

Effects of media formats on emotions and impulse buying intent

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One way of generating revenue from broadband media content rests upon the assumption that multi-media content may trigger a greater intent to buy products and services impulsively. An experiment was performed in order to explore the effects of media formats on the emotions and impulse buying intentions for music compact discs (CDs). Three distinct media formats of World Wide Web pages were set up: (1) the text of the lyrics, (2) still images from the song's music video and (3) the music video itself. Each had a varying degree of visual/verbal intensity while simultaneously playing the soundtrack in all three conditions. The results of this study indicate that displaying the text of the lyrics had a greater effect on the impulse buying intent than showing still images of the music video. In addition, different media formats caused emotional responses that can explain the participant's impulse buying intent to buy the CD. Unexpectedly, the still images and video did not necessarily generate more buying intention than combinations of the text and music. Therefore, it is recommended that electronic commerce and marketing managers explore innovative ways of integrating visual and verbal media formats for eliciting an effective consumer response.

Introduction

Access to broadband Internet such as cable and DSL is rapidly increasing. In fact, as of January 2003, broadband was estimated to be in use in more than 33% of American on-line households (Media Metrix, 2003), equalling more than 33.6 million Internet users accessing the World Wide Web (WWW) via high-speed connections (Nielsen/Net Ratings, 2003). Further, the continuing convergence of media formats and interactive features is expected to make interactive and enhanced television the future of home media systems (Van Vliet and Van Stelten, 2001; Conhaim, 2002; Markoff, 2002). With this rising popularity and the potential of broadband making the Internet suitable for the delivery of video and other multi-media content and interactive features, the full nature of broadband Internet access must be considered for electronic commerce, marketing and promotional strategies. However, successful business models centered on the content of broadband Internet are difficult to locate. Besides the cost of the provision for broadband content and connections, methods by which to derive sustainable revenue streams from Internet broadband content are not substantiated. Different selling strategies, such as advertising, pay per view, subscriptions and retailing, have not yet provided an appropriate financial solution.

Recently, more attention has been given to the way in which Internet media content can trigger the particular

emotions and impulse buying behaviour of the viewer/listener/surfer (Adelaar and Van Vliet, 2000; Adelaar *et al.*, 2000; Lardner, 2001; Van Vliet and Van Stelten, 2001; Conhaim, 2002; Harmon, 2002; Markoff, 2002). For example, Netradio.com and Sputnik7.com allow visitors to watch music videos or listen to the radio through the WWW. In these instances, broadband Internet has now enabled consumers to listen to a song while simultaneously watching the corresponding music video and then instantly purchase the featured music compact disc (CD). Despite these new technological capabilities, there is a lack of understanding about the underlying assumptions of the commercial potential of broadband media content. Thus, the purpose of this research was to understand the effects of different media formats (namely text, still images and video) on the purchasing intents of participants.

This study will begin by exploring the theoretical framework used for assessing the effects of media content on emotions and impulse buying intent. A set of hypotheses ascertaining the relationships between a mediated environment, emotional responses and behavioural intent is derived from the accompanied review of pertinent literature. Thereafter, a discussion of the methods used in this experiment will be followed by the presentation of the results. Lastly, the implications and limitations of this study will be discussed.

Theoretical review and framework

The environmental psychology approach suggested by Mehrabian and Russell (1974) (see Figure 1), which is often used as a framework for understanding the emotional and behavioural responses of consumers in a physical retail environment (Donovan and Rossiter, 1982; Hitchon, 1994; Tai and Fung, 1997), was used in this study as the basis for the framework for assessing the effects of broadband media content environments on emotions and behavioural intent. Mehrabian and Russell (1974) suggested that factors from the environment (sense modalities and information rate) and emotions that are more closely associated with an individual’s personality (i.e. a person’s tendency to enjoy the act of shopping or purchasing items in specific types of store environments) can affect primary emotional responses such as pleasure (happy or sad), dominance (ability to control a situation or be submissive) or arousal (to feel stimulated or uninspired to take action). These emotional responses can then affect the type of behaviour that individuals respond to: either approaching the situation or avoiding the environment altogether.

