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Jhieh-Syuan Lin M.A. & Chang-Hoan Cho Ph.D.

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# Antecedents and Consequences of Cross-Media Usage: A Study of a TV Program's Official Web Site

**Jhjh-Syuan Lin and Chang-Hoan Cho**

*This study explores the causal relationships among and within the antecedents and consequences of television (TV) viewers' cross-media usage. The results indicated that viewers who are highly involved in a program tend to visit the program's official Web site more often and stay longer than a viewer who is not highly involved, thereby leading to better Web site loyalty. This loyalty leads to an increase in the use of Interactive Online Product Placement (IOPP), which has a positive influence on their attitude toward the sponsor, and their purchase intentions. The implications of these findings and recommendations for future research are discussed.*

A Web site is considered the most important form of interactive advertising (Sicilia, Ruiz, & Munuera, 2005). With a high level of interactivity, the Internet represents the future of marketing communications (Ghose & Dou, 1998), and is recognized for its potential to provide in-depth information in addition to creating virtual product experiences (Klein, 2003). Marketers embrace online channels as a core device in their marketing communication mix (Edelman, 2007) in response to the trend of consumers spending more time on the Internet. TV networks also established their presence on the Internet to encourage audience involvement with the TV networks' programs (Ha & Chan-Olmsted, 2004) through cross-media usage, specifically through the use of TV and the Internet. As vital companions to TV networks, TV Web sites are designed to fulfill the communication needs of TV fans (Ha & Chan-Olmsted, 2001) by providing various features for devoted viewers such as previews of upcoming episodes, program-related events, behind the scenes stories, opportunities for discussion with other program fans and more. Additionally, TV Web sites are expected to provide a new environment of hybrid media content including e-commerce, online games, etc. (Ha & Chan-Olmsted, 2004).

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**Jhjh-Syuan Lin** (M.A., University of Florida) is a doctoral student in Advertising at the University of Texas at Austin. Her research interests include media psychology and consumer-brand relationships.

**Chang-Hoan Cho** (Ph.D., The University of Texas at Austin) is an associate professor in the Department of Communication at Yonsei University, S. Korea. His research interests include interactive new media communication, multicultural advertising, and Internet advertising.

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Due to these features, enhanced TV is defined as “the use of Internet features to improve (enhance) the viewing experience” (Ha & Chan-Olmsted, 2004, p. 620). TV programmers believe that enhanced TV can help build loyalty among viewers, increase retention, and attract new subscribers (Fahey, 2000; Griffin, 1996) through the interaction between viewers and TV networks on the Internet. For marketers and advertisers, TV Web sites provide valuable opportunities for interactive marketing applications. Some prime examples of this interactivity include the cultivation of a subculture of deeply passionate fans—“fandom” (Ha & Chan-Olmsted, 2004), increasing online broadband video use (Nielsen Online, 2007), and combining e-commerce with the influence of celebrity culture (Olijnyz, 2007). In light of the importance of TV Web sites to TV networks and marketers, this study aimed to develop a structural equation model that explained the antecedents and consequences of TV viewers’ cross-media usage.

## Literature Review and Conceptualization

### Program Involvement

Involvement is an internal state of arousal that consists of intensity, direction, and persistence properties (Andrews, Durvasula, & Akhter, 1990; Mitchell, 1979). The essential attribute of involvement is the perceived personal relevance of the target object based on the consumer’s needs, goals, and values (Celsi & Olson, 1988; Petty & Cacioppo, 1981). Program involvement was defined and conceptualized differently in previous studies (Moorman, Neijens, & Smit, 2007). Some examples of program involvement include viewer drive for closure (Kennedy, 1971), suspense (Bryant & Comisky, 1978), prior arousal (Mattes & Cantor, 1982), emotional reaction (Pavelchak, Antil, & Munch, 1988), and distraction (Mundorf, Zillmann, & Drew, 1991). The concept of program involvement is often applied to examine the influence on commercial effectiveness. Some scholars claimed that presenting a commercial during a captivating program diminished the commercial’s recall due to the viewers’ limited information-processing capacity (Bryant & Comisky, 1978; Feltham & Arnold, 1994; Kennedy, 1971), while others noted a positive relationship between program involvement and advertising effectiveness (e.g., Lloyd & Clancy, 1991; Lord & Putrevu, 1996). Also, some researchers considered that an inverted-U relationship was a better way of understanding the effect of program involvement on ad recall (Tavassoli, Shultz II, & Fitzsimons, 1995).

For the purposes of this study, program involvement is defined as “an active, motivated state signifying interest and arousal induced by a television program” (Moorman et al., 2007, p. 127). Viewers with high program involvement are expected to pay close attention to the TV program and to watch the program instead of being distracted by other stimuli. These viewers are more willing to process information from the TV program and are more likely to be heavy viewers and

become fans (Ha & Chan-Olmsted, 2004) than viewers with low program involvement. In addition, Lin (1993) introduced the concept of audience activity as a construct to explain audiences' involvement in media use. Due to varying *utility, intentionality, selectivity, and imperviousness to influence* (Blumler, 1979), it was observed that audience activity has an effect on the communication behavior and consequences (Rubin, 1993). Therefore, viewers with high program involvement may be motivated to actively seek external information sources through voluntary exposure. The researchers in this study also applied uses and gratifications studies to further conceptualize the viewers' motivation and active communication behavior.

