially watching television while surfing the Internet, is becoming the norm (Nielsen, 2010a, 2010b). In 2009, around 59% of Americans used the Internet while watching television once a month, with both media simultaneously for three and a half hours per day (Nielsen, 2010a). Meanwhile, driven by the increasing adoption of social media platforms among diverse demographic segments, Nielsen (2010b) reported that Americans spend 43% more time on social media than a year ago, making social networking and blogs more popular than personal email among the top online activities.

In addition, industry survey revealed that nearly 43% of the Americans utilize social media and other websites to opine about television programs and a third of the respondents vent their feelings about shows after the program airs (Harris Interactive, 2011). Particularity, Twitter™ and Facebook™ ranked among the top social media sites that people tend to visit when they are media multitasking. The degree of multitasking consumption is even higher when it comes to “event TV” like the Super Bowl or Academy Awards (Toy, 2010). In this sense, social media offer a rare platform with attractive potentials in developing relationships with audiences and/or marketing television content.

In reviewing the emerging multiplatform consumption pattern, industrial practitioners and academic scholars have suggested various benefits of cross-media engagement for advertisers and broadcasters. From the advertisers’ perspective, the engaged viewers in the multi-media environment are more likely to remember advertisement, internalize the message, and be motivated by it than those who are less engaged (Epps, 2009). In addition, advanced Web-based technologies and their online applications, especially various social media platforms, are useful in nurturing customer relationships with brands among those who are most tightly engaged with the program. Because more involved viewers tend to engage in cross-media activities, advertising campaigns utilizing cross-media platforms might increase the likelihood of targeting the most involved viewers (Harris Interactive, 2008; Networked Insights, 2010). Hence, the value of advertising grows as viewers connect television programming and marketing message in multi-media platforms.

Furthermore, viewer engagement with television programs through various social media platforms can offer never-before opportunities for broadcasters to connect with their increasingly fragmented audiences. Major broadcasting and cable networks have adopted real-time platforms like TwitterTM to drive tune-in and take advantage of the growing trend of simultaneous television/Internet usage by dispensing online information in tandem with the airing of the programs (Leavy, 2010). More recently, several new entertainment-focused social platforms, such as GetGlue, which allow fans to connect through mobile and online platforms and share their opinions about certain shows across their social profiles, are gaining popularity. In a sense, the use of social media to enhance audience engagement has tremendous marketing potentials as the socially engaged viewers are more likely to stick with a show, talk about the show, and spread word-of-mouth (WOM) buzz about the show online. The “stickiness” achieved through real-time interaction can humanize broadcasters, which enables them to listen to, affirm, and amplify the opinions of their fans (Leavy, 2010).

In addition to deepening relationships with television viewers, social engagement with television content can promote a customer’s affinity for the brand and eventually enhance viewer loyalty to the program. Particularity, establishing a presence for certain programs on social networks, such as FacebookTM and MyspaceTM, could build affinity for the program brand by providing a platform for discussion among devoted fans (Leavy, 2010). When viewers share an active connection with a program’s profile on a social network, conversation is facilitated around the show, providing incentive for viewers to tune in frequently. For example, major cable networks such as ABC Family, Bravo, and USA Networks are experimenting with audience rewards programs via

social media platforms, hoping that the viral nature of Facebook™ in syndicating and reposting content would be an effective way of driving audience loyalty (McBride, 2010).

Purpose and Overview of Study

Given the supposed significance of viewer engagement with television content and increasing multitasking media consumption trend, the purpose of this investigation is to build an active audience behavior model that facilitates the understating of the interaction between television and social media consumption by validating the proposed social engagement scale and testing its antecedences and consequences in a social media context. More specifically, this investigation explores why certain consumers increasingly choose social media platforms in relation to television content, how they utilize the different social media platforms to interact with specific shows, and what the actual effects of such an engagement are.

With this in mind, it is necessary to first explicate the “social engagement” construct theoretically and practically. In terms of the core concept of “engagement”, scholars and industry practitioners have struggled to understand what engagement is, how it works, and what its practical outcomes might be. While there is no universal definition on engagement, it is usually described in terms of mental, emotional, attitudinal, and/or behavioral connection between a viewer, a media vehicle, and a brand message, examining viewer recollection of and reaction to programs, product placement, promotions, and commercials in multiple media environments (Askwith, 2007).

Prior research has pointed out that there are diverse attributes of viewer engagement under different media environments (Calder, Malthouse & Schaedel, 2009); therefore, audience engagement with specific social media platforms could

exhibit similarities and/or differences with viewer engagement with traditional mass media. It is suggested that engagement with the Internet or various social media platforms possesses a certain similar nature with that of traditional media in terms of information utility, inspiration, connectivity, and interaction (Kilger & Romer, 2007; Russell, Norman, & Heckler, 2004a). However, the engagement process is enriched by other special experiences such as participating, socializing, community building, and influencing (Takahashi, 2010, Yanga & Kangb, 2009). Thus, the social engagement construct should be manifested in manifold dimensions to capture viewers' relationship with television content in the multi-media contexts.

It has been challenging for industry practitioners and academic scholars to operationalize and develop valid, complete, and systematic scales to measure the engagement construct. Diverse measurement scales mainly facilitated by the survey method have been employed but varied greatly in specific scenarios. For example, Haven (2007) identified four dimensions of audience engagement with media content, each incorporating quantitative and qualitative data sources, such as involvement, interaction, intimacy, and influence. Askwith (2007) proposed that a viewer's engagement with television content should be measured as a function of viewer attitudes, viewer behavior, and viewer attentiveness. Although previous measurement metrics offer some general terms to study social engagement with television content, there is still a void of comprehensive indicators to systematically examine this important concept.

Furthermore, it is logical to identify the factors that might drive television audiences to utilize social media platforms to engage with television content, as well as the

possible consequences of that behavior. Prior studies proposed that audience media exposure should be investigated under an integrated framework, and the combined effects from the diversity of media platforms, media content, and media users may complicate the exposure process (McQuail, 2006; O'Brien & Toms, 2008, 2010; Webster, Phalen, & Lichty, 2006). The current study subscribes to this framework and investigates the social engagement process from three dimensions: 1) social media characteristics (e.g., social presence, compatibility, and perceived ease of use), 2) television program characteristics (e.g., genre preference, program affinity, and program involvement), and 3) audience characteristics. Because media use is a sociable activity, audiences' social and psychological attributes, such as innovativeness, viewing motivations, interpersonal interaction, and social activity, are likely to play a role in the social engaging process (Haridakis & Hanson, 2009).

Broadcasting and cable networks that regard engagement as an important audience marketing strategy in today's online world expect tangible business benefits by lining up an expanding array of social media platforms. Questions remain, however, if the engagement with television content in a social media context would yield the expected effects, and if so, to what extent. Several industry surveys have revealed that cross-media engagement could increase the value of television programming and advertising as well as provide additional opportunities for branded content and product placement (Harris Interactive, 2008; Networked Insights, 2010). Nevertheless, it is still unclear what might be the exact effects of social engagement on the following viewing activities, including product purchase likelihood, audience satisfaction, repeat viewing behavior, and program loyalty.

In summary, this investigation employs a multiple research strategy, including three focus groups and two online consumer surveys, to 1) develop and validate the construct of social engagement and its measurement scales, 2) explore the factors that are most predictive of television audiences' social engagement with television content among program characteristics, social media characteristics, and audience characteristics, 3) examine the impacts of social engagement with television content on viewing activities, including viewer loyalty, audience satisfaction, and product purchase likelihood, and 4) investigate the possible differences and/or similarities in the aforementioned antecedents and consequences based on the different types or levels of social engagement, if any.

Theoretical and Practical Contributions

This research sheds light on the importance of an emerging television consumption behavior – engagement with television content in a social media context – from both theoretical and empirical perspectives. Starting with the potential for practical contributions, as the television industries increasingly compete against alternative distribution platforms while facing a fragmented audience with decreasing loyalty, it is critical for media organizations to develop a more long-term relationship with their viewers. This study, therefore, empirically addresses the issue of whether television broadcasters/advertisers should devote resources to develop a social engagement strategy and how they should go about it. This is an important consideration as the careful deployment of resources is most essential in a competitive environment.

Theoretically, the conceptualization and operationalization of social engagement with television content synthesizes several bodies of literature to help validate an emerging active audience behavior theory and establish a more comprehensive picture

for viewer engagement in a social media context. This exploration is unique in that it simultaneously integrates different segments of literature from mass communication, marketing, and information systems, thereby providing an opportunity for a comprehensive examination and tighter integration of the components in the media choice and use process. In addition, most research in the audience behaviorist tradition has been limited by the separate examination of engagement in different media platform contexts and the lack of valid measurement indicators in an integrated fashion. This investigation, therefore, enriches active audience behavior perspectives, by introducing a multi-dimensional engagement concept in relation to television audiences' engrossed experience to catch emerging multitasking media consumption pattern in new media environments.

CHAPTER 2 THEORETICAL FRAMEWORK

A Comprehensive Understanding of Audience Behavior

The Audience Behaviorist Research Tradition

There are several notable traditions in audience research, such as the structural tradition, the behaviorist tradition, and the cultural tradition and reception analysis. Each of these traditions suggests a different explanation for media use behavior and involves diverse theoretical foundations, research strategy, and methods (McQuail, 2006; Webster, Phalen, & Lichty, 2006). The structural tradition proposes that the media systems and the social systems shape media user behavior, while the social-cultural approach emphasizes the particular context in which an audience is located and the process of giving a meaning to cultural products and experiences. The behavioral (functionalist) approach, which originated from early mass communication “exposed” direct media effects, has transformed from the source-dominated to active audience perspectives, with an emphasis on individual needs, motives, and circumstance as the starting point (McQuail, 2006).

The active audience perspectives are now achieving premier status in the behavioral audience research domain due to the continuously evolving media environment and audience media consumption patterns. Active audience, a key concept in this field, is viewed as a more or less active and motivated set of media users/consumers, who are in charge of their media experiences and choose their preferred media in given situations or preferred content within a given medium to meet their specific consumption needs (Katz, Blumler, & Gurevitch, 1974). Under the basic active-oriented assumption in audience behavior, the term audience activity has been

conceptualized as a variable construct with varying kinds and degree of activity, including selectivity, utility, intentionality, resistance to influence, and involvement (Biocca, 1988; Blumler, 1979).

More specifically, selectivity describes audiences who plan their media use or choice actively to reflect their existing interests and preferences. Intentionality signifies audiences who actively engage in the cognitive processing of information and experience directed by their prior motivations. Utility defines audience as the self-interested consumer to satisfy various needs. Resistance to influence emphasizes that audience members are obstinate and actively avoid certain types of media influence. Involvement indicates audiences' engrossed media experiences, which can also be called "affective arousal" (Biocca, 1988; Blumler, 1979).

There are several critics of the behavioral research approach from the structural tradition, who argued that the functionalist approach fails to provide much successful prediction or causal explanation of media choice and use, due to the fact that much media usage is actually very circumstantial and weakly motivated (McQuail, 2006). In addition, Webster (1998) suggested that defining "active-passive" polarity in the behaviorist tradition focuses too much on the micro-level questions of how individuals interact with media texts, thus undervaluing the role of habit in audience behavior and minimizing the concept of audience-as-mass. Accordingly, an integrated model of audience behavior incorporating both individual audience and structural factors is proposed as a better way to comprehensively understand the continuing process of media choice (McQuail, 2006; Webster & Wakshlag, 1983; Webster, Phalen, & Lichty, 2006).

Considering the focus of the current study on audiences' active engagement with television content in a new social media environment, the characteristics emphasized vary differently from that of the traditional television viewing habits perspectives. Therefore, the researcher here holds that an individual behavioral approach on the social engagement process is more appropriate for this investigation. Thus, building upon the following theoretical foundations, a holistic framework is proposed to understand the antecedents of individual audiences' active engagement behavior.

The Uses and Gratifications Approach

Uses and gratifications is often seen as a conceptual approach that provides functional typologies for various media usage in both traditional and the newer, continually evolving, interactive digital environment (Ruggiero, 2000). It is one of the underlying theoretical foundations of this research. The principal elements in the uses and gratifications paradigm include "(1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones" (Katz, Blumler, & Gurevitch, 1974, p. 510).

A contemporary view of uses and gratifications is grounded in several assumptions that highlight the role of audience initiative and activity. Specifically, communication behavior is generally seen as goal-directed, purposeful, and motivated. Audience members are variably active participants who initiate the selection of media and content from an array of communication alternatives in response to their expectations and desires. Social and psychological factors guide, filter, or mediate behavior, while audience members are conscious of the media-related needs, which are

constrained by personal traits, social contexts, and interaction. People are typically more influential than media in this process, and individual initiative mediates the patterns and consequences of media use (Palmgreen, 1984; Palmgreen, Wenner, & Rosengren, 1985; Rubin, 2009).

Uses and gratifications researchers propose that different levels of audience activity are associated with various media orientation. Levy and Windahl (1984) categorized active television audience viewing behavior into three types – intentionality, selectivity, and involvement. Rubin and Perse (1987a, 1987b) further found that various audience members could exhibit different levels of activity before, during, and after television exposure. Diverse viewing motives such as instrumental and ritualized use are related positively or negatively to audience intentionality, selectivity, and involvement with local news or soap operas. Ritualized media use focuses more on using media habitually to consume time and for diversion, which entails greater exposure to and affinity with the medium, while instrumental media use centers on seeking specific media content for informational reasons.

Researchers on uses and gratifications also pointed out that mass media compete with other forms of communication or functional alternatives for a finite amount of time among limited audiences (Kaye & Johnson, 2003; Rubin, 2009). The relationship between media and audience is therefore influenced by people's social and psychological circumstance, including lifestyle, life position, and personality. Prior studies, in particular, examined the role of individual life-position attributes, such as personality, mobility, lifestyle, interpersonal interaction, social activity, economic security, and need for cognition, in shaping the choice of communication alternatives,

motives to communicate, strategies for seeking information and diversion (DiMaggio, Hargittai, Neuman, & Robinson, 2001; Hamilton & Rubin, 1992; Perse & Rubin, 1990). Furthermore, differences in personality, cognition, social affiliation, and motivations are found to affect exposure, cultivation, and satisfaction of media use (Haridakis, 2006; Harwood, 1999).

As the Internet and online applications such as email and various social media tools increasingly diffuse into people's daily lives, the computer-mediated communication offers a vast continuum of communication behaviors for the researchers of uses and gratifications to examine. Ruggiero (2000) pointed out three distinctive characteristics of online communication complementary to traditional mass media communication – interactivity, demassification, and asynchronicity. As a core notion of audience activity, interactivity describes the degree to which audience members in the communication process have control over; demassification illustrates that the ability of the Internet in providing selectivity attributes to allow individuals to tailor messages to their needs, and asynchronicity signifies the convenience of communicating among senders and receivers at different times.

A meta-analysis of new technology use found that the uses and gratifications approach is helpful in studying a wide range of new media, including the Internet (Papacharissi & Rubin, 2000; Stafford, Stafford, & Schkade, 2004), email (Boneva, Kraut, & Frohlich, 2001; Dimmick, Sikand, & Patterson, 1994), and the online content sharing community (e.g., YouTube®) (Haridakis & Hanson, 2009). In subscribing to the uses and gratifications approach, the current study attempts to synthesize various motivations of traditional television, the Internet, and new media technologies to assess

the social and physiological origins of needs regarding audience members' using newly emerging social media platforms to engage with traditional television content. In addition, the effects of individual audiences' personal attributes such as offline social activity, interpersonal interaction, and innovativeness are examined to better understand the media engagement process.

Theory of Television Program Choice

There are two mainstreams of theories on individual television viewing choice including the functionalist perspective and media economics and marketing. The first working functionalist theories were originated from the uses and gratifications approach and enriched by media professional practices (Webster, Phalen, & Lichty, 2006). Researchers on the working theories of program choice contended that people have consistent preferences for certain content type in determining their choice of media materials. People's dislikes are found more clearly to be related to program type than are their likes. In other words, audiences recognize their dislikes more easily than what they may like. In addition, program preferences are closely identified with demographic attributes of the audience (Webster, Phalen, & Lichty, 2006). However, several researchers argued that the decision of whether to watch is largely passive, while the decision of what to watch appears more active. This two-step decision process highlights the limitation of using program preference as the only predictor of viewing choice and stresses the important role of habit in explaining audience behavior (Heeter, 1985).

The second stream of theories on program choice is developed by economists and marketing researchers, which represents a more formidable explanation in program choice viewing behavior. Applying a conventional consumer product choice model into

the television program consumption scenario, Steiner (1952) developed an economics model of television program choice and posited the existence of a thoroughly active audience in which audience size is determined by the presence of people's preferred program type. Later, scholars revised and extended Steiner's (1952) model to examine the extent to which hypothetical industry structures maximize viewer satisfaction or predict audience viewing patterns (Owen & Wildman, 1992; Rust, Kamakura, & Alpert, 1992).

These theories from the economics and marketing perspectives are premised upon two important assumptions of audience program choice. First, it is assumed that there are certain content characteristics or program types "defined in terms of viewer preferences." Second, noting the "free good" nature of advertiser-supported television programs, it is assumed that "program choice is a function of individual preference operating within the bounds of available program content" (Webster & Wakshlag, 1983, p. 431). With these two assumptions in place, it is logical to predict the distribution of the audience across channels. When there are only a few competitors, similar programs are likely to be offered across channels. On the other hand, when the number of competitors increases, program content is likely to become more differentiated, which leads to audience fragmentation (Webster, Phalen, & Lichty, 2006).

Webster and Wakshlag (1983) integrated the two disparate theoretical approaches into a single comprehensive model of television program choice based on the fundamental assumption that specific program preference is a cause of program choice. The model captured the likely interaction among programming structures, program preference, viewer availability, and viewer needs and awareness. The authors proposed

that the program schedule and viewer availability are predictive of viewing choice. Particularity, the structure of program options, such as channel loyalty, inheritance effects, and repeat viewing, predict program choice, while program genre preferences seem to predict specific program preferences. Nevertheless, the authors admitted that the advent of new technologies that allow viewers to schedule their own programs which will eventually force the revision of the model structure in the new digital communication era. The theories in television program choice model clearly establish the significant role of program type in audience choice and underline the need to incorporate program related factors in the proposed study.

Technology Acceptance Model and Innovation Diffusion Theory

Given that this investigation focused on individual audiences' use of social media rather than traditional television as a way to be involved with television content, the researcher regards individuals' perceptions about the characteristics of communication innovations as one of the important explanatory and predictive variables for the use behavior. Specifically, two streams of theories from the technology acceptance model (TAM) and the innovation diffusion approach are employed due to their robust and predictive power in explaining users' technology acceptance or innovation adoption behavior.

The TAM approach has been extensively applied to predict users' acceptance of technology systems (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Hendrickson & Collins, 1996). Davis (1989) proposed that people tend to use a system to the extent that they believe it will help them perform their job better (perceived usefulness). The author also suggested that the beliefs of persons concerning the efforts required to use a system can directly affect system usage behavior (perceived ease of use). Prior

research further revealed that both perceived ease of use and perceived usefulness have a direct influence on the behavior intention to use a technology system, which directly leads to actual system use. Moreover, perceived usefulness mediates the direct effect between perceived ease of use and behavioral intention (Venkatesh & Davis, 1996). Thus, perceived ease of use and perceived usefulness are two core predictors of technology acceptance intention and actual use behavior in both organizational and individual settings (Schepers & Wetzls, 2007).

Innovation diffusion theory, developed by Rogers (2003, 2005), describes “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 2003, p. 5). Like perceived characteristics of a technology in TAM, Rogers (2003) conceptualized the perceived characteristics of an innovation as relative advantage, compatibility, complexity, trialability, and observability. Prior studies indicated that complexity and relative advantage are salient in predicting adoption of communication technologies (Lin, 1998, 2001) and supported the critical role of relative advantage in Internet adoption and uses (Atkin, Jeffries, & Neuendorf, 1998; Busselle, Reagan, Pinkleton, & Jackson, 1999). It should be noted that complexity and relative advantage are defined similarly as the two constructs of perceived ease of use and perceived usefulness in TAM (Moore & Benbasat, 1991). In Tornatzky and Klein’s (1982) meta-analysis of innovation adoption, the authors discovered that an innovation is more likely to be adopted when it is compatible with individual’s job responsibility and value system. Accordingly, the current study includes perceived ease of use in TAM along with perceived compatibility in the innovation diffusion theory as two major independent variables, but excludes job-

performance-related construct of perceived usefulness as well as trialability and observability in the hypothetical model due to their inconsistent impacts on innovation adoption.

Media Social Presence Theory

To better understand social behavior in a mediated environment, researchers have advocated the use of social presence theory due to its robust predictive power (Biocca, Harms, & Burgoon, 2003). Social presence is defined as the degree of salience (i.e., quality and state of “being there”) between two communicators using a communication medium (Short, Williams, & Christie, 1976, p. 65). Biocca and Harms (2002) further revised the concept as “sense of being with another in a mediated environment,” and “the moment-to-moment awareness of co-presence of a mediated body and the sense of accessibility of the other being’s psychological, emotional, and intentional state” (p. 14). In other words, social presence is a sense that others are psychologically present and that communication exchanges are warm, personal, sensitive, and active. Social presence is postulated to have three levels: 1) the perceptual level describing the detection and awareness of the co-presence of the other’s mediated body, 2) the subjective level depicting the extent of accessibility to the others attentional engagement, emotional state, comprehension, and behavioral interaction, and 3) the inter-subjective level illustrating the perceived symmetry of social presence (Biocca & Harms, 2002).

Based on the premise that media have different capacities to carry interpersonal communicative cues, different media platforms vary in their social presence (Short, Williams, & Christie, 1976) or media richness (Daft & Lengel, 1984). Prior research on telecommunication systems use in organizational and interpersonal communication

settings has provided insights into the nature of computer-mediated communication, and addressed how the limited number of nonverbal cues in shaping the model of communication in a computer-mediated context (Hazemi & Hailes, 2001; Steeples & Jones, 2002). Regarding television consumption, the availability of media technologies, especially in the forms of social media, has enabled this traditional medium to significantly extend its audiences' reach across space and time, offering ample opportunities to interact with others and groups beyond the immediate physical surroundings. Thus, audience television viewing behavior is evolving with the integration of these newer and richer social platforms. In a sense, there is an increase in the mediated social interaction in the television consumption context.

Social presence theory has been widely used to assess the performance of “social presence” technologies, and these communication systems and interfaces are progressively designed to improve human communication for collaborative work (Weiming, Kremer, Ulieru, & Norrie, 2003), online education (Hazemi & Hailes, 2001; Steeples & Jones, 2001), and social services or ecommerce (Save, Guazzelli, & Poucet, 2001). Examples of evolving social presence technologies include mobile and wireless telecommunication, high-bandwidth teleconferencing interfaces, agent-based ecommerce and help interfaces, and 3D social virtual environments (Biocca, Harms, & Burgoon, 2003). However, few researchers have expanded the social presence theory into the emerging online communication systems – social media. The examination of social presence of various online social media platforms in the context of television consumption provides a notable approach to assess antecedents of the behavioral interaction between traditional television and emerging social media platforms.

An Integrated Model of Television Audience Behavior in a Social Media Context

By drawing upon the aforementioned theories of the uses and gratifications approach, television program choice model, TAM, innovation diffusion theory, and social presence perspectives, this investigation adopts the active audience behaviorist approach and aims to build a holistic, comprehensive model of active audience television engagement behavior in a social media context. From a managerial point of view, the integrated model attempts to serve as a guide for television broadcasters and advertisers, deciphering patterns of social engagement with television content and exploring potential benefits and risks involved in the deployment of social media platforms. Theoretically, the goals of the integrated framework are to establish a set of valid social engagement measures that reflect conceptually the interaction between television and social media platforms, identify specific factors that affect this engagement process, and assess possible outcomes of the active television viewing experience. Figure 1 is the schematic representation of those factors in the proposed active television audience social engagement model.

The core component of this model is the audience media exposure behavior, that is, using a social media platform to engage with television content. As suggested in the audience behaviorist research tradition, audiences are variably active across several qualitative dimensions and along the temporal dimension before, during, and after media exposure. In contrast to the traditional passive television viewing behavior, active television viewers utilize various social media platforms to engage with television content, indicating that the media use is purposive and planned; the media content is selected; and the viewing experience is involved. Conceptualizing this new, active television consumption behavior and validating accordingly the measurement scales

that capture the interaction between the two platforms presents a new perspective on television viewing in a parasocial television environment.

Building upon the aforementioned theories and approaches, this investigation identifies three categories of explanatory factors to predict the social viewing experience. They are perceptions of television programs, perceived characteristics of social media, and audience attributes. First, the investigation postulates that individual audience's perceptions of specific television programs may influence his/her television viewing experience. Specifically, audience preferences for particular television program genre, program affinity, and personal involvement can play a role in the selection and engagement of programming. Second, the perceived characteristics of social media, such as perceived ease of use, compatibility, and social presence, may predict audience members' social media adoption, acceptance, and usage behavior. In addition, media exposure is assumed to be originated from several social and psychological motives and mediated by their personal attributes. Thus, individual's viewing motives, innovativeness, and interpersonal and social activities compose the third factor of audience characteristics.

While these antecedents might be useful in identifying the effective means of improving the social engagement act, industrial practitioners and executives alike are more likely to value the possible outcomes of the emerging consumption behavior. This investigation proposes several consequences from the marketing and advertising perspectives. The first consideration involves program loyalty defined from both the behavioral dimension and attitudinal dimension. Prior industry research found that establishing a presence for certain programs on social media could build affinity for the

program by providing a platform for discussion among devoted fans and eventually enhance viewer loyalty to the program (Leavy, 2010). The second possible outcome centers on audience satisfaction or gratifications, which is assumed to be a significant outcome in consumer behavior from the marketing and communication perspectives. The last set of possible consequence is product purchase likelihood. Advertisers and marketers have posited that the value of advertising grows as viewers connect television program and marketing message across-media platforms (Harris Interactive, 2008; Networked Insights, 2010)

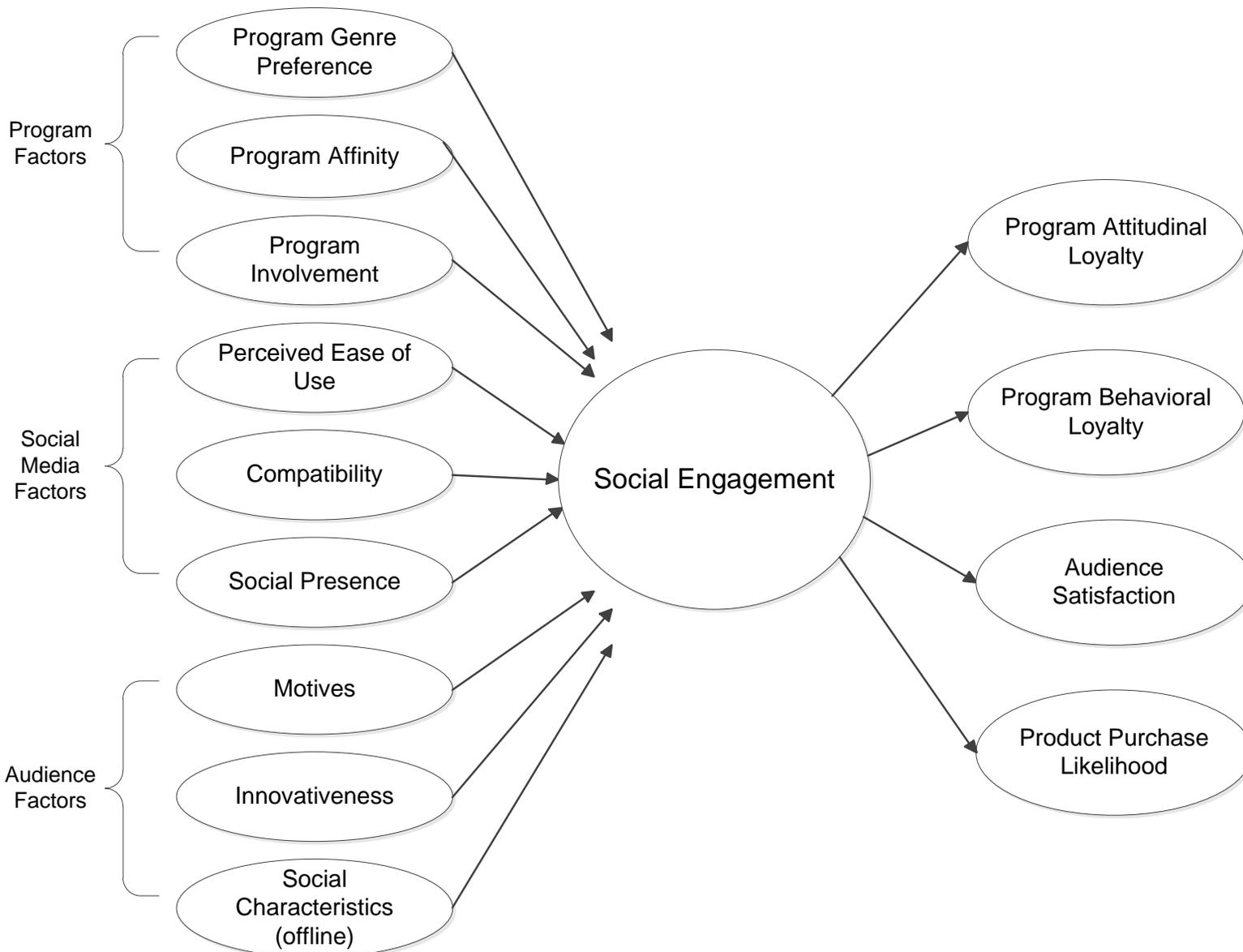


Figure 2-1. Antecedents and consequences of social engagement with television content

CHAPTER 3 LITERATURE REVIEW AND RESEARCH QUESTIONS

This literature review begins with the explication of the “social engagement” construct in terms of audience members’ television content engagement and media platform engagement. The chapter then reviews the relevant factors that predict the social engagement process, including perceptions of television programs (i.e., program genre preferences, program involvement, and program affinity), perceived social media characteristics (i.e., perceived ease of use, compatibility, and social presence), and audience attributes (i.e., user motives, innovativeness, and personal social characteristics). The chapter then ends with a discussion of the possible impacts of social engagement on viewing activities, including program attitudinal and behavioral loyalty, audience satisfaction, and product purchase likelihood.

Social Engagement

Social engagement in this study refers to the degree of interactions and connections that a viewer develops with television content through social media platforms. The core component of the construct, social engagement, is *engagement*. It was suggested that engagement is primarily driven by program content in the television consumption context, and the deepest engagement experience happens at the content level (Epps, 2009; Russell, Norman, & Heckler, 2004a). Note that the term “television content” is defined broadly in this study and includes the program content itself, characters or celebrities in the show, and related staff such as writers, directors, or producers, etc.. The word, *social*, indicates the very nature of the social media platforms which possess distinct characteristics from the traditional television medium, injecting a parasocial dimension into an individual audience’ pattern and degree of engagement

with television content. To provide a comprehensive background of investigation, the current study examines the social engagement construct from both the perspectives of “television content” and “media platform” engagement.

Viewer Engagement

The engagement construct has been defined in many ways by a range of disciplines. In marketing, engagement refers to the degree of attitude or efforts accorded an advertising message (Zaichkowsky, 1985). Goffman (1974) posited that involvement is similar to engagement and occurs when a person pays attention to and has feelings about a social experience, using “engrossment” to describe the degree of absorption or immersion attached to involvement in the social experience. In advertising, the Advertising Research Foundation (ARF) defined that “engagement is turning on a prospect to a brand idea enhanced by the surrounding context” (ARF, 2006). In information science, user engagement is “a quality of user experiences with technology that is characterized by challenges, aesthetic and sensory appeal, feedback, novelty, interactivity, perceived control and time, awareness, motivation, interest, and affect” (O’Brien & Toms, 2008, p. 949). It appears that engagement has varied meanings in different contexts, but primarily describes an individual’s attitude, behavior, attention, emotion, or experience with a specific object.

In the television consumption context, viewer engagement develops within a variety of audience research traditions, such as selectivity of programs, involvement with the characters, use of television personally and socially, and interpretation of content empirically or critically (Takahashi, 2010). Askwith (2007) proposed that a television viewer overall engagement can be expressed as the sum of the viewer’s behavior, attitude, and desire in relation to a given media, content, or advertising brand.

Moreover, McClellan (2008) claimed that audience engagement is “a more passion-driven and more socially driven mode of watching television” across as many different platforms as possible. From an industry perspective, Nielsen (2006) defines viewer engagement as the focused mental and emotional connection between a consumer, a media vehicle, and a brand message, examining viewer recollection of and reaction to programs, product placement, promotions, and commercials in multiple media environments.

Russell, Norman, and Heckler (2004a) proposed the connectedness construct akin to engagement to capture the parasocial relationship between television viewers with television programs and characters. The authors defined connectedness as “the level of intensity of the relationship(s) that a viewer develops with the characters and contextual settings of a program in the parasocial television environment” (p. 152). In addition, the authors (2004b) emphasized the social nature of television viewing and deciphered the connectedness construct into three dimensions: vertical connections (viewer-program, described as the commitment that individual viewers feel toward their favorite programs); horizontal connections (viewer-viewer, focused on the interpersonal relationship that viewers form with others around the show); and vertical connections (viewer-character, defined as the imagined and parasocial interactions that viewers develop with characters in their favorite programs).

Considering the current multiplatform television consumption pattern, Askwith (2007) revised Russell et al.’s (2004b) model, and further suggested that the horizontal aspect (viewer-viewer) of connections could be audience community building, which is facilitated and enabled primarily through the creation of online social groups and

activities. The vertical interaction (viewer-celebrity) describes the increasing opportunities for individual audiences to interact with television celebrities, which is often facilitated by various social media platforms like TwitterTM and FacebookTM. The third aspect of social interaction is diagonal interaction (viewer-character), which represents two increasingly popular types of engagement touchpoints – diegetic extensions and experiential activities. The author concluded that the present opportunities for diegetic interaction are alternate reality games and blogs. The above explication of the connectedness construct points out the social interaction nature of viewer engagement and its multiple platform applications driven by a range of existing digital extensions.

To empirically validate the connectedness construct, Russell et al. (2004a) further subdivided connectedness into six second-order factors, including escape, modeling, fashion, imitation, aspiration, and paraphernalia. The escape dimension defined the cathartic element that connects a viewer to a television program. The modeling dimension measures a social learning process by capturing the degree to which individuals relate their lives to the lives of characters. The fashion dimension represents the extent to which a viewer is influenced by the characters' appearance. The imitation dimension characterizes the inclination to imitate the characters' behavior or speech patterns. The aspiration dimension identifies how people aspire to actually be on the show or meet with the characters. The last dimension, paraphernalia, measures the degree to which people collect items to bring the show into their real world (Russell, Norman, & Heckler, 2004a).

Viewer Engagement, Attitude, and Involvement

To conceptually and operationally define the engagement construct, it is necessary to differentiate viewer engagement with the other two similar constructs - attitude and involvement. The attitude construct has been extensively used to measure the degree of favor or disfavor toward an attitudinal objective (Cacioppo, Gardner, & Berntson, 1997). In regard to television consumption, prior studies used programming liking, a summary evaluation of the experience of viewing a television program, to measure the attitude toward a program and further examine the program effect on viewers' evaluations of advertising messages or subsequent repeat viewing behavior (Barwise & Ehrenberg, 1987; Murry, Lastovicka, & Singh, 1992). However, as Russell et al. (2004a) argued, the construct of viewer connectedness or engagement goes beyond an overall evaluative response to the program. Furthermore, the attitude construct cannot capture the fact that such a parasocial relationship would emerge, although a positive attitude toward a program may mediate the development of connectedness.

While both viewer engagement and audience involvement emphasize the personal relevance of a television program, it is important to differentiate engagement from the construct of involvement. Rubin and Perse (1987b) proposed that viewer involvement consists of three dimensions - affective involvement, cognitive involvement, and behavioral involvement. Specifically, involved television viewers may feel empathy toward those in need on the show (i.e., affective involvement), consider the messages of the show (i.e., cognitive involvement), and talk about the show with others (i.e., behavioral involvement) during and after exposure. Park and McLung (1986) revealed that program involvement is related to personal relevance or importance with response to particular television content measured by cognitive, affective, and functional

dimensions. Nevertheless, prior research concluded that television program connectedness may start by fostering enduring involvement with the program over the course of repeat viewing, but end up absorbing their audiences in parasocial relationships with the characters in the program, i.e., viewer engagement or connectedness (Russell et al., 2004a).

Engagement with Different Media Platforms

Considering the growingly interwoven video platform environments, it is essential for this study to examine viewer engagement with different media platforms to better understand the social engagement construct. Kilger and Romer (2007) proposed multiple media engagement dimensions when investigating the relationship of media engagement with product purchase likelihood. Those dimensions include inspiration, trustworthiness, life enhancement, social involvement, personal timeout, and advertising attention receptivity. The study specifically suggested two extra attributes for the television vehicle: 1) personal connection measuring personal association with characters/situation, and 2) “near and dear” assessment of the degree a program is seen as a part of viewers’ regular schedule where the viewers devote full attention to the context. The same study also developed two more dimensions associated with the Internet platform such as interactivity/community and enjoyment/attraction.

When exploring the relationship between online engagement and advertising effectiveness, Calder, Malthouse, and Schaedel (2009) provided a systematic approach to measure engagement with the Internet through eight different online experiences. Those experiences include stimulation and inspiration, social facilitation, temporality, self-esteem and civic mindedness, intrinsic enjoyment, utilitarianism, participation and socialization, and community. The authors further grouped the eight online experiences

into two types of engagement with the Internet – personal and social interactive engagement. Personal engagement is manifested in experiences that are derived from stimulation and inspiration, social interaction, self-worth, intrinsic enjoyment, and utilitarian facilitated by the site, while social interactive engagement is motivated by participation, socializing, as well as community building. The two general dimensions of personal and social interactive engagement with online media in fact provide a useful lens to examine viewer engagement with television content through various social media platforms.

Several recent industry studies have investigated how media companies adopt social media, video formats, rich Internet applications, and other initiatives to drive online engagement. Haven (2007) defined online engagement as “the level of involvement, interaction, intimacy, and influence that an individual has with a brand over time.” The first dimension of involvement may include metrics such as visitors to a site or application, page views or page-view equivalents per visitor. The second dimension, interaction, may include metrics such as videos played, community contributions, ratings, reviews, votes submitted, photos or videos uploaded, and/or text messages sent. Intimacy is the third dimension in measuring the sentiment in blog posts, blog comments, and discussions in online forums. The last dimension of influence metrics consists of tracking forward content, tagged content, widget and video embeds, and friends and fans in social networks (Epps, 2009).

With respect to audience engagement with specific social media platforms, Takashi (2010) developed a model of social networking sites engagement (e.g., Myspace™ and Facebook™) within a framework of audience engagement. The first

dimension is the information-seeking activity and selectivity, which identifies such activities as seeking, collecting, and sharing information relevant to daily life of close friends, school life, or general issues, news, or events. The second dimension is related to connectivity, measuring connection formation among people and groups, transnational and trans-age connectivity. The third dimension of bricolage emphasizes the creation of bricolage of friends and images from different communities or managing impression with profiles. The last dimension is focused on participation and is characterized by the involvement in various online communities.

Regarding blogging, one of the most popular social media platforms in addition to social network sites, Yanga and Kangb (2009) developed and validated a measurement scale of blog engagement. The authors explicated the concept of blog engagement as the likelihood and outcome of interactive blog communication, and suggested four attributes of blog engagement, i.e., contingency interactivity, self-company connection (the cognitive dimension), company attitude (the attitudinal dimension), and WOM intentions (the behavioral dimension). The study further concluded that interactive blogs can enhance self-company connections, positive attitudes toward the company, and supportive WOM intentions.

In summary, drawing together the threads of various studies on engagement with media content, in both the offline and online media contexts, the engaging viewing experience is manifested in multiple dimensions measured by diverse scales. Those dimensions are temporal, utilitarian, enjoyment, inspiration, participation, involvement, connectivity, interaction, socializing, community, intimacy, and influence. The syntheses of the attributes of engagement serve as the foundation contributing to the

conceptualization and operationalization of the social engagement construct in this study. The definition for each attribute of engagement and its measure scales are presented in Table 3-1 and Appendix A.

Table 3-1. Definition of the attributes of engagement

Attributes	Definition
Temporality	Media consumption is part of a routine or regular schedule; escaping or diversion from problems
Utilitarianism	Finding out about relevant events and conditions in surroundings, society and the world; seeking advice on practical matters or opinions and decision choices; satisfying curiosity and general interest; learning, self-education; gaining a sense of security through knowledge
Enjoyment	Relaxing, getting intrinsic cultural or aesthetic enjoyment, filling time, emotional release
Inspiration	Stimulating, inspiring, fascinating, and made me curious or enthusiastic
Participation/Involvement	Actively involved or participating in interested community or various media touchpoints
Interaction/Interactivity	Interacting with the characters and contextual settings; getting feedback from people and groups
Connectivity	Having a personal association with the characters/situations in this vehicle; forming a connection with people or groups
Socialization	Finding a basis for conversation and social interaction; having a substitute for real-life companionship; identifying with others and gaining a sense of belonging
Community	Community participation, building, and contribution; enabling one to connect with family, friends, or the society
Intimacy	Emotional investment and affective response
Influence	The likelihood of recommending, advocating, word of mouth

Conceptually, this investigation defines social engagement as the degree of intensity or types of connections that audiences develop with television content through social media platforms over time. This social engagement experience extends beyond the traditional, passive television viewing pattern, representing both active behavioral

engagement and emotional connection that viewers develop with television characters or program contextual settings through social media platforms. The social media platforms consist of an expanding array of online media applications which facilitate information sharing, knowledge distribution, and opinion exchanges. Typical examples are social networks (e.g., FacebookTM and MyspaceTM), blogs (e.g., WordPress[®]), microblogs (e.g., TwitterTM), content sharing communities (e.g., YouTube[®] and Flickr[®]), online discussion forums, podcasts, Really Simple Syndication (RSS) feeds, online social tags and bookmarks (e.g., DiggTM and Delicious), and mobile texting, etc.. The term television content covers a broader scope, including television programming and its relevant information, the characters or celebrities related to the program, and professional working staff such as producers or directors of the show.

To operationalize the social engagement construct, the present study adopts the inductive reasoning approach, which consists of making specific observations and measurements, detecting patterns and regularities, formulating some tentative hypotheses, and finally developing some general conclusions or theories (Holland, Holyoak, Nisbett, & Thagard, 1989). Guided by the reasoning and logic, Churchill (1979) outlined a paradigm suggesting a comprehensive procedure for developing better multi-item measures of marketing constructs through eight steps.

The first step is to specify the domain of construct through a literature search, which involves producing a relatively precise definition of the construct of “social engagement.” The standardized scales developed are used to assess the degree of intensity or types of connections that audiences develop with television content through social media platforms along behavioral and functional dimensions. The second step in

the procedure is to generate a sample of items which capture the domain as specified in step one by using multiple research methods. Specifically, this study employs focus groups interviews and literature reviews to generate a pool of items identifying social media use experience in relation to television content. The third and fourth stage is to collect data and purify measures by conducting factor analysis and testing coefficient alpha. The first four steps of the scale development are completed to address the content validity, dimensionality, and the internal consistency of the set of scales developed.