Based on modifications from the environmental psychology approach (Mehrabian and Russell, 1974), Figure 2 presents the framework that was used in this study

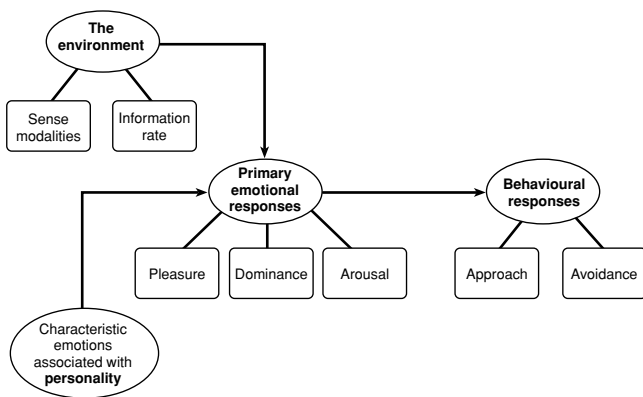


Figure 1 The model proposed by Mehrabian and Russell (1974) for studying the problems of environmental psychology and its important variables

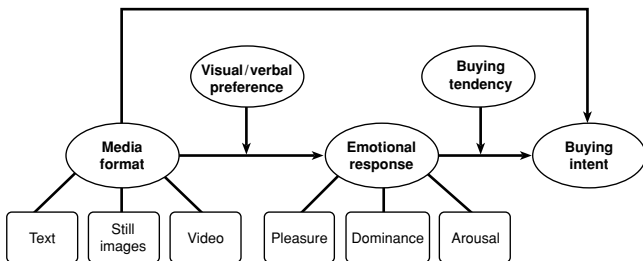


Figure 2 Proposed theoretical model for the effects of media format on emotions and behavioural intent

for analysing the emotional and behavioural responses caused by environmental stimuli in an on-line setting. This adapted model assumes that three different environmental conditions all accompanied with sound, but differing based on text, still images and video, will generate different emotional and behavioural responses.

Specifically for this study, the variables that are described as the environment became the on-line media format that individuals were presented with: the text, still images or video. Visual/Verbal preference substituted individuals’ preferences that are more closely associated with personality, that is, depending on the individual, some might prefer to have WWW sites that are more visual than verbal, more verbal than visual or an equal balance between the two. This variable should mediate rather than have a causal link to emotional response. Thus, emotional response is the result of a specific media format mediated by an individual’s visual and/or verbal preference. The end result of buying intent as a behavioural response is further mediated by buying tendency. Buying tendency is often considered a personality trait. Thus, for this study the personality traits of visual/verbal preference and buying tendency were specified and considered mediating variables.

Environmental stimuli and information processing

Although criticized for offering only a limited understanding of environmental variables that might affect purchasing behaviours (Greenley and Foxall, 1997), Mehrabian and Russell (1974) assessed and quantified the environmental conditions that affect behaviour. Other studies focusing on media effects have tried to assess the environment by measuring the visual and verbal intensity of advertisements and other media (Childers et al., 1985; Brians and Wattenberg, 1996; Bezjian-Avery et al., 1998; Chau et al., 2000; Sundar, 2000). However, the distinct degree of visual and verbal intensity has not yet been defined in previous research, which has therefore allowed for multiple interpretations. Similarly, marketing-related research has proposed that a mediated environment may offer consumers a certain type of experience, which can be used for setting the stage or creating a context that promotes or sells related products and/or services (Pine and Gilmore, 1999; Kenny and Marshall, 2000; Rifkin, 2000). Specifically, marketing research has attempted to explicate the effects of different environmental conditions, such as atmosphere in a retail setting and background music, on purchasing behaviour (Kotler, 1973; Morris and Boone, 1998; Turley and Bolton, 1999). For example, Morris and Boone (1998) assessed the effects of a retail environment that was ‘enriched’ with background music on consumer behaviour.

However, the environmental psychology model provides a more thorough conceptualization of emotional and behavioural responses than does the marketing research tradition. Further, its general characteristics such as sense modalities and information rate make the environmental psychology model more applicable to computer-mediated environments (Hitchon, 1994) in comparison to the marketing approach. Sense modalities such as sound, sight and touch can affect a user's on-line experience and the speed at which a user is connected to the Internet can affect the speed at which one receives information. Other variables in the environmental psychology model such as emotional responses that can cause behavioural responses are therefore suitable for understanding emotional and behavioural responses in a mediated environment. Thus, this model is particularly applicable to music, since lyrical text, images (pictures) and music video are strongly related but often not offered at the same time on the same WWW page.

This study defines media content as a mediated message that can be represented by a combination of audio, text, picture and motion video stimuli. Different media content representations correspond to numerous human sensory modalities, such as taste, touch, smell, kinaesthesia, vision and hearing. Specifically, this study employed various intensities of the visual and verbal media messages to correspond with the way in which people process information. This individual processing of verbal or visual information can affect an individual's perception of the environmental stimuli, as well as their resulting emotional and behavioural responses. It is recognized that any analysis of content in electronic or print form is complicated by the fact that each mass medium invokes differential cognitive involvement (Grunig, 1983; Brians and Wattenberg, 1996).