### Internet Uses and Gratifications

The uses and gratifications (U&G) theory is ideally suited for studying the role of psychological and behavioral tendencies in audience media use (Korgaonkar & Wolin, 1999). The U&G perspective assumes that media users are goal-directed and actively involved in media usage (Katz, Blumler, & Gurevitch, 1974). People actively select certain types of media and media content in order to satisfy various social and psychological needs (McLeod & Becker, 1981). This theoretical approach was useful in understanding users' motivations and concerns when it comes to computer-mediated communication (CMC) (Lin, 1999). Due to the attributes of the Internet (e.g., interactivity), users can interact with messages and other users to fulfill their needs, including informational and interpersonal communication needs (Flaherty, Pearce & Rubin, 1998; Ko, Cho, & Roberts, 2005). The use of Internet media is recognized as goal directed or motivated (Rubin, 1993; Lin & Jeffres, 1998).

Based on the consumer-level point of view (Stafford, Stafford, & Schkade, 2004), the core concept of U&G research is audience activity; i.e., motivations are key components of audience activity (Rubin, 1993). With this in mind, scholars identified different types of motives for Internet usage in response to the fact that consumers use the Internet for many reasons other than information retrieval (Korgaonkar & Wolin, 1999). For example, Miller (1996) identified four motives: interaction, escape, entertainment, and surveillance, while Eighmey and McCord (1998) identified two motives: entertainment, and exploration. Papacharissi and Rubin (2000) identified five primary motives for using the Internet: interpersonal utility, pastime, information-seeking, convenience, and entertainment. In 2005, Ko and colleagues examined four major components of the motivations for Internet usage: information offered, convenience of use, entertainment value, and social interaction motivations. These components were applied in this study to explain the motivations for viewers' Web site patronage.

Current literature on program involvement and Internet U&G, people with high program involvement are active and motivated (Moorman et al., 2007), and therefore are willing to process program-related information through different sources and/or media use. In this study, the researchers focused on the use of a TV program and its official Web site in the context of cross-media usage. It was expected that

viewers who were highly involved with a TV program would have strong motivations to visit the official Web site and to process the detailed program-related information on the Web site in order to satisfy their media-related needs.

H<sub>1</sub>: There will be a positive relationship between the TV viewers' program involvement and their motivation for processing information from the TV program's official Web site.

In addition, previous studies highlighted that consumers use the media more frequently when they are highly motivated to use the media to satisfy their intrinsic needs (Ko et al., 2005). Applying this to a Web site, it is hypothesized that:

H<sub>2</sub>: There will be a positive relationship between the motivation for processing information and the frequency of visits to the TV program's official Web site.

Furthermore, it was found that TV viewers who have a high degree of certain motivations to go onto the official Web site (e.g., information, convenience, and social interaction) were more likely to stay longer to satisfy their motivations (Ko et al., 2005).

H<sub>3</sub>: There will be a positive relationship between the motivation for processing information and the duration of the visits to the TV program's official Web site.

## **Brand Loyalty**

Marketing researchers applied the brand loyalty concept to explain how consumers purchase and/or behave in the marketplace including the economics of information (Farley, 1964), repeat purchasing behavior (Jacoby & Kyner, 1973), sales of the brand (Howard & Sheth, 1969), reduced marketing investment (Aaker, 1991), and more. Unlike the prevalent application and significant contribution of branding in marketing research, branding is still a relatively new field in media industries (Chan-Olmsted & Kim, 2001). Chan-Olmsted and Kim (2001) assessed the branding concept and practices among TV broadcasters and concluded that TV programming needs to be supported by well-developed branding efforts to succeed in the dynamic marketplace.

In the present conceptualization, brand loyalty is utilized to explain Web site loyalty after the TV viewers' initial Web site patronage. Wang, Pallister, and Foxall (2006) used Web site loyalty to test the behavior of Internet buyers and found that consumers transfer their existing brand loyalty from traditional markets to the brand's Web site in the Internet market. Ha and Chan-Olmsted (2004) also proposed that a TV Web site, as a brand extension, can easily receive support from viewers of the corresponding TV network. Hence, it is logical to consider Web site loyalty as

a consequence of highly involved viewers' Web site visits. Additionally, similar to retailers' desire to keep customers in a store longer and return more often, this study postulates that frequency and duration of Web site visits have a positive influence on Web site loyalty. In other words, those who visit the Web site more frequently and stay longer are more likely to have a higher level of loyalty toward the TV program's official Web site.

H<sub>4</sub>: There will be a positive relationship between the frequency of visits and the loyalty to the TV program's official Web site.