The next four steps of collecting data, assessing reliability and validity, and developing norms are focused on assessment of reliability with new data and issues concerning criterion and construct validity. Specifically, this investigation validates the factor structure of the scales and tests the predictive ability of social engagement with the other important variables proposed in the aforementioned integrated model. Under the scale development and validation framework, the first research question in this study attempts to investigate if there are different dimensions or levels in the social engagement construct as addressed below:

RQ1: Are there different dimensions or levels of social engagement with television content in a social media context?

Perceptions of Television Program

Program Genre Preference

Genre preference refers to television viewers' predisposed liking of one specific program type or genre among a set of available program types or genres (e.g., soap opera, sports, drama, news, etc.) (Youn, 1994). Scholars and industry practitioners have previously concluded that television genre is an important predictor in viewing

choice because the industry relied heavily on imitation (Bielby & Bielby, 1994; Gitlin, 1983). Program genres are regarded as “production formulas that allow routinized production of television series and provide heuristics for estimating the potential success of proposed programs based on the success of previous programs in the same genre” (Cohen, 2002, p. 205). The common knowledge in program choice behavior is that conventional program types, such as drama, situation comedies, and so on, bear systematic relationships to program preferences (Geerts, Cesar, & Bulterman, 2008; Webster & Wakshlag, 1983).

In most models of television program choices, individual audiences are assumed to have relatively consistent preferences for program types, and these general dispositions tend to determine preferences for specific programs (Webster & Wakshlag, 1983; Webster, Phalen, & Lichty, 2006). Prior (2005) demonstrated that audiences choose a program that best satisfies their preferences, and people who prefer a certain program genre tend to watch that program type over other program types across various media platforms. In addition, Wober and Gunter (1986) pointed out that people are likely to stick with favorite genres although their preferences for specific shows and particular episodes may vary.

The preferences of different types of content could stimulate diverse social viewing experiences and communication patterns surrounding certain programs. Specifically, genre preferences can impact the way viewers talk, chat, or interact with each other while watching television or afterwards (Geerts, Cesar, & Bulterman, 2008). Sports programming is often cited as one of those genres that is best suited for stimulating social interaction. Other types of content such as cooking programs and movies also

present this type of sociability (Harrison & Amento, 2007). A prior study also revealed that there are several program genres that television audiences talk about most after watching (e.g., including news, sports, soap opera, docusoap, reality show, talk show, comedy series, and quizzes). Some genres have been shown to be motivators of viewer engagement experiences such as sharing these genre program videos or viewing experiences with others (Geerts, Cesar, & Bulterman, 2008).

Simmons multi-media engagement study (2008), a specific study focused on the relationship between program genres and television viewer engagement, surveyed six broadcast programs and found that reality shows score higher than dramas in most of the measured engagement dimensions, especially in terms of the dimension of social interaction, trustworthiness, and life enhancement. The results suggest that viewers tend to be more actively involved with reality programs over scripted dramas through social interaction with their colleagues, friends, and family. Based on the above discussion on the sociability and engagement nature of various program genres and the relationship between genre preference and viewer engagement, the following hypothesis and research questions are proposed:

H1: Program genre preference will be positively related to the overall social engagement with the program.

RQ2: Does the overall social engagement or the different dimensions of social engagement with the program vary among different genres (i.e., drama, reality show, sitcom, game/talk show, and animated comedy)?

Note that the above research question and hypothesis investigate the “overall” level of social engagement, that is, all engagement activities via various social media

platforms. The different dimensions or levels of social engagement and their relationships with the various sets of antecedents will be addressed separately in RQ6.

Program Affinity

Affinity, defined as the level of importance one attached to the medium or media content, is one attitude that has received considerable research attention in broadcasting and electronic media areas (Rubin, 1983, 2009). Rubin (1983) proposed that television viewing patterns should be examined from the perspectives of viewing behaviors (i.e., viewing levels and program preferences) and television attitudes (i.e., affinity and realism). Along with the television realism construct, television affinity is the second dimension of television attitudes, defined as the perceived importance of television in the lives of television viewers (Rubin, 1983). With respect to specific television programming, Rubin and Perse (1987a) measured program affinity as the perceived importance of watching favorite television programs in audiences' daily lives.

Several researches revealed that affinity has been associated with diverse media use behavior and viewing motives (Haridakis & Hanson, 2009; Rubin, 2009). For example, Rubin (2009) found that more habitual and less active media users tend to attach an affinity with the medium of their choice, whereas instrumental and active media users are more likely to show an affinity with content. In addition, affinity with particular media content such as television programs is found to link to post-viewing discussion activity (Rubin & Perse, 1987b). Furthermore, prior studies demonstrated that affinity with the television medium or program content such as soap operas is positively related to viewing motives such as arousal, information seeking, passing time, escaping, and entertainment (Rubin, 1983; Rubin & Perse, 1987b).

Regarding new online media platforms, Papachrissi and Rubin (2000) showed that interpersonal-utility motivation is positively predictive of Internet affinity when investigating potential predictors of Internet use. Haridakis and Hanson (2009) examined one of the most popular social media platforms – content sharing community, and regarded affinity as one of a range of independent variables predicting such viewing behavior as co-viewing videos on YouTube® and sharing videos with others. Thus, the current study anticipates that the more affinity of a particular television program an audience possesses, the more likely it is for the audience to exhibit greater engagement with the program through a range of social media vehicles.

H2: Program affinity will be positively related to the overall social engagement with the program.

Program Involvement

The involvement concept has been examined in a variety of research domains. In communication fields, involvement, or a sense that certain communication content has personal relevance, has been conceptualized as an active psychological processing of content. The involvement concept has been categorized into two levels – the degree to which audiences perceive a connection between themselves and the mass media content, and the degree to which they interact psychologically with the medium and its message (Levy & Windahl, 1984). In advertising research, program involvement refers to “an active, motivated state signifying interest and arousal induced by a television program” (Moorman, Neijens, & Smit, 2007, p. 127). In marketing areas, television program involvement focuses on the consumers’ reaction or response to a specific program, and is usually defined as personal relevance or importance of the program (Feltham & Arnold, 1994).

Prior research suggested that viewer involvement is a multi-dimensional construct representing different manifestations of how viewers connect and develop relationships with television content. The manifestation cognitive versus emotional involvement (Perse, 1990), demanding versus relaxing programs involvement (Barwise & Ehrenberg, 1987), cognitive, affective, and functional involvement (Park & McClung, 1986), and cognitive, functional, and demanding involvement process (Feltham & Arnold, 1994). Cognitive involvement is usually driven by utilitarian functions, while affective involvement tends to be expressive, emotional, and experiential in nature. In summary, all of these dimensions in involvement suggest that an involved individual would be more likely to find a television program personally engaging, fascinating, intriguing, engrossing, and riveting.

In the television program consumption context, Rubin and Perse (1987a, 1987b) categorized viewer involvement with soap operas or news as affective involvement, cognitive involvement, and behavioral involvement. Specifically, an involved television viewer may feel affective toward those in need on the show (i.e., affective involvement), consider the messages of the show (i.e., cognitive involvement), and talk about the show with others (i.e., behavioral involvement) during and after the exposure. Additionally, in the reality program context, Hall (2009) proposed audience involvement as a three-dimensional construct to capture the current reality program consumption in a cross-media environment. Hall's dimensions include social involvement, cognitive involvement, and online involvement (2009). The author further suggested that each form of involvement is associated with enjoyment, an important element of viewer engagement. Furthermore, Green and colleagues posited that, within the field of

narrative theory, the highly involved audiences tend to have strong emotions about a story's characters and events. They suggested that the involved state in a story could contribute to audience enjoyment by distracting viewers from personal concerns or stress, allowing them to learn new things, and fostering a sense of connection with the characters (Green & Brock, 2000; Green, Brock, & Kaufman, 2004).

As discussed in the social engagement construct section, engagement and involvement are two different concepts in nature. Program involvement in this study is focused on personal relevance or importance with response to particular television content measured by cognitive, affective, and functional dimensions (Feltham & Arnold, 1994; Park & McClung, 1986). In addition, television program connectedness may start by fostering simple involvement with the program. Over the course of repeat viewing, it may end up absorbing their audiences in parasocial relationships with the characters in the program (Russell, Norman, & Heckler, 2004a). Thus, the current study expects that the highly involved audiences will be more likely to possess greater engagement with the program content through a range of social media vehicles.

H3: Program involvement will be positively related to the overall social engagement with the program.

Perceived Characteristics of Social Media

Perceived Ease of Use

Many scholars have attempted to explain and predict user acceptance and use of new communication technologies. A common theme underlying these various research streams is the inclusion of the perceived characteristics of a technology as key independent variables. The theory of TAM has been extensively applied to predict users' acceptance of communication technology systems, and two core constructs,

perceived usefulness and perceived ease of use, are suggested in the model to jointly affect people's intention to use the technology (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). Specifically, perceived usefulness is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance", while perceived ease of use refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989, p. 320).

The present study employs perceived ease of use as one of the constructs to predict the intention of using social media to engage with television content. Prior studies showed that perceived ease of use has significant effects on user's enjoyment on cell phone usage (Kwon & Chidambaram, 2000), online learning systems adoption (Saade & Bahli, 2005), and mobile Internet applications acceptance (Cheong & Park, 2005). The above research suggests that audiences' perceived ease of use on relatively new online communication technologies such as social media systems would be related to the adoption of them to interact with television content. The study thus posits the following hypothesis:

H4: The perceived ease of use of social media will be positively related to the overall social engagement with the program.

Compatibility

Given the innovative nature of social media systems, the theory of innovation diffusion offers a heuristic framework to investigate how individual audiences use social media platforms to engage with television content. Rogers (2003) conceptualized the perceived characteristics of an innovation as relative advantage, compatibility, complexity, trialability, and observability. Compatibility is defined as "the degree to which the adoption of a technology is compatible with existing values, past experiences,

and needs of potential adopters” (p. 15). Therefore, compatibility may refer to compatibility with the values or norms of the potential adopters or it may imply congruence with the existing practices of the adopters (Tornatzky & Klein, 1982). The first description of compatibility suggests a type of normative or cognitive compatibility (compatibility with what people feel or think about a technology), while the second description implies a more practical or operational compatibility (compatibility with what people do). In either case, the compatibility of innovation to the potential adopters is, theoretically, positively related to adoption and implementation of the innovation (Tornatzky & Klein, 1982).

Innovation diffusion research has found that compatibility is salient in predicting the adoption of new communication technologies (Chen, Gillenson, & Sherrell, 2002; Lin, 2001). In Tornatzky and Klein’s (1982) meta-analysis of innovation adoption, the authors discovered that an innovation is more likely to be adopted when it is compatible with an individual’s job responsibility and value system. Guo (2011) examined the effect of compatibility on alternative video platform viewing patterns, such as online video streaming and mobile television, and found that viewers who see online video streaming as compatible with their lifestyles tend to engage more frequently in online video viewing. Thus, the following hypothesis is posited:

H5: The perceived compatibility of social media will be positively related to the overall social engagement with the program.

Social Presence

The theory of social presence is primarily used to measure how users sense the existence of other people in the mediated environment. The concept of social presence refers to the feeling of “being with another” (Biocca, Harms, & Burgoon, 2003). More

specifically, social presence indicates “the degree to which the medium permits users to experience others as being psychologically present” (Fulk, Steinfield, Schmitz, & Power, 1987, p. 531). Lombard and Ditton (1997) described social presence as the “social richness” aspect of presence, and this type of presence as social richness reveals the extent to which a medium is perceived as sociable, warm, sensitive, personal, or intimate when the medium is used to interact with other people. Accordingly, a communication medium that involves more human senses will generate stronger feelings of social presence. For example, Short, Williams and Christie (1976) found that experiment participants tend to possess a stronger impression of social presence after an audio-visual task-based interaction than after one based on audio alone.

The conceptualization of social presence was first proposed as an unidimensional construct by measuring the self-reported “subjective quality of the communication medium” (Short, Williams, & Christie, 1976, p. 65). The authors employed a set of semantic differential scales, which attempted to evaluate the social and emotional capabilities of the medium. It should be noted that the measurements indicated users’ impression on the medium itself, not their judgment on the experience with others. On the other hand, some scholars asserted that social presence should be conceptualized as multidimensional construct rather than in terms of the direct attributions about medium per se (Biocca, Harms, & Burgoon, 2003). For example, a previous study found that media form and media content could influence various dimensions of presence (Dillon, Keogh, & Freeman, 2002). Shen and Khalifa (2008) further proposed affective and cognitive social presence in the online community context. Affective social presence measures the users’ emotional connected with the others and the online

community, while cognitive social presence refers to the perceived mutual understanding existing among communicators.

The performance of social presence varies along a range of communication technologies, but it is suggested that computer-mediated communication is lower in social presence compared to face-to-face communication due to a lack of nonverbal cues (Perse & Courtright, 1993; Rice, 1993). In addition, Garramone, Harris and Anderson (1986) found that social presence is positively associated with personal identity satisfaction, such as expressing, commenting, and interacting opinions with others, when exploring political user behavior of online bulletin board systems. As social media platforms, such as social networks and microblogs, exhibit the capacity of interpersonal communication, the present study expects that the perceived social presence of online social media will stimulate audience members to actively engage in these platforms with other viewers in the context of television viewing. Thus, the following hypothesis is proposed:

H6: The perceived social presence of social media will be positively related to the overall social engagement with the program.

Audience Attributes

Motives

The uses and gratifications approach has historically provided functional typologies for many media use situations, including traditional mass media and new communication technologies (Ruggiero, 2000). Regarding traditional television viewing motives, prior studies have identified habit, relaxation, companionship, passing time, information/learning, arousal, social interaction, escape, and entertainment as major drivers for television viewing (Palmgreen & Rayburn, 1979; Rubin, 1983).

In terms of the usage of new alternative platforms to television content viewing such as mobile television and webcasting (or Internet television), prior research confirmed several motives shared between traditional television and alternative platforms. At the same time, these studies also identified a number of additional, new motives. O'Hara, Mitchell and Vorbau (2007) found social motivations and values linked to the usage of mobile video devices in various situations beyond the simplistic notion of "killing time." Kaasinen and his colleagues (2008) revealed that "the value of mobile TV was seen rather in entertainment than in useful information" (p. 3), and creating one's own space to manage the relationship with others around in the public setting is a new reason for mobile television usage, along with traditional needs such as entertainment, information, relaxation, and killing time.

With regard to watching television content on the Internet (i.e., Internet television or webcasting), Lin (2001) found that entertainment appears to be less potent than the other two motives, information learning and escape/interaction, when examining online services adoption. However, with further exploration of webcasting adoption at a later time, the author concluded that entertainment plays a more critical role than news and information learning (Lin, 2004, 2006). Yang and Kang (2006) conducted an exploratory factor analysis to better understand audiences' motives for using Internet television in Taiwan, and concluded that the more respondents used the Internet for entertainment and social reasons, the more likely they would watch television online.

Furthermore, audience motives are found to predict various viewing activities (Rubin & Perse, 1987a, 1987b). Specifically, the more strongly viewers are motivated, the more actively they engage in various audience activities before-viewing (e.g.,

viewing intention), during-viewing (e.g., attention and involvement), and post-viewing (e.g., discussion) (Lin, 1993). In addition, more salient viewing motivations, especially exciting entertainment and social utility, are found to be related to parasocial interaction, post-viewing cognition, and post-viewing discussion in the soap opera consumption context (Rubin & Perse, 1987b).

Prior studies have indicated that alternative media platforms and traditional television viewing share a majority of motives such as entertainment, information, diversion, personal communications, and passing time. On the other hand, due to other innate media characteristics associated with the Internet and its online applications, there are additional motives involved with these online platforms, such as convenience, immediate access, and social interactions. The current study therefore synthesizes various motives of traditional television, the Internet, and new media technologies to assess the social and physiological origins of the socially engaging experience, and poses the following research questions:

RQ3: What motives do audiences have for using social media to engage with the program?

RQ4: What specific motives will be positively related to the overall social engagement with the program?

Innovativeness

Individual audience's personality traits with regard to an innovation like social media could also help determine how a television viewer might use social media to engage with television content. Since a majority of social media are still recognized as newly emerging communication platforms and are in the early stage of diffusions, the innovativeness attributes that a television viewer possesses could contribute to his or

her social media adoption decision making. According to the innovation diffusion theory, early adopters are characterized as having a higher degree of personal innovativeness (Rogers, 1995, 2003). Prior research showed that both innate innovativeness (the social-cognitive foundation) and actualized innovativeness (the social-situational basis) of an individual's personality traits are associated with the adoption of an innovation (Midgley & Dowling, 1978).

Recent studies have related a person's innovativeness attribute to his or her adoption tendency of the Internet and its online applications. In particular, Lin revealed that greater need for innovativeness is a significant predictor for personal computer adoption (1998) and webcasting (2004). Likewise, Busselle and colleagues (1999) found that an individual's innovativeness attribute is predictive of a person's Internet use. Furthermore, Sun, Youn, Wu, and Kuntaraporn (2009) concluded that innovativeness is an important predictor of online social activities such as forwarding content and chatting with others. More importantly, one relative study that focused on the social media platform, YouTube[®], showed that personal innovativeness predicts viewing and sharing of video in the content sharing community website (Haridakis & Hanson, 2009). These findings suggest that an individual's innovativeness attribute would be relevant to the use of social media to engage video content. Thus, this study develops the following hypothesis:

H7: Audience innovativeness will be positively related to the overall social engagement with the program.

Social Characteristics

As suggested in the uses and gratifications approach, media compete with other forms of communication or functional alternatives for a finite amount of time among

limited audiences (Kaye & Johnson, 2003; Rubin, 2009). The relationship between media and audience is therefore influenced by people's social and psychological circumstances, including lifestyle, life position, and personality. Particularly, people's offline activities like interpersonal interaction and social activities are suggested to have an impact on their online media use behavior (DiMaggio, Hargittai, Neuman, & Robinson, 2001). Papacharissi and Rubin (2002) found that the greater satisfaction with personal interaction, such as face-to-face communication, people have, the more likely they are to use the Internet for information purposes; whereas those who are not satisfied with face-to-face interaction tend to use the Internet for interpersonal interaction in the virtual world. In the social media context, Haridakis and Hanson (2009) empirically concluded that socially active audiences, particularly those watching for purposes of social interaction and co-viewing, use YouTube[®] as a way of sharing online activities with family/friends and with persons with whom they have existing social ties. Accordingly, social media users' social activities and interpersonal interactions are hypothesized to be salient when using social media to engage with television content.

The impacts of the individuals' offline social backgrounds on online user behavior, however, are not consistent according to different research findings. For example, some studies revealed that the heavy Internet users tend to have small social circles, less interpersonal communication, and loneliness (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). On the other hand, several scholars argued that Internet users have wider social networks than nonusers, since the Internet enlarges existing social circles (Hampton & Wellman, 2003). Such opposite research findings highlight the importance of individual audiences' social characteristics such as

interpersonal interaction or social activity in relation to their online media use behavior, regardless of the position taken. Thus, this investigation proposes the following research question:

RQ5: How do audiences' social characteristics (i.e., interpersonal interaction and social activities) relate to the overall social engagement with the program?

By extensively reviewing engagement experience with media content and media platforms, the present study speculates that there are different dimensions or levels in the social engagement experience with television content through a range of social media platforms. If the social engagement construct in this study does present multi-dimensional levels, will the aforementioned sets of antecedents all be related to the multiple dimensions or vary greatly along these levels? With this question in mind, this investigation next delves into the more complicated relationships between the aforementioned sets of antecedents and different dimensions indicated in social engagement behavior (if there are any), and formulates the following research question:

RQ6: How do audience perceptions of television programs (i.e., program genre presence, program affinity, and program involvement), perceived characteristics of social media (i.e., perceived ease of use, compatibility, and social presence), and audience attributes (i.e., motives, innovativeness, and social characteristics) relate to the different dimensions or levels of social engagement with the program?

Consequences of Social Engagement

Program Loyalty

Loyalty is viewed as one of the most important concepts in marketing and consumer research, categorized into brand loyalty (Jacoby, 1971; Jacoby & Chestnut, 1978), product loyalty (Olsen, 2007), customer/service loyalty (Dick & Basu, 1994, and

chain/store loyalty (Macintosh & Lockshin, 1997). The loyalty construct is defined and measured in either a behavioral or attitudinal dimension, and is therefore suggested as a multi-dimensional concept (Dick & Basu, 1994; Jacoby & Chestnut, 1978). Dick and Basu (1994) proposed that loyalty is “the strength of the relationship between an individual’s relative attitude and repeat patronage” (p. 99). Oliver (1997) referred to loyalty as “a deeply held commitment to rebuy or repatronize a preferred product or service in the future” (p. 392).

The behavioral dimension of loyalty is usually measured as a proportion of purchase (Cunningham, 1966), purchase sequence (Kahn, Kalwani, & Morrison, 1986), or a probability of purchase (Massey, Montgomery, & Morrison, 1970). The attitudinal aspect of loyalty is defined as attitude toward the loyalty/disloyalty act (Rundle-Thiele & Mackyay, 2001), brand preference (Guest, 1994, 1995), and commitment (Hawkes, 1994). In addition, three types of antecedents to brand loyalty involves, cognitive antecedents (i.e., accessibility and confidence), affective antecedents (i.e., emotion, feeling states, satisfaction, and involvement), and conative antecedents (i.e., switching cost, sunk cost, and expectation) (Dick & Basu, 1994; Macintosh & Lockshin, 1997; Oliver, 1999).

In the context of television consumption, building upon prior marketing and consumer research, television program loyalty, in this study, is centered on both behavioral and attitudinal aspects of television viewers’ commitment to certain preferred television programs. Brosius, Wober and Weimann (1992) defined television viewer loyalty along four dimensions: “(a) general loyalty to watching television, (b) channel (or network) loyalty, (c) types of program loyalty, and (d) specific program loyalty” (p. 323-

324). The authors further operationalized the viewing loyalty construct as the ratio of the individual numbers and the numbers of watched programs, and programs within program genres or channels using British consumer panels.

Although repeat purchasing behavior is distinguished from brand loyalty in marketing research (Jacob & Kyner, 1973), the concept of repeat viewing in television and advertising research indicates the critical dimension of viewer loyalty to specific television programs (Cooper, 1996; Sabavala & Morrison, 1977). In fact, the phenomenon of repeat viewing has been extensively examined by communication researchers in the past three decades. Repeat viewing refers to the number of members of an audience who watch an episode of a program and then choose to watch a subsequent episode of the same program when given an opportunity to do so (Cooper, 1996). Repeat viewing or objective loyalty behavior reflects television viewers' actual program choice and viewing patterns, while attitudinal program loyalty identifies the extent to which a viewer intends to engage in certain television programs.

Furthermore, research from academia and industry found that audiences' increasing cross-platform, multitasking media consumption patterns would help promote program loyalty. When investigating the relationship of cross-media usage with television viewer loyalty, Ha and Chan-Olmsted (2004) assessed the usage of enhanced features on television websites such as online video streaming and message boards, and found that the increase in the number of website features usage positively predicts viewer loyalty (i.e., attitudinal loyalty). Lu and Lo (2007) further reported that television audience satisfaction – one element of viewer engagement – strongly predicts repeat viewing intention (i.e., behavioral loyalty). Thus, it is logical to consider that

highly engaged viewers using multiple social media platforms to interact with television content are more likely to be loyal to their chosen programs.

H8: The overall social engagement with the program will be positively related to the behavioral loyalty to the program.

H9: The overall social engagement with the program will be positively related to the attitudinal loyalty to the program.

Audience Satisfaction

Satisfaction in marketing and consumer research is often seen as a multi-dimensional construct defined in many ways, including components of pleasure, need fulfillment, evaluation of products/services, and benefits (Oliver, 1997; 1999). Olsen (2007) suggested that individual satisfaction toward a product category is a cumulative consumption outcome, as well as the overall experience and evaluation of satisfaction and pleasure. Suh and Yi (2006) defined customer satisfaction as “an evaluative summary of (direct) consumption experience, based on the discrepancy between prior expectation and the actual performance perceived after consumption” (p. 146).

In mass media research, satisfaction has been studied from both the interpersonal and mediated communication contexts. From the interpersonal communication point of view, satisfaction is derived from fulfilling expectations through interaction (Hecht, 1978). Under the mediated communication context, satisfaction is recognized as “a natural outcome of media use viewed as overall satisfaction with the medium, with a specific genre or communication activity, or with specific content during exposure” (Patwardhan, 2004, p. 419). More formally, according to the uses and gratifications approach, Palmgreen and Rayburn (1985) defined audience satisfaction as a general feeling of contentment resulting from repeated exposures to a particular content genre

(e.g., television news). In addition, Perse and Ferguson (1993) suggested that audience satisfaction should emphasize outcomes and benefits of media use, rather than expectations which are predicted to be less important in understanding television satisfaction. Based on prior satisfaction propositions from the marketing and mass media domains, audience satisfaction in this study is defined as the overall evaluative summary of the (direct) viewing experience with particular television content.

Prior media research posited that viewing engagement or involvement has much impact on media use and effects, specifically influencing the satisfaction that people receive from media use (Levey & Windahl, 1984), and further subsequent planned media exposure (Rubin & Perse, 1987a). Following previous research on audience satisfaction (Lin, 1993; Palmgree & Rayburn, 1985; Perse & Rubin, 1998), the current study proposes that audience viewing behavior is a temporal gratification-seeking process, and expects that the more strongly motivated viewers would more actively engage in various audience activities to connect with the characters and contextual setting of a program throughout the viewing process and thus receive greater viewing satisfaction afterwards. Accordingly, the present study hypothesizes that highly engaged audiences in social media contexts are more likely to possess greater satisfaction with the television program.

H10: The overall social engagement with the program will be positively related to audience satisfaction with the program.

Product Purchase Likelihood

The eventual effects of viewer engagement with a television program on consumer purchase behavior are the chief considerations of advertisers and marketers. Kilger and Romer (2007) proposed that media engagement, advertising engagement, and brand

engagement jointly impact consumers' product purchase intention. The authors also posited that there are three mechanisms operating to link engagement to consumer and subsequent purchase, i.e., cognitive, emotional, and behavioral attention to program and advertising content. When further investigating a set of dimensions of engagement with three media channels (i.e., television, magazines, and the Internet), the authors revealed that there is evidence of a strong relationship between engagement in the media vehicle and the likelihood of purchasing a product advertised within that media vehicle (Kilger & Romer, 2007).

Ha and Chan-Olmsted (2001) suggested that there are two types of merchandise available on television networking sites: fan-based items and non fan-based items. The fan-based items are items relevant to the network or its shows and stars. Several examples are products used in the television shows. Non fan-based items are essential products of the advertisers of the broadcasting/cable networks. The authors noted that the more television website visitors are exposed to enhanced television features; the more likely they are to show an interest in buying products that have been advertised in the network shows or on the websites. Thus, it is reasonable to postulate that viewer engagement with television content through various social media platforms is associated with the purchase intention of relevant products advertised on the station/network sites. The corresponding hypothesis is:

H11: The overall social engagement with the program will be positively related to product purchase likelihood.

This study postulates that the social engagement construct possesses multiple dimensions, and speculates there are relationships between a set of antecedents and

the different dimensions of social engagement. Likewise, this investigation conjectures that the different dimensions/levels of social engagement will play a role in the above proposed consequences. Thus, the following research question is addressed:

RQ7: How do the different dimensions or levels of social engagement predict program behavioral and altitudinal loyalty, audience satisfaction, and product purchase likelihood?

Based on the above discussion, the following hypotheses and research questions are submitted:

Social engagement

- RQ1: Are there different dimensions or levels of social engagement with television content in a social media context?

Antecedents to Social Engagement

Television Program Genre, Affinity, and Involvement

- H1: Program genre preference will be positively related to the overall social engagement with the program.
- RQ2: Does the overall social engagement or the different dimensions of social engagement with the program vary among different genres (i.e., drama, reality shows, sitcoms, game/talk shows, and animated comedies)?
- H2: Program affinity will be positively related to the overall social engagement with the program.
- H3: Program involvement will be positively related to the overall social engagement with the program.

Perceived Characteristics of Social Media

- H4: The perceived ease of use of social media will be positively related to the overall social engagement with the program.
- H5: The perceived compatibility of social media will be positively related to the overall social engagement with the program.

- H6: The perceived social presence of social media will be positively related to the overall social engagement with the program.

Audience Attributes

- RQ3: What motives do audiences have for using social media to engage with the program?
- RQ4: What specific motives will be positively related to the overall social engagement with the program?
- H7: Audience innovativeness will be positively related to the overall social engagement with the program.
- RQ5: How do audiences' social characteristics (i.e., interpersonal interaction and social activities) relate to the overall social engagement with the program?

Antecedents to the Different Dimensions or Levels of Social Engagement

- RQ6: How do audience perceptions of television programs (i.e., program genre presence, program affinity, and program involvement), perceived characteristics of social media (i.e., perceived ease of use, compatibility, and social presence), and audience attributes (i.e., motives, innovativeness, and social characteristics) relate to the different dimensions or levels of social engagement with the program?

Consequences of Social Engagement

- H8: The overall social engagement with the program will be positively related to behavioral loyalty to the program.
- H9: The overall social engagement with the program will be positively related to attitudinal loyalty to the program.
- H10: The overall social engagement with the program will be positively related to audience satisfaction with the program.
- H11: The overall social engagement with the program will be positively related to product purchase likelihood.

Consequences of the Different Dimensions or Levels of Social Engagement

- RQ7: How do the different dimensions or levels of social engagement predict program behavioral and attitudinal loyalty, audience satisfaction, and product purchase likelihood?

CHAPTER 4 METHODS

Study Design Overview

The purpose of this study is two-fold: 1) build an active audience behavior model that aims to decipher the emerging multimedia television consumption pattern, and 2) examine the social media practices currently implemented by broadcasters and advertisers by validating a set of social engagement scales and testing the engagement behavior's antecedences and consequences. More specifically, this investigation explores why certain consumers increasingly choose social media platforms in relation to television content, how they utilize the different social media platforms to interact with specific shows, and what the actual effects of such an engagement are.

With this in mind, this study develops and validates the social engagement scale based on the procedure outlined in Churchill's (1979) paradigm for developing better measures of marketing constructs. Specifically, Churchill argued for the development of multi-item measures as more robust ways to measure marketing phenomena, and put forward an eight-step procedure to achieve it. The eight steps are: 1) specify the domain of the construct, 2) generate a sample of items to capture the domain as specified, 3) collect data for pretest, 4) purify measure, 5) collect new data, 6) assess reliability with new data, 7) assess construct validity, and 8) develop norms. Churchill (1979) further recommended various coefficients and operational techniques that are appropriate for each stage to realize the conceptualization and operationalization process. For the first two steps, several methods were suggested, including literature search, experience surveys, critical incidents, focus groups, and interviews. For the step of purifying measure, two statistical techniques – coefficient alpha and factor analysis – were

recommended to remove redundant or non-reflective items. For the fifth and sixth steps, split-half reliability and criterion validity were involved (Churchill, 1979). The schematic representation of the procedure is indicated by Figure 4-1.

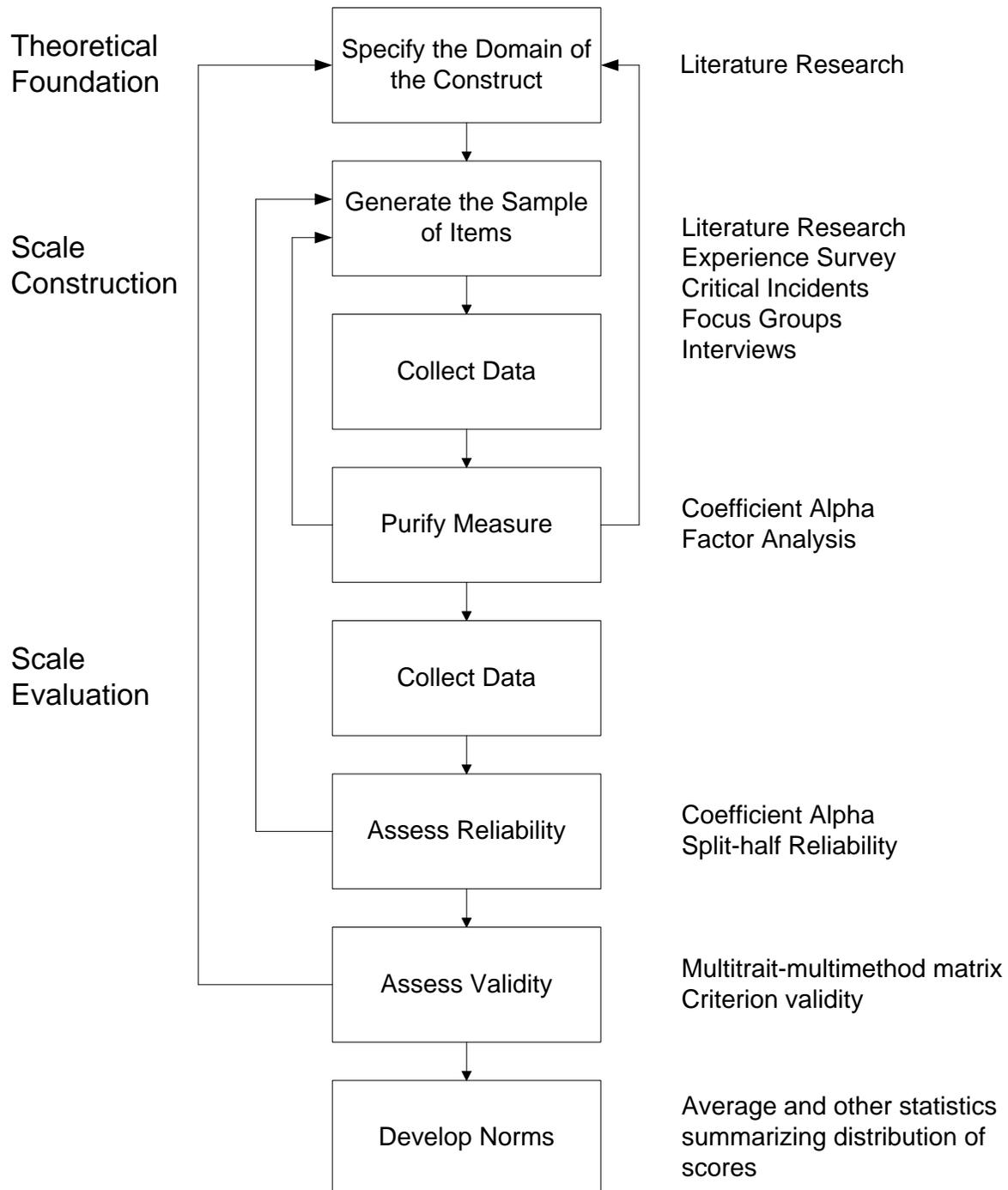


Figure 4-1. Churchill's paradigm for developing better measures

Following Churchill's (1979) procedure, this investigation employs a three-staged research plan to develop and validate the measurement instruments of social engagement and further test the proposed antecedents and consequences in the integrated, active audience behavior model. The first stage is to develop the measurement scales for the social engagement construct. This process includes item generation, exploratory factor analysis, and scale description. Specifically, three focus groups of twenty-seven undergraduate students (nine students per group) who participated on a voluntarily basis were conducted. Drawing upon the qualitative analysis from the focus groups plus relevant scales adapted from the previous engagement research, this study generates a pool of items that characterize the connections that individuals form with television content through various social media platforms. The final set of statements is transformed into a questionnaire of five-point Likert scales, and administered to an online consumer panel of 161 participants. During the next stage, this study surveys another online consumer panel of 494 qualified respondents who have certain social media experiences to confirm the factor structure generated from the exploratory factor analysis results. The final stage includes scale applications and tests of the relationships between the social engagement behavior and its antecedents and consequences in the proposed model.

Online Survey

This investigation employs online survey as the main research method because the Internet is a rich domain for conducting survey research related to technology-oriented and computer-mediated communication (Wright, 2005). Topics as diverse as mobile Internet adoption and its applications (Cheong & Park, 2005), online gaming (Hsu & Lu, 2004), and Web-based learning (Jiang & Ting, 2000) have been studied

using online surveys. In addition, Internet surveys have been widely applied to the full communication spectrum from interpersonal (Wright, 2005), group (Hobman, Bordia, Immer, & Change, 2002), organizational (Ahuja & Carley, 1998), health (Rice & Katz, 2001), and mass communication (Flanaqin & Metzger, 2001). Considering the topical relevance of online social media engagement with television content from an individual audience's perspective, the more technology driven online data collection method seems appropriate.

Online surveys are generally advantageous over traditional paper-based, mail-in-surveys by providing access to a unique population, by saving time and expenses, and by removing geographical restrictions. More specifically, online surveys can take advantage of the ability of the Internet and virtual communities to provide access to specific groups and individuals who share particular interests, attitudes, beliefs, and values regarding an issue, event, or activity (Wright, 2005). A second advantage of the online survey is that this survey method provides time and cost benefits for researchers. As mentioned by Wimmer and Dominick (2006), an online survey can quickly gain access to a large number of individuals by posting invitations to participate in newsgroups, chat rooms, and message board communities with economic cost. Moreover, online surveys are particularly attractive when the population under study is distributed across large geographic regions. In addition, Selm and Jankowski (2006) suggested that the object of study and particular characteristics of the population may request the use of an online survey. Given the goal of this study is to measure online social media experience in relation to television content consumption among connected

consumers, the cost, ease, and speed of delivery and response weight in favor of the Internet as a delivery method for this survey research.

Online surveys, however, should be implemented cautiously due to several disadvantages associated with the survey research method. The greatest concern involving online survey is sampling issues, which implies that Internet surveys are lacking a central registration of users on the Web. Unlike the telephone numbers and home addresses, it seems impossible to construct a random sample from email addresses due to the variations in address construction (Selm & Jankowski, 2006). The same problems also apply to the samples generated from virtual groups and organizations as well as online communities (Wright, 2005). To overcome the problem, the current study constructs two screened, purposive samples by using online consumer panels which are administrated by a research company (uSampTM). The company requests that all respondents must have a valid email address to join their panels, and employs an administrative tool that uses advanced technology and unique identification algorithms to aggressively remove duplication and fraudulent respondents to online surveys. By using a branching function provided by online professional survey software (Qualtrics Labs, Inc., Version 2009 of the Qualtrics Research Suite) to filter out potential respondents, this investigation constructs screened samples by collecting relevant screening data in the survey response so that only responses from the required sample are analyzed.

Self-selection bias is another concern when conducting online surveys, which is not only shared with other traditional survey research but more salient in online research environments (Stanton, 1998; Wright, 2005). In any given online

circumstances, it is no doubt there is a tendency that some individuals are more likely to respond to an invitation than others to participate in an online survey, leading to a systematic bias and desensitizing respondents to worthwhile survey request posts on the websites. To avoid this self-selection issue, the present study particularly excludes participants who have completed any surveys in the past week to reduce the bias.

Stage One: Social Engagement Scale Development

Item Generation

Through the qualitative process of focus groups research and extensive review of the engagement literature, the goal of this exploratory stage is to generate a pool of items to characterize the connections that individual audiences form with television content via diverse social media platforms. The study first conducted three one-hour session focus groups at a southeastern university during the Fall of 2010. Each focus group consisted of nine undergraduate students. The discussion questions included respondents' general television viewing experience, social media use experience, and the experience of using social media to interact with television content. Discussion results were transcribed and analyzed in a systematic fashion. Furthermore, this study adapted some relevant scales measuring the engagement experience of the Internet (Calder, Malthouse, & Schaedel, 2009; Epps, 2009; Haven, 2007), social networks (Takashi, 2010), blogs (Yanga & Kangb, 2009), and television (Russell, Norman, & Heckler, 2004b) to complement the results from the focus groups. Guided by the proposed active audience behavioral model, this qualitative analysis yielded a final set of nineteen items focusing on behavioral statements while eliminated such statements as feelings or physiological descriptions (Table 4-1).

Table 4-1. List of original social engagement scale

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1. I have watched the program(s) in video sharing community sites (e.g., YouTube[®]).
 2. I am a follower of the program(s) (including actors, writers, and producers, etc.) in Twitter[™].
 3. I have used my mobile phone to watch video clips, check photos and texts alters, or play games relevant to the program(s).
 4. I have subscribed to the program(s)'s RSS feeds or podcasts.
 5. I have used check-in apps for the program(s) in Foursquare[™], Miso, Starling, or GetGlue, etc..
 6. I have joined the program(s)'s online fan communities.
 7. I have submitted ratings, reviews, or votes related to the program(s).
 8. I have uploaded or forwarded videos or photos relevant to the program(s).
 9. I have sent mobile messages about the program(s) with my friends or family.
 10. I have read posts relevant to the program(s) in blogs.
 11. I have written or commented on blog posts relevant to the program(s).
 12. I have read the program(s)'s posts in online discussion forums.
 13. I have written or commented on the program(s)'s posts in online discussion forums.
 14. I have read the program(s)'s tweets in microblogs (e.g., Twitter[™]).
 15. I have written or commented on the program(s)'s tweets in microblogs (e.g., Twitter[™]).
 16. I have used social bookmarks (e.g., Digg[™] and Delicious) to tag the program(s).
 17. I have used widgets to embed the program(s)' video clips or photos online.
 18. I am a fan of the program(s) and share it with my friends in social networks (e.g., Facebook[™] and Myspace[™]).
 19. I have written or commented on the program(s)'s posts in social networks (e.g., Facebook[™] and Myspace[™]).
-

Pilot Test

The pilot test responses were gathered from an online consumer panel managed by the research company uSamp[™], using an online survey instrument facilitated by the Qualtrics Labs, Inc. software (Version 2009 of the Qualtrics Research Suite) during July, 2011. The researcher specified a general sample frame as active online consumers over eighteen years old with a range of ages and demographics. The data collection was terminated when the number of completed surveys met the quota of 150 respondents.

Upon entering the survey website, the respondents completed two initial sets of questions focused on their “breadth” and “depth” of experiences with the social media

platforms. The “breadth” experience measured how many platforms the respondents used among the listed twenty-nine social media tools, which were categorized into social networks (e.g., FacebookTM, MyspaceTM, Bebo[®], Friendster[®], Hi5[®], StumbleUpon, FoursquareTM, Gowalla[®], Miso, Philo, Starling, GetGlue, and Ning), blogs (e.g., WordPress[®] and Xanga[®]), microblogs (e.g., TwitterTM and Tumblr[®]), online discussion boards/forums, social bookmarks (e.g., DiggTM, Delicious, Reddit, and Tagged[®]), content sharing communities (e.g., YouTube[®], FunnyOrDie, Vimeo[®], and Flickr[®]), podcasts, RSS feeds, mobile texting and applications, and widgets. These social media sites were chosen based on the data of online traffic, registration numbers, or popularity rankings by market share of visits (e.g., “2011 Social Networking Websites Comparisons” and “Top 10 Social Networking Sites by Market Share of Visits”). The “depth” aspect of social media experience measured how often the respondents used their chosen social media platforms through a five-point Likert scale (1 = very rarely, 5 = very frequently). If the respondents did not have any experience with the listed twenty-nine social media, they were disqualified to participate in this study. However, if the participants had used at least one social media platform in the list, regardless of their use frequencies, they were qualified to continue the survey. The next screening question measured whether the respondents ever utilized their chosen social media to comment, post, watch, or read anything about television shows or programs. If the respondents had no such social media use experience, they were disqualified and automatically filtered out from this study.