H<sub>5</sub>: There will be a positive relationship between the duration of the visits and loyalty to the TV program's official Web site.

## Interactivity and Product Placement

Interactivity is considered a key factor in studying the Internet (Rafaeli & Sudweeks, 1997) and its marketing applications. It is "the extent to which users can participate in modifying the form and content of a mediated environment in real time" (Steuer, 1992, p. 84). Interactivity can be a useful tool for creating brand identity (Upshaw, 1995) by facilitating online relationship marketing (Cuneo, 1995), enabling greater control over information-seeking processes (Hoffman & Novak, 1996), and creating more effective persuasion through engagement and interaction with online consumers (Drennan & Cornwell, 2004; McMillan & Hwang, 2002).

New technology development (e.g., DVR) made it easier for consumers to avoid advertising messages in the traditional media arena. Therefore, product placement became a widely used marketing alternative. Product placement is "a paid product message aimed at influencing movie (or television) audiences via the planned and unobtrusive entry of a branded product into a movie (or television program)" (Balasubramanian, 1994, p. 31). As a strategic marketing tool, product placement, widely examined in prior marketing research (Karrh, 1998), offers marketers a way to show consumers the brand in natural settings with a greater reach and impact than traditional advertising (Nelson, 2002).

The interest in product placement is beginning to expand to Web site content. Product placement on the Internet platform makes it somewhat different from those placed in conventional media, because of the capacity of interactivity. Unlike passively watching television or movies, Internet users can actively interact with brand-related information on the Internet. To be more specific in differentiating product placement on the Internet (which incorporates interactive functions) from those product placements in traditional media, the term "interactive online product placement" (IOPP) was created and defined in this study as the inclusion of brand identifiers in interactive features on Web sites in return for commercial considerations. IOPP is a potential marketing tactic aided by technological innovations. Therefore, enhanced TV functions with any sponsor's product and/or brand placed in them are designated as IOPP.

In addition, Holland and Baker (2001) found that Web site loyalty leads to cognitive, affective and behavioral reactions from consumers, including repeat visits and favorable attitudes toward the Web site. Therefore, it seems rational to propose that once Web site loyalty is formed among viewers, they are expected to use the sponsor's IOPP features more frequently than other visitors to the official Web site. This is due the high degree of Web site loyalty. The corresponding hypothesis is,

H<sub>6</sub>: There will be a positive relationship between loyalty to the TV program's official Web site and usage of the sponsor's interactive online product placement.

The effects of advertising on consumer outcomes are always included in marketers' concerns. The benefits of enhanced TV usage were demonstrated in the results of previous research on TV Web sites. Ha and Chan-Olmsted (2001) noted that the more TV Web site visitors used enhanced TV, the more likely they were to confirm their online purchase intentions. In addition, Glass (2007) confirmed the effects of product placement on attitude change and purchasing intentions in the online gaming environment. Based on this conceptual framework, it is postulated that the use of IOPP will affect attitude toward the sponsor, which will exert an influence on purchase intention.

H<sub>7</sub>: There will be a positive relationship between the use of the sponsor's interactive online product placement and the attitude toward the brand.

H<sub>8</sub>: There will be a positive relationship between attitudes toward the sponsor's brand and purchase intention.

## Methodology

### Stimulus Material

The TV program *Gossip Girl* (*GG*) is a prime-time soap opera produced by the CW Television Network, which is America's fifth broadcast network and the only network targeting 18 to 34-year-olds (CW Television Network, CWTV.com, 2008). *GG* first aired in the country on September 19, 2007, and the first episode attracted 3.65 million viewers (Mitovich, 2007). *GG* was placed on the "top ten" new shows list that measures viewer awareness (OTX, 2007). In addition, the official Web site of *GG* incorporates many enhanced TV functions beyond features with which visitors can interact on the CW's Web site. The main Web page is designed as a room setting in the real world that includes a laptop, a television, a cell phone, and many other elements associated with the program. Once users click on one of the products/icons, the item (or product) is enlarged and shows more details about a specific topic. Visitors can access most of the Web site by interacting with the

products/icons on the main page. Therefore, it was considered ideal to employ GG and its official Web site as the stimuli for cross-media usage research.

## Sample and Data Collection

An online survey was used in this study. Participants were asked to click a posted link that led them to a self-reported questionnaire. The online questionnaire started with two screening questions aimed at categorizing participants into two groups: (1) people who watched GG, but had not visited the official Web site; and (2) people who watched GG and visited the official Web site. The data were obtained from a total of 250 respondents recruited through the online social communities (i.e., groups formed for GG fans) of MySpace.com and Facebook, the top two social networking sites (Blackshaw, 2008).

Among the 250 participants, there were 43 (2 were male, and 41 were female) who watched GG, but had not visited its official Web site; the other 207 (21 were male, and 186 were female) watched GG and also visited its official Web site. Considering the gender bias of the existing sample, all male responses were excluded from the data analysis. Therefore, a total of 227 responses from female respondents were analyzed in the current study. Among those female respondents, only 187 female subjects who watched GG and visited the official Web site were included for developing a model that incorporated the cross-media usage behavior. Another group of 41 female subjects was analyzed focusing on why the subjects had not visited the official Web site.

## Measures, Instruments, and Data Analysis

Two closed-ended questions about the frequency and duration of Web site visits and the questions about the use of the sponsor's IOPP were constructed by the researchers due to the absence of an adaptable existing measure or scales previously validated in the literature. In this study, program involvement was measured using 12 scale items adopted from Norris and Colman (1992). Motivations were measured on a 7-point scale in four dimensions: information, convenience, entertainment, and social interaction, borrowed from Ko et al. (2005). In addition, the frequency and duration of Web site visits were measured by using open-ended and closed-ended questions. The open-ended questions were adopted from Thorbjørnsen and Supphellen (2004), while the closed-ended questions were constructed by the researchers in this study. Aaker's (1991) three-item brand loyalty scale was applied in the current context to measure Web site loyalty. The original items were modified according to the different attributes of the online environment. In order to determine the usage of the sponsor's IOPP, the researchers explored the official Web site of GG and found that the *Verizon Wireless* brand had IOPP on the Web site. The brand was shown on a cell phone icon on the main Web page and visitors could access the *GG Music* section by clicking this icon. Once in the *GG Music* section, it also



was easy to find instances of *Verizon Wireless* placed on the Web page. According to the above findings, participants rated four levels of interaction on a 7-point scale to determine the depth of their interaction with brand-related enhanced TV. These levels of interaction included the use of an interactive product icon placed on the main page, a program-related section sponsored by the brand, a service page under the official Web site, and the independent corporate Web site linked through the official Web site. Based on MacKenzie, Lutz and Belch's (1986) study, attitude toward the brand was measured using three 7-point semantic differential scales. In addition, the purchase intentions of viewers were uncovered by using three 7-point semantic differential scales (MacKenzie et al., 1986).

Since the measurement items employed in the current study were constructed or modified by the researchers, a confirmatory factor analysis of each construct was first performed for the final verification of unidimensionality (Gerbing & Anderson, 1988). The selected scales were all confirmed by confirmatory factor analysis. The results from the first-order confirmatory factor models indicated that the item-loading estimates of the factors were significant ( $p < .001$ ) (see Table 1). The reliability coefficient alpha for each construct was higher than .70, except for the frequency (Cronbach  $\alpha = .55$ ) and duration constructs (Cronbach  $\alpha = .28$ ). Therefore, the open-ended question items were deleted to improve reliability (Cronbach  $\alpha = .93$  for frequency construct, and Cronbach  $\alpha = .88$  for duration construct). The purified final measure instruments for structural equation analysis are presented in Table 1. Structural equation modeling (SEM) was used to test the current hypothesized model. Amos 5 was utilized for performing data analysis by using the method of maximum likelihood.

## Results

### Subject Profile

Among a total of 227 female survey participants, 41 watched *GG*, but had not visited the official Web site. A group of 186 participants was included due to their prior experience of watching *GG* and surfing the official Web site in order to test the hypothesized cross-media usage model. Their ages ranged from 18 to 46 and most (94.1%) of them were between the ages of 18 and 25. The mean and median of their ages were 21.09 and 20, respectively.

### Model Testing

Several underlying assumptions for SEM (normality, sampling adequacy, and no extreme multicollinearity) (Hair, Anderson, Tatham, & Black, 1998) were tested. The results showed a statistically significant Bartlett's test of sphericity index ( $p < .01$ ), skewness and kurtosis values within the range of  $\pm 1.96$ , variance inflation factors (VIFs)  $< 10.0$ , tolerance scores  $> .10$ , eigenvalues  $> .01$ , and condition indexes  $< 100$ .

**Table 1**  
**Constructs, Indicators and Key Statistics of the Cross-Media Usage Model**

Latent Constructs	Indicators	M	SD	Confirmatory Factor Loadings
Program involvement	I found the show not at all entertaining/very entertaining.	6.73	.67	.77 <sup>a</sup>
	I did not feel involved/very involved in the show.	6.09	1.24	.67 <sup>a</sup>
	The show was not very suspenseful/very suspenseful.	6.21	.98	.67 <sup>a</sup>
	I could not concentrate/could concentrate when watching the show.	6.53	1.06	.42 <sup>a</sup>
	I was not relaxed/relaxed when watching the show.	6.05	1.21	.32 <sup>a</sup>
	I found the show very boring/very interesting.	6.72	.76	.62 <sup>a</sup>
	I learned nothing/learned a great deal from the show.	4.96	1.66	.63 <sup>a</sup>
	I did not enjoy/enjoyed the show very much.	6.80	.63	.71 <sup>a</sup>
	I was not absorbed/very absorbed in the show.	6.43	1.10	.75 <sup>a</sup>
	I did not feel very tense/felt very tense when watching the show.	4.69	1.95	.43 <sup>a</sup>
The general quality of the show was very low/high.	I did not attend very closely/attended very closely to the show.	6.26	1.27	.69 <sup>a</sup>
		6.29	1.01	.74 <sup>b</sup>
Index		6.15	.74	Cronbach $\alpha$ = .85
Motivation to process Web site information	Information motivation	4.81	1.56	.85 <sup>b</sup>
	Convenience motivation	5.29	1.30	.79 <sup>a</sup>
	Entertainment motivation	4.58	1.45	.87 <sup>a</sup>
	Social-interaction motivation	3.90	1.50	.75 <sup>a</sup>
Index		4.65	1.26	Cronbach $\alpha$ = .89