Following these two screening questions, the qualified respondents were further asked to identify the specific program titles that they used social media to interact with,

as well as indicate their level of agreement with the nineteen proposed social engagement statements on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The online survey next collected the respondents' information concerning media ownership, television subscription type, and the Internet service, and concluded with demographic questions, such as age, gender, ethnicity, education, household income, employment situation, and current marital status.

Descriptive Statistics of Pilot Test

A total of 435 individuals responded to the online pretest survey during the first week of July, 2011. Among the 435 respondents, 161 were qualified to further complete the whole survey, providing an incident rate of 37.0%. It should be noted that this was a purposive sample with individuals chosen on the basis of their social media experience of interacting with television content. Regarding the initial "breadth" and "depth" social media experience questions, the study found that the social network, Facebook™, is the most popular social media platform with 91% penetration rate, followed by content sharing community YouTube® (52%), Myspace™ (37%), Twitter™ (27%), mobile texting and applications (15%), and online discussion boards/forums (14%), respectively. Some recently emerged, entertainment-focused social networks (e.g., Miso, Philo, and Starling) and social bookmarks (e.g., Delicious) are rarely used by the participants. In term of the frequency of social media usage, it turned out that mobile texting and applications are most frequently used ($M = 4.05$, $n = 64$), followed by Facebook™ ($M = 3.92$, $n = 398$), YouTube® ($M = 3.29$, $n = 231$), and online discussion forums ($M = 3.20$, $n = 60$).

The study also asked respondents to identify whether they utilized social media to comment, post, watch, or read anything about television content; and if they did, what

specific programs or shows they interacted with. Among the total of 402 online social media users, 59% never used social media in this way, while 30% used social media to interact with television content after watching the program, 17% before watching the program, and 12% while they were watching the program. With respect to specific television programs or shows, the final dataset consisted of 83 titles. These programs were categorized into the following genres ranked by their popularity: reality shows (e.g., *The Bachelor/Bachelorette*, *Survivor*, *Big Brother*), drama (e.g., *Lost*, *Law & Order*, *The Glades*, *CSI*, *Blue Bloods*, *White Collar*, *NCIS*), sitcoms (e.g., *Rule of Engagement*, *The Big Bang Theory*), animated comedies (e.g., *The Simpsons*, *Family Guy*), game/talk shows (e.g., *The Next Talk Show Star*, *Top Chef*), science fiction (e.g., *Star Trek*), and soap opera (e.g., *All My Children*, *Bold and Beautiful*). Particularity, the current study subscribed to the five most popular genres, including reality shows, drama, game/talk shows, sitcoms, and animated comedies, to construct a final list of twenty television programs for the main test.

Exploratory Factor Analysis

Factor analysis is a collection of approaches used to examine how underlying constructs influence the responses on a number of measured variables, including exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), as well as hybrids invoking exploratory factor extraction followed by confirmatory rotation (Thompson, 1992) or confirmatory maximum likelihood factor analysis (Jöreskog, 1969). In particular, EFA attempts to “discover the nature of the constructs influencing a set of responses,” while CFA determines “whether a specified set of constructs is influencing responses in a predicted way.” (DeCoster, 1998, p. 1). The current study adopted the hybrid approach to develop and validate the social engagement construct by using EFA

in the scale development stage followed by confirmatory maximum likelihood factor analysis in the scale confirmation stage.

There are two general approaches to conduct exploratory factor analysis: principal components analysis (PCA) and common factor analysis. The primary difference between the two approaches is their theoretical assumption. In common factor analysis, “the factors are estimated to explain the covariance among the observed variables, and the factors are viewed as the causes of the observed variables” (Floyd & Widaman, 1995, p. 287). On the contrary, in PCA, “the components are estimated to represent the variances of the observed variables in as economical a fashion as possible,” and “no latent variables underlying the observed variables need to be invoked” (p. 287). More important, estimates based on common factor analysis may generalize better to those obtained using CFA than in components analysis. Therefore, Floyd and Widaman (1995) concluded that common factor analysis is preferred over component analysis if the research aims to discover a domain of phenomena concerning a smaller number of underlying, latent variables. In the present study, common factor analysis, termed as EFA, was employed to understand the latent dimensions underlying the social engagement scale.

Several recommendations regarding sample size in factor analysis have been proposed, stating in terms of either the minimum necessary sample size, N , or the minimum ratio of N to the number of variables being examined p (MacCallum, Widaman, Zhang, & Hong, 1999). Comrey and Lee (1992) suggested a rough rating scale for adequate sample size in factor analysis: 100 = poor, 200 = fair, 300 = good, 500 = very good, 1,000 or more = excellent. In terms of the guide for the $N:p$ ratio, prior

studies had diverse recommendations, such as being in the range of 3-6 (Cattell, 1978), a minimum ratio of 5 (Gorsuch, 1983), or at least 10 (Everitt, 1975). On the other side, some empirical research indicated that the adequacy of factor analysis relies more on the data characteristics such as communalities than on the sample size employed (MacCallum, Widaman, Zhang, & Hong, 1999). More importantly, in the extensive review of scale development practices in the study of organizations, Hinkin (1995) concluded that “a sample of 150 would seem to be the minimum acceptable for scale development procedures” (p. 974).

The statistics employed to assess model fit for the EFA and CFA included the robust Chi-square, χ^2 , Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). It is the weakness of Chi-square statistics to be nearly always large and statistically significant for a complex model, especially when the sample size is large and variables are considerably skewed; thus less weight is given to the Chi-square statistics compared to the other model fit indices (e.g., CFI, TLI, RMSEA, and SRMR). Regarding the cutoff criteria of goodness of fit indices, TLI or CFI statistics greater than .90 are considered as an “adequate” model fit, and values greater than .95 are deemed as a “good” model fit. The fit indices RMSEA and SRMR values below .06 and .08 are “good”, whereas values between .08 and .10 are “mediocre” (Hu & Bentler, 1999). It should be noted that the cutoff criteria of CFI, TLI, RMSEA, and SRMR are only validated for CFA models, whereas CFI and TLI values closer to 1.00 and SRMR and RMSEA closer to zero are considered better for EFA models (Norberg, Wetterneck,

Sass, & Kanter, 2011). In addition, these cutoff values are somewhat arbitrary and should serve as a rule of thumb rather than fixed criteria (Bollen, 1989).

There is no certain threshold of factor loadings which is usually an arbitrary choice according to different research domains with diverse subjects. Jöreskog and Sörbom (1993) suggested three criteria on factor loadings: 1) weak convergence requiring the elimination of indicators that did not have a significant factorial regression coefficient greater than 2.58 ($p = .01$); 2) strong convergence forcing the elimination of those indicators that are not substantial, for example, those whose standardized coefficient is less than .50; and 3) a selective elimination of indicators that least contribute to the explanation of the model with the cutoff value of R^2 less than .03. In addition, Floyd and Widaman (1995) recommended that factor loadings of all variables should be reported on all factors; particularly, in EFA, factor loadings are generally considered to be meaningful when they exceed .30 or .40. Accordingly, the researcher in the present study retained items with factor loadings above .50 for the exploratory factor analysis purpose thus taking a conservative approach.

To discover the dimensions underlying the proposed social engagement measures, this investigation employed the EFA procedure to analyze the 161 pretest responses and constructed a scale on the basis of the resulting factor loadings using the data analysis program Mplus[®] (Version 6.0). There were two purposes involved in the EFA: 1) determining the number of common factors affecting a set of measures, and 2) assessing the strength of the relationship between each factor and each observed measure (DeCoster, 1998). Analyses were performed on a polychoric correlation matrix using the maximum likelihood with mean and variance estimation procedure through an

oblique Geomin rotation. The Geomin rotation was selected as it was designed to minimize cross-loading, while reducing the interfactor correlation (Brown, 2001; Sass & Schmitt, 2010).

By analyzing the screen plots and goodness of fit indices, a series of models was estimated and compared, and a four-factor model showed the best fit with a comparison of other four models, suggesting a scale with four underlying dimensions or levels of the social engagement construct . The other four models examined were null model or zero-factor model, single-factor model in which all nineteen items comprised one factor (Model A), two-factor model (Model B), and three-factor model (Model C). A one-factor model was first estimated resulting in a $\chi^2 = 706.17$ with 152 *df*, CFI = .650, TLI = .606, RMSEA = .150, and SRMR = .111. This lack of fit indicated that a single factor could not adequately explain the covariance among the indicators. The two-factor and three-factor structures also did not result in an improved fit over the one factor model. The four-factor model, which resulted in a $\chi^2 = 220.50$ with 101 *df*, CFI = .924, TLI = .872, RMSEA = .086, and SRMR = .042, indicated a substantial improvement in the model fit. However, it should be noted that the fit indices showed that the four-factor model fit the data adequately but not good. The five-factor model was also tested but none of the factor loadings was greater than .50 on the fifth factor. The model estimations and item intercorrelations are indicated in Table 4-2 and Table 4-3, respectively.

Table 4-2. Models and goodness of fit indices by exploratory factor analysis

Model	χ^2	<i>df</i>	CFI	TLI	RMSEA	SRMR
Null Model	1753.54	171				
Model A One-factor Model	706.17	152	.650	.606	.150	.111
Model B Two-factor Model	404.83	134	.829	.782	.112	.064
Model C Three-factor Model	296.37	117	.887	.834	.098	.048
Model D Four-factor Model	220.50	101	.924	.872	.086	.042

Note: n = 161

Table 4-3. Means, standard deviations, and correlations for exploratory factor analysis

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.RSS	2.00	1.18	1.00														
2.MOB	1.86	1.24	.47**	1.00													
3.UPL	2.23	1.31	.47**	.50**	1.00												
4.CHK	1.75	1.11	.57**	.57**	.45**	1.00											
5.BKM	1.80	1.07	.52**	.47**	.52**	.60**	1.00										
6.WID	1.94	1.23	.59**	.55**	.52**	.63**	.77**	1.00									
7.TWI_1	2.32	1.43	.49**	.38**	.33**	.35**	.31**	.40**	1.00								
8.TWI_2	2.17	1.31	.42**	.38**	.46**	.45**	.50**	.57**	.63**	1.00							
9.TWI_3	2.09	1.27	.58**	.58**	.54**	.58**	.62**	.69**	.60**	.76**	1.00						
10.BLG_1	3.61	1.20	.17*	.10	.17*	.08	.09	.19*	.30**	.29**	.21**	1.00					
11.BLG_2	2.93	1.43	.42**	.25**	.33**	.29**	.30**	.36**	.36**	.38**	.42**	.54**	1.00				
12.FRM_1	3.14	1.38	.29**	.20*	.25**	.20*	.23**	.30**	.29**	.32**	.34**	.66**	.59**	1.00			
13.FRM_2	2.73	1.39	.37**	.27**	.34**	.31**	.32**	.43**	.33**	.48**	.48**	.47**	.78**	.65**	1.00		
14.SNT_1	3.53	1.28	.13	.14	.26**	.24**	.24**	.23**	.15	.27**	.25**	.14	.31**	.22**	.26**	1.00	
15.SNT_2	3.20	1.40	.26**	.21**	.28**	.29**	.31**	.33**	.14	.27**	.28**	.23**	.51**	.30**	.37**	.65**	1.00

Note: RSS = subscribing to the program(s)'s RSS feeds or podcasts; MOB = using mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program(s); UPL = uploading or forwarding videos or photos relevant to the program(s); CHK = using check-in apps for the program(s) in GetGlue, Foursquare™, Miso, Philo, or Starling, etc.; BKM = using social bookmarks (e.g., Digg™ and Delicious) to tag the program(s); WID = using widgets to embed the program(s)'s video clips or photos online; TWI_1 = a follower of the program(s) (including actors, writers, producers, etc.) in Twitter™; TWI_2 = reading the program(s)'s tweets (including actors, writers, producers, etc.) in Twitter™; TWI_3 = writing or commenting on the program(s)'s tweets (including actors, writers, producers, etc.) in Twitter™; BLG_1 = reading blog posts relevant to the program(s) BLG_2 = writing or commenting on blog posts relevant to the program(s); FRM_1 = reading the program(s)' posts in online discussion forums FRM_2 = writing or commenting on the program(s)'s posts in online discussion forums; SNT_1 = a fan of the program(s) and sharing it (them) with friends in social networks (e.g., Facebook™ and Myspace™); SNT_2 = writing or commenting on the program(s)'s posts in social networks (e.g., Facebook™ and Myspace™).

* $p < .05$, ** $p < .01$ (two-tailed), $n = 161$

Scale Description

The four dimensions indicate the different manifestations of how television audiences use an expanding array of social media platforms to engage with television content over time. This describes a holistic touchpoint, which means “any content, activity, or strategic offering that allows the media consumer to engage with a television ‘brand’ in any manner other than watching the core program content through real-time or time-shifted (DVR) viewing” (Askwith, 2007, p. 53). According to the previous explication of the connectedness construct, audiences’ social interaction behavior surrounding television content could be manifested into three types: 1) interacting with a core program content and/or ancillary content (vertical dimension), 2) interacting with other television viewers (horizontal dimension), and 3) interacting with the characters or celebrities related to the programs (diagonal dimension) (Askwith, 2007; Russell, Norman, & Heckler, 2004b). Building upon the three social interaction pillars, the social engagement construct represents the nature of how television audiences take advantages of each social medium capability to develop a deep, perpetual engagement with television program content and related information, characters or celebrities, and other television viewers over time. The manifestations are identified as vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence.

The first dimension, vertical involvement, measures the degree in which television viewers actively use a range of social media platforms to be involved with their favorite programs. Their involvement may be manifested through such behaviors as: 1) using social bookmarks like DiggTM or Delicious to tag the program, 2) using widgets to embed the program’s video clips or photos online, 3) using check-in apps for the program in several entertainment-focused social networks such as FoursquareTM, Miso, Philo,

Starling, or GetGlue, etc., 4) using a mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program, 5) subscribing to the program's RSS feeds or podcasts, and 6) uploading or forwarding videos or photos relevant to the program. The vertical involvement dimension characterizes the participatory behavior in relation to the core content and/or ancillary content of a program. The involvement activities are more one-way oriented but critical because they cover a range of touchpoints that an individual could have with the program content. The program involved could be the core program content, and/or ancillary content which include new materials or information which supplements, extends, or expands the audiences' overall knowledge, such as critiques, gossip about the stars, back-scene interviews, and television promos.

The second dimension, diagonal interaction, measures the degree of social interaction that viewers develop with characters or celebrities related to their favorite programs in a social media context. Such engagement behaviors are mainly facilitated by microblogs such as TwitterTM, indicated as 1) following the program's performers, writers, director, producers, or other professionals in TwitterTM, 2) reading the program's tweets relevant to the characters or celebrities in TwitterTM, and 3) writing or commenting on the program's tweets relevant to the characters or celebrities in TwitterTM. Originally, television audiences were more likely to show interests in communicating with and being acknowledged by a show's performers, however a rising trend is that television viewers are increasingly taking a more active interest in television professionals who work behind the scenes (Askwith, 2007). Powered by the Internet relay chat function embedded in TwitterTM, the participation of celebrities and characters

of television programs in the social media platform could prompt involvement from new audiences who might not be interested in show-centered activities and further stimulate the two-way social interaction. For example, over the past few years, broadcasters have been eager to embrace Twitter™ to provide new ways to drive viewer engagement. One of the important new approaches is to recruit a long list of stars involved in their shows along with their overall social television campaigns.

The third dimension, horizontal intimacy, measures the extent to which individual viewers emotionally respond to a television program and the affection of the viewers toward the branded content with other audiences in social media environments. This dimension captures a deeper and more intimate connection between the viewers and the diegetic, narrative text depicted in a program through one or more of the following “peer-to-peer” social media activities: 1) reading blog posts relevant to the program, 2) writing or commenting on blog posts relevant to the program, 3) reading the program’ posts in online discussion forums, and 4) writing or commenting on the program’ posts in online discussion forums. In recent years, a growing number of television programs have launched their own official message boards or related blogs in the major broadcast and cable network websites or local television station sites. Devoted viewers have participated in unbranded “independent” online discussion boards or enjoyed blog posting and commenting sponsored by a third party. Through either approaches, the horizontal intimacy dimension characterizes a mode of engagement that satisfies the viewer’s imaginative or emotional desires to be “surrounded” or “subsumed” by a television program. Driven by the contextual and extratextual immersion, such peer-to-peer behaviors as expressing one’s own opinions and responding to the perspectives

from other viewers, essentially demonstrate audiences' intimate connections with the branded television program through his/her presence in the online communities.

The last dimension, horizontal influence, measures the degree of identification and belonging, as well as the extent of meaningful influence in the direction or outcome of television programming in a peer-related space like social networks (e.g., FacebookTM and MyspaceTM). Such typical activities include: 1) indicating to be a fan of the program by sharing it with friends in social networks (e.g., FacebookTM and MyspaceTM), and 2) writing or commenting on the program' posts in social networks (e.g., FacebookTM and MyspaceTM). The horizontal influence dimension involves peer-to-peer interaction between members of the program audiences and potential meaningful influence on non-program audiences. Facilitated by the relationship focus and the identity nature in social networks like FacebookTM, the desire to signal one's personal preferences or identification of "fan" status about a particular show in this platform, to some degree, indicates that the viewer draws upon the program as part of his/her self- and social-identity as well as adding meaning to his/her relationship with others. In addition, influential opportunities also exist in relation to the shows when the particular television content solicits viewers' status updating, opinion input, and program sharing in social networks. This activity has a significant potential impact on the individuals' online friends, regardless of whether they are members of the program audiences or not. In this sense, the television viewers become an ambassador on behalf of the television brand to advocate, recommend, and finally personally promote certain television content. The exploratory factor loadings of the four social engagement dimensions are shown in Table 4-4 and its schematic representation is indicated by Figure 4-2.

Table 4-4. Factor structure matrix by exploratory factor analysis

Factor Item	Factor Loading			
	Vertical Involvement	Diagonal Interaction	Horizontal Intimacy	Horizontal Influence
Vertical Involvement				
I have used social bookmarks (e.g., Digg™ and Delicious) to tag the program(s).	.877	-.060	-.042	.023
I have used widgets to embed the program(s)'s video clips or photos online.	.854	-.003	.056	.002
I have used check-in apps for the program(s) in Foursquare™, Miso, Philo, Starling, or GetGlue, etc..	.724	.032	-.036	.042
I have used my mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program(s).	.614	.111	-.027	-.023
I have subscribed to the program(s)'s RSS feeds or podcasts.	.582	.072	.151	-.028
I have uploaded or forwarded videos or photos relevant to the program(s).	.526	.105	.068	.043
Diagonal Interaction				
I am a follower of the program(s) (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).	-.011	.722	.068	-.044
I have read the program(s)'s tweets (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).	.109	.770	-.009	.071
I have written or commented on the program(s)'s tweets (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).	.416	.578	.009	-.004
Horizontal Intimacy				
I have read blog posts relevant to the program(s).	-.167	.049	.716	-.020
I have written or commented on blog posts relevant to the program(s).	.042	-.046	.790	.180
I have read the program(s)'s posts in online discussion forums.	-.001	-.037	.798	-.023
I have written or commented on the program(s)'s posts in online discussion forums.	.085	.034	.793	.013
Horizontal Influence				
I am a fan of the program(s) and share them with my friends in social networks (e.g., Facebook™ and Myspace™).	-.016	.119	-.039	.649
I have written or commented on the program(s)'s posts in social networks (e.g., Facebook™ and Myspace™).	.038	-.051	.034	.973

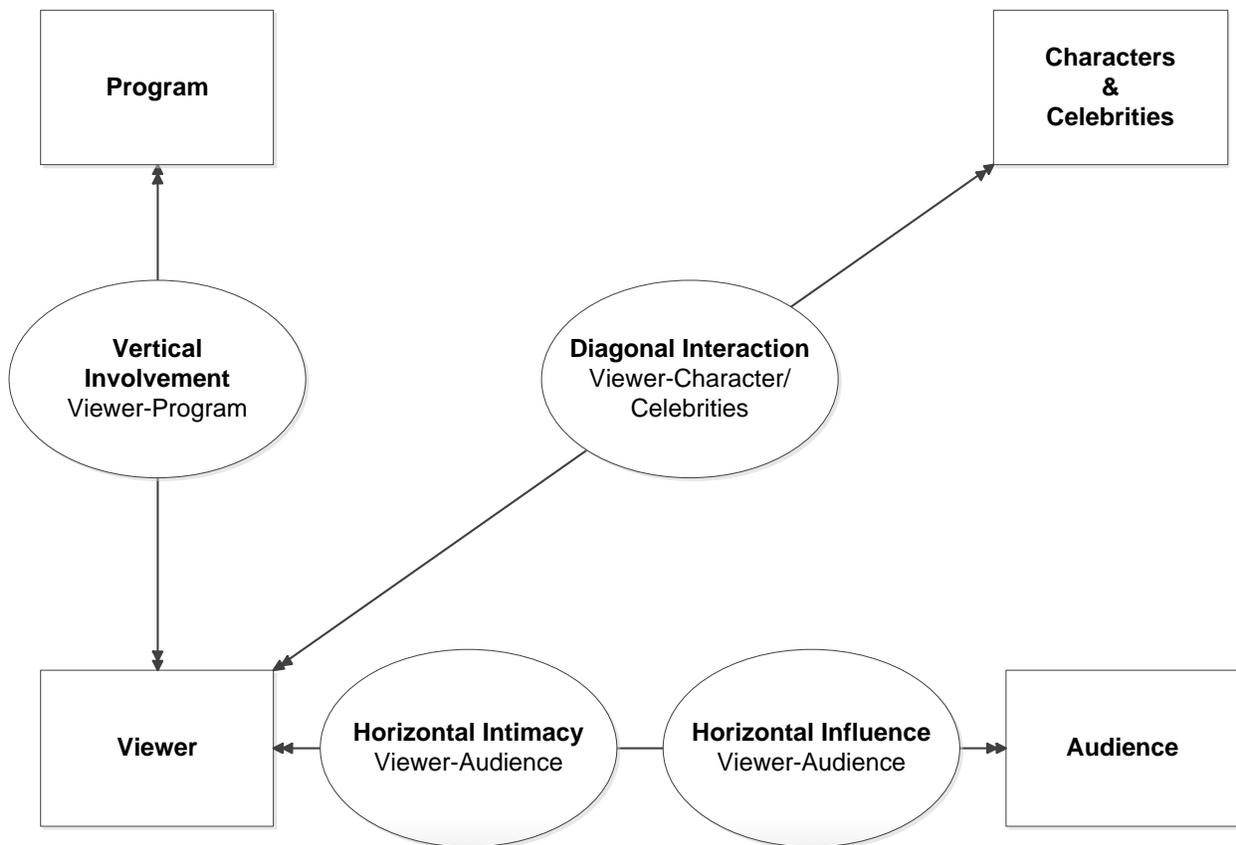


Figure 4-2. A model of social engagement with television content

Scale Reliability

Scale reliability focuses on the proportion of variance in a measure, which is attributable to the true score on the latent construct that is being measured (DeVellis, 1991). Churchill (1979) concluded that the reliability of a measure is high when “independent but comparable measures of the same trait or construct of a given object agree” (p. 65). On the other hand, a low coefficient alpha shows that “the sample of items performs poorly in capturing the construct which motivated the measure” (p. 68). Coefficient alpha is normally used to estimate the reliability of a multi-item reflective scale by offering an indication of a scale’s internal consistency. Churchill (1979) also proposed that coefficient alpha should be calculated for each dimension as well as the whole construct during the measure purification stage. Specifically, this study chose the

most commonly accepted measure – Cronbach’s coefficient alpha – to estimate internal consistency reliability for the whole scale and its four dimensions. The suggested acceptable value for Cronbach’s coefficient was greater than .70 (Kline, 2011; Nunnally, 1978). The Cronbach’s coefficient alpha for the whole social engagement construct was .902, and the values for the four dimensions, i.e., vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence were .876, .852, .865, and .782, respectively. This suggests that the fifteen sample items performed well in capturing the proposed social engagement construct indicated by high internal consistency reliability. In addition, according to the EFA results and reliability test, four proposed items describing viewing the program in video sharing communities (e.g., YouTube[®]), joining the program’ online fan communities, sending mobile messages about the program, and submitting ratings/reviews/votes about the program were removed from the social engagement measure scales.

Stage Two: Social Engagement Scale Confirmation

Confirmatory Factor Analysis

Having established the fifteen item social engagement scale through exploratory factor analysis, this study proceeded to the second stage and collected another large set of consumer data (n = 494) to confirm the factor structure and assess the scale’s reliability. CFA requires a sample size of five to ten times the number of items or the minimum necessary sample size (good = 300), hence the current sample size of 494 satisfied both criteria. The CFA was performed on the 494 responses with the item correlation matrix as input and maximum likelihood as the model estimation technique. The intercorrelations of the fifteen indicators were all significant ranging from .24 to .81. Skewness for the scale items ranged between -.795 and .981 and Kurtosis between -

1.361 and -.332 (both within the recommended -2 to +2 range), which suggested reasonably good distribution properties for the empirical data.

By conducting the CFA procedure, a series of models was estimated and the four-factor model was validated (Table 4-5). All models were compared to a null model in which each manifest indicator was treated as an independent, orthogonal component. A single-factor model, comprising fifteen items to tap a common construct, was estimated, resulting in a $\chi^2 = 1303.90$ with 90 *df*, CFI = .779, TLI = .742, RMSEA = .165, and SRMR = .090. The lack of fit indicated that a single factor could not adequately explain the covariance among the indicators. The four-factor model (Model B) in which correlations between factors were allowed resulted in a substantial fit with a $\chi^2 = 377.79$ with 84 *df*, CFI = .946, TLI = .933, RMSEA = .084, and SRMR = .042, which suggested that the model fit the data adequately. As this study regarded social engagement as a higher order construct explained by a number of related dimensions, this investigation further tested a higher order model (Model C), where a second-order factor represented the overall construct of social engagement. As shown in Table 4-5, this model fits the observed data also adequately but not better than the four-factor model. While both the first-order and second-order representations of the social engagement construct fit well with the observed data, the first-order model is preferred by virtue of its simplicity and better fit. Therefore, the present study retained both the four-factor model and the four-factor model with one higher order factor as the social engagement scale for the subsequent antecedents and consequences testing.

Construct validity for each scale was assessed by examining the standardized CFA factor loadings for its hypothesized items which were originally derived from the

EFA procedure. For acceptable construct validity, it is proposed that each item should have a minimum factor loading of .60 on its hypothesized latent factor (Nunnally, 1978). The norm was met for both the four-factor Model and the four-factor model with one higher order factor. All factor loadings in these two models were greater than .60 with a significant level at $p < .001$ through two-tailed test. For the vertical involvement dimension, the indicator, “I have uploaded or forwarded videos or photos relevant to the program (UPL),” had the lowest factor loading compared to other five items, suggesting that the item was acceptable but not perfectly indicative of the latent construct. Regarding the horizontal influence dimension, the variable, “I am a fan of the program and share it with my friends in social networks (SNT_1),” had a lower factor loading in relation to the second indicator (SNT_2), which means that the second item, “I have written or commented on the program’s post in a social network”, is the best indicator for the dimension of horizontal influence. In addition, the factor loading comparisons on the four dimensions in the Model C suggest that the social engagement behavior was more characterized by the one-way participatory involvement activities and social interaction with characters/celebrities than the influencing activities among audience members. The correlation matrix with means and standard deviations for the CFA procedure are presented in Table 4-6. The confirmatory factor loadings are presented in Table 4-7 and the path models are indicated in Figure 4-3.

Table 4-5. Models and goodness of fit indices by confirmatory factor analysis

Model		χ^2	df	CFI	TLI	RMSEA	SRMR
Null Model		5589.62	105				
Model A	One-factor model	1303.904	90	.779	.742	.165	.090
Model B	Four-factor model	377.785	84	.946	.933	.084	.042
Model C	Four-factor model with one higher order factor	486.052	86	.927	.911	.097	.063

Note: n = 494

Table 4-6. Means, standard deviations, and correlations for confirmatory factor analysis

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.RSS	2.22	1.27	1.00														
2.MOB	2.32	1.44	.65**	1.00													
3.UPL	2.51	1.40	.55**	.59**	1.00												
4.CHK	2.03	1.29	.62**	.60**	.51**	1.00											
5.BKM	2.17	1.29	.67**	.57**	.54**	.68**	1.00										
6.WID	2.21	1.29	.66**	.62**	.57**	.69**	.73**	1.00									
7.TWI_1	2.59	1.43	.56**	.49**	.43**	.56**	.58**	.54**	1.00								
8.TWI_2	2.47	1.39	.56**	.54**	.45**	.62**	.67**	.67**	.66**	1.00							
9.TWI_3	2.27	1.34	.66**	.62**	.53**	.70**	.77**	.72**	.62**	.81**	1.00						
10.BLG_1	3.37	1.36	.33**	.34**	.34**	.25**	.37**	.37**	.38**	.42**	.39**	1.00					
11.BLG_2	2.80	1.40	.50**	.52**	.51**	.47**	.56**	.58**	.41**	.52**	.60**	.67**	1.00				
12.FRM_1	3.13	1.40	.46**	.47**	.42**	.39**	.45**	.48**	.38**	.49**	.49**	.70**	.69**	1.00			
13.FRM_2	2.68	1.38	.52**	.50**	.52**	.50**	.56**	.61**	.44**	.52**	.59**	.60**	.80**	.72**	1.00		
14.SNT_1	3.56	1.31	.30**	.31**	.38**	.24**	.31**	.34**	.27**	.34**	.31**	.41**	.43**	.45**	.42**	1.00	
15.SNT_2	3.14	1.44	.39**	.42**	.52**	.35**	.45**	.49**	.32**	.43**	.47**	.49**	.64**	.52**	.61**	.63**	1.00

Note: * $p < .05$, ** $p < .01$ (two-tailed), $n = 494$.

Table 4-7. Factor structure matrix by confirmatory factor analysis

Standardized Factor Loading									
Manifest indicator	Four-factor model				Four-factor model with one higher order factor				
	Vertical Involvement	Diagonal Interaction	Horizontal Intimacy	Horizontal Influence	Vertical Involvement	Diagonal Interaction	Horizontal Intimacy	Horizontal Influence	Second order
RSS	.787				.787				
MOB	.742				.744				
UPL	.668				.675				
CHK	.795				.791				
BKM	.849				.846				
WID	.853				.855				
TWI_1		.702				.701			
TWI_2		.866				.868			
TWI_3		.930				.929			
BLG_1			.727				.726		
BLG_2			.899				.895		
FRM_1			.804				.807		
FRM_2			.886				.889		
SNT_1				.672				.668	
SNT_2				.931				.936	
VINVOL									.966
DINTER									.926
HINTIM									.768
HINFLU									.632

Note: VINVOL = vertical involvement, DINTER = diagonal interaction, HINTIM = horizontal intimacy, HINFLU = horizontal Influence.
 All factor loadings are significant at $p < .001$ level (two-tailed). $n = 494$

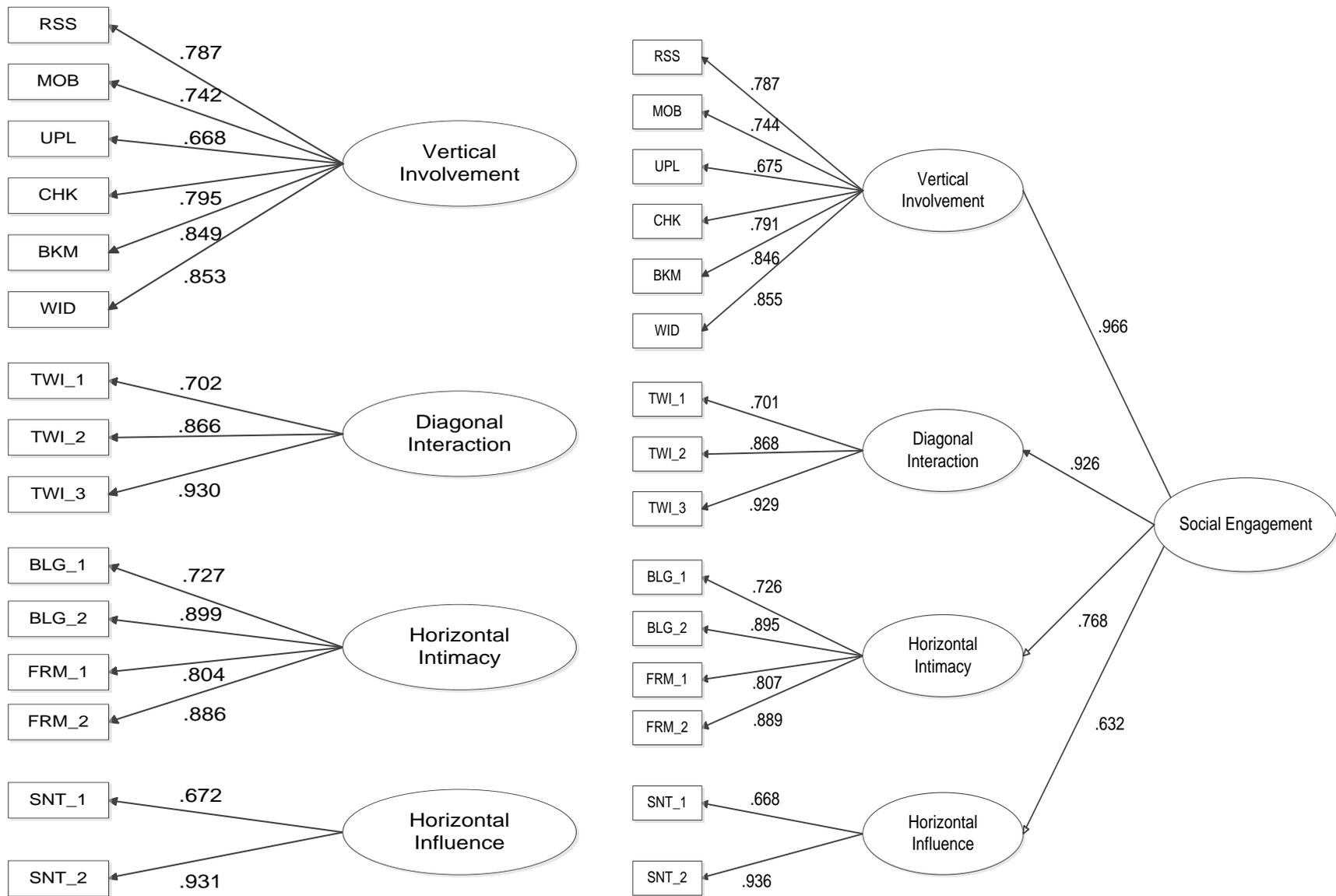


Figure 4-3. Four-factor path model and four-factor with one higher order factor path model

Discriminant Validity

Discriminant validity is provided by the lack of a significant relationship with constructs that should not, nomologically, be related. Specifically, to investigate nomological validity of the proposed social engagement scale, this study employed simple correlations between social engagement and the measures of television program affinity and program involvement to validate the scale. Program affinity, the attitudinal construct, has been used extensively to reflect the perceived importance of watching favorite television programs in audiences' daily lives (Rubin, 1983; Rubin & Perse, 1987a). As Russell, Norman, and Heckler (2004b) suggested, television audiences could develop positive attitude or affinity toward a program in a short period of time, whereas program engagement or connectedness may take time to form and develop. Therefore, the authors concluded that a positive attitude toward a program may mediate the development of connectedness or engagement, but the attitude construct cannot capture the parasocial relationship formed between audiences and their favorite television programs. Likewise, the current study proposed that program affinity and social engagement with television programs are separate and distinct constructs.

Involvement is another often misused construct with engagement (or connectedness). In the television consumption environment, program involvement reflects personal relevance of a television program to the audiences (Park & McLung, 1986). Russell, Norman, and Heckler (2004b) also posited that television programs may start by fostering lasting involvement with the program, over the course of repeated viewing, but end up absorbing their audiences in a deep, perpetual, and connected relationships with the core program content, ancillary information, characters and celebrities, and/or other television audience members. Accordingly, program

involvement was also proposed in this study to test the nomological validity of the social engagement construct.

The test of discriminant validity was performed by calculating correlation coefficients and 95% coefficient intervals between social engagement, program affinity, and program involvement. Rubin and Perse's (1987b) four-item program affinity measures were adapted to tap respondents' attitudes about their favorite television shows, resulting in .835 Cronbach's coefficient alpha. Park and McClung's (1986) seven semantic differential items were applied on a five-point scale to measure program involvement with .913 Cronbach's coefficient alpha. The social engagement scale from the 494 observed data yielded .941 Cronbach's alpha. Given the large sample size, all correlations were statistically significant at the .01 level and examined for their practical significance. The correlation between social engagement and program affinity was .376, with a 95% confidence interval between .298 and .449. This small correlation between television program social engagement and program affinity provides initial evidence of discriminant validity. The correlation between social engagement and program involvement was .236, with a 95% confidence interval ranging from .151 to .318. All the correlation analyses provided strong evidence that neither program affinity nor program involvement should, by theory, be related to program social engagement, and they are not.

Stage Three: Antecedents and Consequences Tests

Main Test

The pilot test offered a theoretical rationale for the proposed social engagement construct, the main test was conducted to confirm the scale and test its antecedents and consequences by surveying the online consumer panel of 494 qualified

respondents. The online survey instrument for the main test was also facilitated by the online survey program *Qualtrics* and administrated by the uSampTM company. Similar to the pilot test, the first screening question in the main test focused on the respondents' social media use experience. Different from the second screening question in the pretest, the main test asked respondents whether they ever used their chosen social media to comment, post, read, and read anything about a specific show from a twenty program list provided by the researcher. If the respondents did not have experience with any of the social media platforms nor ever used their chosen social media to interact with the listed television programs, they were disqualified to continue the main survey.

Following the two screening questions, as a means of assessing the social behavior taking place around television programs, the survey asked the respondents when they typically used social media to comment, post, watch, or read anything about these programs. The main survey then instructed the respondents to choose one program among their socially engaged shows as their favorite, and the subsequent set of questions was based on the favorite television show. Specifically, using a five-Likert scale, the fifteen social engagement items, along with the program affinity scale and genre preference measures, were constructed. This set was followed by seven semantic differential items using a five-point scale to measure program involvement. The next set of questions was also based on the respondents' favorite television program using five-point scales, including program behavioral loyalty and program attitudinal loyalty (1 = strongly disagree, 5 = strongly agree), program satisfaction (1 = not at satisfied, 5 = very satisfied), and product purchase likelihood (1 = definitely not, 5 = definitely).

The main survey assessed the perceived characteristics of social media by asking respondents' perceived ease of use, compatibility, and social presence about the general social media concept. Perceived ease of use and compatibility were measured using a five-point Likert scale, while five semantic differential items using a five-point scale (*unsociable/social, impersonal/personal, insensitive/sensitive, cold/warm, and passive/active*) to measure perceived social presence. The next sets of questions focused on the respondents' personal characteristics, including motives, innovativeness, and their offline social characteristics. In particular, a total of 49 motive items with a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) were constructed, covering diverse motives behind television viewing (Rubin, 1983), the Internet use (Papacharissi & Rubin, 2000), and YouTube[®] video viewing (Haridakis & Hanson, 2009). Along with the motivation measures, the respondents were further asked to assess their innovativeness toward the social media platforms, and to indicate their offline social characteristics such as interpersonal interaction and social activities. Finally, media ownership and use along with basic demographic information was collected as described in the pilot test.

Television Program Sample

The main test selected twenty primetime television programs delivered through broadcast and cable networks. Based on the five most popular genres indicated in the pilot test results, these program genres were reality shows, drama, game/talk shows, sitcoms, and animated comedies. The networks included all eight national English-language broadcast networks, ABC, CBS, NBC, FOX, CW, MyTV, ION, and PBS, as well as the top twenty-five cable programming networks by subscriber counts. The specific program list was composed by referring to an online database, *Social*

Television Charts (<http://trendrr.tv/>), which is a comprehensive television index that incorporates multiple social and syncopated data sources tracking all major networks and shows. The index includes such social media activities as public Facebook™ posts, Twitter™ mentions, GetGlue check-ins, and Miso check-ins. The index is updated daily and weekly, providing insights and better understanding of the tightly-coupled two-screen synchronous social behavior taking place around television. By referring to the social television index from August 29th to September 4th of 2011, the week before the main survey was implemented; the present study constructed the final list of primetime network programs which is presented in Table 4-8.

Table 4-8. The list of primetime network programs in the main test

Program Title	Broadcast/Cable Network	Program Genre
<i>Big Brother</i>	CBS	Reality show
<i>Keeping Up with the Kardashians</i>	E! Entertainment	Reality show
<i>Jersey Shore</i>	MTV	Reality show
<i>Teen Mom</i>	MTV	Reality show
<i>Glee</i>	FOX	Drama
<i>NCIS</i>	CBS	Drama
<i>The Vampire Diaries</i>	The CW	Drama
<i>Pretty Little Liars</i>	ABC Family	Drama
<i>Gossip Girl</i>	The CW	Drama
<i>True Blood</i>	HBO	Drama
<i>How I Met You Mother</i>	CBS	Sitcom
<i>The Office</i>	NBC	Sitcom
<i>The Big Bang Theory</i>	CBS	Sitcom
<i>America's Got Talent</i>	NBC	Game show
<i>Monday Night Raw</i>	USA	Game show
<i>Conan</i>	TBS	Talk show
<i>Family Guy</i>	FOX	Animated comedy
<i>South Park</i>	Comedy Central	Animated comedy
<i>The Simpsons</i>	FOX	Animated comedy

Measures

The current study employed multiple items validated from prior studies to measure the theoretical constructs except for program behavioral loyalty and audience satisfaction. Although there was no empirical agreement on which is superior between multi-item measures or single-item instruments, most researchers preferred to employ multiple-item measures when requiring respondent self-reports of attitudes, beliefs, perceptions, and the like (Gardner, Cummings, Dunham, & Pierce, 1998).

Program genre preference

Prior research on program genres – “production formulas” – pointed out that program type is a reasonably valid and reliable scheme to use for categorizing television content (Bielby & Bielby, 1994; Cohen, 2002; Gitlin, 1983). Through analyzing the television programs identified in the pretest sample, the current study chose the five popular genres that audiences used social media platforms most to comment, post, watch, or read about, including reality shows, drama, game/talk shows, sitcoms, and animated comedies. In addition, based on the specific program that the respondent selected in the main test, this study evaluated the participants’ overall preference for the program genre that the specific show belongs to.

As discussed in the theory of television program choice model, program genre preference is viewed as one of the basic premises in program choice; however, how to operationalize it through a valid and systematic measurement scale is still needed in the audience behaviorist research tradition. Some television program genres studies used the amount of attention paid in watching shows of particular genres as the basis for viewer genre preference (Hawkins, et. al., 2001; Moyer-Gusée, 2010), while others focused on audiences’ enjoyment experience (Moyer-Gusée, 2010) or watching

likelihood (Rubin, 1983) to approach the concept. Thus, the present study adapted two statements focused on viewing attention and enjoyment experience using a five-point Likert scale (1 = not at all, 5 = extremely). Specifically, the respondents were asked to assess how much attention or how much enjoyment they experienced when watching each of the following types of programs: reality shows, drama, game/talk shows, sitcoms, and animated comedies.