(continued)

**Table 1**  
(Continued)

Latent Constructs	Indicators	M	SD	Confirmatory Factor Loadings
Frequency of Web site visits	How often do you visit the Web site on average?	2.90	1.71	.89 <sup>b</sup>
	How frequently do you visit the Web site on average?	3.24	1.88	.99 <sup>a</sup>
	Index	3.07	1.74	Cronbach $\alpha$ = .93
Duration of Web site visits	I spend a significant amount of time at the Web site.	3.15	1.78	.95 <sup>a</sup>
	Average duration of Web site visits	3.44	1.82	.82 <sup>b</sup>
	Index	3.30	1.70	Cronbach $\alpha$ = .88
Web site loyalty	I am committed to the Web site.	3.46	1.93	.91 <sup>b</sup>
	I would be willing to visit the Web site rather than other Web sites.	3.70	1.90	.82 <sup>a</sup>
	I would recommend the Web site to others.	4.57	1.86	.77 <sup>a</sup>
	Index	3.91	1.71	Cronbach $\alpha$ = .88
The usage of the sponsor's interactive online product placement	Clicked on/interacted with the "cell phone" icon	2.53	1.98	.73 <sup>b</sup>
	Use of the "Gossip Girl Music" section	3.56	2.23	.66 <sup>a</sup>
	How frequently do you visit the Verizon Wireless service page?	2.13	1.73	.84 <sup>a</sup>
	The degree of your interactions with the independent Verizon Wireless official Web site.	2.45	1.92	.79 <sup>a</sup>
	Index	2.67	1.61	Cronbach $\alpha$ = .84

(continued)

**Table 1**  
(Continued)

Latent Constructs	Indicators	M	SD	Confirmatory Factor Loadings
Attitude toward the sponsor's brand	To me, Verizon Wireless that sponsors "Gossip Girl" is:	5.03	1.80	.92 <sup>b</sup>
	(1) unfavorable/favorable (7)			
	(1) bad/good (7)	5.46	1.61	
	(1) unpleasant/pleasant (7)	5.14	1.66	
	Index	5.22	1.62	Cronbach $\alpha$ = .95
Purchase intention	I would purchase the service from Verizon Wireless:	4.21	2.26	.97 <sup>b</sup>
	(1) unlikely/likely (7)			
	(1) impossible/possible (7)	4.56	2.11	
	(1) improbable/probable (7)	4.35	2.14	
	Index	4.38	2.11	Cronbach $\alpha$ = .97

<sup>a</sup>Factor significance:  $p < .01$ .

<sup>b</sup>Loading was set to 1.0 to fix the construct variance.

Figure 1 shows the visual description of the hypothesized model. First, a confirmatory factor analysis was conducted for the measurement model (see Table 1 for confirmatory factor loadings). The final measurement model fits the data quite well across most goodness-of-fit indexes:  $\chi^2/\text{degree of freedom ratio} = 1.57$  ( $\chi^2 = 731.19$ ,  $df = 467$ ), comparative fit index (CFI) was .94, normed fit index (NFI) was .85, and root mean square error of approximation (RMSEA) was .06. The hypothesized structural model was tested using the selected goodness-of-fit results as well. Results indicated that the final simultaneous equation model fits the data very well across most goodness-of-fit indexes:  $\chi^2/\text{degree of freedom ratio} = 1.54$  ( $\chi^2 = 738.23$ ,  $df = 481$ ), CFI was .94, NFI was .86, and RMSEA was .05. Then the  $\chi^2_{\text{difference}}$  test was conducted between the measurement model and the final structural model. The  $\chi^2_{\text{difference}}$  was 7.04 and the  $df_{\text{difference}}$  was 14 ( $p > .05$ ). This analysis demonstrated that the simultaneous equation model, in favor of the measurement model, was not rejected. In other words, the measurement model and the simultaneous equation model were virtually identical without a significant decrement in fit. In addition, the significance of the regression weights was examined and all associated measures and relationships were determined to be significant ( $p < .01$ ).

In order to explore alternative models, an analysis of modification indices was conducted to examine other meaningful paths among the constructs. An alternative model with the added direct paths from program involvement to Web site loyalty and from motivation to Web site loyalty did not significantly improve the selected goodness-of-fit indexes. Therefore, the final structural model in Figure 2 was accepted as the final cross-media usage model.

As Figure 2 illustrates, program involvement led to motivation to process the information on the official Web site ( $H_1: \beta = .50, p < .001$ ). Also, motivation was confirmed to have a positive relationship with the frequency ( $H_2: \beta = .75, p < .001$ ) and duration of Web site visits ( $H_3: \beta = .82, p < .001$ ). As proposed, more frequent visits to the Web site resulted in higher Web site loyalty ( $H_4: \beta = .26, p < .01$ ). However, the path coefficient was relatively small, indicating a weak, positive relationship. The path was included in the final model because it was statistically significant and the alternative model with the deleted path did not improve the model fit indexes. As expected, longer duration of Web site visits generated higher Web site loyalty ( $H_5: \beta = .73, p < .001$ ). Web site loyalty was found to have a positive relationship with the use of a sponsor's IOPP ( $H_6: \beta = .67, p < .001$ ), which in turn led to a positive attitude toward the sponsor ( $H_7: \beta = .42, p < .001$ ) and purchase intentions ( $H_8: \beta = .72, p < .001$ ).

## Discussion

This study offers a comprehensive framework to predict and evaluate the relationships among and within the antecedents (program involvement, motivation to process Web site information, frequency and duration of Web site visits), and

Figure 1  
Hypothesized Cross-Media Usage Model

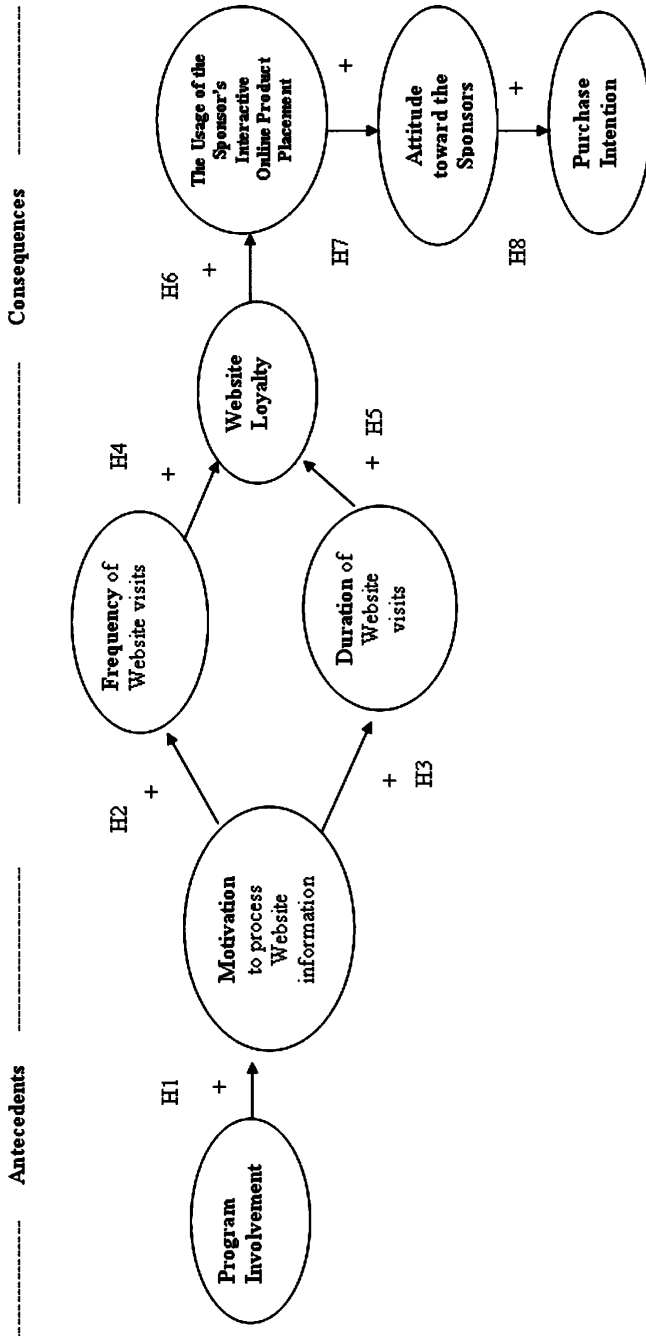
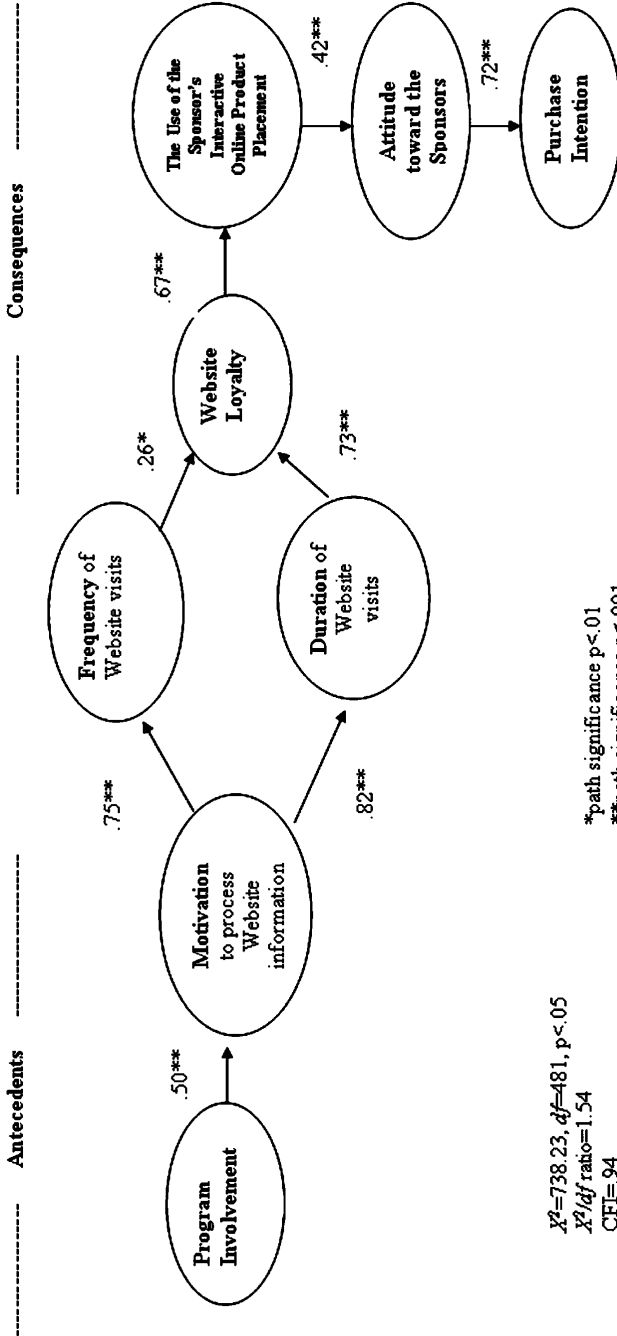