Program affinity

Two sets of measures of Television Affinity Scale (Rubin, 1983) and program affinity (Rubin & Perse, 1987a, 1987b) were adapted to tap the respondents' attitudes about their favorite television shows with which they interacted using various social media platforms. The three-item affinity scale was used to assess how important and how much affinity the respondents felt watching their favorite shows using statements such as "Watching the program is one of the most important things I do each day or each week." The respondents were asked to indicate their level of agreement with each of the statements using a five-point Likert scale (1= strongly disagree, 5 = strongly agree).

Program involvement

To assess the personal cognitive, affective, and functional dimensions of involvement with a particular television program, seven semantic differential items were applied on a five-point scale, including *irrelevant/relevant*, *means nothing to me/means a lot to me*, *doesn't matter/matters to me*, *uninterested/interested*, *insignificant/significant*, *superfluous/vital*, and *nonessential/essential* (Park & McClung, 1986).

Perceived ease of use

The construct of perceived ease of use measures “the degree to which an individual believes that using a particular system would be free of physical and mental efforts” (Davis, 1989, p. 323). Three items were adapted from prior studies to assess perceived ease of use of a general social media system in terms of learning, skillfulness, and usage through a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) (Davis, Bagozzi, & Warshaw, 1989; Wu & Wang, 2005).

Compatibility

Perceived compatibility measures “the degree to which the adoption of a technology is compatible with existing values, past experiences, and needs of potential adopters” (Rogers, 2003, p. 15). This study used three items borrowing from Tronataky and Klein (1982), Chen, Gillenson, and Sherrell (2002), and Chan-Olmsted and Chang (2006). A five-point Likert scale was used to evaluate respondents’ level of agreement with each of the statements assessing the variable of perceived compatibility with social media systems in general.

Social presence

Social presence is defined as co-presence, co-location, “sense of being together”, or psychological involvement (Biocca, Harms, & Burgoon, 2003). The construct was measured by using a semantic differential technique on bipolar items such as *unsociable/sociable*, *impersonal/personal*, *insensitive/sensitive*, *cold/warm*, and *passive/active* (Papacharissi & Rubin, 2000; Short, Williams, & Christie, 1976). Social media having a high degree of social presence were judged as being sociable, personal sensitive, warm, and active. The present study constructed a social presence index by summing and averaging the five responses.

Innovativeness

This study adapted Goldsmith and Hofacker's (1991) innovativeness scale to assess audiences' innovativeness with social media systems. The domain-specific scale reflected the tendency to learn about and adopt innovations within a specific domain of interest, which was found to be a valid and reliable measure for different innovations in transnational settings (Goldsmith & Flynn, 1992). The present study modified the six items to reflect the social media context and asked respondents to rate their level of agreement with each statement using a five-point Likert scale, including their perceptions (e.g., "In general, I am the last in my circle of friends to know the names of the latest social media platforms.") and behaviors (e.g., "I will use a new social media platform, even if I haven't heard of it yet."). It should be noted that the scale items 1, 3, and 5 were reversely coded.

Motives

The social and psychological needs of using social media to interact with television content were mainly driven by the television program itself, the Internet, and diverse online applications. Therefore, the current study compiled forty-nine items of motives behind television viewing (Rubin, 1983), the Internet use (Papacharissi & Rubin, 2000), and YouTube[®] video viewing (Haridakis & Hanson, 2009). The final set of the 49-item scale represented a range of motives identified by prior studies, including relaxation, companionship, habit, passing time, entertainment, social interaction, information seeking, arousal, escape, convenience, and personal utility. Specifically, this study asked the respondents to indicate how much each of the forth-nine motive statements was like their own reasons behind using various social media platforms to engage with

television content through a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Social characteristics

Adapted from the previous studies on contextual age scales (Rubin, 1986; Rubin & Rubin, 1982, 1989), the present study measured two dimensions of social characteristics of the respondents, including the level of interpersonal interaction and offline social activities. The respondents rated their level of agreement (1 = strongly disagree, 5 = strongly agree) with four statements assessing their interpersonal interaction (e.g., “I have ample opportunity for conversations with others.”), and five statements to measure their offline social activity (e.g., “I often participate in the meetings or activities of clubs, lodges, recreation centers, churches, or other organizations.”).

Program loyalty

The present study operationalized program loyalty as attitudinal program loyalty and behavioral program loyalty. Regarding the attitudinal loyalty measure, adapted from the scales of brand loyalty (Aaker, 1991), service loyalty (Ganesh, Arnold, & Reynolds, 2000), and store loyalty (Campo, Gijbrecchts, & Nisol, 2000), this study used a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to assess the respondents' level of agreement with three statements. The original items were modified according to the different attributes involved in television content consumption. The three-item scale focused on stated recommendations, preferences, or probabilities of viewing by the audiences, thus emphasizing the cognitive element of program loyalty.

The behavioral dimension of loyalty is usually operationalized as the actual purchases observed over a certain time period, as this actual purchase measure is

directly related to the performance and existence of the firm (Melles, Dekimpe, & Steenkamp, 1996). Applying the operational definition to television program behavioral loyalty, this study asked the respondents' actual viewing behavior regarding their favorite shows over a specific time period. Specifically, the study asked the respondents' agreement on such an item as "Over the past month, I have not missed any episodes of the program when they broadcast on television" through a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Audience satisfaction

This study defines audience satisfaction as a global evaluative summary of (direct) viewing experience with particular television content. The respondents marked how satisfied they were when they watched a specific television program, using one item from Ferguson and Perse's (2004). The item used a five-point semantic differential scale, the two anchors being *not at all satisfied* (1) and *very satisfied* (5).

Product purchase likelihood

The current study examined the respondents' purchase likelihood of some products from the program's official website, including local station or network websites. There are usually two types of merchandise available on television station/networking sites: fan-based items and non fan-based items. The fan-based items are items relevant to the networks or its shows and stars, while non fan-based items are essential products of the advertisers of the broadcast/cable networks (Ha & Chan-Olmsted, 2001). Specifically, the television viewer's purchase intentions toward the two types of products were discovered by three items using a five-point Likert scale (1 = definitely not, 5 = definitely) to assess whether the respondents would be more likely to buy memorabilia

/merchandise either related to the television station/network or the television show/stars, as well as products shown in the program.

Media use and demographic information

This study incorporated media use and demographic information as two types of control variables. Considering the technology-driven nature of the research, several technology ownership and media use variables related to online social media and video consumption were measured. Specifically, respondents were asked to indicate whether they own a digital video recorder (DVR) and other new communication technologies at home, using dichotomous yes or no response categories. In addition, respondents were asked to check their media use such as the types of Internet service (i.e., dial-up or high-speed Internet) and television subscription types (i.e., over-the-air broadcasting only, basic cable, premium cable, satellite television, and the Internet Protocol Television (IPTV)). Several demographic factors such as age, gender, income, education, ethnicity, employment, and marital status were included at the end of the survey. Table 4-9 summarized the constructs included and their operational definitions.

Table 4-9. Constructs and operational definition

Construct	Operational Definition	Source
Program genre preference	<ul style="list-style-type: none"> • How much attention do you typically pay when you watch each of the following types of programs: reality shows, drama, game/talk shows, animated comedies, and sitcoms? • How much do you enjoy watching each of the following types of programs: reality shows, drama, game/talk shows, animated comedies, and sitcoms? 	Moyer-Gusée (2010)
Program affinity	<ul style="list-style-type: none"> • I would feel lost without the program to watch. • Whenever I'm unable to watch the program, I really miss it. • Watching the program is one of the most important things I do each day or each week. 	Rubin (1983); Rubin & Perse (1987a, 1987b)

Table 4-9. Continued

Construct	Operational Definition	Source
Program involvement	<ul style="list-style-type: none"> • Irrelevant – Relevant • Means nothing to me – Means a lot to me • Doesn't matter – Matters to me • Uninterested – Interested • Insignificant – Significant • Superfluous – Vital • Nonessential – Essential 	Park & McClung (1986)
Perceived ease of use	<ul style="list-style-type: none"> • Learning to use social media to comment, post, watch, or read anything about the television program is easy for me. • It is easy for me to become skilled at using social media to comment, post, watch, or read anything about the television program. • It is easy to use social media to comment, post, watch, or read anything about the television program. 	Davis (1989); Davis, Bagozzi, & Warshaw, (1989); Wu & Wang (2005)
Compatibility	<ul style="list-style-type: none"> • Using social media to comment, post, watch, or read anything about the television program is compatible with most aspects of my television viewing. • Using social media to comment, post, watch, or read anything about the television program fits my lifestyle. • Using social media to comment, post, watch, or read anything about the television program fits well with the way I like to engage in television viewing. 	Chan-Olmsted & Chang (2006); Chen, Gillenson, & Sherrell (2002); Tronataky & Klein (1982)
Social presence	<ul style="list-style-type: none"> • Unsociable – Sociable • Impersonal – Personal • Insensitive – Sensitive • Cold – Warm • Passive – Active 	Papacharissi & Rubin (2000); Short, Williams, & Christie (1976)
Innovativeness	<ul style="list-style-type: none"> • In general, I am among the last in my circle of friends to use a new social media platform when it appears. [†] • If I heard that a new social media platform was available online, I would be interested enough to try it. • Compared to my friends, I use few of the social media platforms. [†] • I will use a new social media platform, even if I haven't heard of it yet. • In general, I am the last in my circle of friends to know the names of the latest social media platforms. [†] • I know more about new social media platforms before other people do. 	Goldsmith & Hofacker (1991); Goldsmith & Flynn (1992)

Table 4-9. Continued

Construct	Operational Definition	Source
Motives	<ul style="list-style-type: none"> • Because it relaxes me • Because it allows me to unwind • Because it's a pleasant rest • So I won't have to be alone • When there's no one else to talk to or be with • Because it makes me feel less lonely • Just because it's there • Because I just like to use it • Because it's a habit, just something I do • When I have nothing better to do • Because it passes the time away, particularly when I'm bored • Because it gives me something to do to occupy my time • Because it entertains me • Because it's enjoyable • Because it amuses me • Because it's something to do when friends come over • So I can talk with other people about what's on • So I can be with other members of the family or friends who are watching the program • Because it helps me to learn things about myself and others • So I can learn how to do things which I haven't done before • So I could learn about what could happen to me • Because it's thrilling • Because it's exciting • Because it peps me up • So I can forget about school or other things • So I can get away from the rest of the family or others • So I can get away from what I'm doing • Because I wonder what other people said • Because I can meet people with my interest • Because it's easier to get information • Because I can search for information • Because I can get information for free • Because it provides a new and interesting way to do research • So I can keep up with current issues and events • So I can see what is out there • So I can learn about useful things • So I can learn about unknown things • Because they are convenient to use • Because I can get what I want for less effort 	<p>Haridakis & Hanson (2009); Papacharissi & Rubin (2000); Rubin (1983)</p>

Table 4-9. Continued

Construct	Operational Definition	Source
Motives	<ul style="list-style-type: none"> • Because I can use it anytime, anywhere • Because I want to show others encouragement • Because I want to communicate with friends and family • Because I want to belong to groups with the same interests as mine • Because I want to let others know I care about their feelings • Because I can express myself freely • Because I enjoy answering other people's questions • Because I can talk as long or as short as I want • Because I can participate in the discussion • Because I can meet new people 	Haridakis & Hanson (2009); Papacharissi & Rubin (2000); Rubin (1983)
Social characteristics: Interpersonal interaction	<ul style="list-style-type: none"> • I get to see my friends as often as I would like. • I spend enough time communicating with my friends and family by telephone or mail. • I have ample opportunity for conversations with others. • I can always find someone to speak with when I need to talk. 	Rubin (1986); Rubin & Rubin (1982, 1989)
Social characteristics: social activity	<ul style="list-style-type: none"> • I often travel, vacation, or take trips with others. • I often visit with friends, relatives, or neighbors in their homes. • I often participate in the meetings or activities of clubs, lodges, recreation centers, churches, or other organizations. • I often go places to socialize with others. • I often participate in games, sports, or activities with others. 	Rubin (1986); Rubin & Rubin (1982, 1989)
Program behavioral loyalty	<ul style="list-style-type: none"> • Over the past month, I have not missed any episodes of the program when they broadcast on television. 	Constructed by the author
Program attitudinal loyalty	<ul style="list-style-type: none"> • I would recommend the program to others. • I think of myself as a loyal viewer of the program. • I would be willing to watch the program rather than other shows. 	Aaker (1991); Ganesh, Arnold, & Reynolds (2000); Campo, Gijbrecchts, & Nisol (2000)
Audience satisfaction	<ul style="list-style-type: none"> • Overall, how satisfied were you with watching the program? 	Ferguson & Perse (2004)

Table 4-9. Continued

Construct	Operational Definition	Source
Product purchase likelihood	<ul style="list-style-type: none"> • If any of the following items were available in the program's station/network site after watching the program, would you be more likely to buy them? <ol style="list-style-type: none"> (1)Memorabilia/merchandise of the television station/network (2)Memorabilia/merchandise of the television show or stars (3) Products shown in that television show 	Ha & Chan-Olmsted (2001)

Note: [†] indicates the items that are reversely coded

Descriptive Statistics of Main Test

The online survey was active for two weeks (between September 9 and 23, 2011). A total of 1,427 individuals responded to the main test and 494 were qualified to complete the whole survey, yielding a 34.6% incident rate. Regarding the first screening question, social media “breadth” experience, it is not surprising that the popularity of the social media platforms is the same with the pilot test results. Specifically, FacebookTM is the most commonly used social media tool with the highest penetration rate of 93% (n = 1,328), followed by YouTube[®] (52%, n = 746), MyspaceTM (39%, n = 559), TwitterTM (30%, n = 421), and mobile texting and applications (16%, n = 226), respectively. Regarding the social media usage frequency, the results were also identical with the pretest, showing that mobile texting and applications are most frequently used ($M = 4.02$, n = 1,314), followed by FacebookTM ($M = 4.02$, n = 1,314), YouTube[®] ($M = 3.40$, n = 735), and online discussion boards/forums ($M = 3.37$, n = 176).

For the second screening question, the study asked the respondents to identify whether they had used their chosen social media to comment, post, read, or read anything about the listed twenty television programs. Among the total of 1,314 online

social media users, around 41% of them had utilized social media to interact with these television programs at least once. The most socially involved shows were *NCIS* (n = 150) and *America's Got Talent* (n = 146), whereas *Monday Night Raw* and *Pretty Little Liars* invoked the least social activities around these shows. Among these socially involved programs, the social media users were further asked to select one as their favorite. Table 4-10 presents the order of the socially involved television programs and their favorite rankings based on the number of social media users.

Table 4-10. The order of television programs by social media users

The Number of Social Media User	The Favorite Number	Genre	Program Title	Broadcast/Cable Network
150	68	Drama	<i>NCIS</i>	CBS
146	63	Game show	<i>America's Got Talent</i>	NBC
145	33	Animated comedy	<i>Family Guy</i>	FOX
127	25	Animated comedy	<i>The Simpsons</i>	FOX
122	37	Drama	<i>Glee</i>	FOX
122	43	Drama	<i>True Blood</i>	HBO
119	22	Animated comedy	<i>South Park</i>	Comedy Central
111	43	Sitcom	<i>The Big Bang Theory</i>	CBS
85	19	Sitcom	<i>How I Met You Mother</i>	CBS
82	27	Reality show	<i>Big Brother</i>	CBS
81	23	Reality show	<i>Jersey Shore</i>	MTV
67	12	Reality show	<i>Teen Mom</i>	MTV
67	8	Sitcom	<i>The Office</i>	NBC
61	14	Drama	<i>The Vampire Diaries</i>	The CW
60	10	Reality show	<i>Keeping Up with the Kardashians</i>	E! Entertainment
55	11	Talk show	<i>Conan</i>	TBS
51	7	Drama	<i>Gossip Girl</i>	The CW
45	12	Game show	<i>Monday Night Raw</i>	USA
40	10	Drama	<i>Pretty Little Liars</i>	ABC Family

As a means to assess the social behavior pattern, the survey next asked the respondents when they typically used their selected social media to interact with these programs. The pattern was similar but not totally the same with the results revealed in the pilot test, 57% respondents using social media to interact with the shows after they watched the programs, 23% respondents while they watched the programs, and 20% before they watched the programs. However, the pretest results showed that the pattern was after (30%), before (17%), and during (12%). In addition, the findings from a national survey conducted between March 11th and 15th, 2011 (Harris Interactive, 2011) revealed that, among these 80-some million people, 33% had the social media experience after watching a television show and that fewer had done so before watching (18%) or while watching (17%) a television program. Summarily, the present study, along with the national survey, indicated that the majority of online adults prefer to use various social media platforms to interact with television programs after they watched the shows.

Participants

There were 484 respondents who completed the demographic information in the main test and 161 respondents in the pilot test. The profile of the participants in these two tests is described and compared below. The average age in the main test was 38.62 ($SD = 15.28$), a younger sample than those in the pretest with mean age of 43.01 ($SD = 16.45$). Males ($n = 151$) accounted for 30.6% while females were 67.4% ($n = 333$) in the main test. Although the gender structure was shown to be similar in the main test, there was a higher percentage of females (80.1%) than males (19.9%) in the pretest. When it comes to ethnicity in the main test, while white Caucasians accounted for 74.5%, African-Americans and Asians had the same weight (7.4%), followed by

Latino/Latina/Hispanics (6.0%). The ethnical structure in the pretest showed a little different result with white Caucasians making up for 83.2%, followed by African-Americans (6.2%), Hispanics (4.3%), and Asians (2.5%), respectively.

In terms of the income level, the main test showed that 37.9% of the respondents' yearly household incomes were under \$30,000, while 28.9% ranged between \$30,000 and just under \$50,000. The rest of the 31.2% respondents had an income above \$50,000. Regarding the education level, in the main test, out of 484 respondents, 35.8% of the participants completed some college (n = 177). Another 31.8% and 27.1% held college graduate degrees or more (n = 157) and high school diplomas (n = 134), respectively. While 30.8% of the respondents in the main test were full-time employees outside the home, the second biggest section was from retired people (13.2%). Both tests showed that the majority of the respondents were married. In addition, a similar sample structure in household income, education level, and employment status was also indicated in the pretest.

When it comes to media ownership and usage in the two tests, the most commonly owned new media technology among the respondents was a DVD player with an approximate 88.0% penetration rate, followed by cellular phone, computer, videogame systems, HDTV, and iPod or other portable MP3 players, respectively. The least owned media technologies were the newly emerged tablet (e.g., iPad) and portable video player (e.g., video iPod). With respect to media use in the main test, 48.0% of the respondents said they subscribed to basic and expanded basic cable television service, whereas 37.2% of the respondents had satellite television service. The over the air only and IPTV services (e.g., U-verse and FiOS) accounted for 13.2%

and 7.9%, respectively. The majority of the respondents (92.3%) had high-speed Internet connection at home, whereas the dial-up connection made up for 6.5% and no Internet connection was 1.2%. Table 4-11 presents the respondents' demographics and media usage in the two tests.

Table 4-11. The comparison of demographics and media usage in the two tests

		Main Test		Pilot Test	
		%	n	%	n
Gender	Men	30.6	151	19.9	32
	Women	67.4	333	80.1	129
Age	18-29	35.5	172	28.6	46
	30-49	37.2	180	32.3	52
	50-64	21.3	103	28.6	46
	65+	6.0	29	10.6	17
Race/Ethnicity	White	74.5	368	83.2	134
	African-American	7.3	36	6.2	10
	Hispanic	5.9	29	4.3	7
	Asian	7.3	36	2.5	4
Household Income	Less than \$30,000	37.9	187	39.8	64
	\$30,000 - \$49,999	28.9	143	25.5	41
	\$50,000 - \$74,999	16.0	79	17.4	28
	\$75,000+	15.2	75	17.4	28
Education Level	Less than high school	3.2	16	2.5	4
	High school graduation	27.1	134	24.2	39
	Some college	35.8	177	37.3	60
Employment Status	College+	31.8	157	36.0	58
	Employed outside the home full-time (30 hours or more per week)	30.8	152	27.3	44
	Employed outside the home part-time (1-29 hours per week)	12.6	62	9.9	16
	Retired	13.2	65	21.1	34
	Full-time homemaker	13.0	64	16.8	27
	Temporarily unemployed	11.9	59	8.7	14
	Full-time student	10.3	51	9.3	15
Marital Status	Other	6.4	31	6.8	11
	Married	45.3	224	48.4	78
	Single, never married	36.2	179	42.9	69
Television Subscription	Other	16.4	81	8.7	14
	Over the air only	13.2	65	8.7	14
	Basic and expanded basic cable	48.0	237	54.0	87
	Satellite	37.2	184	29.8	48
Internet Connection	IPTV (e.g., U-verse, FiOS)	7.9	39	6.8	11
	High-speed	92.3	456	97.5	157
	Dial-up	6.5	32	1.9	3
	No Internet connection	1.2	6	1.2	2

Data Analysis Strategy

Besides the EFA and CFA procedures discussed in the stages of social engagement scale development and validation, several other statistics tests were used in this study to answer the research questions and evaluate the hypotheses.

Specifically, the following statistics were used: multiple planned comparisons for the five different television genres along each social engagement dimension, the EFA procedure for the motives behind social engagement behavior, and a structural equation modeling (SEM) for the antecedents and consequences tests.

Social engagement with different television genres

The RQ2 asked whether the overall social engagement or the different dimensions of social engagement with the program vary among different genres (i.e., dramas, reality shows, sitcoms, game/talk shows, and animated comedies). To construct the social engagement index of each television program genre, this study first asked the respondents to indicate one particular show with which they have utilized social media to interact as their favorite. Based on the participant' favorite show, the present study next recoded the program into different program genres. For example, if the participant' favorite show was among the followings: *Glee*, *Criminal Minds*, *NCIS*, *Gossip Girls*, *Pretty Little Liars*, *True Blood*, and *The Vampire Diaries*, this study recoded it as the drama category. If the respondent selected *Big Brother*, *Jersey Shores*, *America's Got Talent*, *Keeping Up with the Kardashians*, or *Teen Mom*, the present study recoded it as the reality show genre. After classifying each favorite show into different types of programming, this study calculated the means and standard deviations of different program genres along each social engagement dimensions.

As discussed in the stages of scale development and validation, while both the first-order and second-order representation of the social engagement construct fit well with the observed data, the first-order model was preferred by virtue of its simplicity and better fit. In addition, the EFA and CFA results in the first two research stages indicated that a single-factor model, comprising fifteen items to tap a common construct, could not adequately explain the covariance among the indicators. The present study therefore preferred not to use the sum and averages approach to the fifteen items when constructing the social engagement index for the following planned comparisons analyses. Thus, this study evaluated specifically how the five different television genres vary along each social engagement dimension, including vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence.

The multiple comparisons for one-factor designs were planned to answer the RQ2. The one-factor was each dimension of the social engagement construct in the current study context. Planned contrasts between any two television genres rather than Post hoc comparisons were performed. The reason why planned (a priori) tests were chosen rather than Post hoc contrasts are: 1) planned comparisons are more powerful than Post hoc tests; 2) planned comparisons are more specific than the omnibus test, which usually uses a one-way analysis of variance (ANOVA) procedure to evaluate the omnibus hypothesis; and 3) planned comparisons are more targeted, which means only a few of all possible comparisons are needed (Myers & Wells, 2003). Therefore, the familywise error was selected for control. The Shaffer-Holm procedure was used so that the pairwise comparisons would be reasonably powerful and incorporate the omnibus test.

Motivations behind social engagement behavior

The RQ3 investigated what motives audiences have for using social media to engage with television content. Different from prior television audience behavior studies (e.g., Haridakis & Hanson, 2009; Papacharissi & Rubin, 2000; Rubin, 1983), the present study employed the EFA procedure rather than PCA to analyze the forty-nine motive statements. As discussed earlier, the main purpose of PCA is to generate a minimum number of components that accounts for the maximum amount of variance in the original data when the researcher feels confident there is limited error variance among the variables. Therefore, no latent variables underlying the observed variables need to be invoked. On the other hand, EFA is used to identify latent dimensions represented among the original variables, and “the factors are estimated to explain the covariances among the observed variables, and the factors are viewed as the causes of the observed variables” (Floyd & Widaman, 1995, p. 287). The current social engagement motive scales were adapted from the previous research, covering diverse motivations behind television consumption, the Internet use, and YouTube[®] video viewing. However, there seemed to be no established scales for each motive and several motivation items were used in an interchangeable fashion. Thus, it was necessary for this study to identify latent factors represented among the forty-nine motive items by employing the EFA. Specifically, the factor analyses were performed on a polychoric correlation matrix using maximum likelihood with mean and variance estimation procedure through an oblique Geomin rotation by Mplus[®] (Version 6.0) program.

Antecedents and consequences tests

The rest of the research questions (RQ4 to RQ7) and hypotheses (H1 through H11) were all related to the antecedents and consequences of the social engagement

behavior. The SEM was performed to examine the proposed antecedents and consequences by using the data analysis program Mplus[®] (Version 6.0). The proposed model contains nine exogenous variables and five endogenous variables. The endogenous variables are: 1) social engagement, including the second-order overall social engagement structure and the first-order four dimensions structure, 2) behavioral program loyalty, 3) attitudinal program loyalty, 4) audience satisfaction, and 5) product purchase likelihood. The exogenous variables are: 1) program genre preference, 2) program affinity, 3) program involvement, 4) perceived ease of use, 5) compatibility, 6) social presence, 7) innovativeness, 8) motives, and 9) social characteristics.

Structural equation modeling in practice is performed through a two-step approach (Anderson & Gerbing, 1998). The first step is to use CFA procedure to test measurement model, which examines relationships between latent and multiple observed indicators. Latent variables are the variables that are not directly measured but indicated by one or more observed variables or indicators (Hair, Anderson, Tatham, & Black, 1995). In building measurement models, multiple-indicator measurement models are preferred as “they allowed the most unambiguous assignment of meaning to the estimated constructs” (Anderson & Gerbing, 1988). However, in practice, if only a single indicator of some construct is available, the single-item construct is acceptable in the SEM. The purpose of conducting measurement modeling is to define the indicators for each construct and assess the reliability of each construct for the causal relationships. After the measurement model is specified to be unidimensional and reliable, the second step is to use the simultaneous equation model (also called structural equation model) to test the hypothesized relationships among latent variables.

The structural model is examined with the significance of estimated coefficients. Specifically, by performing the SEM to test the proposed antecedents and consequences, the present study first assessed the four dimensions of social engagement, followed by the overall social engagement that is treated as a second-order factor.

When conducting the SEM, there should be an awareness of the missing data issue in study designs, since the incomplete data could cause the analysis to be biased if covariance matrix input (Byrne, 2001). There are two approaches to deal with missing values: 1) using a listwise deletion technique, and 2) using full information analysis. The advantage of the listwise deletion technique is ease of use, which simply removes the observations with missing data and makes the data set complete. The disadvantage of this approach is less power and accuracy due to the reduction in the sample size, which also produces inconsistent estimates even if the data are not missing completely at random. By contrast, estimations that use all available data (full information analysis) do not remove any observations, resulting in better power and accuracy than listwise deletion. Thus, all missing data in the current study were treated with full information maximum likelihood (FIML) given that this procedure is robust when data are missing completely at random (MCAR) or missing at random (MAR), or the percentage of missingness is minimal (Muthen, Kaplan, & Hollis, 1987). For this study, the percentage of missing data was negligible (0.1% - 0.2%), thus this study adopted the FIML estimation in models with missing data through using Mplus[®] (Version 6.0) program.

CHAPTER 5 RESULTS

This chapter presents the results of hypothesis testing and answers to the research questions. The statistical procedure for each test is also briefly described. More specifically, the results are grouped into the following topics: 1) a brief explanation of the social engagement scale, 2) social engagement with different television program genres, 3) the motives behind social engagement behavior, 4) the antecedents and consequences of the four social engagement dimensions, and 5) the antecedents and consequences of the overall social engagement.

Social Engagement Scale Explanation

The RQ1 asked about whether there are several dimensions or levels in social engagement with television content. Through the scale development and validation approach, this study found the four underlying dimensions of social engagement behavior: vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. The four dimensions indicate the different manifestations of how television audiences use an expanding array of social media platforms to connect with television content over time. Thus, this investigation on the social engagement construct and its measurement scale contributes to the understanding of the consumption of television programming in the new social media environments.

The first dimension, vertical involvement, measures the degree in which television viewers actively use a range of social media platforms to be involved with the core program content and its relevant information. The vertical involvement dimension characterizes the participatory behavior in relation to the core content and/or ancillary content of a program. In particular, the involvement activities are more one-way oriented

but critical because they cover a range of social media touchpoints that an individual could have with program content. These social media touchpoints include RSS feeds, podcasts, mobile video and applications, check-in applications in the entertainment-focused social networks, social bookmarks, online widgets, and video and photos uploaded or forwarded in social media.

The second dimension, diagonal interaction, measures the degree of social interaction that viewers develop with characters, celebrities, and working staffs related to their favorite shows in microblogs such as TwitterTM. The possibilities of developing interactive relationships between viewers and characters/celebrities of the program are limited in the one-way television consumption pattern. However, as more celebrities, performers, and professional working staffs have a presence in TwitterTM, the direct dialogues and communications between the audiences and these media figures become more common, which are mainly facilitated by the Internet relay chat function embedded in TwitterTM and its widely mobile applications.

The third dimension, horizontal intimacy, measures the extent to which individual viewers emotionally respond to a television program and the affection of the viewers toward the branded content with other audiences in blogs and online discussion forums. This dimension captures a deeper and more intimate connection between the viewers and the diegetic, narrative text depicted in a program through peer-to-peer social media activities. In addition, the horizontal intimacy dimension characterizes a mode of engagement that satisfies the viewers' imaginative or emotional desires to be surrounded by or submerged in television programming. Driven by the contextual and extratextual immersion, peer-to-peer behaviors, such as expressing one's own opinions

and responding to the perspectives from other viewers, essentially demonstrate the audiences' intimate connection with the branded television program.

The fourth dimension, horizontal influence, measures the degree of identification and belonging, as well as the extent of meaningful influence in the direction or outcome of television programming in a peer-related space like social networks. Facilitated by the relationship focus and the identity nature of social networks like FacebookTM, the desire to signal one's personal preferences or identification of "fan" status about a particular show in this platform to some degree indicates that the viewer draws upon the program as part of his/her self- and social-identity. In this way the viewer also adds meaning to his/her relationship with others. Moreover, influential opportunities exist in relation to the shows when the particular content solicits the viewers' status updating, opinion input, and program sharing in social networks. This has a potential impact on the individual's online friends, regardless of whether they are members of the program audiences, or not. In this sense, the television viewer becomes an ambassador on behalf of the television brand to advocate, recommend, and finally personally promote certain television content.

To assess scale reliability, this study used Cronbach's coefficient alpha to estimate internal consistency reliability for the overall social engagement scale and its four dimensions. The results illustrated that the scale with the fifteen sample items performed well in capturing the proposed social engagement construct. As a means of establishing the construct's discriminant validity, this study demonstrated that social engagement is conceptually and empirically different from attitude toward the program (program affinity) and program involvement (Table 5-1).

Table 5-1. Social engagement dimensions, definitions and scale items

Dimension	Definition	Scale Items
Vertical Involvement	The dimension measures the degree in which television viewers actively use a range of social media platforms to be involved with the core programming content and its relevant information.	<p>I have subscribed to the program(s)'s RSS feeds or podcasts.</p> <p>I have used my mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program(s).</p> <p>I have used check-in apps for the program(s) in Foursquare™, Miso, Philo, Starling, or GetGlue, etc..</p> <p>I have used widgets to embed the program(s)'s video clips or photos online.</p> <p>I have used social bookmarks (e.g., Digg™ and Delicious) to tag the program(s).</p> <p>I have uploaded or forwarded videos or photos relevant to the program(s).</p>
Diagonal Interaction	The dimension measures the degree of social interaction that viewers develop with characters, celebrities, and working staffs related to their favorite shows in microblogs such as Twitter™.	<p>I am a follower of the program(s) (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).</p> <p>I have read the program(s)'s tweets (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).</p> <p>I have written or commented on the program(s)'s tweets (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).</p>
Horizontal Intimacy	The dimension measures the extent to which individual viewers emotionally respond to a television program and the affection of the viewers toward the branded content with other audiences in blogs and online discussion forums.	<p>I have read blog posts relevant to the program(s).</p> <p>I have written or commented on blog posts relevant to the program(s).</p> <p>I have read the program(s)'s posts in online discussion forums.</p> <p>I have written or commented on the program(s)'s posts in online discussion forums.</p>
Horizontal Influence	The dimension measures the degree of identification and belonging, as well as the extent of meaningful influence in the direction or outcome of television programming in a peer-related space like social networks.	<p>I am a fan of the program(s) and share them with my friends in social networks (e.g., Facebook™ and Myspace™).</p> <p>I have written or commented on the program(s)'s posts in social networks (e.g., Facebook™ and Myspace™).</p>

The social engagement construct with multiple dimensions was represented by two types of factor structures which were validated by CFA testing. One was a four-factor model and the other was a four-factor model with one higher order factor, where the second-order factor represented the overall construct of social engagement. While both the first-order and the second-order representations of the social engagement construct fit the observed data adequately, the comparison results indicated that the four-factor model ($\chi^2 = 377.785$, $df = 84$, $p = .000$; CFI = .946, TLI = .933, RMSEA = .084; SRMR = .042) fit the observed data better than the four-factor model with a second-order factor ($\chi^2 = 486.052$, $df = 86$, $p = .000$; CFI = .927, TLI = .911, RMSEA = .097; SRMR = .063). Thus, this study preferred the first four-factor model by virtue of its simplicity and better fit indices.

To further examine the attribute of each social engagement dimension and their relationships, the descriptive statistics from the main test revealed that the horizontal influence dimension had the highest mean ($M = 3.35$, $SD = 1.24$), followed by the horizontal intimacy dimension ($M = 3.00$, $SD = 1.22$), diagonal interaction dimension ($M = 2.44$, $SD = 1.24$), and vertical involvement dimension ($M = 2.24$, $SD = 1.10$), respectively. These test results suggest that the tendency in the individual audience's social engagement behavior is more salient in sharing television viewing experience with friends, adding meaning to his/her relationship with others, and establishing connections with media figures of the program, but less conspicuous in involvement with the core content and/or ancillary content of the program. In addition, by examining the intercorrelations of the four social engagement dimensions, the results indicated that vertical involvement behavior is highly correlated with the diagonal interaction

dimension, but is least associated with horizontal influence. The correlation between the diagonal interaction dimension and the horizontal influence dimension is the weakest compared to the other intercorrelations among the four social engagement behaviors. The descriptive statistics and correlations among the four social engagement dimensions are indicated in Table 5-2.

Table 5-2. Descriptive statistics and correlations of four social engagement dimensions

Dimension	<i>M</i>	<i>SD</i>	1	2	3	4
1 Vertical Involvement	2.24	1.10	1.00			
2 Diagonal Interaction	2.44	1.24	.910***	1.00		
3 Horizontal Intimacy	3.00	1.22	.721***	.685***	1.00	
4 Horizontal Influence	3.35	1.24	.582***	.536***	.740***	1.00

Note: *** $p < .001$ (two-tailed), $n = 494$.

Social Engagement with Different Television Program Genres

The RQ2 gauged how the four social engagement dimensions vary among the five different television genres, including dramas, reality shows, sitcoms, game/talk shows, and animated comedies. This study employed multiple comparisons for one-factor designs to answer the RQ2 by using the data analysis SAS[®] (Version 9.2) software. Specifically, the means of the five program genres were pairwise compared along each social engagement dimension. It should be noted that planned contrasts between any two means of television genres, rather than Post hoc comparisons, were performed. Thus, the familywise error was selected for control. The Shaffer-Holm procedure was carried out so that the pairwise comparisons would be reasonably powerful and incorporate the omnibus test.

Descriptive statistics for the five different television program genres along each social engagement dimension are presented in Table 5-3. Specifically, there were 209

respondents who chose drama programs as their favorites and evaluated their social engagement behavior related to this type of television programs, followed by 125 respondents of reality shows, 73 respondents of animated comedies, 64 respondents of sitcoms, and 23 respondents of game/talk shows, respectively. The results of planned comparisons revealed that there are no significant differences between any two television genres in terms of the diagonal interaction, horizontal intimacy, and horizontal influence dimensions, except for the vertical involvement dimension. As for the vertical involvement dimension, the planned comparison for game/talk shows versus dramas indicated that these two types of television programs are significantly different from each other in inducing the vertical involvement activities. A significant result was also apparent in the comparison of game/talk shows versus reality shows along the vertical involvement dimension.

The vertical involvement dimension characterizes the participatory behavior demonstrated by social media users, who utilized a range of social media platforms to connect with the core content and/or ancillary content of a program. Such vertical involvement activities include: 1) using social bookmarks like DiggTM or Delicious to tag the program, 2) using widgets to embed the program's video clips or photos online, 3) using check-in apps for the program in several entertainment-focused social networks such as FoursquareTM, Miso, Philo, Starling, or GetGlue, etc., 4) using a mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program, 5) subscribing to the program's RSS feeds or podcasts, and 6) uploading or forwarding videos or photos relevant to the program. When it comes to the vertical involvement activities related to different television genres, the one-way ANOVA

omnibus test results showed that there is a significant difference among these five different types of programs ($F(4,489) = 4.36$, $p = .0018$). Specifically, it seemed that the game/talk show was the most effective program genre that induces people to utilize an expanding array of social media platforms to be involved with television content ($M = 2.97$, $SD = 1.22$). The stimulation factors of the other television genres were as follows: animated comedies ($M = 2.46$, $SD = .93$), sitcoms ($M = 2.29$, $SD = 1.29$), reality shows ($M = 2.21$, $SD = 1.10$), and dramas ($M = 2.10$, $SD = 1.03$), respectively.

The Shaffer-Holm procedure was further carried out to conduct pairwise comparisons of any two television genre means in terms of the vertical involvement dimension. Significant differences were found for these three types of programs: game/talk shows versus dramas ($t(489) = 3.69$, $p < .05$), as well as game/talk shows versus reality shows ($t(489) = 3.13$, $p < .05$). The pairwise comparisons results suggested that viewers tend to more actively engage in game/talk shows over reality programs and scripted dramas by involving a range of social media platforms to connect with the core content and/or ancillary information of the program, even though these five television genres could all stimulate different levels of vertical involvement activities surrounding this type of television program.

When it comes to the other three dimensions in social engagement behavior surrounding these five different types of programs, the one-way ANOVA test results indicated that there are no statistically significant differences among these five program genres in the measurement of diagonal interaction ($F(4,489) = 1.44$, $p = .220$), horizontal intimacy ($F(4,489) = 1.35$, $p = .250$), and horizontal influence ($F(4,489) = 1.67$, $p = .156$). More specifically, the omnibus test revealed that program genres,

regardless of reality shows or scripted dramas, do not play a role when people use Twitter™ to interact with characters/celebrities of the program, nor do they influence audiences to use blogs and online discussion forums to read, write, or comment on the program. Likewise, television audiences' social engagement activities in social networks (e.g., Facebook™ and Myspace™), such as indicating that they are fans of the program, sharing the program with friends, and writing or commenting on the program's posts in social networks, do not vary significantly among these five television genres.

Table 5-3. Descriptive statistics of different genres by social engagement dimensions

		Drama	Reality Show	Animated Comedy	Sitcom	Game/Talk Show
	<i>n</i>	209	125	73	64	23
Vertical	<i>M</i>	2.10 ^a	2.21 ^b	2.46	2.29	2.97 ^{a,b}
Involvement	<i>SD</i>	1.03	1.10	.93	1.29	1.22
Diagonal	<i>M</i>	2.33	2.49	2.49	2.48	2.94
Interaction	<i>SD</i>	1.19	1.29	1.14	1.33	1.33
Horizontal	<i>M</i>	2.89	3.13	3.05	2.89	3.32
Intimacy	<i>SD</i>	1.23	1.22	1.15	1.27	1.03
Horizontal	<i>M</i>	3.23	3.46	3.58	3.23	3.52
Influence	<i>SD</i>	1.24	1.24	1.12	1.34	1.26

Note: The mean difference that shares the same superscript is significant at the .05 level.

Motivations behind Social Engagement

The RQ3 investigated what motives the audiences have for using social media to engage with television content. To answer the research question, the EFA procedure rather than PCA was carried out to analyze the forty-nine motive statements.

Specifically, the factor analyses were performed on a polychoric correlation matrix using the maximum likelihood with mean and variance estimation procedure through an oblique Geomin rotation by Mplus® (Version 6.0) program. By analyzing the screen plots and goodness of fit indices, a series of models was estimated and compared, and a ten-factor model showed the best fit ($\chi^2 = 1999.91$, $df = 731$, $p = .000$; CFI = .940, TLI =

.903, RMSEA = .060, SRMR = .022). Thus, this study concluded that the ten-factor solution best describes the motive test.

The factor loadings from the Mplus[®] EFA procedure are displayed in Table 5-4. The cutoff value of .50 was selected in order to be conservative. The exploratory factor analysis yielded ten motives behind social engagement behavior, corresponding to previous television viewing motives (Rubin, 1983), the Internet use motives (Papacharissi & Rubin, 2000), and YouTube[®] video viewing motives (Haridakis & Hanson, 2009). The first factor, *Relaxation*, was comprised of three items related to a pleasant rest and relaxation-driven motivation. The second factor, *Companionship*, described aloneness relief as one of the reasons behind social engagement behavior. The third factor, *Passing Time*, described how television audiences use social media to interact with television content out of habit and to occupy time. The fourth factor, *Entertainment*, was comprised of three items illustrating the experience of social engagement with television content for amusement and enjoyment. The fifth factor, *Information*, explained how the social engagement experience is derived from being informed. The sixth and seventh factors contained three items respectively, describing the *Arousal* and *Escape* motives. The eighth factor, *Access*, measured the use of social media to access television content, because it is easier and a novel way of searching for information and keeping up with current issues. The ninth factor, *Learning*, reflected learning unknown and useful things as a motivation for social engagement behavior. The last factor, *Interpersonal Utility*, was comprised of eight items related to using social media to be involved with television programs that measured belonging, inclusion, affection, social interaction, and expressive needs.

Based on the motive factor structure, this study further conducted reliability testing for each motivation using Cronbach's coefficient alpha. The acceptable value for Cronbach's coefficient was suggested to be above .70 (Kline, 2011; Nunnally, 1978). The Cronbach's coefficient alpha values for the ten motives behind using social media to engage with television content ranged from .882 to .937, suggesting that the ten motivation scales are reliable measures. In order to test discriminant validity, this study next averaged the items with greater than .50 loadings on each motive factor in order to create composite motive variables. The correlations among the ten motive factors were all moderately associated with each other, ranging from .310 to .685, except for the correlation between *Learning* and *Access* ($r = .719$). Overall, the results demonstrated that each factor was distinct, with no significant overlap and no additional factors present.