Figure 2  
The Cross-Media Usage Model



$\chi^2=738.23, df=481, p<.05$

$\chi^2/df$  ratio=1.54

CFI= .94

NFI= .86

RMSEA= .054

\*path significance  $p<.01$

\*\*path significance  $p<.001$

consequences (Web site loyalty, the usage of the sponsor's IOPP, attitude toward the sponsor and purchase intention) of cross-media usage.

### **Antecedents of Cross-Media Usage**

First, this research demonstrates that program involvement directly influences motivation to process information on the TV program's official Web site ( $H_1$ ). Program involvement seems to connect viewers to the TV program and induce program-related interest/arousal, resulting in several kinds of goal-directed motivations to browse the official Web site. Among the four types of motivations, convenience followed by information, and then entertainment, were the most prevalent motivations to explain viewers' use of the official Web site. Social-interaction motivation did not appear to be much of a driving factor in encouraging viewers to visit the official Web site. That may be due to the fact that the viewers do not have a need for social-interaction and/or the official Web site does not adequately provide social-oriented Web site functions for viewers to interact with others. In support of recent U&G applications, viewers with high information, convenience, entertainment, and/or social interaction motivations for using the official Web site tend to visit the Web site more often ( $H_2$ ) and stay on the Web site longer ( $H_3$ ) to fulfill their corresponding motivations.

### **Consequences of Cross-Media Usage**

The frequency and duration of TV viewers' visits to the TV program's official Web site were positively related to the formation of Web site loyalty ( $H_4$  and  $H_5$ , respectively). Consistent with Holland and Baker's (2001) findings of Web site brand loyalty, viewers tend to return to the official Web site because they expect the Web site to be enjoyable and valuable to them. In addition, if viewers remain at the official Web site by choice and are receiving valuable exchanges for their time, that would indicate that they prefer to navigate the official Web site rather than navigating away from the Web site. Taking the above findings into account, repeat visits and duration of visits are considered to be effective indicators of a favorable attitude that leads to Web site loyalty (Holland & Baker, 2001). In the present context, the effect of Web site loyalty on viewers' use of a sponsor's IOPP received significant support ( $H_6$ ). The findings demonstrated that viewers who show higher loyalty toward the official Web site tend to repatronize (Oliver, 1999) the Web site consistently and, in turn, had more chances to interact with those brand-related enhanced TV functions. These findings are consistent with the expectation that Web site loyalty shares the same conceptual ground with brand loyalty in the traditional marketing context. Despite the proven positive relationship, the actual use of a sponsor's IOPP was low ( $M = 2.67$ ); this emphasizes the fact that these features are still underutilized. Marketers would have to reinvestigate their IOPP strategy



to be more effective and enticing for viewers to continue navigating brand-related information on the Internet.