To better understand which motive television audiences demonstrated most when they used various social media platforms to engage with television content, this study further analyzed the descriptive statistics of each motivation. The results revealed that the entertainment motive has the highest mean score ($M = 3.928$, $SD = .90$), followed by the motivations of access ($M = 3.610$, $SD = .93$), relaxation ($M = 3.525$, $SD = .98$), learning ($M = 3.468$, $SD = .983$), and interpersonal utility ($M = 3.380$, $SD = .91$). However, people using social media to connect with television program for the companionship need was the least notable motivation ($M = 2.742$, $SD = 1.10$). Table 5-5 presents the descriptive statistics, Cronbach's coefficient alpha, and correlations for the ten motive factors.

Table 5-4. Exploratory factor analysis for motives behind social engagement behavior

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
Because it relaxes me	.794	.035	.010	.032	.066	.014	.003	.062	-.041	.025
Because it allows me to unwind	.842	-.041	.016	.057	-.013	.022	.020	-.034	.052	.076
Because it's a pleasant rest	.751	.098	.013	.037	-.008	.030	.016	.031	.052	-.031
So I won't have to be alone	.152	.692	.003	-.064	.030	.022	.087	.007	.023	.025
When there's no one else to talk to or be with	-.010	.572	.254	.060	.134	.005	-.034	.005	-.004	.051
Because it makes me feel less lonely	.001	.905	.055	-.012	.001	.072	.001	.002	.004	.018
When I have nothing better to do	-.025	.092	.702	.035	-.026	-.074	.095	-.058	.176	-.065
Because it passes the time away, particularly when I am bored	.003	-.027	.914	-.030	.078	.056	.006	.030	-.057	.002
Because it gives me something to do to occupy my time	.071	-.005	.877	-.091	.031	.132	-.002	.014	-.021	.055
Because it entertains me	.021	-.051	-.004	.886	.037	.039	.002	.018	.009	.032
Because it's enjoyable	.114	-.042	-.035	.862	.033	.053	-.019	-.016	.048	-.012
Because it amuses me	.044	.045	.031	.733	-.060	.094	.097	-.019	.008	.021
Because it helps me learn things about myself and others	.033	.056	.043	.009	.676	.088	-.001	-.006	.179	.012
So I can learn how to do things which I haven't done before	.005	.018	.014	.014	.719	.004	.010	-.007	.206	.028
So I can learn about what could happen to me	.035	.081	.042	-.077	.600	.165	.105	-.039	.136	.008
Because it's thrilling	.017	.001	.062	.084	.179	.682	.006	-.036	.067	.035
Because it's exciting	.018	.036	-.014	.290	.022	.715	.014	.042	.024	-.011
Because it pepes me up	.128	.095	-.019	.190	.057	.501	.069	.107	-.046	.054

Table 5-4. Continued

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
So I can forget about school/work or other things	.058	-.021	.035	.106	-.024	.124	.592	.037	.098	.000
So I can get away from the rest of the family or others	-.020	.009	-.003	-.001	.209	-.007	.827	.035	-.051	-.020
So I can get away from what I am doing	.025	.000	.033	-.024	-.001	-.002	.847	-.062	.070	.118
Because it's easier to get information	.038	.019	-.011	.012	.020	-.009	.026	.895	.015	-.017
Because I can search for information	.043	.029	-.024	-.002	.049	.009	.016	.815	.092	-.038
Because I can get information for free	-.065	-.052	.095	-.022	-.048	.055	.015	.782	.043	.084
So I can see what is out there	-.037	.012	-.032	.017	.013	.049	.048	.234	.624	.036
So I can learn about useful things	.030	.057	-.053	.057	.180	-.045	.005	.083	.721	.028
So I can learn about unknown things	-.002	.043	.001	.049	-.019	.054	.034	.116	.775	.005
Because I want to show others encouragement	.095	.085	-.079	-.039	.165	-.002	.088	.056	.086	.530
Because I want to communicate with friends and family	.065	-.008	.055	-.025	.042	-.004	-.035	-.056	.082	.693
Because I want to belong to groups with the same interest as mine	.040	.074	.056	.104	.102	-.124	.032	.025	.001	.620
Because I want to let others know I care about their feelings	.027	.171	-.098	-.054	.153	.039	-.022	-.022	.041	.662
Because I can express myself freely	-.110	-.009	.036	.088	-.031	.033	.003	-.018	.064	.802
Because I enjoy answering others' questions	-.005	.013	.008	.083	.060	-.065	.016	-.019	.042	.772
Because I can participate in discussions	-.005	-.017	-.007	-.024	-.108	.077	.004	.148	-.004	.820
Because I can meet new people	-.039	.029	-.087	-.035	.117	.063	.066	.031	-.087	.777

Note: Factor 1 = Relaxation, Factor 2 = Companionship, Factor 3 = Pass Time, Factor 4 = Entertainment, Factor 5 = Information, Factor 6 = Arousal, Factor 7 = Escape, Factor 8 = Access, Factor 9 = Learning, Factor 10 = Interpersonal Utility.

Goodness of Fit Indices: $\chi^2 = 1999.91$ ($df = 731$, $p = .00$), CFI = .940, TLI = .903, RMSEA = .060, SRMR = .022. $n = 494$

Table 5-5. Descriptive statistics, internal consistency values, and intercorrelations for motive factors

Factor	Motive	No. of Items	Mean	SD	alpha	1	2	3	4	5	6	7	8	9	10
1	Relaxation	3	3.525	.98	.918	1.00									
2	Companionship	3	2.742	1.10	.891	.485***	1.00								
3	Pass Time	3	3.301	1.07	.898	.310***	.519***	1.00							
4	Entertainment	3	3.928	.90	.932	.650***	.289***	.318***	1.00						
5	Information	3	2.936	1.12	.899	.550***	.651***	.396***	.370***	1.00					
6	Arousal	3	3.357	1.09	.905	.671***	.481***	.323***	.651***	.640***	1.00				
7	Escape	3	2.976	1.15	.882	.473***	.536***	.473***	.377***	.573***	.547***	1.00			
8	Access	3	3.610	.93	.921	.451***	.358***	.400***	.471***	.450***	.470***	.386***	1.00		
9	Learning	3	3.468	.98	.911	.484***	.427***	.337***	.497***	.590***	.523***	.437***	.719***	1.00	
10	Interpersonal Utility	8	3.380	.91	.937	.555***	.541***	.362***	.447***	.647***	.585***	.464***	.635***	.685***	1.00

Note: alpha = Cronbach's alpha; *** $p < .001$ (two-tailed).

Antecedents and Consequences of Four Social Engagement Dimensions

The research questions (RQ4 to RQ7) and hypotheses (H1 through H11) were all related to the antecedents and consequences of social engagement behavior.

Specifically, two models were tested to examine the antecedents and consequences of the social engagement experience in this study. The first model tested the predictive power of antecedents for each social engagement dimension and their outcomes. This model was comprised of nineteen exogenous variables: 1) program genre preference, 2) program affinity, 3) program involvement, 4) perceived ease of use, 5) compatibility, 6) social presence, 7) relaxation, 8) companionship, 9) pass time, 10) entertainment, 11) information, 12) arousal, 13) escape, 14) access, 15) learning, 16) interpersonal utility, 17) innovativeness, 18) interpersonal interaction, and 19) social activity. The eight endogenous variables were: 1) vertical involvement, 2) diagonal interaction, 3) horizontal intimacy, 4) horizontal influence, 5) program attitudinal loyalty, 6) program behavioral loyalty, 7) audience satisfaction, and 8) product purchase likelihood.

The second model tested the antecedents and consequences of the overall social engagement, which is treated as the second-order construct. Therefore, for the second model testing, there were nineteen exogenous variables and five endogenous variables. Specifically, the antecedent and consequence variables were the same in the two models except for the social engagement construct. The model testing on the four social engagement dimensions were presented in this section first, and the results of model testing with the overall social engagement were shown in the following section.

The data analysis was conducted in two stages: 1) validation of the measurement scales and factor structure, and 2) use of simultaneous equation analysis (SEQM) to test a theoretical model through the Mplus[®] (Version 6.0) program. To assess the

proposed scales' reliability, the current study first carried out the CFA procedure setting the measurement error variance to be zero, and further eliminated those items that did not meet the three criteria proposed by Jöreskog and Sörbom (1993). The SEQM approach was adopted for the causal structural models, and simultaneous path analyses were conducted using the maximum likelihood estimation instead of ordinal least square (OLS) estimation equation by equation, because SEQM normally turns out more accurate estimates than step-by-step multiple regression which tends to inflate standard errors for path coefficients (Kline, 2011).

Measurement Model Assessment

The purpose of measurement model testing is to specify which observed variable (indicators) define each construct (Kline, 2011). By using the CFA procedure, twenty-five variables with multiple items and two variables with single indicator were specified in the measurement model. To assess the model fit, the minimum fit function Chi-square for the measurement model was 5758.373 ($df = 3566, p < .001$). It should be noted that the estimation of Chi-square is sensitive to sample size, therefore the other goodness of fit indices were needed (e.g., CFI, TLI, RMSEA, and SRMR). There is a general agreement on the effective measures of fit when CFI or TLI is greater than .90, RMSEA is below .06, and SRMR is less than .09 (Hoyle & Duvall, 2004). Hu and Bentler (1999) were more conservative and recommended a cutoff value of .95 or more for CFI and TLI, whereas the value of RMSEA should be close to .06. The goodness of fit indices for this measurement model were CFI = .927, TLI = .918, RMSEA = .035, and SRMR = .045, indicating that the measurement model with the four social engagement dimensions fit the data adequately.

Convergent validity is demonstrated when different items are used to measure the same construct. This study empirically assessed convergent validity by examining factor loadings and the relevant p values. For acceptable construct validity, it is proposed that each item should have a minimum factor loading of .60 on its hypothesized latent factor (Nunnally, 1978). Following the three criteria proposed by Jöreskog and Sörbom (1993), three indicators of the program involvement construct were eliminated for the measurement model due to the lower standardized factor loadings (*Uninterested/Interested*, *Superfluous/Vital*, and *Nonessential/Essential*).

As for the innovativeness construct, the three reversely coded items using negative statements were converged as the first measurement scale, while the other three positive statement items were clustered as the second scale of this construct. Because of the high correlation between the two scales of the innovativeness construct, this study retained the three positive items alone as the measurement scale of innovativeness in order to reduce overlap.

Regarding the two variables with single indicator – program behavioral loyalty and audience satisfaction – the Mplus[®] program set the error variance for these two variables equal to zero in order to treat this type of observed variable as the pseudo latent variable in the measurement model. However, the procedure used in the measurement model was not necessary when the structural model was estimated later. The desired convergent validity was achieved for all constructs in the measurement model with factor loadings ranged from .618 to .953 ($p < .001$), indicating that these items statistically measure the constructs as intended. The standardized factor loading results by the CFA procedure are displayed in Table 5-6.

Table 5-6. Confirmatory factor analysis for measurement model with four dimensions

Variable Item	Standardized Factor Loading
<i>Social Engagement – Vertical Involvement</i>	
I have subscribed to the program(s)'s RSS feeds or podcasts.	.785
I have used my mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program(s).	.732
I have uploaded or forwarded videos or photos relevant to the program(s).	.665
I have used check-in apps for the program(s) in Foursquare™, Miso, Philo, Starling, or GetGlue, etc..	.804
I have used social bookmarks (e.g., Digg™ and Delicious) to tag the program(s).	.853
I have used widgets to embed the program(s)'s video clips or photos online.	.854
<i>Social Engagement – Diagonal Interaction</i>	
I am a follower of the program(s) (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).	.704
I have read the program(s)'s tweets (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).	.869
I have written or commented on the program(s)'s tweets (including actors, writers, producers, etc.) in microblogs (e.g., Twitter™).	.929
<i>Social Engagement – Horizontal Intimacy</i>	
I have read blog posts relevant to the program(s).	.734
I have written or commented on blog posts relevant to the program(s).	.898
I have read the program(s)'s posts in online discussion forums.	.805
I have written or commented on the program(s)'s posts in online discussion forums.	.886
<i>Social Engagement – Horizontal Influence</i>	
I am a fan of the program(s) and share them with my friends in social networks (e.g., Facebook™ and Myspace™).	.698
I have written or commented on the program(s)'s posts in social networks (e.g., Facebook™ and Myspace™).	.898
<i>Program Genre Preference</i>	
The degree of attention paid when watching each of the following types of programs: reality shows, drama, game/talk shows, animated comedies, and sitcoms	.935
The degree of enjoyment when watching each of the following types of programs: reality shows, drama, game/talk shows, animated comedies, and sitcoms.	.884
<i>Program Affinity</i>	
I would feel lost without the program to watch.	.857
Whenever I'm unable to watch the program, I really miss it.	.798
Watching the program is one of the most important things I do each day or each week.	.804

Table 5-6. Continued

Variable Item	Standardized Factor Loading
<i>Program Involvement</i>	
Irrelevant (1) – Relevant (5)	.756
Means nothing to me (1) – Means a lot to me (5)	.903
Doesn't matter (1) – Matters to me (5)	.868
Nonessential (1) – Essential (5)	.775
<i>Perceived Ease of Use</i>	
Learning to use social media to comment, post, watch, or read anything about television programs is easy for me.	.911
It is easy for me to become skilled at using social media to comment, post, watch, or read anything about television programs.	.919
It is easy to use social media to comment, post, watch, or read anything about television programs.	.916
<i>Compatibility</i>	
Using social media to comment, post, watch, or read anything about television programs is compatible with most aspects of my television viewing.	.842
Using social media to comment, post, watch, or read anything about television programs fits my lifestyle.	.895
Using social media to comment, post, watch, or read anything about television programs fits well with the way I like to engage in television viewing.	.911
<i>Social Presence</i>	
Unsociable (1) – Sociable (5)	.685
Impersonal (1) – Personal (5)	.759
Insensitive (1) – Sensitive (5)	.798
Cold (1) – Warm (5)	.796
Passive (1) – Active (5)	.680
<i>Motive – Relaxation</i>	
Because it relaxes me	.896
Because it allows me to unwind	.916
Because it's a pleasant rest	.854
<i>Motive – Companionship</i>	
So I won't have to be alone	.850
When there's no one else to talk to or be with	.808
Because it makes me feel less lonely	.924

Table 5-6. Continued

Variable Item	Standardized Factor Loading
<i>Motive – Pass Time</i>	
When I have nothing better to do	.747
Because it passes the time away, particularly when I am bored	.943
Because it gives me something to do to occupy my time	.909
<i>Motive – Entertainment</i>	
Because it entertains me	.941
Because it's enjoyable	.953
Because it amuses me	.829
<i>Motive – Information</i>	
Because it helps me learn things about myself and others	.868
So I can learn how to do things which I haven't done before	.853
So I can learn about what could happen to me	.875
<i>Motive – Arousal</i>	
Because it's thrilling	.850
Because it's exciting	.914
Because it peps me up	.860
<i>Motive – Escape</i>	
So I can forget about school/work or other things	.744
So I can get away from the rest of the family or others	.902
So I can get away from what I am doing	.902
<i>Motive – Access</i>	
Because it's easier to get information	.917
Because I can search for information	.905
Because I can get information for free	.855
<i>Motive – Learning</i>	
So I can see what is out there	.831
So I can learn about useful things	.902
So I can learn about unknown things	.913
<i>Motive – Interpersonal Utility</i>	
Because I want to show others encouragement	.818
Because I want to communicate with friends and family	.760
Because I want to belong to groups with the same interest as mine	.789
Because I want to let others know I care about their feelings	.837

Table 5-6. Continued

Variable Item	Standardized Factor Loading
<i>Motive – Interpersonal Utility</i>	
Because I can express myself freely	.801
Because I enjoy answering others' questions	.824
Because I can participate in the discussion	.829
Because I can meet new people	.796
<i>Innovativeness</i>	
If I heard that a new social media platform was available online, I would be interested enough to try it.	.680
I will use a new social media platform, even if I haven't heard of it yet.	.829
I know more about new social media platforms before other people do.	.788
<i>Social Characteristics – Interpersonal Interaction</i>	
I get to see my friends as often as I would like.	.706
I spend enough time communicating with my friends and family by telephone or mail.	.618
I have ample opportunity for conversations with others.	.801
I can always find someone to speak with when I need to talk.	.730
<i>Social Characteristics – Social Activity</i>	
I often travel, vacation, or take trips with others.	.701
I often visit with friends, relatives, or neighbors in their homes.	.679
I often participate in the meetings or activities of clubs, lodges, recreation centers, churches, or other organizations.	.747
I often go places to socialize with others.	.804
I often participate in games, sports, or activities with others.	.785
<i>Program Behavioral Loyalty</i>	
Over the past month, I have not missed any episodes of the program when they broadcast on television.	1.000
<i>Program Attitudinal Loyalty</i>	
I would recommend the program to others.	.821
I think of myself as a loyal viewer of the program.	.869
I would be willing to watch the program rather than other shows.	.795
<i>Audience Satisfaction</i>	
The overall satisfaction with watching the program	1.000

Table 5-6. Continued

Variable Item	Standardized Factor Loading
<i>Product Purchase Likelihood</i>	
The likelihood to purchase any of the following items when they were available in the program's station/network site after watching the program.	
Memorabilia/merchandise of the television station/network	.908
Memorabilia/merchandise of the television show or stars	.920
Products shown in that television show	.838

Note: All factor loadings are significant at $p < .001$ level (two-tailed).
 Goodness of Fit Indices: $\chi^2 = 5758.373$ ($df = 3566$, $p = .000$), CFI = .927, TLI = .918, RMSEA = .035, SRMR = .045. $n = 494$

To assess scale reliability of all constructs included in the measurement model, Cronbach's coefficient alpha was employed to test the scale internal consistency reliability. The previous study suggested that the criterion of the reliability alpha should exceed .70 (Nunnally, 1978). The Cronbach's coefficient alpha values of all of the multi-item scales ranged from .768 to .938, indicating that all constructs in the measurement model are reliable. In addition, one alternative approach to check scale reliability was to consult the standardized factor loadings on their respective latent factor, in which the acceptable factor loading value was greater than .60 (Nunnally, 1978). The CFA results demonstrated that the factor loadings of individual items in the measurement model were ranged from .618 to .953 ($p < .001$). To sum up, both Cronbach's coefficient alpha and the standardized factor loadings indicated that all constructs with multiple indicators included in the measurement model are reliable. Table 5-7 displays descriptive statistics with means and standard deviations as well as internal consistency values of these multi-item constructs in the measurement model.

Table 5-7. Descriptive statistics and internal consistency values for constructs

Construct	No. of item	Cronbach's alpha	Mean	SD
Vertical involvement	6	.905	2.244	1.095
Diagonal interaction	3	.871	2.443	1.236
Horizontal intimacy	4	.902	2.995	1.218
Horizontal influence	2	.768	3.354	1.242
Program genre preference	2	.905	3.960	1.045
Program affinity	3	.858	3.304	1.093
Program involvement	4	.894	3.940	.843
Perceived ease of use	3	.938	3.949	.930
Compatibility	3	.914	3.523	.946
Social presence	5	.860	3.769	.822
Innovativeness	3	.805	2.984	.949
Interpersonal interaction	4	.802	3.434	.823
Social activity	5	.858	3.044	.970
Relaxation	3	.918	3.525	.980
Companionship	3	.891	2.742	1.103
Pass time	3	.898	3.301	1.066
Entertainment	3	.932	3.928	.900
Information	3	.899	2.936	1.124
Arousal	3	.905	3.357	1.086
Escape	3	.882	2.976	1.149
Access	3	.921	3.610	.930
Learning	3	.911	3.468	.977
Interpersonal utility	8	.937	3.380	.912
Program attitudinal loyalty	3	.867	4.205	.830
Product purchase likelihood	3	.917	2.860	1.089

Structural Model Testing

To examine the causal relationships proposed in the structural model for the antecedent and consequence tests, this study next carried out the simultaneous equation analysis. Before implementing the path analysis, intercorrelations among the antecedent variables were tested in order to check the multicollinearity, as a

multicollinearity problem could influence the results of SEM as it does in regression analysis (Hair, Anderson, Tatham, & Black, 1995). As shown in Table 5-8, some antecedent variables were significantly correlated. The intercorrelations among the correlated antecedent variables were all moderate, ranging from .092 to .685, except for the correlation between the two motives of learning and access ($r = .719$). However, in most cases, correlations exceeding .80 can be treated as indicators of a multicollinearity problem (Hair, Anderson, Tatham, & Black, 1995). Thus, there was no multicollinearity problem for the antecedent variables in the structural model.

The RQ6 and RQ7 pertained to the antecedents and consequences of the four social engagement dimensions, i.e., vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. This study next examined the causal relationships represented in the structural model to answer these two research questions. Before carrying out the path analysis, the structural model with the four social engagement dimensions was estimated first. The minimum fit function Chi-square, χ^2 , for the structural model was 7266.911 ($df = 3887, p < .001$). The goodness of fit indices (CFI = .906; TLI = .897; RMSEA = .043; SRMR = .047) indicated that the structural model fit the data somewhat adequately. Thus, modifications indices were reviewed with an attempt to improve the model. Based on the most apparent modification indices, this study added a structural residual covariance for any two social engagement dimensions, resulting in a reasonably good fit ($\chi^2 = 6869.780, df = 3640, p < .001$; CFI = .911, TLI = .902, RMSEA = .042, SRMR = .047).

Table 5-8. Correlations matrix for antecedent variables

	1	2	3	4	5	6	7	8	9	10
1 Relaxation	1.00									
2 Companionship	.485**	1.00								
3 Pass time	.310**	.519**	1.00							
4 Entertainment	.650**	.289**	.318**	1.00						
5 Information	.550**	.651**	.396**	.370**	1.00					
6 Arousal	.671**	.481**	.323**	.651**	.640**	1.00				
7 Escape	.473**	.536**	.473**	.377**	.573**	.547**	1.00			
8 Access	.451**	.358**	.400**	.471**	.450**	.470**	.386**	1.00		
9 Learning	.484**	.427**	.337**	.497**	.590**	.523**	.437**	.719**	1.00	
10 Interpersonal utility	.555**	.541**	.362**	.477**	.647**	.585**	.464**	.635**	.685**	1.00
11 Genre preference	.168**	.048	.197**	.229**	.027	.094*	.114*	.158**	.092*	.072
12 Program affinity	.465**	.371**	.233**	.370**	.414**	.422**	.325**	.432**	.410**	.501**
13 Program involvement	.412**	.256**	.191**	.380**	.289**	.338**	.247**	.370**	.346**	.412**
14 Perceived ease of use	.264**	.083	.163**	.331**	.025	.185**	.163**	.313**	.237**	.191**
15 Compatibility	.510**	.371**	.299**	.510**	.420**	.484**	.394**	.431**	.461**	.497**
16 Social presence	.473**	.352**	.218**	.456**	.424**	.485**	.334**	.353**	.377**	.522**
17 Innovativeness	.459**	.458**	.330**	.338**	.521**	.464**	.459**	.389**	.418**	.519**
18 Interpersonal interaction	.390**	.281**	.219**	.334**	.426**	.402**	.297**	.304**	.359**	.353**
19 Social activity	.403**	.359**	.220**	.251**	.501**	.421**	.395**	.297**	.332**	.422**

Table 5-8. Continued

	11	12	13	14	15	16	17	18	19
1 Relaxation									
2 Companionship									
3 Pass time									
4 Entertainment									
5 Information									
6 Arousal									
7 Escape									
8 Access									
9 Learning									
10 Interpersonal utility									
11 Genre preference	1.00								
12 Program affinity	.245**	1.00							
13 Program involvement	.297**	.642**	1.00						
14 Perceived ease of use	.063	.120**	.117**	1.00					
15 Compatibility	.139**	.378**	.256**	.506**	1.00				
16 Social presence	.071	.350**	.453**	.248**	.431**	1.00			
17 Innovativeness	.085	.292**	.168**	.330**	.514**	.390**	1.00		
18 Interpersonal interaction	.068	.239**	.166**	.199**	.315**	.305**	.490**	1.00	
19 Social activity	.009	.200**	.096*	.177**	.391**	.309**	.619**	.579**	1.00

Note: * $p < .05$, ** $p < .01$ (two-tailed).

Antecedents to four social engagement dimensions

The RQ6 asked about the antecedents to the four social engagement dimensions, i.e., vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. Specifically, the first set of variables examined the predictive power of perceptions of television programs, including program genre preference, program affinity, and program involvement. The second set of variables addressed the relationships between perceived characteristics of social media and the different dimensions of social engagement behavior. The third set of variables investigated the impacts of audience attributes, including motives, innovativeness, and offline social characteristics (i.e., interpersonal interaction and social activity). To test the causal relationships, this study employed a two-tailed test in the structural model to emphasize the significant results of the antecedents to the four social engagement dimensions.

For the first social engagement dimension, vertical involvement, the significant antecedents included innovativeness ($\gamma = .521, p < .001$), offline social activity ($\gamma = .222, p < .01$), program affinity ($\gamma = .210, p < .01$), and perceived ease of use ($\gamma = -.188, p < .001$). The results first indicated that the construct of innovativeness exhibits the strongest positive influence on the involvement tendencies compared to other predictors. Specifically, the innovativeness construct portrays the individuals as the “innovators” or “early adopters” among the adopter category proposed by Rogers (1995). Thus, the results suggested that the more innovative tendencies the individuals demonstrate; the more likely they are to engage with various social media platforms to connect with television content. The second powerful predictor was social activity describing the individuals’ offline socialization tendencies in their real lives. It appeared that viewers who keep more social networks and social activities in their real lives also

tend to be active online, using various online social media platforms to interact with television content. Program affinity is the third determinant, suggesting that audiences who like the television program and perceive it important in their daily lives are more likely to use a range of social media platforms to connect with core program content and/or ancillary content of the program. In addition, perceived ease of use of the general social media system negatively influenced the vertical involvement activity. It seemed that the lack of diversity in technology proficiency in these social media platforms might play a role in predicting the vertical involvement behavior.

Regarding the second social engagement dimension, diagonal interaction, the significant antecedents were innovativeness ($\gamma = .501, p < .001$), social activity ($\gamma = .272, p < .01$), the motive of interpersonal utility ($\gamma = -.232, p < .01$), the offline interpersonal interaction ($\gamma = -.153, p < .05$), and program genre preference ($\gamma = .089, p < .05$). Besides the stronger predictive ability of innovativeness and social activity as shown in vertical involvement, the results indicated that both the motive of interpersonal utility and the audiences' offline interpersonal interaction exhibit negative impacts on diagonal interaction behavior. This suggested that if the individuals want to meet their interpersonal utility needs, such as belonging to groups with same interest, showing encouragement and care to others, seeking to communicate with others and express themselves freely, enjoying answering others' questions, or seeking to meet new people, they are less likely to engage with TwitterTM to dialogue with those media figures. Likewise, it seemed logical that interpersonal interaction, one of the individuals' social characteristics in their real lives, is negatively predictive of the diagonal interaction behavior. This result further suggested that audiences who have ample

opportunities to interpersonally communicate with friends, family, relatives, or others in their real lives tend to avoid the communication opportunities with media figures of the program through Twitter™. In addition, the results revealed that program affinity is one of predictors, suggesting that the audiences who have preferences for certain types of television programs are more likely to use the microblog, Twitter™, to interact with the characters, celebrities, and related working staffs of the program. Moreover, the predictive ability of audience attributes such as the individual's innovative tendency and social activity in their real lives are all positively salient in relation to diagonal interaction.

In terms of the third social engagement dimension, horizontal intimacy, the significant antecedents included innovativeness ($\gamma = .264, p < .01$), social activity ($\gamma = .220, p < .01$), compatibility ($\gamma = .200, p < .01$), program affinity ($\gamma = .165, p < .05$), and social presence ($\gamma = -.129, p < .05$). The results first illustrated that the two perceived social media characteristics – compatibility and social presence – exhibit opposite influences on the horizontal intimacy experience. Specifically, perceived compatibility was found to positively predict the social engagement behavior, whereas perceived social presence of the general social media system is negatively predictive of the horizontal intimacy dimension. The findings suggested that audiences who see using blogs/online discussion forums to read, post, or comment on the program as compatible with their lifestyle, tend to develop a stronger intimate connection with the branded television program. However, the viewers who regard the general social media system as sociable, personal, sensitive, warm, active, and open tend to be less likely to engage in peer-to-peer behaviors in blogs/online message boards, expressing one's own opinions and responding to the perspectives from other viewers related to television

content. It could be possible that the discrepancy in perceptions between the general social media concept and the specific social media platform (i.e., blogs and online discussion boards) play a role in the impact. In addition, the more affinity of the audiences have for the television content, the more likely they are to engage with blogs and online forums to develop a deeper and more intimate connection with other audience members through peer-to-peer social media activities surrounding television content. While audiences' offline social activities and innovative tendencies are both positively predictive of the horizontal intimacy connection, the predictive power of innovativeness is not so prominent as its influences on vertical involvement and diagonal interaction.

With respect to the last dimension of social engagement, horizontal influence, the salient antecedents were program affinity ($\gamma = .240, p < .01$), innovativeness ($\gamma = .225, p < .05$), compatibility ($\gamma = .194, p < .01$), social activity ($\gamma = .168, p < .05$), and the motive of interpersonal utility ($\gamma = .158, p < .05$). Specifically, the findings showed that the program affinity is the most prominent predictor of horizontal influence dimension compared to other determinates. This meant that viewers' liking and affinity for the programs are more strongly drive them to identify themselves as "fans" of the program, update their status, share the program, and read or post comments related to the program in a peer-related space like social networks. In addition, to meet their interpersonal utility needs (such as belonging to groups with the same interest, seeking to communicate with others and express themselves freely, or seeking to meet new people), the viewers are more likely to engage with the horizontal influence activities in FacebookTM. Furthermore, the individuals who possess higher innovative tendencies

and exhibit active social interactions in their real lives tend to be active online, using social networks to update their status or input opinions in relation to the program as well as share the program with friends. As discussed above, the perceived compatibility of the general social media system was also a significant antecedent to horizontal influence.

In summary, the salient antecedents to the four social engagement dimensions consisted of program affinity, genre preference, perceived ease of use, compatibility, social presence, the motivations of interpersonal utility, and different facets of audience attributes. In particular, both innovativeness and offline social activity demonstrated the universal predictive power for all four social engagement dimensions. The fact suggested that individuals' innovative tendencies, plus their networking and socializing abilities in their real lives, are most likely to influence their social engagement behavior with television content. Program affinity was found to be a significant predictor for three social engagement dimensions except for the diagonal interaction behavior, while compatibility and interpersonal utility influenced on two social engagement dimensions. The antecedents which were only predictive of a single social engagement dimension were genre preference (to diagonal interaction), perceived ease of use (to vertical involvement), social presence (to horizontal intimacy), and interpersonal interaction (to diagonal interaction). Thus, it appeared that audience attributes, especially the audiences' innovative tendencies, played a more significant role than the program perception variables and perceived characteristics of social media in predicting the four social engagement dimensions. The causal relationships with standardized path coefficient and standard error supported by this study are displayed in Table 5-9.

Table 5-9. Antecedents to the four social engagement dimensions

Antecedents	Vertical Involvement		Diagonal Interaction		Horizontal Intimacy		Horizontal Influence	
	Standardized path coefficient	SE						
Genre preference	-.002	.039	.089*	.044	.020	.047	.044	.045
Program affinity	.210**	.071	.135	.078	.165*	.082	.240**	.077
Program involvement	-.101	.067	-.065	.074	.012	.077	.099	.073
Perceived ease of use	-.188***	.050	-.085	.054	-.087	.055	-.065	.054
Compatibility	.101	.059	.043	.065	.200**	.066	.194**	.062
Social presence	-.003	.055	.009	.060	-.129*	.061	-.104	.058
Innovativeness	.521***	.081	.501***	.088	.264**	.091	.225*	.088
Relaxation	-.001	.065	-.048	.072	-.092	.072	-.084	.068
Companionship	.116	.062	.011	.068	-.058	.069	-.076	.067
Pass time	-.042	.047	.035	.052	.104	.053	.056	.052
Entertainment	-.057	.066	-.132	.073	.068	.074	.105	.070
Information	.133	.091	.195	.100	.089	.101	.066	.096
Arousal	-.047	.076	.157	.084	-.061	.087	-.080	.085
Escape	.031	.053	-.102	.059	-.050	.060	-.014	.059
Access	.041	.068	.111	.076	.040	.077	.042	.074
Learning	-.020	.079	.052	.087	.041	.088	.038	.083
Interpersonal utility	-.025	.078	-.232**	.081	.130	.082	.158*	.079
Interpersonal interaction	-.063	.060	-.153*	.067	-.114	.067	-.024	.066
Social activity	.222**	.072	.272**	.079	.220**	.082	.168*	.078

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). Goodness of Fit Indices: $\chi^2 = 6869.780$ ($df = 3640$, $p < .001$); CFI = .911, TLI = .902, RMSEA = .042, SRMR = .047. $n = 494$.

Consequences of four social engagement dimensions

The RQ7 pertained to the possible consequences of the four social engagement dimensions, i.e., program behavioral loyalty, program attitudinal loyalty, audience satisfaction, and product purchase likelihood. As shown in Table 5-10, the diagonal interaction behavior did not appear to be related to any of the proposed consequences. However, the horizontal intimacy and horizontal influence dimensions seemed to predict four outcomes. More specifically, the horizontal intimacy dimension demonstrated the negative effects on all consequences: program behavioral loyalty ($\gamma = -2.592, p < .001$), program attitudinal loyalty ($\gamma = -2.724, p < .001$), audience satisfaction ($\gamma = -2.149, p < .001$), and product purchase likelihood ($\gamma = -1.412, p < .001$). By contrast, the horizontal influence activities exhibited positive influences on all four proposed outcomes: program behavioral loyalty ($\gamma = 2.415, p < .001$), program attitudinal loyalty ($\gamma = 3.182, p < .001$), audience satisfaction ($\gamma = 2.567, p < .001$), and product purchase likelihood ($\gamma = 1.473, p < .001$). In terms of the vertical involvement behavior, it appeared to be significantly related to product purchase likelihood alone ($\gamma = .754, p < .05$), but it had no significant effects on the other three proposed consequences. These results would appear to provide somewhat mixed support for the importance of the social engagement behavior.

It should be noted that this study added a structural residual covariance for any two of the four social engagement dimensions according to modification indices to improve the structural model. All residual covariance were statistically significant at the level of $p < .001$, suggesting that the net effects of the four social engagement dimensions outside the model are significantly correlated with each other. The following figures display the schematic representation of the significant antecedents and consequences.

Table 5-10. Consequences of the four social engagement dimensions

Social Engagement Dimension	Consequences							
	Program Behavioral Loyalty		Program Attitudinal Loyalty		Audience Satisfaction		Product Purchase Likelihood	
	Standardized path coefficient	SE						
Vertical Involvement	.246	.492	-.765	.580	-.721	.483	.754*	.304
Diagonal Interaction	.136	.478	.430	.553	.419	.461	-.211	.290
Horizontal Intimacy	-2.592***	.659	-2.724***	.640	-2.149***	.527	-1.412***	.335
Horizontal Influence	2.415***	.538	3.182***	.609	2.567***	.499	1.473***	.318

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). Goodness of Fit Indices: $\chi^2 = 6869.780$ ($df = 3640$, $p < .001$); CFI = .911, TLI = .902, RMSEA = .042, SRMR = .047. $n = 494$.