In terms of advertising effectiveness, viewers' use of the sponsor's IOPP was found to have a positive influence on their attitude toward the sponsor (H<sub>7</sub>) as well as on their purchase intentions (H<sub>8</sub>). Since a congruent creative media choice for ad placement can enhance brand association and consumers' evaluation of the ad and brand, Dahlén (2005) noted that relevant ad placements can foster more ad credibility and affect brand communication positively by using new and unexploited media. In addition, research on enhanced TV revealed that these interactive functions are positive predictors of branding and marketing outcomes (Ha & Chan-Olmsted, 2004). Therefore, IOPP is a newly identified concept that combines product placement in new media and interactive Web site features. In this study, IOPP was acknowledged both empirically and theoretically for having the potential to increase viewers' favorable feelings about the sponsor. Consistent with prior literature that presented significant effects of product placement exposure and enhanced TV on Web site users' purchase intention, the current study also indicated that viewers' purchase intention toward the sponsor's product and/or service were influenced by their use of a sponsor's IOPP.

## Conclusion

This study proposed the cross-media usage model as the groundwork to explain TV viewers' behavior before and after they patronize a TV program's official Web site. The summative results indicate significant contributions to the existing literature and provide practical implications for cross-media communication. This study adds to a body of literature in U&G by extending its research domain from active audiences' motivation and behavior (such as media use) (Rubin, 1993) which is specific to the use of one medium, to the area of audiences' cross-media usage. In addition, the current study also contributes to the literature on brand management in the context of the TV industry, especially TV networks' branding through TV Web sites and the actual utilization of enhanced TV from the viewers' end. Although the mean of viewers' program involvement was high, there were still some viewers that never visited the official Web site. Chan-Olmsted and Kim (2001) indicated that a sound branding strategy can help increase the broadcasters' value to viewers and advertisers. Therefore, TV networks need to promote the official Web site and entice viewers to visit it more often, and stay longer. Taking advantage of the Internet's capacity (e.g., interactivity and personalization), TV networks can build engaged communities and develop brand advocates through "fandom" cultivation on the Web site by employing enhanced TV. TV networks' branding would be more cost-effective once these interactive features are catered to viewers' needs and the actual usage would increase among viewers. From the marketers' points of view, the positive effects of IOPP on advertising outcomes (e.g., brand attitude and purchase intentions) are uncovered. As a hybrid

of different marketing applications, IOPP integrates the advantages of interactive Web site features and product placement which provides rich, interactive content, and lets the users experience the full brand without navigating away from the Web site. Nevertheless, the results of the study indicated that IOPP on a TV program's official Web site is still underutilized. To stimulate viewers' interest about a sponsor's product and/or service as well as to stimulate their demands for these product and/or service, marketers have to study the usability and popularity of these brand-related enhanced TV features to improve their existing marketing communications.

### Limitations

The results of this study only reflect the cross-media usage of female viewers due to the sample used in this study. Young females' media habits and skills (e.g., heavy Internet and TV uses and better Internet skills) might be different from the general audience. Therefore, any future examination of this cross-media usage model should recruit a more balanced sample to see if this model can be used to study the general audience. In addition, since the participants were recruited through social networking Web sites (Myspace.com and Facebook), especially through some fan clubs that normally gather loyal viewers, the results may have been different if more general viewers from the population were recruited in this sample. In addition, by recruiting participants online and using an online survey, it was difficult to recruit viewers only from the United States for the sample. Even though the TV program *Gossip Girl* aired in other countries for global marketing efforts, the fans from other countries would have responded differently than Americans to the IOPP for a U.S. brand (*Verizon Wireless*). In addition, with the growing availability of broadband Internet access, the popularity of user-generated content Web sites and the prevalence of online streaming video, viewers can now subscribe to the TV program solely on the Internet. Therefore, some participants might not be readily qualified to be included in the current cross-media usage design.

### Suggestions for Future Research

It would be valuable to replicate the present study with more representative samples. It also would be interesting to apply the existing research design to viewers from other countries to see if the model may be generalized internationally, and further, to compare the cross-media usage models in different countries. In addition, since the TV program used for the present study is a fictional TV series that targets 18 to 34-year-olds, more perspectives could be observed if types of TV programs other than fictional ones were included in future research. Once additional types of TV programs and various viewers are examined, researchers could be more confident in applying the cross-media model to understand general viewers. In addition, it

would be worthwhile to conduct future research on the newly identified concept of interactive online product placement (IOPP). For better use of this new interactive advertising approach, it would be useful to know how IOPP has been employed across different Web sites, what strategies allow for better use of this new form of product placement, how to deliver the maximum branding impact (e.g., brand awareness, brand recall, etc.), and how IOPP compares to regular Internet ads that are threatened by Internet ad blockers. It would also be important for marketers to become familiar with this new marketing practice in order for them to fully utilize it for generating increased marketing revenue. In conclusion, considering the Internet is an important, ever-changing marketing channel, this study offers help in understanding the antecedents and consequences of TV viewers' cross-media usage and their implications in developing effective interactive marketing and advertising in the age of media convergence.

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