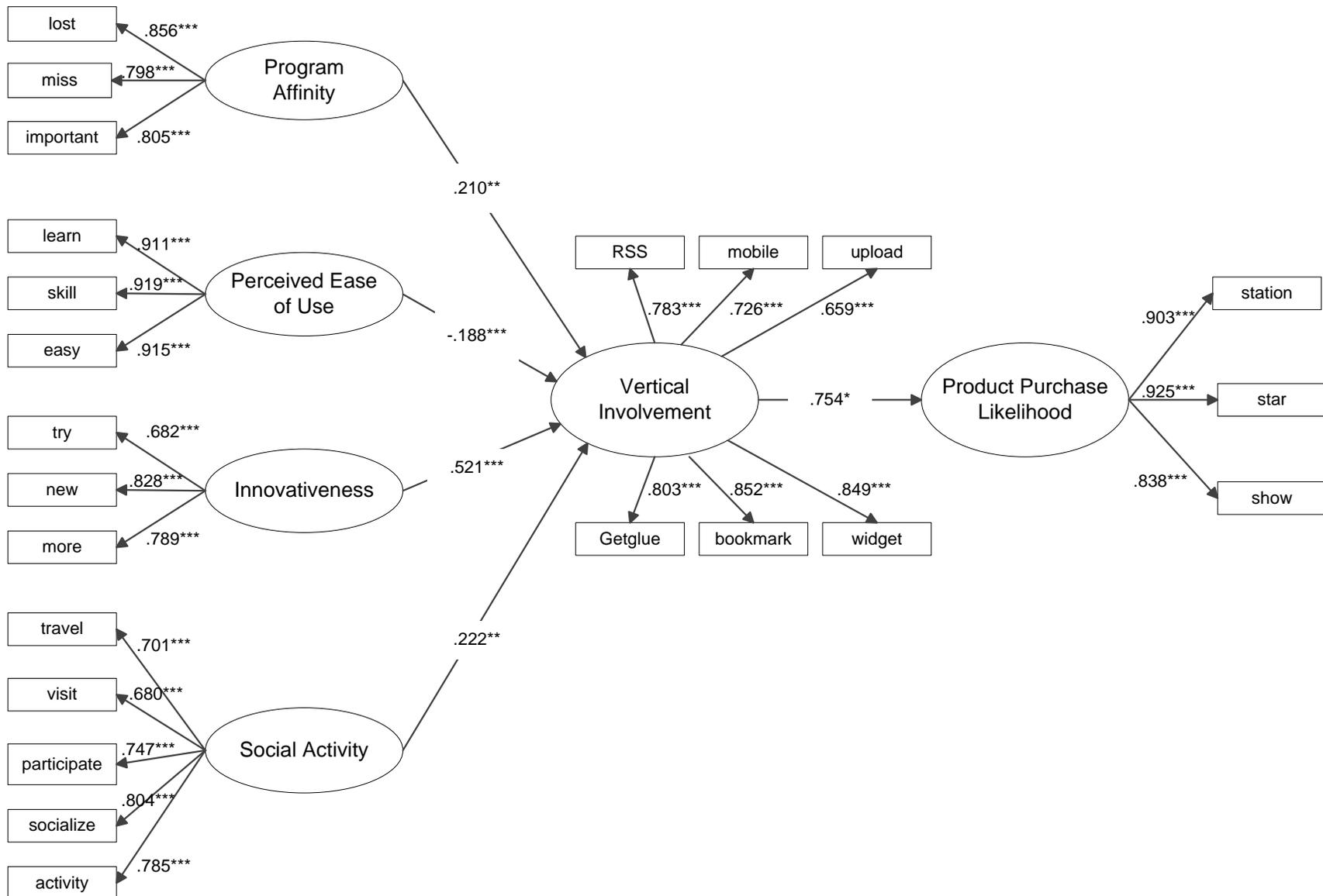


Figure 5-1. Antecedents and consequences of the vertical involvement dimension

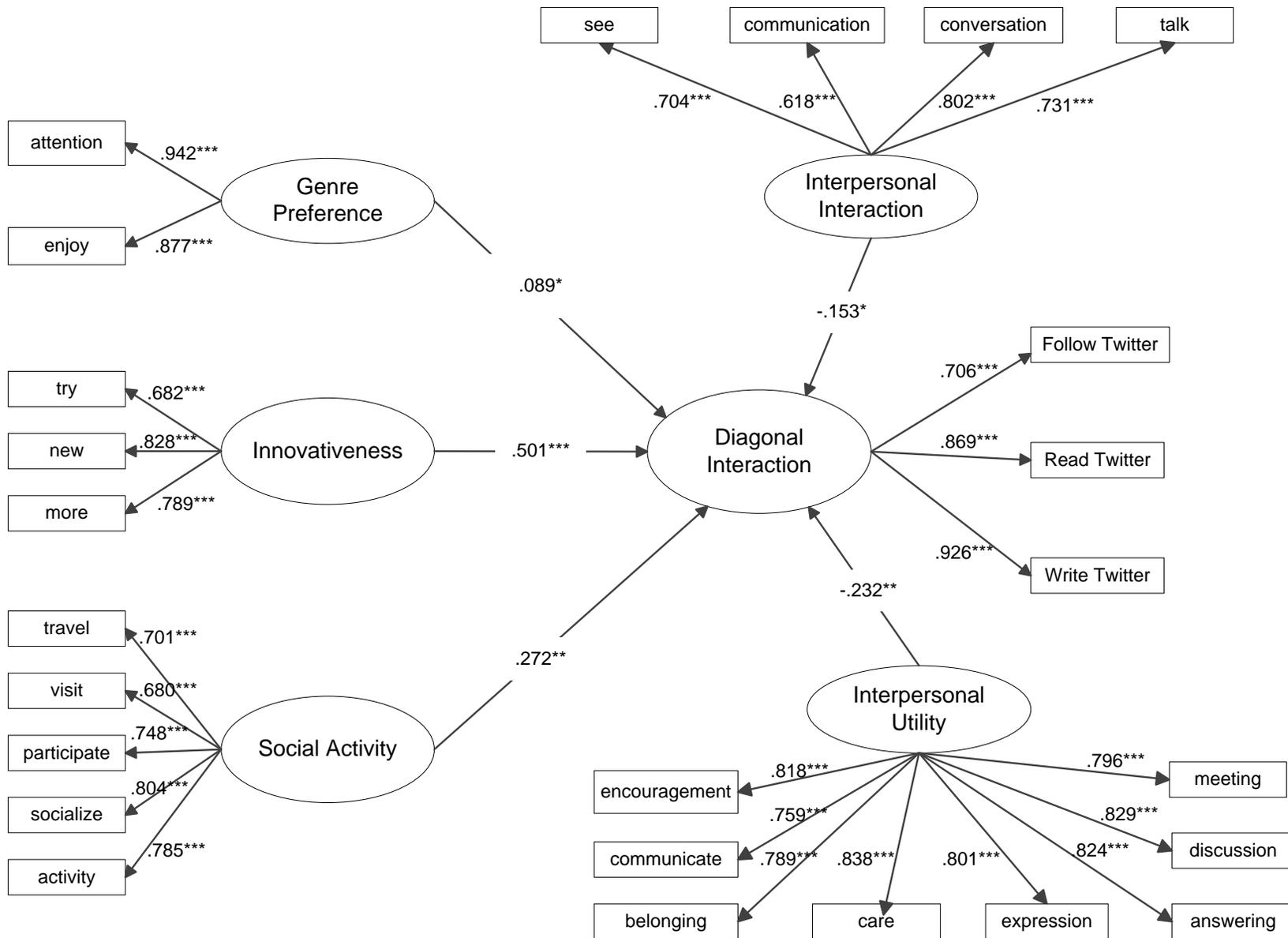


Figure 5-2. Antecedents and consequences of the diagonal interaction dimension

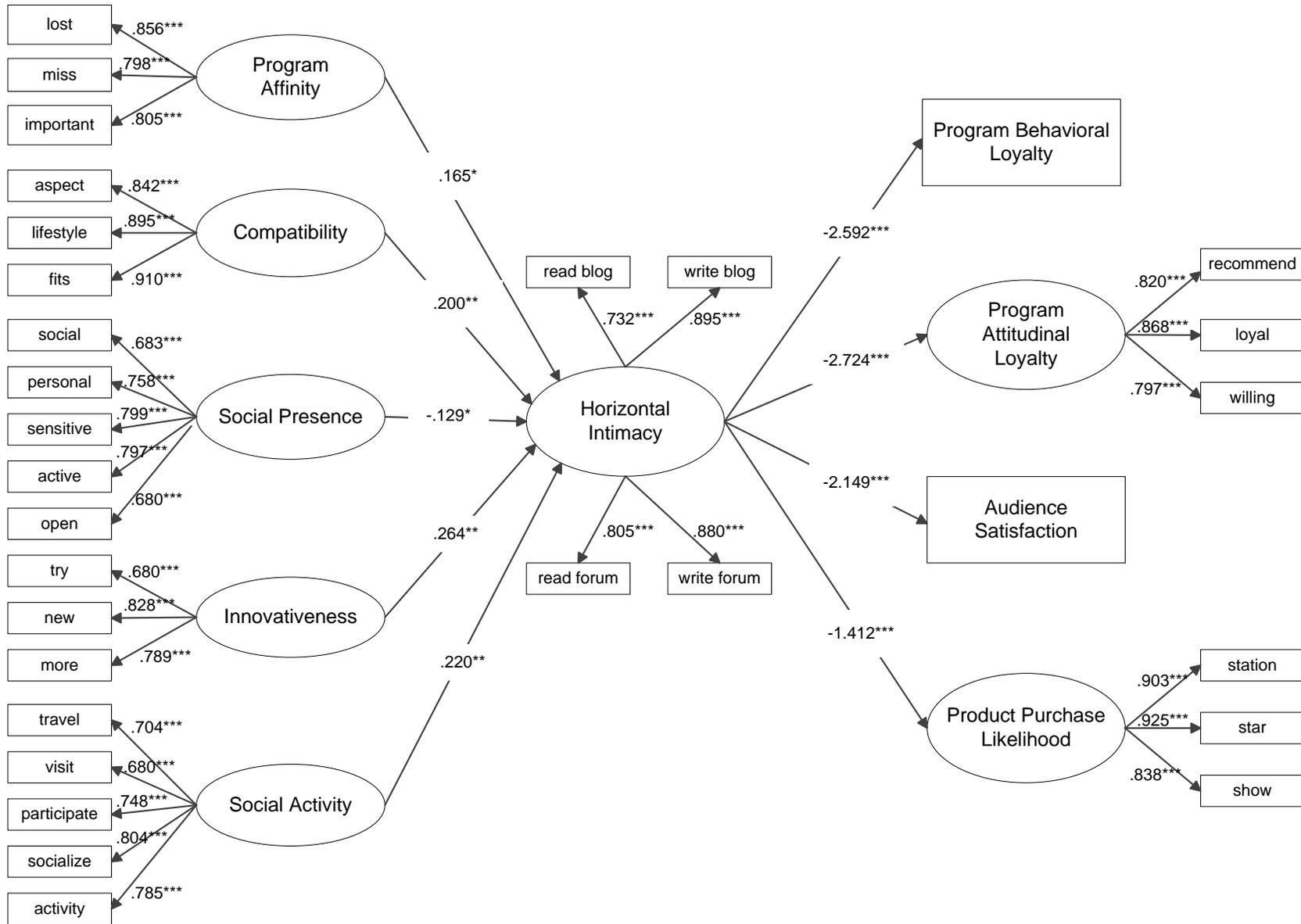


Figure 5-3. Antecedents and consequences of the horizontal intimacy dimension

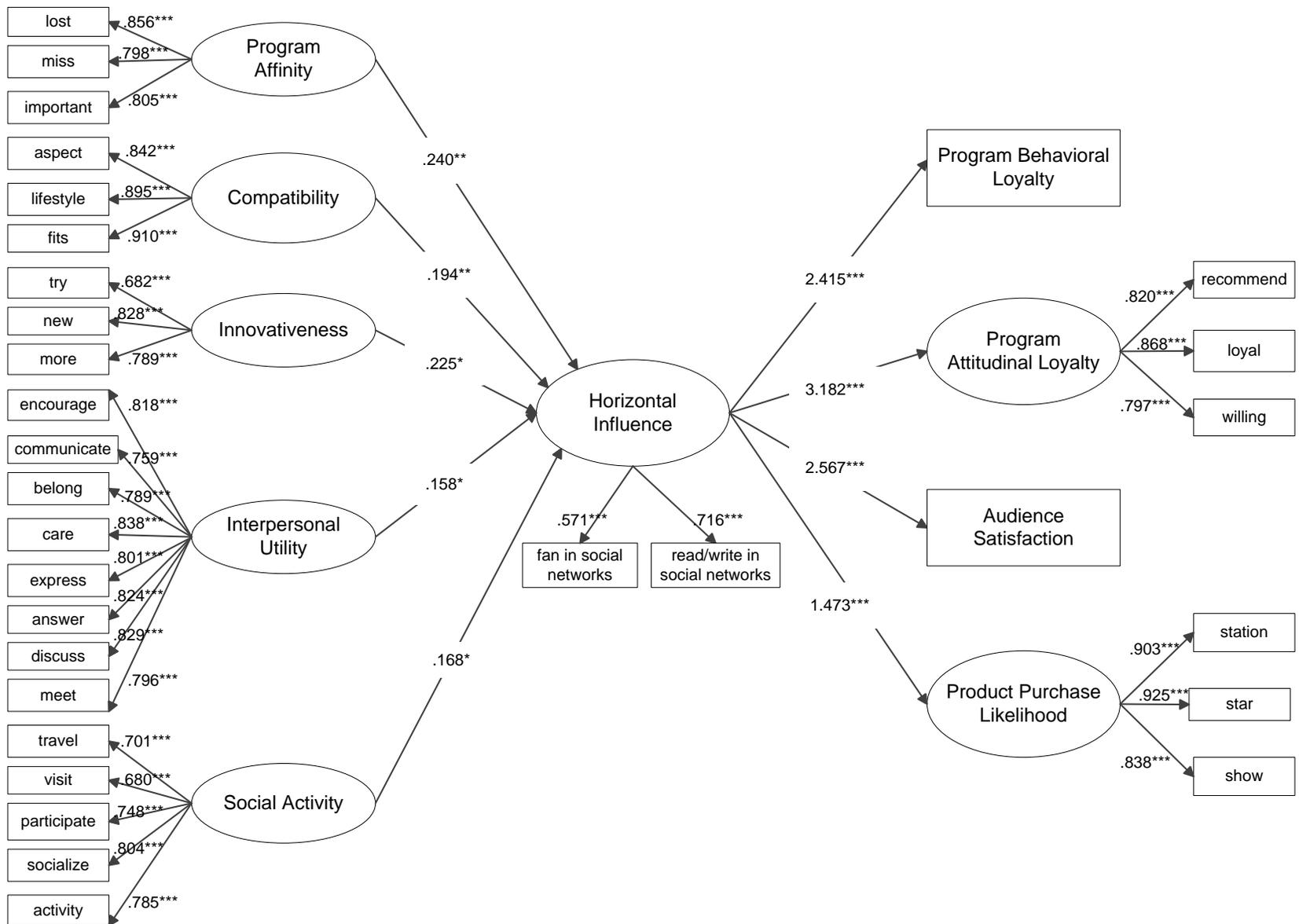


Figure 5-4. Antecedents and consequences of the horizontal influence dimension

Antecedents and Consequences of the Overall Social Engagement

The hypotheses (H1 through H11) and research questions (RQ4 to RQ5) pertained to the antecedents and consequences of the overall social engagement. There were nineteen exogenous variables and five endogenous variables in this model. Specifically, the antecedent and consequence variables were the same as the model with the four social engagement dimensions except for the social engagement construct, which was treated as the second-order variable. The data analysis was also conducted in two stages: measurement model assessment and structural model testing.

Measurement Model Assessment

Through the CFA procedure using Mplus[®] (Version 6.0) program, twenty-six variables with multiple items and two variables with single indicator were specified in the measurement model. To assess the model fit, the minimum fit function Chi-square for the measurement model was 6060.703 ($df = 3637$, $p < .001$). The goodness of fit indices for the measurement model with the overall social engagement construct were desirably above or below their recommended thresholds (CFI = .919, TLI = .911, RMSEA = .037, and SRMR = .053), suggesting that the measurement model fit the data adequately. Comparatively, the fit indices showed that the measurement model with the four social engagement dimensions (CFI = .927, TLI = .918, RMSEA = .035, and SRMR = .045) fit the data better than the measurement model with the overall social engagement construct.

As the procedure described in the above section, this study next empirically assessed convergent validity by examining factor loadings and the relevant p values. For acceptable construct validity, it is proposed that each item should have a minimum factor loading of .60 on its hypothesized latent factor (Nunnally, 1978). The desired

convergent validity was achieved for all constructs in the measurement model with factor loadings ranging from .618 to .977 ($p < .001$), indicating these items statistically measure the constructs as intended. Particularly, the standardized factor loadings of the four dimensions on the second-order variable, the overall social engagement, were: vertical involvement ($\lambda = .977, p < .001$), diagonal interaction ($\lambda = .920, p < .001$), horizontal intimacy ($\lambda = .760, p < .001$), and horizontal influence ($\lambda = .621, p < .001$). To further assess the scale reliability of all constructs included in this measurement model, Cronbach's coefficient alpha was employed to test scale internal consistency reliability. The Cronbach's alpha values for the antecedent and consequences variables were identical in these two measurement models. The Cronbach's alpha values of the four social engagement dimensions and the overall social engagement were .905, .871, .902, .768, and .941, respectively, indicating that all constructs in the measurement model with the overall social engagement are reliable. The mean of the overall social engagement with the fifteen items was 2.632, ranging from 2.026 to 3.565.

Structural Model Testing

This study next examined the causal relationships suggested in the structural model to answer the research questions (RQ4 to RQ5) and test the hypotheses (H1 through H11). The minimum fit function Chi-square, χ^2 , for the structural model was 7315.180 ($df = 3708, p < .001$). The goodness of fit indices were CFI = .901, TLI = .893, RMSEA = .044, and SRMR = .078. Specifically, TLI = .893 was a little bit below the cutoff values of .90, while other goodness of fit indices were desirably above (CFI) or below (RMSEA and SRMR) their recommended thresholds. By referring to modifications indices, this study added a structural residual covariance for the overall

social engagement with its four consequences, but no significant improvement was detected for the structural model. As there were no more theoretically plausible modifications that should be included in the structural model after the scrutiny, this study continued to interpret the path coefficients with caution.

Antecedents to the overall social engagement

The hypotheses (H1 through H7) and research questions (RQ4 and RQ5) were related to the antecedents to the overall social engagement. Specifically, the hypotheses (H1 to H3) posited that television program-related variables including program genre preference, program affinity, and program involvement predict the social engagement behavior. The hypotheses (H4 to H6) addressed the relationships between perceived characteristics of social media and the overall social engagement. The hypothesis (H7) and research questions (RQ4 and RQ5) investigated the impacts of audience attributes, including motives, innovativeness, and social characteristics (i.e., interpersonal interaction and social activity). Although the directions of some hypotheses were specified based on the review of literature, this study employed a two-tailed test in the structural model to emphasize the significant results of antecedents to the overall social engagement.

The significant antecedents for the overall social engagement included program affinity ($\gamma = .207, p < .001$), program involvement ($\gamma = .163, p < .001$), program genre preference ($\gamma = .066, p < .01$), the motive of passing time ($\gamma = -.064, p < .05$), innovativeness ($\gamma = .156, p < .01$), and interpersonal interaction ($\gamma = .099, p < .01$). Specifically, the results first indicated that all program-related variables such as program affinity, program involvement, and program genre preference, are predictive of the overall social engagement behavior. This suggested that viewers who possess stronger

preference for a specific type of program, show more affinity toward the program, and perceive it more important and relevant in their daily lives tend to actively utilize various social media platforms to comment, post, watch, or read anything about this television show. Furthermore, it appeared that the more innovative tendencies that the individuals demonstrate; the more likely they are to employ different social media platforms to obtain information of the program, to interact with celebrities and characters of the program through Twitter™, to form intimate connections with other viewers and the diegetic, narrative text depicted in a program through peer-to-peer activities in blogs/online discussion forums, as well as to identify their “fan” status in Facebook™ or Myspace™.

With respect to the predictive power of the individuals’ social characteristics in their real lives, interpersonal interaction rather than social activity appeared to be significantly predictive of the overall social engagement experience. The results suggested that even though the individuals have ample opportunities to interpersonally communicate with friends, family, relatives, or others in their real lives, they desired to further engage in their communication with other audience members with different levels of social media activities “surrounded” or “submerge” by a television program in the virtual space. By contrast, the individuals’ offline social activity did not exhibit any influences on the social engagement tendency, which was originally found to be the most salient antecedent along with innovativeness to all four social engagement dimensions.

When it comes to the motives behind the overall social engagement, the results showed passing time to be the only significant motivation but it had a negative impact

on the overall social engagement. It seemed that people driven by the motivation of passing time tend to be less likely to use various online social media platforms to interact with television content, indicating a distinct scenario with traditional television viewing. In addition, perceived characteristics of the general social media system did not play a role in predicting the overall social engagement experience. To sum up, perceptions of program and audience characteristics rather than the perceived attributes of social media appeared to be significant predictors of the overall social engagement. The causal relationships are presented in Table 5-11.

Table 5-11. Antecedents to the overall social engagement

		The Overall Social Engagement		
	Antecedents	Standardized path coefficient	SE	Results
H1	Genre preference	.066**	.022	Supported
H2	Program affinity	.207***	.042	Supported
H3	Program involvement	.163***	.037	Supported
H4	Perceived ease of use	-.006	.029	Not supported
H5	Compatibility	.028	.032	Not supported
H6	Social presence	.009	.030	Not supported
H7	Innovativeness	.156**	.053	Supported
RQ4	Relaxation	-.007	.035	Not significant
RQ4	Companionship	-.042	.034	Not significant
RQ4	Pass time	-.064*	.026	Significant
RQ4	Entertainment	.048	.036	Not significant
RQ4	Information	.069	.050	Not significant
RQ4	Arousal	-.028	.041	Not significant
RQ4	Escape	.030	.029	Not significant
RQ4	Access	.053	.038	Not significant
RQ4	Learning	-.018	.043	Not significant
RQ4	Interpersonal utility	-.001	.040	Not significant
RQ5	Interpersonal interaction	.099**	.033	Significant
RQ5	Social activity	.019	.041	Not significant

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). The goodness of fit indices: $\chi^2 = 7315.180$ ($df = 3708$, $p < .001$); CFI = .901, TLI = .893, RMSEA = .044, SRMR = .078.

Consequences of the overall social engagement

The hypotheses (H8 to H11) pertained to the possible consequences of the overall social engagement, including program behavioral loyalty, program attitudinal loyalty, audience satisfaction, and product purchase likelihood. As shown in Table 5-12, the overall social engagement was a significant and substantial predictor for all four following outcomes. More specifically, the overall social engagement demonstrated the positive predictive power on all proposed consequences: program behavioral loyalty ($\gamma = .918, p < .001$), program attitudinal loyalty ($\gamma = 1.030, p < .001$), audience satisfaction ($\gamma = .824, p < .001$), and product purchase likelihood ($\gamma = 1.087, p < .001$).

Comparatively, the predictive ability of the overall social engagement on product purchase likelihood was most salient, followed by program attitudinal loyalty, program behavioral loyalty, and audience satisfaction, respectively. The results would appear to provide a definite support for the importance of the social engagement behavior.

It should be noted that this study added a structural residual covariance for the overall social engagement with its four proposed consequences individually according to modification indices to improve the structural model. All of the residual covariance were statistically significant at the level of $p < .001$, suggesting that the net effects on the overall social engagement outside the model are significantly correlated with the net effects on these four proposed consequences. Figure 5-5 is a schematic representation of those variables which appeared to be significant antecedents and consequences of the overall social engagement behavior. Figure 5-6, 5-7, 5-8, 5-9, and 5-10 summarize the salient antecedents and consequences of each dimension and the overall social engagement under the proposed research framework.

Table 5-12. Consequences of the overall social engagement

Consequences		The Overall Social Engagement		Results
H8	Program Behavioral Loyalty	Standardized path coefficient	.918***	Supported
		SE	.105	
H9	Program Attitudinal Loyalty	Standardized path coefficient	1.030***	Supported
		SE	0.147	
H10	Audience Satisfaction	Standardized path coefficient	.824***	Supported
		SE	.127	
H11	Product Purchase Likelihood	Standardized path coefficient	1.087***	Supported
		SE	.079	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). The goodness of fit indices: $\chi^2 = 7315.180$ ($df = 3708$, $p < .001$); CFI = .901, TLI = .893, RMSEA = .044, SRMR = .078.

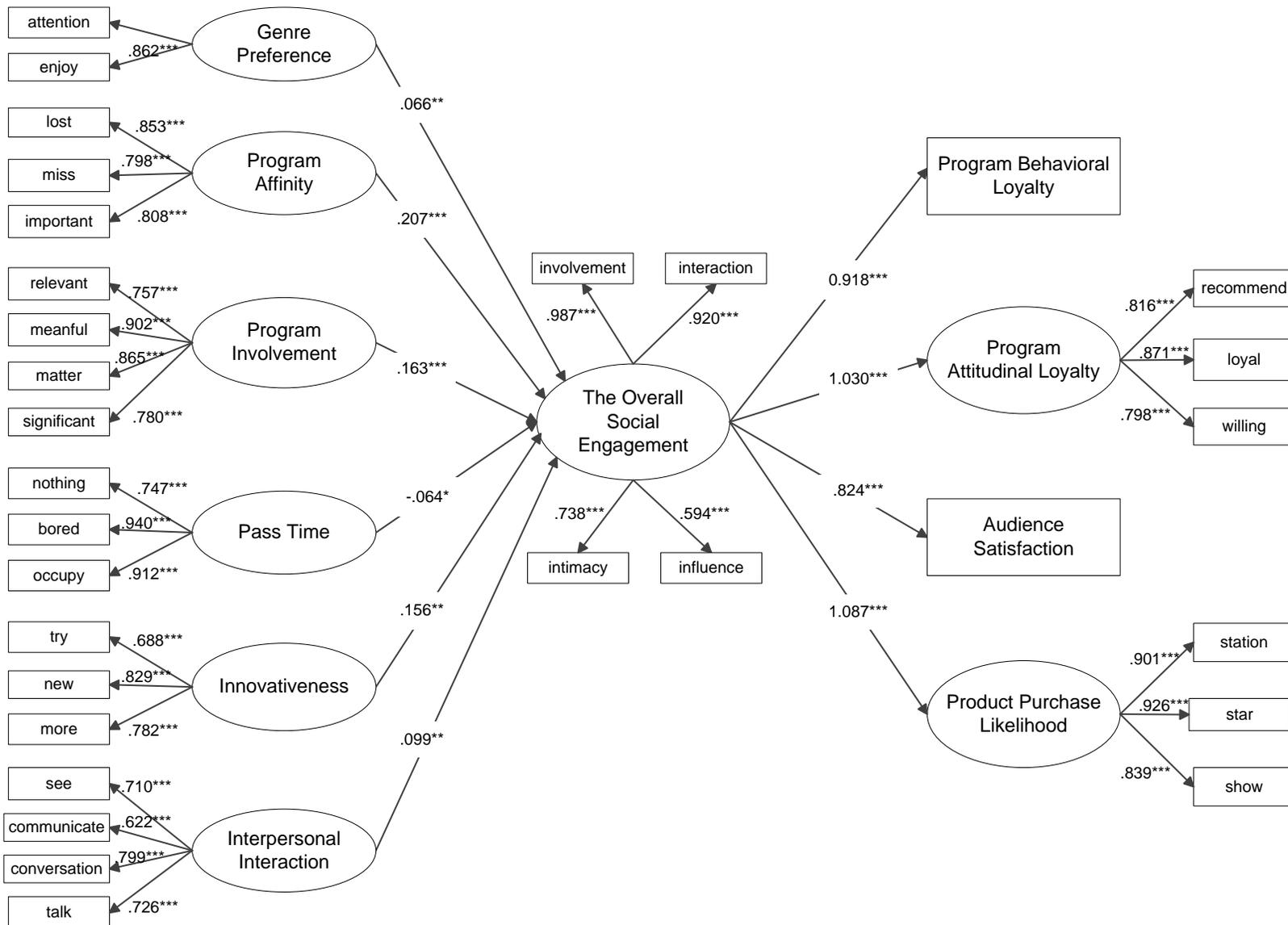


Figure 5-5. Antecedents and consequences of the overall social engagement

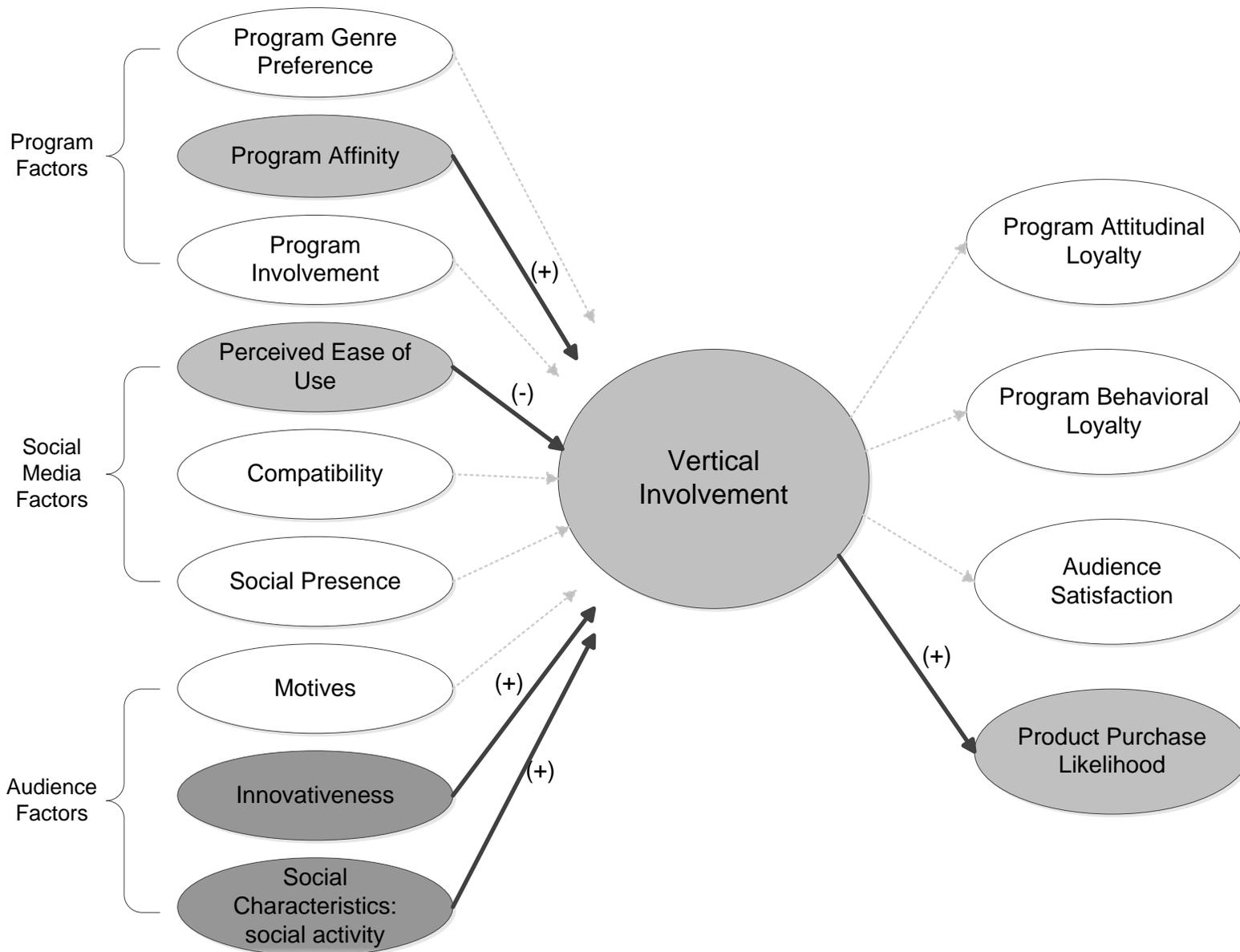


Figure 5-6. Visual depiction of the salient results of the vertical involvement dimension

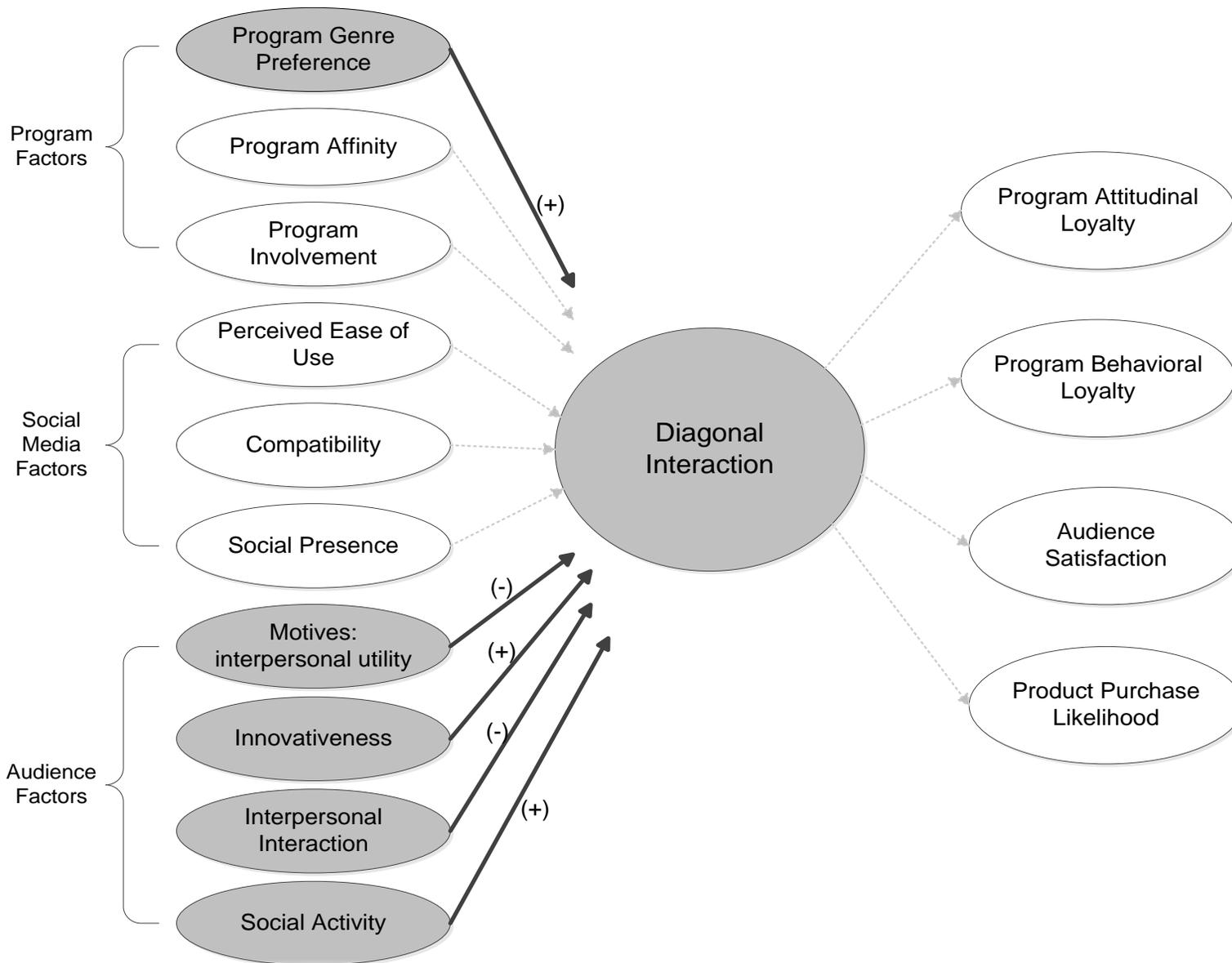


Figure 5-7. Visual depiction of the salient results of the diagonal interaction dimension

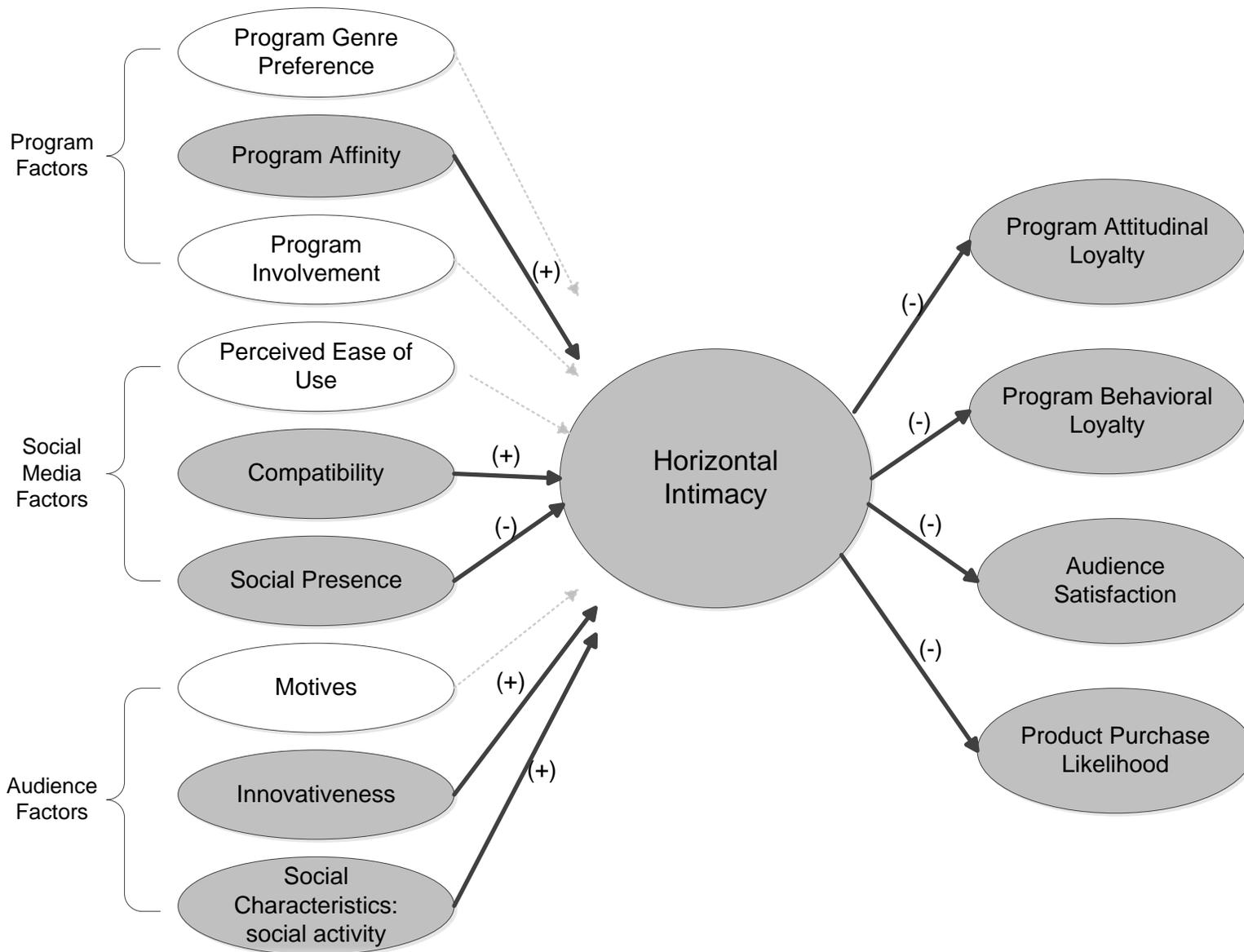


Figure 5-8. Visual depiction of the salient results of the horizontal intimacy dimension

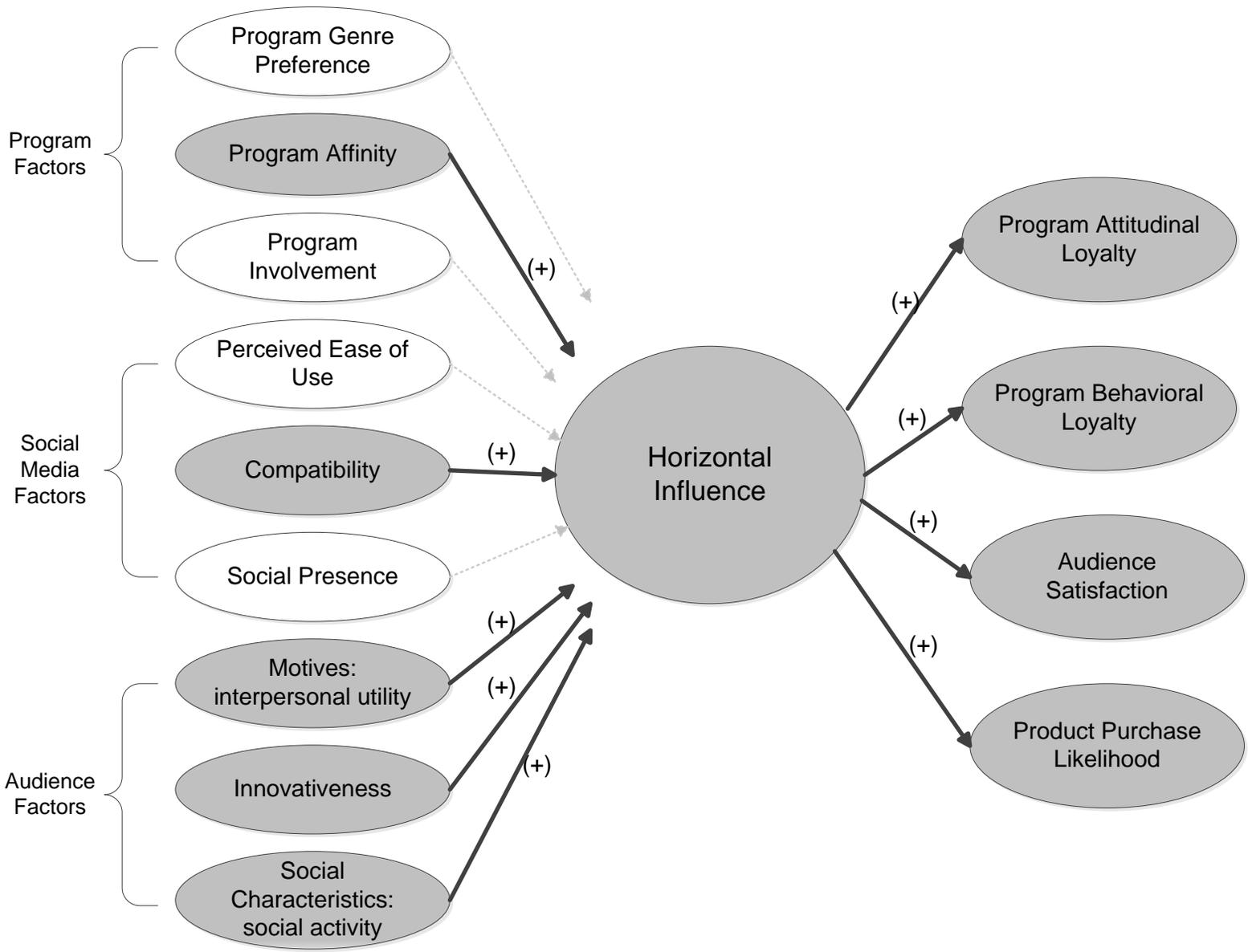


Figure 5-9. Visual depiction of the salient results of the horizontal influence dimension

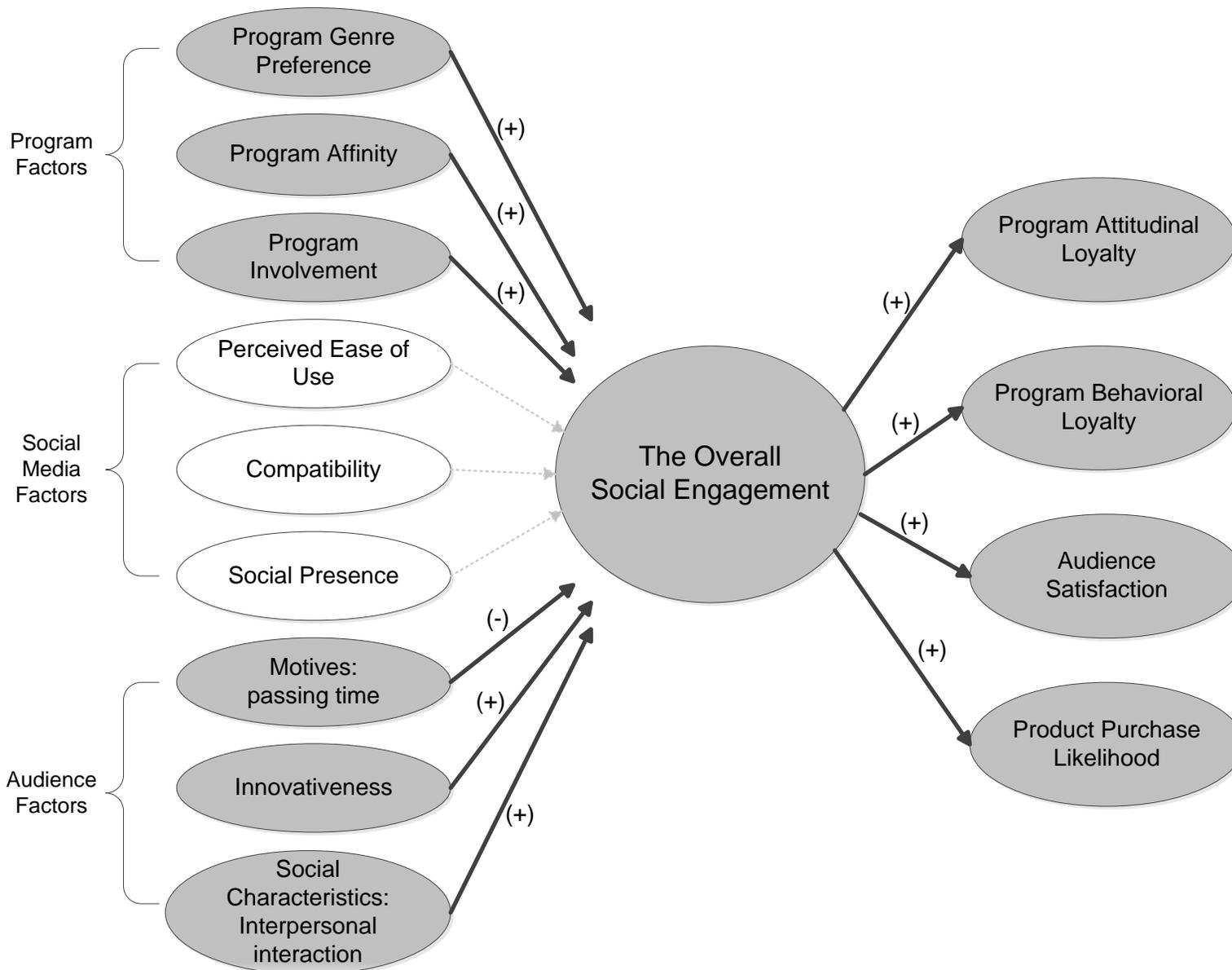


Figure 5-10. Visual depiction of the salient results of the overall social engagement

CHAPTER 6 DISCUSSION AND CONCLUSION

This study adopts the active audience behaviorist approach and aims to achieve two research purposes: 1) build an active audience behavior model to decipher the emerging multimedia television consumption pattern, and 2) examine the social media practices currently implemented in some media organizations by validating a set of social engagement scales and testing the engagement behavior's antecedences and consequences. More specifically, the topics discussed in this section include: 1) the implications and contributions of the four social engagement dimensions, 2) the variance of social engagement with different television program genres, 3) the comparison on the predictive power of various antecedents to social engagement (i.e., program perceptions, perceived social media characteristics, and audience attributes), and 4) the predictive effects of social engagement on the proposed consequences (i.e., program behavioral loyalty, program attitudinal loyalty, audience satisfaction, and product purchase likelihood). In this chapter, the findings are summarized first by each topic, followed by the theoretical and practical implications of research questions and hypotheses. Finally, limitations of this investigation and future research prospects are discussed.

Summary of Findings: Social Engagement

The conceptualization and operationalization of social engagement in this study contributes to our understanding of the consumption of primetime network programming in a social media context. In particular, this investigation introduces the social engagement concept and proposes four underlying dimensions in its measurement scale. Social engagement refers to the degree of intensity or types of connections that

audiences develop with television content through social media platforms over time. The term *television content* covers a broader scope, including television programming and its relevant information, the characters or celebrities related to the program, and the professional working staffs such as producers or directors of the show. Social media here consist of an expanding array of online media applications which can facilitate information sharing, knowledge distribution, and opinion exchanges.

This investigation proposes the four dimensions in social engagement, i.e., vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. The four social engagement dimensions extend beyond the traditional, passive television viewing pattern, representing both active behavioral engagement and emotional connection that viewers develop with television characters or program contextual settings through social media platforms. Specifically, vertical involvement characterizes the degree to which television viewers actively use a range of social media platforms to be involved with the core program content and its relevant information. Diagonal interaction depicts the degree of social interaction that viewers develop with the characters, celebrities, and working staffs related to their favorite shows in microblogs such as TwitterTM. Horizontal intimacy indicates the extent to which individual viewers emotionally respond to a television program and the affection of the viewers toward the branded content with other audiences in blogs and online discussion forums. Horizontal influence describes the degree of identification and belonging, as well as the extent of meaningful influence in the direction or outcome of television programming in a peer-related space like social networks (e.g., FacebookTM and MyspaceTM).

The descriptive statistics from the main test reveal that the propensity in the social engagement activities is currently best represented by horizontal influence experience ($M = 3.35$, $SD = 1.24$), followed by horizontal intimacy ($M = 3.00$, $SD = 1.22$), diagonal interaction ($M = 2.44$, $SD = 1.24$), and vertical involvement ($M = 2.24$, $SD = 1.10$), respectively. The findings suggest that the tendency in the individual audience's social engagement behavior is more salient in sharing television viewing experience with friends, adding meaning to their relationships with others, and building intimate connections with other audience members surrounding television programs. However, the social engagement experience is less potent in establishing interaction with the media figures of the program, searching for program relevant information, or being involved with program content alone. These findings essentially correspond to several academic research and industry reports, which found that people utilizing social media to interact with television are mainly driven by their social and psychological needs, such as sharing (television) experiences, recognition (by what they are watching), and being heard (through contributions) (Harris Interactive, 2011).

By conducting a three-stage research process, this study introduces and tests a reliable scale comprised of fifteen items to measure the social engagement construct. While both a first-order and second-order factor structure fit the observed data adequately, this investigation prefers adopting the first-order representation by virtue of simplicity and better fit. Further, to assess scale reliability, this study uses Cronbach's coefficient alpha to estimate internal consistency reliability for the overall social engagement scale and its four dimensions. The results demonstrate that the scale with the fifteen sample items performed well in capturing the proposed social engagement

construct. As a means of establishing the construct's discriminant validity, this study successfully illustrates that social engagement is conceptually and empirically different from attitude toward the program (program affinity) and program involvement. The participants in the pilot test and the main test cover a broad cross section of television viewers and social media users, indicating that the social engagement construct is relevant and applicable to different demographic groups.

Summary of Findings: Social Engagement with Different Program Genres

Television audiences' social engagement experiences could vary greatly with different types of television programming. The findings from prior studies demonstrated that viewers' preferences of different types of content would stimulate diverse social viewing experiences and communication patterns surrounding certain program genres. In particular, different television genres could influence the way viewers talk, chat, or interact with each other while watching television or afterwards (Geerts, Cesar, & Bulterman, 2008; Simmons, 2008). The current study provides additional evidence, showing that there are significant variances in the viewers' social engagement experiences with dramas, reality shows, sitcoms, animated comedies, and game/talk shows in the online world through diverse social media activities.

When examining the ability of each program genre to inspire various social engagement activities, the present study finds that game/talk shows are most leading program genre whose viewers utilize the most in an expanding array of social media platforms to be involved with television content ($M = 2.97$, $SD = 1.22$), to interact with media figures of the program in TwitterTM ($M = 2.94$, $SD = 1.33$), and to build intimate connections with other audience members related to the program in blogs/online forums ($M = 3.32$, $SD = 1.03$). However, the viewers for the genre of animated comedy display

the highest level of engagement for the horizontal influence dimension ($M = 3.58$, $SD = 1.12$).

When it comes to the tendency in each social engagement experience surrounding these five different types of programming, this study finds that there are no significant differences among these five program genres in the measurement of diagonal interaction, horizontal intimacy, or horizontal influence. However, the current study does discover that there is a significant difference among these five program genres along the vertical involvement dimension ($F(4,489) = 4.36$, $p = .0018$). In particular, significant differences are found for the followings: game/talk shows versus dramas ($t(489) = 3.69$, $p < .05$), and game/talk shows versus reality shows ($t(489) = 3.13$, $p < .05$). The pairwise comparison findings suggest that viewers tend to be more aggressively engaged in game/talk shows than reality programs and scripted dramas through the use of an expanding array of social media platforms to connect with the core content programming and/or ancillary information of the program.

Summary of Findings: Antecedents to Social Engagement

This study presents an active audience behavioral model which integrates the theory of television program choice, technology acceptance model, innovation diffusion theory, social presence theory, and the uses and gratifications approach. The main purpose of the integration is to offer a comprehensive framework to better understand why television audiences are actively involved with various social media platforms to connect with television content, the characters/celebrities, and other audience members. Specifically, the current study identifies the determinants of the four social engagement activities and the overall social engagement behavior from the perspectives of television program perceptions, social media characteristics, and

audience attributes. The various sets of findings provide a good basis for comparing the strengths and weaknesses of each theoretical branch that forms the research framework.

In terms of the four social engagement dimensions, the salient predictors consist of program affinity and genre preference, all perceived social media characteristics (i.e., perceived ease of use, compatibility, social presence), and different aspects of audience attributes (i.e., the motivations of interpersonal utility, innovativeness, interpersonal interaction, and social activity). Comparatively, both innovativeness and offline social activity demonstrate the universally predictive power for all four social engagement dimensions. Program affinity is found to be a significant predictor for three social engagement dimensions except for the diagonal interaction behavior, while compatibility and the motive of interpersonal utility have effects on two social engagement dimensions. The antecedents to the single social engagement dimension include: genre preference (to diagonal interaction), perceived ease of use (to vertical involvement), social presence (to horizontal intimacy), and interpersonal interaction (to diagonal interaction). In general, it appears that audience attributes, especially the audiences' innovative tendencies and social activities, play a relatively more significant role than the program perception variables and social media characteristics in predicting the social engagement tendency regarding specific types of engagement behavior.

With respect to the significant antecedents to the overall social engagement, this study identifies the following determinants: program affinity, program involvement, program genre preference, the motive of passing time, innovativeness, and interpersonal interaction. In particular, the current study discovers that all program-

related variables, especially program affinity, are strongly predictive of the overall social engagement behavior. With respect to the predictive power of audience attributes, the motive of passing time is found to be the salient motivation alone but displays a negative impact on the overall social engagement. This investigation further reveals that the more innovative the individuals are; the more likely they are to utilize various social media platforms to read, watch, post, or comment on something about television programming. In addition, one of the individuals' offline social characteristics, interpersonal interaction, appears to be a significant, positive predictor of the overall social engagement experience. However, the individuals' offline "social activities" in their real lives are found to be insignificant, although they were originally salient in predicting the four social engagement behaviors along with innovativeness. Finally, the perceived characteristics of the general social media systems do not exhibit any impacts on the overall social engagement experience (i.e., perceived ease of use, compatibility, and social presence).

Summary of Findings: Consequences of Social Engagement

To investigate the predictive effects of social engagement, this study further proposes four consequences of the social engagement experience: program behavioral loyalty, program attitudinal loyalty, audience satisfaction, and product purchase likelihood. The current study, however, finds inconsistent predictive effects on the four proposed outcomes when examining the four dimensions and the overall social engagement. Specifically, for each social engagement dimension, the current study discovers that both horizontal intimacy and horizontal influence are strongly predictive of all of the four proposed outcomes, but display opposite effects. The findings show that horizontal intimacy demonstrates the negative effects on all consequences; while

horizontal influence activities exhibit positive influences on these four outcomes. In addition, vertical involvement is found to be significantly related to product purchase likelihood alone, but it is not salient in predicting the other three proposed consequences. Furthermore, the present study finds no significant associations between the diagonal interaction behavior and any of the proposed consequences. These findings provide somewhat mixed support for the importance of each social engagement behavior. When it comes to the overall social engagement, the findings illustrate that the overall social engagement is a significant and substantial predictor for all proposed consequences. Comparatively, the predictive effects of the overall social engagement on product purchase likelihood is the most salient, followed by program attitudinal loyalty, program behavioral loyalty, and audience satisfaction, respectively. These results appear to provide a definite and strong support for the importance of the overall social engagement behavior.

Theoretical Implications

Benefits of the Integrated Framework for Active Audience Behavior

The active audience perspectives are now achieving premier status in the behaviorist research domain due to the continuously evolving media environment and audience media consumption patterns. In particular, with the prosperity of online social media platforms relevant to television programming, audiences' one-way, traditional television viewing pattern is gradually shifting to the cross-media, multitasking consumption mode. In contrast to the common profile of "active audience" of traditional television, the viewers who utilize an expanding array of social media platforms to connect with television content represent more initiatives, freedom, and autonomy in the process of media choice. The process indicates that media use today is purposive and

planned; media content is selected; and viewing experience is engaged. In short, the contemporary television audiences (also social media users) could interact with television content anytime and anywhere in the platforms that best suit their needs.

To further decipher this emerging multimedia television consumption pattern, the present study proposes an integrated framework incorporating various theoretical threads of mass communication, marketing, and information processing. The first benefit of the integrated approach for active audience behavior is that it provides a comprehensive picture to better understand the social engagement process. As suggested in the audience behaviorist research tradition, audiences are variably active across several qualitative dimensions and along the temporal dimension before, during, and after media exposure (Rubin, 1987a, 1987b). Thus, the present study first approaches the multimedia television consumption pattern by validating the qualitative dimensions in social engagement as vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. This study then examines the temporal dimension of before, during, and after the social engagement experience. In particular, the antecedents and consequences are examined for each social engagement dimension and the overall social engagement behavior.

Another benefit of the integrated framework is that it presents a good basis for comparing the strengths and weaknesses of each theoretical branch that forms the active audience behavior model. Specifically, this investigation identifies three categories of explanatory factors to predict the social viewing experience from the perspectives of media content (i.e., perceptions of television programs), media channel (i.e., perceived characteristics of social media), and media user (i.e., audience

attributes). The predictive ability of each factor is tested and compared in predicting different social engagement patterns. At the same time, the predictive effects of social engagement on the following proposed consequences are evaluated, including program behavioral and attitudinal loyalty, audience satisfaction, and product purchase likelihood. In particular, by assessing the strengths or weaknesses of different determinants through path analyses, the current study could identify which predictors play more significant roles for each social engagement behavior or the overall social viewing experience. Most importantly, the findings of the dissertation demonstrate that the social engagement process is a composite result, which is determined by multiple components jointly under the integrated framework of active audience behavior.

Contributions of Social Engagement and Its Measurement Scale

This investigation on social engagement construct and its measurement scale makes a variety of important contributions towards advancing knowledge within the behaviorist audience research domain. Starting with the theory-specific contributions, the current study introduces a new social engagement construct that essentially extends the television audience research scope. While the research on the attributes of engagement and its effective measurement scale have received much attention in television and advertising related literature, this is one of the first studies that focus on the television engaging experience in a new social media context. Furthermore, the conceptualization and operationalization of social engagement with television content synthesize several bodies of literature to help validate an active audience behavior theory and establish a more comprehensive framework for the viewer engagement process in a social media context. Finally, given that most research in the audience behaviorist tradition has been limited by the separate examination of engagement in

different media platform contexts and the lack of valid measurement indicators in an integrated fashion, the findings from the current study are indicative that the perspectives' scope and applicability extend well to multiple media contexts.

As a behavioral-oriented and qualitative-focused measure of audiences, social engagement deciphers the social viewing experience happening simultaneously at both the content and the platform levels. Specifically, the measurement instruments offer systematic metrics to profile active audience behavior, incorporating prior perspectives of viewer engagement (Askwith, 2007; Epps, 2009; Russell, Norman, & Heckler, 2004a) and platform engagement (Calder, Malthouse, & Schaedel, 2009; Haven, 2007; Takashi, 2010; Yanga & Kangb, 2009). The current study adapts the three relationships in social interaction (i.e., viewer-program, viewer-characters/celebrities, and viewer-viewer) proposed by prior television connectedness or engagement studies (Askwith, 2007; Russell, Norman, & Heckler, 2004a). At the same time, this investigation identifies the four distinct, prominent attributes in the engaging process as involvement, interaction, intimacy, and influence. The four attributes synthesize the previous points of view of engagement with different media platforms, including traditional mass media (Kilger & Romer, 2007), the Internet (Calder, Malthouse, & Schaedel, 2009), blogs (Yanga & Kangb, 2009), and social networks (Takashi, 2010).

Most importantly, the two-dimensional analysis approach undertaken in this study depicts an aggregate, vivid profile of multimedia television consumers, who have already developed ideas about what type of content fits best on which social media platforms. Given that the innate characteristics of the specific social medium definitely shape the type of content and the model of communication on that platform, television

audiences have taken advantage of the capability of each platform to approach diverse television content and best reflect their consumption needs. For example, audiences have recognized Twitter™ as one of the best communication channels that bridge the conversations between viewers and characters/celebrities, while viewing social networks (e.g., Facebook™ and Myspace™) more as a peer-related space for sharing content/information and garnering recognition through contributions.

In addition to demonstrating that social engagement experience should be viewed at both the content and media levels simultaneously, this study is unique in that it identifies the four underlying dimensions in social engagement behavior. They are vertical involvement, diagonal interaction, horizontal intimacy, and horizontal influence. The multi-dimensional social engagement experience is particularly relevant, given the dramatic changes in media technologies like alternative video platforms and the increasing fragmentation of television audiences with decreasing loyalty. The four social engagement dimensions demonstrate a continuum in which audience social media activities surrounding television content range from the lowest level (i.e., vertical involvement) to the highest level (i.e., horizontal influence), and the resultant various impacts.

In particular, the vertical involvement dimension seems to present the lowest degree of this social viewing experience, reflecting the participatory behavior in relation to the core content and/or ancillary information of a program. Whereas vertical involvement depicts various social media touchpoints, the dimension of diagonal interaction represents communications and dialogues between audiences and media figures through microblogs like Twitter™. The horizontal intimacy dimension goes

beyond diagonal interaction to characterize the affection or sentiment that audiences possess for television programming, measuring peer-to-peer activities such as expressing one's own opinions and responding to the perspectives from others in blogs and online forums. This is somewhat supported by prior study, which suggested that television audiences are not really engaged unless they are talking about plot and characters rather than hypes and actors (Haven, 2007). The horizontal influence dimension goes beyond even sentiment to signal an individual audience's self- and social-identification, and further represents the individual audience's influential potential on his/her friends in social networks like Facebook™ through sharing and recommendation of the program. In other words, the social engagement experience starts with the relationship between audiences and the branded television content and continues to extend that relationship to other audience members.

Furthermore, the current study empirically validates that the higher levels of social engagement behaviors could yield more salient predictive effects than lower levels on audience satisfaction, program loyalty, and product purchase likelihood. In particular, the findings regarding the consequences of each social engagement dimension indicate that the higher levels of social engagement behaviors (i.e., horizontal intimacy and horizontal influence) have significant effects on audience satisfaction, program attitudinal and behavioral loyalty, and product purchase likelihood simultaneously. However, the impacts of the lower levels of social engagement behaviors are only apparent on product purchase likelihood alone (vertical involvement) or not consequential at all (diagonal interaction). Accordingly, identifying the television audience along the four social engagement dimensions instead of audience size and

viewing frequency in the new media environments is significantly meaningful to the behaviorist audience research domain. Furthermore, the theoretical implications of social engagement could contribute to other relevant streams of research, including advertising, marketing, and audience measurement.

Different Tendencies in Social Engagement with Television Program Genres

There is a long tradition of studying program genres in the television research domain. Although some genre studies were conducted from audience behavior perspectives, they mainly examined what constitutes a genre, how certain television programs fit into a genre, and especially how audiences engage with different genres to understand and enjoy programs (Bignell, 2003). The sociability and communication pattern surrounding different television genres have yet to be explicitly and fully investigated. The current study attempts to bridge the gap and systematically examine the sociability of different television program genres in a social media context.

In general, the study finds evidence for the different levels of sociability and communication patterns surrounding these five program genres (i.e., dramas, reality shows, sitcoms, animated comedies, and game/talk shows). The genre, talk/game shows, appears to be most effective in inducing viewers to utilize an expanding array of social media platforms to be involved with television content, to interact with media persona of the program in TwitterTM, and to build intimate connections with other audience members related to the programs in blogs/online forums. In addition to demonstrating diverse degrees of social engagement ability of these five genres, the investigation further illustrates that viewers tend to be more aggressively engaged in talk/game shows than reality programs and scripted dramas in the vertical involvement

dimension, involving a range of social media touchpoints to access the core content and/or ancillary information of the program.

So what is so different about the genre of talk/game shows? Prior studies claimed that talk shows “invite audience participation” and “often highlight physical or moralistic conflict and confrontation among guests and studio audience members” (Rubin & Step, 1997, p. 106). Peck (1995) noted that hosts play a major role in these conflicts and much of the enjoyment of talk shows is based on viewers’ parasocial relationships with the hosts. Moreover, talk shows are found to be appealing to certain television audiences because the topics discussed tend to center on issues of high relevance, such as families, sexual topics, dating, and relationships (Greeberg, Sherry, Busselle, Hnilo, & Smith, 1997). In particular, television viewers are drawn to television talk shows that deal with personal and relational topics (Rubin & Step, 1997).

It could be argued that talk show viewers appear to be more socially active in multimedia behavior than viewers of other programming genres due to the personal-focus and participatory nature in talk shows. The findings in the current study resonate well with one industry engagement research, reporting that talk shows like *The Oprah Winfrey Show* exhibit multimedia synergy in terms of word of mouth. In particular, this type of talk show is most effective in inducing their audiences to engage in cross-media activities, such as watching the shows on television, reading *The Oprah Magazine*, or visiting the Oprah.com website (Fetto, 2010). In addition, talk show viewers are found to show higher interests in a parasocial relationship with the hosts as well as informative, realistically perceived content, mostly focusing on celebrities and families (Rubin, Haridakis, & Eyal, 2003). These academic and industry findings, to some degree,

support the conclusion that talk/game shows are most effective in inspiring audiences to search for relevant information or access programming content, therefore representing a higher engagement tendency in the vertical involvement dimension compared to other program genres.

This investigation, however, does not find statistical differences for the program genres in the other three social engagement behaviors, i.e., diagonal interaction, horizontal intimacy, and horizontal influence. The findings suggest that program genres do not play a role when people use Twitter™ to interact with characters/celebrities of the program, or influence audiences to use blogs and online discussion forums to read, write, or comment on the program. Likewise, television audiences' social engagement activities in social networks, such as sharing the program video in Facebook™, do not vary significantly among these five programming genres. It appears that the innate characteristics of Twitter™, blogs/online discussion forums, and social networks primarily shape the type of content and the model of communication on that platform. Given the strong preference and affinity possessed by specific program genre viewers, the individuals' expertise on one specific platform, such as Twitter™, Blogs, or Facebook™, may not vary greatly, resulting in similar levels of interactive, intimate, and influential engagement behavior among these five program genres. By contrast, the discrepancy of audiences' knowledge and skills on a range of social media platforms (i.e., RSS feeds, widgets, podcasts, mobile applications, and social bookmarks) may lead to significant variances in the vertical involvement activities happening around different programming genres.

Audience Innovativeness as a Critical Determinant of Social Engagement

This study assesses the strengths and weaknesses of each theoretical branch that predicts the social engagement experience. The audience dispositional factor, innovativeness, is found to be the most salient determinant of the overall social engagement behavior and the four social engagement dimensions. In particular, the current study finds that the degree of audience innovativeness essentially influences viewers to utilize an expanding array of social media to be involved with the program content and its ancillary information. Likewise, compared to the predictive ability of the other antecedents, innovativeness exhibits the strongest influence on the propensity of people using Twitter™ to communicate with characters, celebrities, and other professional working staffs of the program.

The individual's dispositional trait innovativeness is purported to "contribute to his or her cognitive response towards making an innovation adoption decision" (Lin, 2004, p. 447). The degree of innovativeness, novelty-seeking, and creative ability displayed in an individual's personality traits single out those who have a greater propensity for early adoption of an innovation (Hirschman, 1980). Among the five categories of innovation adopters (i.e., innovators, early adopters, early majority, late majority, laggards), innovators or early adopters were regarded to possess a higher degree of personal innovativeness (Rogers, 1995). Similarly, recent studies on innovative attributes and Web-based technology adoption generally support the effects of innovativeness on innovation adoption. In particular, prior studies found that the more innovativeness an individual possesses the higher the level of Internet use (Busselle, Reagan, Pinkleton, & Jackson, 1999). Likewise, Lin revealed that an individual's need for innovativeness is a significant predictor for personal computer adoption (1998) as well as webcasting

adoption (2004). The significant role of personal innovativeness seems to hold true in the context of social engagement as well.

At present, the consumption pattern of utilizing various social media to interact with television content is still prevalent among a small proportion of the television population. A recent industry research reported that among online U.S. adults, two in five have gone online or utilized social media to comment, post, watch, or read something about television programming (Harris Interactive, 2011). With regard to using social media in relation to television content, this study found that among the total of 1,314 online social media users, 41% of them have utilized social media to interact with television shows or programs. Furthermore, the social media employed to interact with television programming are mainly concentrated on the most popular platforms, such as FacebookTM, TwitterTM, MyspaceTM, and mobile texting. Several entertainment-oriented social networks like GetGlue are still not well-known by the majority of online users, even though these platforms provide the check-in applications specific for television programming. Accordingly, to plunge oneself into becoming a socially engaged audience in all dimensions, the online user has to solicit a certain level of curiosity, initiative, and skills in exploring this relatively new and somewhat challenging digital communication mode. It is logical that, at this stage of social television diffusion, the social media experience with television programming will be comprised of those online users who represent more innovativeness in their social engagement patterns.

Importance of Audience Social Characteristics as Predictors of Social Engagement

In predicting the four social engagement behaviors and the overall social engagement experience, the current study identifies audience social characteristics

(i.e., impersonal interaction and social activity) in their real lives as important predictors. Although prior studies concluded that people's offline personal attributes, like interpersonal interaction and social activities, have effects on their online media use behavior (DiMaggio, Hargittai, Neuman, & Robinson, 2001), the predictive effects of the social characteristics were inconsistent (Hampton & Wellman, 2003; Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998; Papacharissi & Rubin, 2002). This investigation also yields mixed results regarding the predictive effects of the two social characteristics, social activity and interpersonal interaction.

Turning to the audiences' offline social activity, the findings in this study reveal that social activity is one of the most salient determinants predicting all four social engagement patterns. It appears that viewers who maintain more social networks and social activities in their real lives also tend to be active in the online world, using various online social media platforms to engage with television content. The results are not unexpected. As a number of studies focused on the relationships between personal traits and social media use illustrate, the level of extroversion personality trait has the greatest effect on an individual's online social media tendencies (Amiel & Sargent, 2000; Haridakis & Hanson, 2009).

More specifically, sociability, social contact, and a preference for companionship are likely to be pursued with particular intensity by those high in extroversion (Amiel & Sargent, 2004). The extroverts who have more social networks and social activities in their real lives are found to be heavier social media users, interacting in Facebook™, etc. (Hall, 2005). Most importantly, this study resonates well with one prior study focused on social viewing experience in YouTube® (Haridakis & Hanson, 2009). The

authors empirically discovered that socially active people are more likely to turn to YouTube® for the social interaction and co-viewing purposes, taking YouTube® as a way of sharing online activities with family and friends with whom they have existing social ties (Haridakis & Hanson, 2009).

A main reason driving the extroverted individuals to be more active online is that online environment is a place where individuals can supplement their offline relationships and further solidify their established contacts in the real world. For example, Hampton and Wellman (2003) considered the potential of the Internet as a social medium that can supplement and augment people's socializing capabilities. This logic is based on the social enhancement premise, which states that the extroverted and outgoing persons are motivated to add online contacts to their established large network of offline friends (Zywica & Danowski, 2008). Another probable explanation is that the extroverted individuals possess more successful experiences in their real social lives, and they are more likely to experience more successful social interaction in the online environment (Zywica & Danowski, 2008). It seems plausible that the extroverted individuals' offline, successful social interaction skills and experiences may drive them to be more engaged in social media activities to interact with other audience members related to television programming. The findings here may challenge results from those previous studies based on media compensation hypotheses, suggesting that people who are less sociable and dissatisfied with face-to-face interaction are more likely to use media as compensation (e.g., Papacharissi & Rubin, 2000).

As for the second audience social characteristic, interpersonal interaction, the empirical validation of the predictive ability of interpersonal interaction to social

engagement is particularly interesting. Interpersonal interaction exhibits the predictive effects but in opposite directions on the diagonal interaction dimension and the overall social engagement. For the four social engagement dimensions, the findings reveal that the predictive ability of interpersonal interaction is salient on diagonal interaction alone in a negative way. The findings suggest that audiences who have ample opportunities to interpersonally communicate with friends, family, relatives, or others in their real lives tend to avoid the communication opportunities with media persona of the program through Twitter™. However, the predictive effect of interpersonal interaction is significant and positive on the overall social engagement behavior. The behavioral discovery implies that audiences, who do have ample opportunities or are satisfied with their interpersonal communication in their own lives, would still be inclined to utilize various platforms to engage in different levels of social media activities surrounding television programming.

Specific to the diagonal interaction dimension, the social engagement experience characterizes the degree of social interaction that viewers develop with characters, celebrities, and working staffs related to their favorite shows in microblogs like Twitter™. The social interaction between viewers and media figures to some degree is a type of parasocial interaction, in which viewers believe they know the media persona as they do a friend, treating the interaction as an interpersonal relationship. Thus, people who are lonely or find reduced satisfaction in their face-to-face encounters tend to search for an alternative means of communication, such as television talk shows or other media channels (e.g., Papacharissi & Rubin, 2000; Perse & Rubin, 1990; Rubin, Haridakis, & Eyal, 2003). By contrast, if the individuals have ample opportunities to interpersonally

communicate with friends, family, relatives, or others in their real lives, they may be less likely to engage in dialogs or communications with media persona through Twitter™. In a sense, the empirical findings provide the evidence in support of the functional alternatives theory, which relies on the premise that “needs and interest normally may be satisfied in more than one way, and different habits, practices, and acts can fulfill the same function for the same individuals” (Windahl, Hojerback, & Hedinsson, 1986, p. 48).

Impacts of Program Affinity, Involvement, and Genre Preference on Social Engagement

This investigation identifies three program-related factors as predictors of social engagement, i.e., program affinity, program involvement, and genre preference. The findings show that program affinity plays a critical role in predicting three social engagement dimensions except for diagonal interaction, whereas genre preference displays the predictive effect on the diagonal interaction behavior. Program involvement is found to be associated with none of the four social engagement dimensions. Further, when examining the overall social engagement experience, all program-related factors are strongly predictive of the social viewing experience, especially in terms of the predictive power of program affinity on the overall social engagement.

Television program affinity is defined as an attitudinal construct, measuring the perceived importance of watching favorite television programs in audiences’ daily lives. It appears that the audiences who possess higher levels of program affinity tend to utilize a range of social media platforms to be involved with the core program content, and to establish intimate connections with other audience members in blogs/online forums. Further, audience program affinity is the most critical determinant in predicting

the audience behavioral tendency in signaling their fan status or recommending the program to friends in social networks. However, audience program affinity has no association with diagonal interaction, which involves more interpersonal interactions between television viewers and media persona in Twitter™.

The findings are not surprising, as the deepest engagement usually happens at the level of media content, but the media channels (Epps, 2009). The vertical involvement dimension signifies that audiences utilize multiple social media touchpoints to access television content and its relevant information. The horizontal intimacy dimension is also content-driven, capturing a deeper and more intimate connection between the viewers and the diegetic, narrative text depicted in a program through peer-to-peer posting or commenting activities. Furthermore, in terms of horizontal influence, the desire to signal the individual's identification and influential tendency about a particular show in a peer-related space like Facebook™ requires him/her to demonstrate stronger affinity towards the program content. Thus, audience program affinity is salient in predicting the three social engagement behaviors mainly driven by programming content.

On the other hand, the diagonal interaction behavior is mainly motivated by the parasocial relationship developed between audiences and media persona. While audience program affinity might help maintain and intensify the parasocial relationship, media personalities, who have ample opportunities to directly interact with audiences online or offline, seem to play a more critical role in the process. Moreover, the media persona in different television program genres may solicit different degrees of parasocial interaction. For example, the talk show genre is found to be one of the most

effective types of programming to foster such parasocial interaction (Rubin, Haridakis, & Eyal, 2003). Thus, driven by the strong preference for specific program genres, in which media persona may inspire diverse levels of parasocial interaction, audiences tend to illustrate significant variances in diagonal interaction tendency. In a sense, whereas the programming content is critical, the media figures seem to play a more essential role in the diagonal interaction process.

When it comes to the overall social engagement experience, all program-related factors exhibit the strongest predictive abilities, compared to the other variables related to social media characteristics and individual audience attributes. The findings once again are indicative of the value of content, implying that “content is still king” in the multimedia television consumption environments. In particular, in the contemporary, interactive video consumption networks like the Internet and social media platforms, the definition of *television content* expands to a broader scope, which includes the core programming content, the characters, celebrities, and other media persona of the program, and even various media activities. Accordingly, the deepest level of social engagement is primarily driven by the quality of content, regardless of which content formats and social media platforms are used. Thus, how to develop the best strategy to foster viewer affinity towards the specific television content and to further promote involvement with the program become the most critical issues when examining audience social engagement tendency.

Different Influences of the Perceived Social Media Characteristics as Predictors of Social Engagement

When approaching the social engagement experience from the perspective of media characteristics, this study integrates the technology diffusion theory, technology

acceptance model, and social presence theory to examine the predictive effects in the context of the perceived characteristics of social media. In particular, this investigation illustrates that perceived ease of use, compatibility, and social presence of the general social media system are statistically significant predictors, but yield mixed results. Comparatively, compatibility is the strongest determinant, exhibiting the positive effects on the tendencies in horizontal intimacy and horizontal influence. Perceived ease of use and social presence are found to be negatively associated with vertical involvement and horizontal intimacy, respectively. Nevertheless, none of the three perceived social media characteristics are found to be related to the overall social engagement tendency.

As for the strongest predictor, compatibility is used to assess whether using social media to interact with television programming is compatible with most aspects of the viewers' television viewing. Turning to the predictive effects of compatibility on the horizontal intimacy and horizontal influence engagement behaviors, the findings here suggest that audiences who feel utilizing social media to interact with television content is compatible with their television viewing experience tend to build intimate connections with other audience members through blog/electronic board posting and commenting activities. Likewise, if the individual audiences perceive that using social media platforms to interact with television programming fits their lifestyle, they are also more likely to engage in sharing programs and making recommendations in social networks like Facebook™.

The predictive power of compatibility on the two social engagement behaviors, i.e., horizontal intimacy and horizontal influence, are noteworthy. The findings first resonate

well with several previous studies on innovative attributes and online services adoption. For example, Tornatzky and Klein (1982) employed a meta-analysis approach to examine innovation characteristics and innovation adoption implementation and concluded that there is a positive, though not always statistically significant, relationship between the compatibility of an innovation and its adoption. Wu and Wang (2005) discovered that compatibility is the strongest factor predicting the intention to use mobile commerce, compared to other predictors, such as perceived usefulness, perceived ease of use, cost, and perceived risk. Lin (2001) also discovered that compatibility would have an effect on consumers' adoption decisions regarding Internet-based services, since the author found that online service adoption is not compatible with non Web-based adoption rates.

The different diffusion rates of various social media platforms may contribute to the fact that the predictive ability of compatibility is only salient on the social engagement behaviors related to Facebook™, Myspace™, blogs, and online forums. Comparatively, this study finds that the social media involving the dimensions of horizontal influence and horizontal intimacy are most widely used (i.e., Facebook™, Myspace™, and blogs/online forums), while the platforms employed in vertical involvement behavior are less recognizable or even utilized (i.e., RSS feeds, podcasts, social bookmarks, widgets, and mobile applications). Furthermore, while the phenomena of social engagement attract much attention from the television and advertising industries, the practice is still in its nascent stage and has not yet evolved into a common television consumption pattern for the majority of television viewers. Therefore, it may be hard for the viewers to develop definite perceptions of those social media platforms that they

have rarely used and to further estimate their actual social engagement behavior. Until the majority of television audiences are actively involved with a range of social media platforms to engage with television content on a regular basis, the predictive power of compatibility of various social media platforms will be more salient on the social engagement tendency.

The significance of perceived ease of use in predicting vertical involvement is also dictated by the current, different diffusion levels of various social media platforms. Prior study argued that the effects of perceived ease of use on new technology adoption become weak and even disappeared, if a critical mass has already adopted the technology (Lin, 2004). For example, the perceived ease of use was found to have no effects on the cable television adoption once the cable penetration rate reached 80% (Lin, 2004). According to the latest industry database, the penetration rate of FacebookTM in the United States is 50.28%, and the ratio is even higher in the online population, reaching 65.20% (www.socialbakers.com). Given the comparatively high adoption rate of FacebookTM, MyspaceTM, blogs/online forums, and TwitterTM, it is not surprising that there are no significant effects of perceived ease of use on the three social engagement activities happening around those platforms (i.e., diagonal interaction, horizontal intimacy, and horizontal influence).

On the other hand, the factor of perceived ease of use appears to play a different role in predicting the vertical involvement pattern in a negative way. The vertical involvement activities facilitated by these social media platforms (i.e., RSS feeds, podcasts, social bookmarks, widgets, and mobile applications) seem to require more effort and overall know-how on the part of the viewers. For example, using social

bookmarks to tag the program or utilizing widgets to embed the program's video clips online involves searching, storing, and uploading the video content they want. Such content-driven social media activities are more laborious and time consuming for the inexperienced viewers, compared to other social media activities such as chatting with friends about a program on FacebookTM or following a character in TwitterTM. Thus, the perceived difficulty and actual complexity encountered by social media users may deter them from further engagement in this type of social engagement behavior. In addition, the significant variances in the knowledge and skills indicated by social media users for these multiple platforms (i.e., RSS feeds, podcasts, social bookmarks, widgets, and mobile applications) may result in greater variations in vertical involvement behavior.

In alignment with the predictive effects of compatibility and perceived ease of use, the findings in this study imply that certain perceived characteristics (e.g., perceived ease of use) of social media platforms may become less pertinent, when consumers become more technologically proficient through increased exposure to new platforms and thus decreasing learning curves. Moreover, the social media characteristics that are more relevant to audience lifestyles and television viewing habits (e.g., compatibility), combined with skills or technology competency factors, may play a larger role in the social engagement process.

When it comes to the predictive ability of social presence of the general social system on the social engagement pattern, the negative effects of social presence are detected in the horizontal intimacy behavior. The perceptual discrepancy in social presence between specific social media platforms and the general social media system may attribute to the unexpected results. Social presence refers to "the ability of

computer-mediated communication media to transmit interpersonally-oriented content effectively” (Papacharissi & Rubin, 2000, p. 181). Such a concept is often used to “help differentiate between informational and interpersonal uses of the Internet” (p. 181). Prior study concluded that online audiences, who perceive the Internet as warm, social, and active, use it primarily to satisfy many needs, such as interpersonal utility and entertainment desire (Papacharissi & Rubin, 2000).

However, the current study suggests that audiences who perceive the general social media system as social, personal, and sensitive tend to avoid engaging in blog posting or commenting activities to build intimate connections with other audience members. Specifically, this study examines the audience’ social presence perceptions of the context of the overall social media systems, noting that the horizontal intimacy dimension involves specific social media platforms like blogs and online discussion forums. It is plausible that audiences perceive the ability of the general social media system to transmit interpersonal type of content to be dissimilar with the capability of a specific social media platform like blogs or online discussion forum. Thus, future research on the predictive ability of social presence, regarding a specific social media platform, may yield more robust and valid results for social engagement behaviors.

Instrumental Motivations behind Social Engagement

This investigation develops a systematic scale of social engagement motive by integrating the previous motivations of traditional television viewing (Rubin, 1983), the Internet use (Papacharissi & Rubin, 2000), and YouTube[®] video viewing (Haridakis & Hanson, 2009). Through scale development and validation process, this study locates ten primary motives behind social engagement, including relaxation, companionship, passing time, entertainment, information, arousal, escape, access, learning, and

interpersonal utility. In particular, three motivations, access, learning, and interpersonal utility, are derived from new media uses like the Internet and YouTube[®]. The two motives, interpersonal utility and passing time, are found to be related to the social engagement experience. Given that the act of social engagement combines television consumption with the use of social media platforms, it is not surprising that the motives relevant to both new media uses (interpersonal utility) and traditional television viewing (passing time) are identified in the current study simultaneously.

It is interesting that the two social engagement patterns, diagonal interaction and horizontal influence, are reflected in the interpersonal utility motivation but in opposite directions. The motive of interpersonal utility found in this study is very similar to the construct identified in Papacharissi and Rubin's (2000), which characterizes the degree of inclusion, affection, social interaction, expressive need, and surveillance in the context of the Internet uses. The interpersonal utility motive behind diagonal interaction suggests that, if audiences are driven by the inclusion, affection, and social interaction purposes, they tend to avoid communicating or having dialogs with media persona in Twitter[™]. By contrast, if audiences are motivated by interpersonal utility needs, they are more likely to share their television experiences and seek recognition through participations or contributions in Facebook[™]. In addition, passing time is the single salient motive that predicts a negative effect on the overall social engagement behavior.

The salient effects of the motives, interpersonal utility and passing time, on social engagement are interesting but not unexpected. For the motive of interpersonal utility, the logic behind its negative effect on diagonal interaction behavior is akin to the predictor of interpersonal interaction, one of the audience social characteristics. The

nature of both predictors implies that the social interaction experience with media characters via a platform like Twitter™ cannot really satisfy audiences' interpersonal communication needs, or substitute for the interpersonal interaction activities in their real lives. On the other hand, if the audiences are deeply motivated by the inclusion, affection, and social interaction needs, they are more likely to go to a space that maximizes peer interactions like Facebook™ to satisfy these needs through such activities as sharing, contributing, and making recommendations. Finally, the negative effect of passing time on the overall social engagement provides the evidence in support of the notion that social media uses in the context of television consumption are more driven by instrumental than ritualized needs.

The two motivations, i.e., interpersonal utility and passing time, behind social engagement can be seen as either instrumental- or ritualized-oriented, a notion proposed and examined by many uses and gratifications scholars. Studies in the tradition suggest that these media orientations reflect the amount and type of media use, media attitude, and expectation (Rubin, 2009). Specifically, ritualized orientation means “using media more habitually to consume time and for diversion. It entails greater exposure to and affinity with the *medium*” (Rubin, 2009, p. 172). Instrumental orientation focuses on “seeking certain message *content* for information reasons” (p. 172). Instrumental use is active and purposive, suggesting utility, intention, selectivity, and involvement (Rubin, 2009). The motive of interpersonal utility behind social engagement behavior reflects that social media uses in the context of television consumption are instrumentally oriented, which features the utility, selectivity, and involvement elements. On the other hand, a ritualized orientation passing time presents.

While audiences may actively engage in various social media activities in relation to television programming to fill the free time they have, it appears that they do not consider using social media to interact with television programming as the ideal way to pass time for a diversion.

Salient Effects of Social Engagement on Program Loyalty, Audience Satisfaction, and Product Purchase Likelihood

To investigate the predictive effects of social engagement, this study further proposes four consequences of the social engagement experience: program behavioral loyalty, program attitudinal loyalty, audience satisfaction, and product purchase likelihood. The overall social engagement is found to have significant effects on audience satisfaction, program loyalty, and product purchase intention. Consistent with the findings here, prior research from academia and industry discovered that audiences' increasing cross-platform, multitasking media consumption patterns would help promote program attitudinal and behavioral loyalty (Ha & Chan-Olmsted, 2004; Lu & Lo, 2007), enhance audience satisfaction (Lin, 1993; Palmgree & Rayburn, 1985; Perse & Rubin, 1998), and improve the likelihood of product purchase (Kilger & Romer, 2007).

In particular, the overall social engagement behavior bears the strongest positive relationship with the likelihood of purchasing products that have been advertised on the program's station and network websites. These products include memorabilia/merchandise of television stations or networks, memorabilia/merchandise of television shows, and the products shown in that television program. As suggested by prior study, however, it is still challenging for television managers who plan to utilize their website as a platform to conduct e-commerce due to audiences' general lower interests and experience in television e-commerce (Ha & Chan-Olmsted, 2004). Similarly, one recent

study examined the effects of television audiences' cross-media usage and discovered that cross-media involvement with televised programs could improve the program loyalty, and further promote product purchase intention (Lin & Cho, 2010).

Nevertheless, the authors of this study also admitted that television e-commerce and interactive online product placement on the program's official website are still underutilized by the current online users (Lin & Cho, 2010).

While the overall social engagement pattern could yield the salient predictive effects on all proposed consequences, i.e., audience satisfaction, program attitudinal and behavioral loyalty, and product purchase likelihood, it is worthwhile to investigate what specific social engagement dimension may play a more critical role in the process. As discussed earlier, it appears that the higher levels of social engagement dimensions such as horizontal intimacy and horizontal influence exhibit stronger significant effects on more after-viewing consequences than the lower levels of social engagement behaviors, like vertical involvement and diagonal interaction.

Specifically, horizontal influence behavior bears strong positive relationships with program attitudinal and behavioral loyalty, audience satisfaction, and product purchase likelihood, while horizontal intimacy behavior displays the negative effects on the four consequences. The different directional effects may be attributed to the innate characteristics of each social media platform that shape the type of content and the model of communication on that platform. Due to the anonymous nature and core function of expressing one's opinions on most online discussion forums and blogs, people are more likely to express both positive and negative feelings on these two platforms freely. By contrast, the strong association with one's identity and persona in

social networks like Facebook™ may, to some degree, diminish the tendency for negative expressions (e.g., there is no “dislike” button in Facebook™). Finally, the diagonal interaction behavior bears no associations with any outcomes, implying that focusing on the parasocial relationship-driven engagement experience alone may not be an optimal strategy for program marketing and promotion.

Practical Implications

Implications for the Audience Research Industry

This investigation highlights the contribution of the social engagement construct and its measurement scale in overcoming the limited nature of traditional audience measures based on reach and frequency. The television ratings system as a traditional audience measure has been a useful metric to advertisers and broadcasters for a long time, but the system mainly emphasizes audience size and volume of viewing. As audiences’ television consumption habits continue to fragment across devices and social media platforms, it is now critical to also assess audiences’ degree of intentionality and engagement towards a television program through multiple media platforms. In this context, social engagement, defined as the social viewing experience via the multiple media platforms, is meaningful to the audience research industry when examining the quality and quantity of audiences for commercial purposes.

The introduction of the social engagement construct and its validation empirically point to the utility of developing a social television ratings system in the audience research industry. Although the ownership of television sets in the U. S. households has dropped for the first time in twenty years, the on-demand video platforms such as playback device DVRs and online streaming, as well as cross-media, multitasking television consumption continue to grow. Thus, traditional means of measuring

television audience are insufficient in capturing the evolving video viewing behavior. It might be valuable to develop a social television ratings system that can incorporate the social engagement viewing activities via multiple platforms. The social television ratings may aim at aggregating publicly available social commentary and filtering and normalizing this data from disparate sources (e.g., FacebookTM, MyspaceTM, TwitterTM, and event-based social networks like GetGlue, Miso, and FoursquareTM, etc.) to further assess the underlying sentiment of a broader range of online users (Calic, 2011). In addition, the metric may provide a more complete view of the engagement associated with television programs across diverse social media platforms in real-time as well as beyond the initial airing time slot of each episode. These findings “might be just the data set necessary to become the de facto social television rating to rival Nielsen” (Calic, November 7, 2011).

However, it should be noted that a social television ratings system is not meant to replace the current ratings systems for television advertisers. In fact, it should function as an active complement for the present passive audience measures based on audience size or volume of viewing. Because the additional, qualitative audience data are highly valuable for the current advertisers and broadcasters to estimate advertising effectiveness and expense allocation, the development and implementation of actual engagement-related metrics could be the next phase of audience research agenda. In fact, the world’s largest audience research company, Nielsen, has already jumped on the bandwagon to aggregate the distributed viewing audience through its “extended screen” initiative, such as video usage across the three screens – TV, Internet, and mobile (e.g., *A2/M2 Three Screen Report*), but the company has not embedded the

social media platforms into their analytics. This study envisions that the social television ratings system in alignment with traditional passive metrics will play a more critical role in the social viewing environments in the near future.

Implications for the Television Industry

From the managerial perspective, as the television industries increasingly compete against alternative distribution platforms while facing a fragmented audience with decreasing loyalty, it is vital for television organizations to develop a more long-term relationship with their viewers through cross-platform strategies. This study, therefore, empirically addresses the issue of whether television broadcasters/advertisers should devote resources to develop a social engagement strategy and how they should approach it. This is important as the careful deployment of resources is most essential in a competitive environment. This study anticipates that there will be more partnerships between the television and social media industries in the near future, which will significantly impact all stakeholders in the television industry, including program producer, cable/broadcast networks, local stations, television service providers (like satellite broadcasters and IPTV providers), and advertisers.

The current study has several practical implications for programming producers and broadcasters in the television industry. In particular, the four social engagement dimensions identified in the social viewing experience are essentially valuable to the television broadcasters, program producers, and advertisers. Because the four dimensions depict a social engagement profile, an aggregate description of the types and levels of engagement the audiences exhibit in a social media context. Based on the social engagement profiles, programming broadcasters and producers can deliver differentiated marketing strategies utilizing specific social media platforms to meet

diverse marketing objectives from television shows, broadcast and cable networks, and local stations.

Given that the lower levels of social engagement activities (i.e., vertical involvement and diagonal interaction) happen primarily around a range of program-related social media and microblogs like TwitterTM, programming broadcasters and producers may employ these social media platforms to create program awareness and enhance audience viewership of the programming. For example, some event-based social networks, such as BuddyTV, GetGlue, Miso and Tunerfish, have partnered with television service providers (e.g., AT&T's U-verse and Direct TV) to improve programming awareness through their check-in services, allowing fans to connect through mobile and online platforms and share their opinions about certain shows across their social profiles. In addition, broadcasters may adopt real-time platforms like TwitterTM to drive tune-in and take advantage of the growing trend of simultaneous Web-TV usage by dispensing online information in tandem with the airing of the programs (Leavy, 2010). As suggested by several industry analysts, "increased usage of social media is definitely driving the ratings," and the online conversations are "important for all big event programming, and also, honestly, for all of television going forwards" (Stelter, February 23, 2010).

Turning to the higher levels of social engagement behaviors (i.e., horizontal intimacy and horizontal influence), programming broadcasters and producers may explore the capabilities of blogs, online discussion forums, social networks, and similar social media platforms to promote engaged viewers' affinity for the brand and eventually enhance their loyalty to the program. In particular, establishing a presence for certain

programs on social networks, such as FacebookTM and MyspaceTM, could build affinity for the program brand by providing a platform for discussion among devoted fans (Leavy, 2010). When viewers share an active connection with a program's profile on a social network like FacebookTM, the viral nature of social networks in syndicating and reposting content would be an effective way of driving audience awareness, involvement, and hopefully loyalty. In a sense, the use of social media to enhance audience engagement has tremendous marketing potentials as the socially engaged viewers are more likely to stick with a show, talk about the show, and spread word-of-mouth (WOM) buzz about the show online. The "stickiness" achieved through real-time interaction can humanize broadcasters, which enables them to listen to, affirm, and amplify the opinions of their fans (Leavy, 2010).

When it comes to the salient predictors of the social engagement activities, the findings are partially illustrative of the importance of the individual's innovative tendency and extroverted personality. It is advisable for programming broadcasters and producers to design more innovative functions online and social viewing applications related to their television programming on diverse social media platforms. Furthermore, these online innovative functions and social viewing applications should be compatible with the majority of audiences' social media usage habits and lifestyle, especially in terms of privacy and cost consideration. In addition, social engagement viewers are mainly driven by instrumental motives, which means these viewers are purposeful in seeking certain television content for inclusion, affections, social interaction, and free expression needs. The instrumental orientation essentially implies that current television audiences are more attached to content than to the medium per se; thus, programming

broadcasters and producers should develop and implement an optimal cross-media strategy to repurpose and leverage their content to maximize viewers' diverse needs.

More specifically, the availability of the “right” content on the “right” outlet to suit an audience’s needs is the key to a successful multi-screen television strategy. On one hand, the significance of all program-related factors for the overall social engagement behavior are strongly indicative of the value of content, implying that “content is king” in the multimedia television consumption environments. On the other hand, the individual audiences’ different levels of social engagement behaviors signify that the innate characteristics of the specific social medium definitely shape the type of content and the model of communication on that platform, implying that “content is king, and platform is queen.” Accordingly, delivering the “right” content on the “right” platform to suit an audience’s needs is the most critical consideration for program broadcasters and producers when implementing a successful multi-screen television strategy. In fact, today’s television audiences have already developed clear ideas about what type of content fits best on which social media platforms. For example, social media users tend to watch full-length television shows in the content sharing communities while keeping updated and receiving news and information about programs via TwitterTM and social networks.

Finally, when it comes to the major player, advertisers, in the television industry, the findings in this study highlight the growing importance of cross-platform advertising campaigns in reaching targeted and involved audiences. It is no doubt that, at present, the social engagement behavior has not evolved into a common consumption pattern among television viewers, and the demographic structure of social engagement viewers

is not representative of the overall U.S. population. Nonetheless, the evolving social viewing pattern increasingly adopted by online users provides a great opportunity for advertisers, because they can target these television audiences in a highly engaged environment by extending their television advertising for particular shows to the equivalent social media channels and mobile devices. In particular, from the perspectives of media planning, there are great opportunities for advertisers and merchandisers, who leverage consumer behavior to create unique and useful social viewing experiences along the temporal dimension before, during, and after television exposure. This study and one recent industry survey (Harris Interactive, 2011) found that audiences are prone to engage in different social engagement patterns before, while, and after they are watching television. For media planning purposes, the three-stage social television viewing experience provides diverse opportunities for advertisers. For example, if the marketers and advertisers are more interested in the social conversations happening across all of these viewer engagements, and check-in services offered by some entertainment-focus social networks like GetGlue and social television guides are just the first step in getting to know a show's audience.

It is also valuable to assess the effectiveness of social engagement on product purchase intentions and actual purchase behaviors. The present study provides empirical evidence in support of the predictive effects of social engagement on the likelihood of purchasing program-related products. Thus, how to transfer audiences' product purchase intentions into actual purchase behaviors is an important area of investigation for marketers who intent to fully utilize cross-media platforms to boost the value of advertising. For example, a good strategy for multi-platform advertising

campaigns is to convert the socially engaged television viewers to be the advertisers' advocates on social media platforms. The notion is based on the fact that socially engaged viewers tend to show a higher propensity in sharing their interests in television shows on various online social venues. In addition, audiences trust the opinions of those they know or share similar interests with on their online and offline networks. Furthermore, the multiple platform campaigns should not only focus on advertising space on social media platforms but also tap into the demographics that actually talk about certain products and television programs. According to a recent industry analysis, people between the ages of 35-49 make up the highest percentage of online discussion of television shows at 30% compared to other demographic sectors (Nielsen, 2011). Therefore, advertisers may tap into this consumer group to maximize the effectiveness of their multi-platform advertising campaigns.

Implications for the Social Media Industry

This investigation also has several practical implications for the social media industry. First, considering the symbiotic relationship between television and social media, social media companies may establish partnerships with entertainment brands including programming producer and content distributors to add television viewing to social media experiences. In particular, social media companies should incorporate specific online initiatives and applications related to social media user's television consumption behaviors, allowing fans to interact with one another as well as with the shows and their stars, thus increasing the value and enhance the experience of that platform. For example, FacebookTM recently partnered with Direct TV, Netflix, and Hulu to track FacebookTM users' real-time programming watching activities. The social media

platform also summarizes the user's watching activities and put top movies and episodes on display for his/her friends to view.

More importantly, considering the volume and sentiment of chatter occurring online about entertainment brands and shows across various social media platforms, social media companies should develop analytics tools to integrate television shows-related conversations across the Internet. To some degree, to have access to such data exclusively increase the value of the social media platforms for advertising and media clients, the same companies that subscribe to Nielsen's television ratings data sources (Calic, 2011). One typical example of this type of database is Trendrr.tv index (<http://www.trendrr.tv/>), which incorporates TwitterTM mentions, public FacebookTM posts, Miso and GetGlue check-in to analyze engagement around television and brands by processing real-time activities across a variety of social media platforms.

Limitations

This study highlights some valuable findings related to utilizing social media to engage with television content over time. However, there are several limitations that should be taken into account when evaluating the results of the research and interpreting the conclusions.

While the use of online consumer panels sampled from the real online population for most of the hypotheses and research questions helps enhance the external validity of the findings, these results should not be generalized to *all* online users. Given that the hypotheses and research questions in this study necessitated the use of a purposive sample of online users who possess certain social media experiences related to television content consumption, these findings are not necessarily applicable to all online consumers or social media users. In addition, considering that this study's

sample frame is consisted of solely U.S.-based online consumers, the relationships identified in the results may not be applicable to the social media users who possess the social engagement experiences in other countries.

It should be noted that the online instruments employed in the main test is somewhat long since they examine four dimensions of social engagement behaviors and a branch of antecedents and consequences of the social engagement pattern. It is possible that the participants of the online survey become fatigue when they filled out the questionnaire, thus further influencing the quality of data. The low incident rates in the main test (34.6%) and the pilot test (37.0%) to some degree reflect this fact. It is no doubt that there are some missing data, but the percentage of missing data is negligible (0.1% - 0.2%).

In addition, one consideration is related to the television program sample used in this study to assess the respondents' social engagement behaviors. Specifically, the current study constructs a specific program list by referring to an online *Social Television Charts* database (<http://trendrr.tv/>), which includes various social media activities surrounding television shows, such as public Facebook™ posts, Twitter™ mentions, GetGlue check-ins, and Miso check-ins. The specific program list of this study was comprised of twenty programs/shows with the highest degree of those social media activities during August 29th to September 4th of 2011, the week before the main survey was implemented. However, it is possible that the degree of social engagement inspired by the episode of the program may not be the same as the following episode after a week. It is recommended to consult more, latest social television data sources to improve the validity of the online survey instrument.

As discussed previously, this study identifies three major exploratory factors of social engagement from the perspectives of media content, media platforms, and audience attributes. Thus, the theoretical and practical implications of this investigation also center on these aspects. There are other external factors such as market and economic issues that might impact the adoption process. In addition, it is plausible that there might be some net effects of external factors in combination with the social engagement behaviors to influence the four proposed consequences. Therefore, it is necessary to take these external factors into account when interpreting the social engagement process.

A limitation of this study lies on its use of an online survey as a method of data collection; therefore it is hard to measure the individual's whole process of social engagement experience. Prior studies suggested that user engagement is indicated as a process, including the point of engagement (and reengagement), engagement, and disengagement (O'Brien & Toms, 2008, 2010). Likewise, the social engagement with television content also experiences the cycling stages, including decision making (at the point of engagement), watching (while engagement), and reviewing (reengagement). It may be valuable to employ the experiment research method to capture the whole process of social engagement behavior in a social media context.

There are also some statistical considerations when examining the social engagement factor structure and some variables' measurement scales. By adopting a three-stage research process, this study introduces and tests a reliable scale comprised of fifteen items to measure the social engagement construct. By analyzing the first-order factor structure loaded from the CFA procedure, there are different numbers of

indicators involving each social engagement dimension. However, based on the general practice in scale development and validation, it appears to be a better choice for the multiple-item scale to include three or more indicators in order to enhance this measure's reliability.

On a related note, while this study identifies that both a first-order and second-order factor structure fit the observed data adequately, this investigation prefers the first-order with four factors representation by virtue of simplicity and better fit of indices. Nevertheless, it should be noted that there are higher correlations among the four social engagement dimensions, especially in terms of the correlation between the dimensions of vertical involvement and diagonal interaction. Therefore, it is suggested to focus more on the overall social engagement instead of the four dimensions. In addition, this study acknowledges that the measurement scale of the four dimensions is typically behavioral, not very strong conceptually yet. To incorporate the social media use depth and breadth dimensions for each measurement item may improve the scale validity.

The operationalization of some variables in this study needs modification and verification. In particular, this study employs a single item to measure program behavioral loyalty and audience satisfaction. In building measurement models, multiple-indicator measurement models have been preferred since "they allowed the most unambiguous assignment of meaning to the estimated constructs" (Anderson & Gerbing, 1988). In addition, when examining the effects of social media characteristics on social engagement behavior, this investigation measures the audiences' perceptions of the general social media system rather than a specific social media platform, which may lead to discrepant views of social media characteristics. Thus, these caveats

should be taken into account when assessing the effects of the variables in structural equation modeling.

Another statistical consideration is related to variance explained in factor analysis by using the Mplus[®] (Version 6.0) program. Basically, variance explained in a set of variables by a factor is not given in the Mplus[®] program due to two reasons proposed by the program designer. One is that “factor analysis does not aim to explain variance but rather correlations”, the other is that “oblique factor need to be extracted in which case the concept of variance explained by a factor is not clear-cut” (Muthen, 2008). Therefore, this study does not report explained variance data when utilizing the Mplus[®] (Version 6.0) program to conduct factor analysis and structural equation modeling.

Future Research

The integrated theoretical framework and empirical findings provided by the present study should serve as a good start for future research. This study first recognizes that validity testing of a newly established construct is an ongoing effort. This investigation offers the evidence that the social engagement construct is unique from other constructs. But, this study also acknowledges the need for further discriminant and nomological validity testing, particularly to fully differentiate social engagement from involvement, attitude, and connectedness. Thus, more robust statistical testing of the validity of social engagement requires a wider range of audience attitude and involvement levels, and viewer connectedness. Furthermore, the present study employs twenty television programs and shows within five program genres for the scale validation and the antecedents and consequences testing. Given the salient social engagement power inspired by talk/game shows, the number of this type of programs included in the main test is comparatively small compared to other genre programming.

Thus, this investigation may include a broader array of online users, programs, and genres to fully validate the social engagement construct and its predictors and outcomes.

The investigation on the relationships among the four social engagement dimensions is a promising direction for future research on social engagement behavior. Although this study discovers that the four social engagement dimensions cover a spectrum of social viewing behavior, ranging from the lower to the higher levels. It still requires more empirical evidence to validate the causal relationships among the four dimensions through the structural equation modeling approach. In particular, further research may focus on whether the lower levels of dimensions predict the higher levels or whether there are reciprocal relationships among these four social engagement dimensions. The investigator anticipates that the examination of the relationships among the four dimensions could further advance our understanding of the social engagement experience with television programming in a social media context.

One fruitful approach would be for future studies to address the cycling process of social engagement experience and its resultant effects. As discussed earlier, the social engagement viewing may experience three stages, i.e., point of engagement (reengagement), engagement, and, disengagement. The point of social engagement may happen at any points during the social interaction when viewers actively search for information or advice for television content. For example, FacebookTM and TwitterTM may influence people to decide what to read, what videos to watch, and want news stories to follow. Once the viewers engage in television programming, their attention and interest must maintain. It is also suggested that the intensity of engagement is

varied among different program genres. Drama and action shows are found to be low social programming, while reality games and sports shows are both high in social engagement. Accordingly, to further investigate the cycling process of social engagement and its ensuing effects may highlight the different attributes represented in the different stages of social engagement.

Future research may also measure the social engagement activities associated with a specific program genre. Whereas the present study does investigate the exploratory factors and consequences of social engagement with different television programming, it is worth pointing out the possible predictors of social engagement with program genres and its predictive effects on the proposed consequences. Given that different program genres could stimulate diverse levels of sociability and communication patterns surrounding that program genre, it is valuable to further investigate and compare the predictive power of a set of exploratory factors, such as program-related variables, perceived social media characteristics, and audience attributes, and then discover which variables play a more critical role regarding different program genre engagement. In addition, it could also be interesting to find out the predictive effects of social engagement with different program genres, and compare these effects on program loyalty, audience satisfaction, and product purchase likelihood.

An important point in the audience behaviorist research is to identify the functionality of audiences' demographic attributes. As a starting point, this study incorporates three sets of exploratory factors and four possible after-viewing consequences to examine the relationships between social engagement and its antecedents and consequences. However, these causal relationships validated in the

current results may be moderated or mediated by several demographic factors. Specifically, a moderator is “a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that effects the direction and/or strength of the relationship between an independent or predictive variable and a dependent or criterion variable” (Baron & Kenny, 1986, p. 1174). The mediator variables may function as “a mediator to the extent that it accounts for the relation between the predictor and the criterion” (p. 1176). Therefore, examining the functionality of demographic variables in testing the antecedents and consequences of social engagement behavior is a promising direction that points to further study as to whether these variables function as mediators or moderators.

Another fruitful approach for future research is to compare social engagement behavior among different demographic sectors. Given that the audiences’ innovativeness and social characteristics play the most important roles in predicting social engagement behavior, it is necessary to further investigate the different levels of social engagement patterns among different age, gender, and ethnic groups. According to prior literature about innovation diffusion regarding the Internet, the earlier adopters of the Internet are more likely to be male, of the ethnic majority, younger, better educated, and more affluent than the general population (Bonfadelli, 2002; Chen & Wellman, 2004). Thus, it is plausible that the use of various social media platforms to engage with television programming may vary differently across diverse demographic groups and further influence its predictors and consequences.

Turning to the predictors of social engagement patterns, the theory of technology fluidity, in particular, the Internet fluidity, should be explored as a potential determinant

to predict the social engagement experience. Prior study suggested that the audiences' perceptions of the Internet fluidity significantly influence the adoption of webcasting (online video streaming) (Lin, 2004). The Internet is recognized as a fluid medium due to its ability of transforming into text, graphic, audio, voice, or visual modalities, or a combination of these communication platforms. Thus, the perceived fluidity of the Internet and even different social media platforms may play a role when people utilize social media platforms to interact with television content. By the same token, the individual's social media depth and breadth use experience is expected to represent more predictive ability to influence the social engagement experience. Thus, the future research may yield more robust results when including the audiences' social media depth and breadth use experience. In addition, further modification, development, and verification of the scales that measure perceived characteristics of each social media platform may help advance our understanding of the predictive effects of social media.

Finally, future research may analyze more possible after-viewing consequences of social engagement behavior. In particular, the evidence supporting the relationship between viewer behavior and television content calls for future study with a focus on the program context effects and advertising effectiveness. As suggested by prior scholars, viewer connectedness as an alternative to traditional mood manipulations could directly impact the effectiveness of advertising (Russell, Norman, Heckler, 2004b). Likewise, the current study anticipates that the multi-platform engagement behavior in relation to television content will influence how the advertising is evaluated. In addition, exploring the predictive effects of social engagement on the effectiveness of product placements could produce valuable information, especially in terms of interactive online product

placement. Prior research illustrated that television viewers' cross-media usage could lead to better website loyalty, which further improves the use of interactive online product placement (Lin & Cho, 2010). Accordingly, inclusion of more consequences related to the social engagement experience may help inform the practice of advertisers and broadcasters as well as contribute to our understating of the evolving cross-platform, multitasking television consumption pattern.

APPENDIX A
LITERATURES ON ENGAGEMENT AND MEASUREMENT SCALES

Sources	Purpose	Context	Attributes	Measurement Scales/Description
Russell, Norman & Heckler (2004a)	To measure the parasocial relationship between television viewers with television programs and characters in those programs	TV	<p>Escape: defined the cathartic element that connects a viewer to a television program.</p> <p>Modeling: measures a social learning process by capturing the degree to which individuals relate their lives to the lives of characters.</p> <p>Fashion: represents the extent to which a viewer is influenced by the characters' appurtenance.</p> <p>Imitation: characterizes the inclination to imitate the characters' behavior or speech patterns.</p> <p>Aspiration: identifies how people aspiring to actually be on the show or meet with the characters.</p> <p>Paraphernalia: measures the degree to which people collect items to bring the show into their real world.</p>	<ul style="list-style-type: none"> • Watching ___ is an escape for me. • ___ helps me to forget about the day's problems. • If I am in a bad mood, watching ___ puts me in a better mood. • I learn how to handle real life situation by watching ____. • I get ideas from ____ about how to interact in my own life. • I relate what happens in ____ to my own life. • I like the clothes they wear on ____. • I like the hairstyles on ____. • I often buy clothing style that I have seen in ____. • I imitate the gestures and facial expressions from the characters in _. • I find myself saying phrases from ___ when I interact with other people. • I try to speak like the characters in ____. • I would love to be an actor in ____. • I would love to meet the characters of ____. • I have objectives that relate to ___ (badge, book, picture, etc.). • I read books if they are related to ____.

Kilger & Romer (2007)	To explore the effects of media engagement on product purchase likelihood	TV magazines the Internet	Inspiration	<ul style="list-style-type: none"> • I have inspired by this program, magazine, or Internet site; • I have an emotional connection to this program, magazine, or site. • I trust that this program, magazine, or website tells the truth and do not sensationalize things. • I also feel safe giving this website my personal information. • I am always learning about new things and places from this program, magazine, or website – things that help me make better decision in my life.
			Trustworthy	
			Life enhancing	
			Social involvement	
			Personal timeout	
			Advertising attention receptivity	
		Television	Personal connection	<ul style="list-style-type: none"> • This program, magazine, or website constantly provides fodder for conversation that I have with friends and family. • This program, magazine, or Internet site is special to me – the time I spent with this media element is enjoyable and considered “time just for me.” • I am open to viewing/reading advertising on this program, magazine, or Internet site because it is interesting and relevant to me. • I have a personal association with the characters/situations in this vehicle, and I would sign up to receive a newsletter or products offered relating to this vehicle. • This program is part of my regular schedule and I devote my full attention to it. • I enjoy and benefit from the feedback of other users of this site • This site piques my curiosity. I really enjoy visiting this site.
			Near and Dear	
		The Internet	Interactivity/community	
			Enjoyment/attraction	

Calder, Malthouse & Schaedel (2009)	To examine the relationship of online engagement with advertising effectiveness	The Internet	Stimulation and Inspiration	<ul style="list-style-type: none"> • It inspires me in my own life. • This site makes me think of things in new ways. • This site stimulates my thinking about lots of different topics. • This site makes me a more interesting person. • Some stories on this site touch me deep down. • I bring up things I have seen on this site in conversations with many other people. • This site often gives me something to talk about. • I use things from this site in discussions or arguments with people I know. • It's part of my routine. • This is one of the sites I always go to anytime I am surfing the web. • I use it as a big part of getting my news for the day. • It helps me to get my day started in the morning. • Using this site makes me feel like a better citizen. • Using this site makes a difference in my life. • This site reflects my values. • It makes me more a part of my community. • I am a better person for using this site. • It's a treat for me. • Going to this site improves my mood, makes me happier. • I like to kick back and wind down with it.
			Social Facilitation	
			Temporal	
			Self-Esteem and Civic Mindedness	
			Intrinsic Enjoyment	

Utilitarian

- I like to go to this site when I am eating or taking a break.
- While I am on this site, I don't think about other sites I might go to.
- This site helps me make good purchase decisions.
- You learn how to improve yourself from this site.
- This site provides information that helps me make important decisions.
- This site helps me better manage my money.
- I give advice and tips to people I know based on things I've read on this site.

Participation and Socializing

- I do quite a bit of socializing on this site.
- I contribute to the conversation on this site.
- I often feel guilty about the amount of time I spend on this site socializing.
- I should probably cut back on the amount of time I spend on this site socializing.

Community

- I'm as interested in input from other users as I am in the regular content on this site.
 - A big reason I like this site is what I get from other users.
 - This site does a good job of getting its visitors to contribute or provide feedback.
 - I'd like to meet other people who regularly visit this site.
 - I've gotten interested in things I otherwise
 - Wouldn't have because of others on this site.
 - Overall, the visitors to this site are pretty knowledgeable about the topics it covers so you can learn from them.
-

Takahashi (2010)	To measure Japanese engagement with social networking sites	Social networking sites (e.g., Myspace and Mixi)	<p>Information-seeking activity and selectivity</p> <p>Connectivity</p> <p>Bricolage</p> <p>Participation</p>	<ul style="list-style-type: none"> • Seeking, collecting and sharing information relevant to daily life of close friends, school life or general interests, news, and events given by Mixi news and transnational issues, virtual authenticity. • Forming a connection to people or groups, transnational and trans-age connectivity, disembedding from immediate locale, multi-<i>uchis</i> connectivity via phones, and connectivity with <i>soto</i>, <i>uchi</i> creation and recreation. • Approaching from the “cultural supermarket,” creating a bricolage of “friends” and images from different communities nationally and transnationally, creating one’s own world, impression management with profiles, <i>maimiku</i>, “friends” and communities. • Lack of political participation through fear and disbelief in efficacy, participation in taste community and transnational community.
Yanga & Kangb (2009)	To validate blog engagement	Blogs	<p>Interactivity</p> <p>Self-company connection</p>	<ul style="list-style-type: none"> • How interested you were in reading the blog’s posts. • How comfortable you would feel if they were asked to interact with the blogger. • How connected you feel to the blogger’s ideas and thoughts • How likely you would be to link to the blogger’s post from your own websites or blog if you have one. • Company __ reflect who I am. I can identify with Company __. • I feel a personal connection to Company_.

			<p>Company attitude</p> <p>Word-of-Mouth communication intention</p>	<ul style="list-style-type: none"> • I can use Company ___ to communicate who I am to other people. • I think Company ___ could help me become the type of person I want to be. • I think Company ___ to be “me”. Company ___ suits me well. • Reputable/unrepeatable, Responsible/irresponsible • Financially stable/unstable, Established/fly-by-night • Long-run oriented/short-run oriented • I would encourage friends to buy products from Company___. • I would encourage family members or relatives to buy products from Company ___. • I would recommend Company ___ products to someone who asked my advice. • I would say positive things about Company ___ and its products to other people.
Epps (2009) Haven (2007)	To validate online engagement	Social media and rich Internet application	<p>Involvement: the presence of a person at various brand touchpoints.</p> <p>Interaction: the interaction of a person at various brand</p>	<ul style="list-style-type: none"> • Visitor to a site or applications • Page views or page-view equivalents per visitor • Time spent per session or per application • Repeat visitors • Frequency of visit • Subscriptions (to publications, email, RSS, or other services) • TV viewership • Mobile application use • Content consumption via syndicated partners • Actions within a page • Videos played

touchpoints

- Community contributions
- Ratings, reviews, and votes submitted
- Photo or video uploaded
- Text messages sent
- Quizzes taken
- Content saved or tagged
- Subscriptions renewed

Intimacy: the affection of a person for a brand

- Sentiment measured in blog posts, blog comments, and discussion forums
- Call-center feedback
- Search traffic that come from a branded search term

Influence: the likelihood of a person to advocate on behalf of the brand

- Forwarded content
 - Tagged content
 - Widget and video embeds
 - Friends and fans in social networks
 - The rate at which content spreads over time
 - Satisfaction rating
 - Gift subscriptions
-

APPENDIX B
ASSENT SCRIPT

Assent Script

July XX, 2011

I am a researcher from the University of Florida, who is conducting a study to learn about how television audiences use various social media to engage with television content. Specifically, you will be asked to share your opinions and perceptions about your overall television viewing experience, social media experience, and engagement with television content in a social media context.

The online survey will take no more than 30 minutes to complete. All your responses will be kept confidential within reasonable limits. Only people directly involved with this project will have access to the surveys. Your participation is completely voluntary and there is no penalty for not participating. You have the right to withdraw from the study at anytime without consequences.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me at (352) 846-5415 or at miaoguo@ufl.edu. Research at the UF is overseen by the Institutional Review Board 02-UFIRB #2011-U-0097. Questions regarding your rights as a participant should be addressed to: (352) 392-0433 or irb2@ufl.edu.

Thank you in advance for your time!

Sincerely,

M. Melissa Guo
Mass Communication Doctoral Program
P. O. Box 118400
University of Florida
Gainesville, FL 32611-2250

APPENDIX C
QUESTIONNAIRE

QUESTIONNAIRE

Q1. Which of the following social media and online applications have you used before?
(Please select all that apply)

- | | | | | |
|--|---|--------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Facebook | <input type="checkbox"/> Twitter | <input type="checkbox"/> Tagged | <input type="checkbox"/> Flickr | <input type="checkbox"/> Miso |
| <input type="checkbox"/> Myspace | <input type="checkbox"/> Tumblr | <input type="checkbox"/> YouTube | <input type="checkbox"/> Gowalla | <input type="checkbox"/> Philo |
| <input type="checkbox"/> Bebo | <input type="checkbox"/> Reddit | <input type="checkbox"/> StumbleUpon | <input type="checkbox"/> Podcasts | <input type="checkbox"/> Starling |
| <input type="checkbox"/> Friendster | <input type="checkbox"/> Digg | <input type="checkbox"/> Foursquare | <input type="checkbox"/> RSS Feeds | <input type="checkbox"/> GetGlue |
| <input type="checkbox"/> Hi5 (5) | <input type="checkbox"/> Delicious | <input type="checkbox"/> Vimeo | <input type="checkbox"/> Widgets | <input type="checkbox"/> Ning |
| <input type="checkbox"/> Blogs
(e.g., Xanga
WordPress) | <input type="checkbox"/> Online
Discussion
Forums | <input type="checkbox"/> FunnyOrDie | <input type="checkbox"/> Mobile
texting and
applications | <input type="checkbox"/> None of them |

If “None of them” is selected, then skip to End of Block

Q2. How often do you usually use each of the following social media and online applications?

	Very Frequently	Frequently	Occasionally	Rarely	Very Rarely
Facebook	5	4	3	2	1
Myspace	5	4	3	2	1
Bebo	5	4	3	2	1
Blogs (e.g., Xanga WordPress)	5	4	3	2	1
Twitter	5	4	3	2	1
Tumblr	5	4	3	2	1
Reddit	5	4	3	2	1
Digg	5	4	3	2	1
Delicious	5	4	3	2	1
Online Discussion Forums	5	4	3	2	1
Tagged	5	4	3	2	1
YouTube	5	4	3	2	1
StumbleUpon	5	4	3	2	1
Foursquare	5	4	3	2	1
Vimeo	5	4	3	2	1
FunnyOrDie	5	4	3	2	1

Flickr	5	4	3	2	1
Gowalla	5	4	3	2	1
Podcasts	5	4	3	2	1
RSS Feeds	5	4	3	2	1
Widgets	5	4	3	2	1
Mobile texting and applications	5	4	3	2	1
Miso	5	4	3	2	1
Philo	5	4	3	2	1
Starling	5	4	3	2	1
GetGlue	5	4	3	2	1
Ning	5	4	3	2	1
Friendster	5	4	3	2	1
Hi5	5	4	3	2	1
None of them					

Q3. Have you ever used social media to comment, post, watch, or read anything about the following television programs? (Please select all that apply)

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Glee | <input type="checkbox"/> Pretty Little Liars | <input type="checkbox"/> True Blood | <input type="checkbox"/> The Simpsons |
| <input type="checkbox"/> Big Brother | <input type="checkbox"/> Gossip Girls | <input type="checkbox"/> South Park | <input type="checkbox"/> Family Guy |
| <input type="checkbox"/> Criminal Minds | <input type="checkbox"/> Jersey Shore | <input type="checkbox"/> Conan | <input type="checkbox"/> Teen Mom |
| <input type="checkbox"/> NCIS | <input type="checkbox"/> Monday Night Raw | <input type="checkbox"/> The Office | <input type="checkbox"/> The Vampire Diaries |
| <input type="checkbox"/> How I Met Your Mother | <input type="checkbox"/> The Big Bang Theory | <input type="checkbox"/> America's Got Talent | <input type="checkbox"/> Keeping Up With the Kardashians |
| <input type="checkbox"/> None of them | | | |

If "None of them" is selected, then skip to End of Block

Q4. When do you typically use social media to comment, post, watch, or read anything about each of the following television programs?

	Before I watch the program on TV	While I watch the program on TV	After I watch the program on TV
Glee			
Big Brother			
Criminal Minds			
NCIS			
How I Met Your Mother			
Pretty Little Liars			
Gossip Girls			
Jersey Shore			
Monday Night Raw			
The Big Bang Theory			
True Blood			
South Park			
Conan			
The Office			
America's Got Talent			
The Simpsons			
Family Guy			
Teen Mom			
The Vampire Diaries			
Keeping Up With the Kardashians			

Q5. Which one is your most favorite among the following television programs you have chosen before? (Please select ONLY one)

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Glee | <input type="checkbox"/> Pretty Little Liars | <input type="checkbox"/> True Blood | <input type="checkbox"/> The Simpsons |
| <input type="checkbox"/> Big Brother | <input type="checkbox"/> Gossip Girls | <input type="checkbox"/> South Park | <input type="checkbox"/> Family Guy |
| <input type="checkbox"/> Criminal Minds | <input type="checkbox"/> Jersey Shore | <input type="checkbox"/> Conan | <input type="checkbox"/> Teen Mom |
| <input type="checkbox"/> NCIS | <input type="checkbox"/> Monday Night Raw | <input type="checkbox"/> The Office | <input type="checkbox"/> The Vampire Diaries |
| <input type="checkbox"/> How I Met Your Mother | <input type="checkbox"/> The Big Bang Theory | <input type="checkbox"/> America's Got Talent | <input type="checkbox"/> Keeping Up With the Kardashians |
| <input type="checkbox"/> None of them | | | |

Q6. The following statements describe how you use social media to interact with your favorite show. Please indicate how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am a follower of the program (including actors, writers, producers, etc.) in Twitter.	1	2	3	4	5
I have subscribed to the program's RSS feeds or podcasts.	1	2	3	4	5
I have used my mobile phone to watch video clips, check photos and text alerts, or play games relevant to the program.	1	2	3	4	5
I have uploaded or forwarded videos or photos relevant to the program.	1	2	3	4	5
I have used check-in apps for the program in GetGlue, Foursquare, Miso, Philo, or Starling, etc..	1	2	3	4	5
I have read blog posts relevant to the program.	1	2	3	4	5
I have written or commented on blog posts relevant to the program.	1	2	3	4	5
I have read the program's posts in online discussion forums.	1	2	3	4	5
I have written or commented on the program's posts in online discussion forums.	1	2	3	4	5
I have read the program's tweets in microblogs (e.g., Twitter).	1	2	3	4	5
I have written or commented on the program's tweets in microblogs (e.g., Twitter).	1	2	3	4	5
I have used social bookmarks (e.g. Digg and Delicious) to tag the program.	1	2	3	4	5
I am a fan of the program and share it with my friends in social networks (e.g., Facebook and Myspace).	1	2	3	4	5
I have written or commented on the program's posts in social networks (e.g., Facebook and Myspace).	1	2	3	4	5
I have used widgets to embed the program's video clips or photos online.	1	2	3	4	5

Q7. Please tell us how much you agree with each of the following statements about your favorite show.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I would feel lost without the program to watch.	1	2	3	4	5
Whenever I'm unable to watch the program, I really miss it.	1	2	3	4	5
Watching the program is one of the most important things I do each day or each week.	1	2	3	4	5

Q8. Please use the following adjectives to tell us how you feel about your favorite show.

Irrelevant	<u> 1 </u>	<u> 2 </u>	<u> 3 </u>	<u> 4 </u>	<u> 5 </u>	Relevant
Means nothing to me	<u> 1 </u>	<u> 2 </u>	<u> 3 </u>	<u> 4 </u>	<u> 5 </u>	Means a lot to me
Doesn't matter	<u> 1 </u>	<u> 2 </u>	<u> 3 </u>	<u> 4 </u>	<u> 5 </u>	Matters to me
Uninterested	<u> 1 </u>	<u> 2 </u>	<u> 3 </u>	<u> 4 </u>	<u> 5 </u>	Interested
Superfluous	<u> 1 </u>	<u> 2 </u>	<u> 3 </u>	<u> 4 </u>	<u> 5 </u>	Vital
Nonessential	<u> 1 </u>	<u> 2 </u>	<u> 3 </u>	<u> 4 </u>	<u> 5 </u>	Essential

Q9. When you watch each of the following types of programs, how much attention do you typically pay each types of programs?

	Extremely	Very	Moderately	Slight	Not at all
Reality Shows (e.g., Big Brother, Jersey Shore)	5	4	3	2	1
Game/Talk Shows (e.g., Monday Night Raw, Conan)	5	4	3	2	1
Animated Comedies (e.g., The Simpsons, Family Guy)	5	4	3	2	1
Drams (e.g., NCIS, Glee)	5	4	3	2	1
Sitcoms (e.g., How I Met Your Mother, The Office)	5	4	3	2	1

Q10. How much do you enjoy watching each of the following types of programs?

	Extremely	Very	Moderately	Slight	Not at all
Reality Shows (e.g., Big Brother, Jersey Shore)	5	4	3	2	1
Game/Talk Shows (e.g., Monday Night Raw, Conan)	5	4	3	2	1
Animated Comedies (e.g., The Simpsons, Family Guy)	5	4	3	2	1
Drams (e.g., NCIS, Glee)	5	4	3	2	1
Sitcoms (e.g., How I Met Your Mother, The Office)	5	4	3	2	1

Q11. Please indicate how much you agree with each of the following statements about your favorite show.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Over the past month, I have not missed any episodes of the program when they broadcast on television.	1	2	3	4	5
I would recommend the program to others.	1	2	3	4	5
I think of myself as a loyal viewer of the program.	1	2	3	4	5
I would be willing to watch the program rather than other shows.	1	2	3	4	5

Q12. How satisfied were you with watching your favorite TV show?

Not at all satisfied 1 2 3 4 5 **Very satisfied**

Q13. If any of the following items were available in the program's station/network site after watching the program, would you be more likely to buy them?

	Definitely	Probably	Be unsure	Probably not	Definitely not
Memorabilia/merchandise of the TV station/network	5	4	3	2	1
Memorabilia/merchandise of the TV show or TV stars	5	4	3	2	1
Products shown in that TV show	5	4	3	2	1

Q14. The following statements describe your social media use experience. Please indicate how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Learning to use social media to comment, post, watch, or read anything about television program is easy for me.	1	2	3	4	5
It is easy for me to become skilled at using social media to comment, post, watch, or read anything about television program.	1	2	3	4	5
It is easy to use social media to comment, post, watch, or read anything about television program.	1	2	3	4	5

Q15. Please indicate how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Using social media to comment, post, watch, or read anything about television program is compatible with most aspects of my television viewing.	1	2	3	4	5
Using social media to comment, post, watch, or read anything about television program fits my lifestyle.	1	2	3	4	5
Using social media to comment, post, watch, or read anything about television program fits well with the way I like to engage in television viewing.	1	2	3	4	5

Q16. Please use the following adjectives to indicate how you feel about social media in general.

Unsociable	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Sociable
Impersonal	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Personal
Insensitive	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Sensitive
Cold	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Warm
Passive	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Active

Q17. The following statements describe the REASONS why you use social media to interact with the television show. Please indicate how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Because it relaxes me	1	2	3	4	5
Because it allows me to unwind	1	2	3	4	5
Because it's a pleasant rest	1	2	3	4	5
So I won't have to be alone	1	2	3	4	5
When there's no one else to talk to or be with	1	2	3	4	5
Because it makes me feel less lonely	1	2	3	4	5
When I have nothing better to do	1	2	3	4	5
Because it passes the time away, particularly when I am bored	1	2	3	4	5
Because it gives me something to do to occupy my time	1	2	3	4	5
Because it entertains me	1	2	3	4	5
Because it's enjoyable	1	2	3	4	5
Because it amuses me	1	2	3	4	5
Because it helps me learn things about myself and others	1	2	3	4	5
So I can learn how to do things which I haven't done before	1	2	3	4	5
So I could learn about what could happen to me	1	2	3	4	5
Because it's thrilling	1	2	3	4	5
Because it's exciting	1	2	3	4	5
Because it peeps me up	1	2	3	4	5
So I can forget about school/work or other things	1	2	3	4	5
So I can get away from the rest of the family or others	1	2	3	4	5
So I can get away what I'm doing	1	2	3	4	5

Q18. The following statements describe the REASONS why you use social media to interact with the television show. Please indicate how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Because it is easier to get information	1	2	3	4	5
Because I can search for information	1	2	3	4	5
Because I can get information for free	1	2	3	4	5
So I can see what is out there	1	2	3	4	5
So I can learn about useful things	1	2	3	4	5
So I can learn about unknown things	1	2	3	4	5
Because I want to show others encouragement	1	2	3	4	5
Because I want to communicate with friends and family	1	2	3	4	5
Because I want to belong to groups with the same interest as mine	1	2	3	4	5
Because I want to let others know I care about their feelings	1	2	3	4	5
Because I can express myself freely	1	2	3	4	5
Because I enjoy answering others' questions	1	2	3	4	5
Because I can participate in discussion	1	2	3	4	5
Because I can meet new people	1	2	3	4	5

Q19. The next set of questions is designed to understand your personal characteristics. Please tell us how much you agree with each of following the statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
In general, I am among the last in my circle of friends to use a new social media platform when it appears.	1	2	3	4	5
If I heard that a new social media platform was available online, I would be interested enough to try it.	1	2	3	4	5
Compared to my friends, I use few social media platforms.	1	2	3	4	5
I will use a new social media platform, even if I haven't heard of it yet.	1	2	3	4	5
In general, I am the last in my circle of friends to know the names of the latest social media platforms.	1	2	3	4	5
I know more about new social media platforms before other people do.	1	2	3	4	5

Q20. Please tell us how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I get to see my friends as often as I would like.	1	2	3	4	5
I spend enough time communicating with my friends and family by telephone or mail.	1	2	3	4	5
I have ample opportunity for conversations with others.	1	2	3	4	5
I can always find someone to speak with when I need to talk.	1	2	3	4	5

Q21. Please tell us how much you agree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I often travel, vacation, or take trips with others.	1	2	3	4	5
I often visit with friends, relatives, or neighbors in their homes.	1	2	3	4	5
I often participate in the meetings or activities of clubs, lodges, recreation centers, churches, or other organizations.	1	2	3	4	5
I often go places to socialize with others.	1	2	3	4	5
I often participate in games, sports, or activities with others.					

Q22. Which of the following new technology equipment do you have at home?
(Please select all that apply)

- Blue-ray player
- Video On Demand (VOD)
- DVD player
- Tablet (e.g., iPad, etc.)
- DVR/TiVo
- Cellular Phone
- iPod or other portable MP3 Player
- E-reader (e.g., Kindle, Nook, etc.)
- HDTV
- Videogame System (e.g., Nintendo Wii, Playstation 3, Xbox 360, etc.)
- DVD burner/recorder
- Video iPod or other portable video player
- Computer

Q23. Please check the subscription type(s) of your television service at home.

- Over the air only
- Basic and expanded basic cable
- Satellite (e.g., Dish Network, Direct TV, etc.)
- IPTV (e.g., U-verse TV, FiOS, etc.)
- Others

Q24. Please check the subscription type of your Internet connection in your house.

- High-speed
- Dial-up
- No Internet connection

Q25. What is your gender?

- Male
- Female

Q26. What is your age? _____

Q27. What is the last grade of school you completed?

- Less than high school graduate
- High school graduate
- Some college
- College graduate or more

Q28. For statistical purposes, please estimate your total yearly household income (from all sources) before taxes.

- Under \$30,000
- \$30,000 to just under \$50,000
- \$50,000 to just under \$75,000
- \$75,000 to just under \$100,000
- \$100,000 or more

Q29. What is your racial or ethnic background?

- White
- African-American
- Asian
- Latino, Latina, Hispanic
- Other

Q30. What is your current employment status?

- Employed outside the home full-time (30 hours or more per week)
- Employed outside the home part-time (1 to 29 hours per week)
- Doing income producing work at home
- Temporarily unemployed
- Full-time student
- Going to school part-time
- Retired
- Full time homemaker

Q31. What is your marital status?

- Single, never married
- Married
- Other

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BIOGRAPHICAL SKETCH

Miao Guo received her Ph.D. degree in Mass Communication from the University of Florida in the spring of 2012. Her teaching and research interests include social media, audience analysis, media effects, and online branding and marketing. Miao has assisted with and taught *Telecommunication Planning and Operations*, *Perspectives of Radio and Television*, and the online course *Writing and Reporting for Interactive Media* at universities. She taught the course *Telecommunication Research* at the University of Florida, earning positive reviews from her students. She also has strong interests in incorporating social media into the classroom and has participated in online course design and development.

Miao has already demonstrated herself as a productive scholar, with sole-authored and collaborative research producing five scholarly publications and fifteen conference presentations at the meetings of the Association for Education in Journalism and Mass Communication (AEJMC), the International Communication Association (ICA), the Broadcast Education Association (BEA), and the World Media Economics and Management Conference. Miao has worked as research assistant on various grant projects and the *International Journal on Media Management*.

Prior to pursuing her doctoral studies, Miao received a master's degree in radio, television, and film from the University of North Texas in 2007, as well as a communication master's degree from Tsinghua University in China in 2004. She has served on the faculty of Beijing Normal University in Zhuhai, China.