Aylwin (1981) suggested that individuals use three forms of cognitive representation: verbal representation, visual imagery and enactive imagery. Defined as a form of imagined action or role-play, enactive imagery often represents the temporal and affective aspects of a stimulus (Coossens, 2000). Thus, verbal stimuli such as audio and text have a greater ability to evoke enactive imagery, which may be accompanied with active and more affective arousal participation compared to visual stimuli (Lang, 1984).

Emotional state and responses

Mehrabian and Russell (1974), Mehrabian (1980) and Donovan and Rossiter (1982) suggested that behaviour is a result of emotional responses, which consist of three independent factors that can be obtained by self-reports.

- (1) **Pleasure:** this is a state of feeling that is described as the degree to which a person feels good, joyful, happy or satisfied with a particular situation.

- (2) **Arousal:** this is a state of feeling that varies from feelings of excitement, stimulation, alertness or activeness to feelings of being tired, sleepy or bored.
- (3) **Dominance:** this is defined as the extent to which an individual feels in control of or free to act in a particular situation.

Although there are multiple definitions of emotions (Kleinginna and Kleinginna, 1981), for the purposes of this research emotions are defined in conjunction with Dwyer and Scampion (1995) as states of feeling that may affect the way humans behave.

In general, a positive relationship has been found between the visual/verbal intensity of media format and emotional responses (Bezjian-Avery *et al.*, 1998). Applying these findings to this study, it can be suggested that consumers who are exposed to or view moving images (e.g. video) have more positive emotions towards the stimulus than consumers who are exposed to plain text. Thus, based on this paper's discussion of environmental stimuli, emotional responses and information processing, the following hypothesis is drawn.

- H₁: Subjects who are exposed to a video stimulus will feel a more positive emotion than people who are exposed to text and still image stimuli.

Behavioural responses

Behavioural responses can be classified into two categories: behavioural intent and actual behaviour (Beatty and Ferrell, 1998). In application to this study, behavioural intent to purchase can be distinguished from a consumer's actual purchasing behaviour by their intention to buy a particular product or service. In other words, a consumer's actual buying behaviour is based on the idea that a consumer may simply decide that he/she will purchase a product or service spontaneously.

Even though Beatty and Ferrell's (1998) terminology for 'actual behaviour' implies that consumers may truly purchase the product, it is important to note that this purchasing behaviour is independent of whether or not the consumer does purchase the product/service in reality. For example, even though a consumer may purchase an item impulsively, he/she may return it at a later time after some consideration or change his/her mind at the checkout counter.

Distinguishing between impulse buying behaviour, tendency and intent

Because there are important differences in definitions between impulse buying behaviour, tendency and intent, the following section seeks to explicate the terms in relationship to their relevance in this study.

Impulse buying behaviour. In our contemporary society, accompanied social norms have led to a cultural climate that favours the expression of 'impulse' and 'instant gratification' (Wood, 1998). Since sensory stimuli can reduce self-control mechanisms, this can hinder or even reduce the ability of consumers to resist the temptation to engage in instant gratification (Kappas, 2002). Impulse buying may also be driven by other variables such as rewards, possessions, materialism, instant gratification, post-purchase dissonance and self-exploration (Durgee and Oconnor, 1995). Thus, businesses may offer consumers specific types of media experiences, which are used for setting the stage or creating a context that promotes or sells related products and/or services (Pine and Gilmore, 1999; Kenny and Marshall, 2000; Rifkin, 2000). Unlike traditional media outlets computer-mediated environments offer consumers more of an ability to act upon their impulse instantly and purchase highlighted products and/or services.

In general, impulse buying behaviour is differentiated from planned, contemplative and compulsive and habitual buying (Rook and Fisher, 1995). Stern (1962) categorized impulse buying into four groups.

- (1) Pure impulse buying: the novelty or escape purchase that breaks a normal buying pattern.
- (2) Reminder impulse buying: this occurs when a customer is reminded of being low on a product or is in need of an item when he/she sees it at the store or recalls an advertisement about the item and a previous decision to buy.
- (3) Suggestion impulse buying: this occurs when a customer sees the product for the first time at the store and then visualizes the need for it.
- (4) Planned impulse buying: this occurs when a customer enters a store with the intention of purchasing certain items, but recognizes that he/she may purchase other items dependent upon sale promotions.

Furthermore, shoppers who plan to buy a product but may not have yet decided which features and brand that they want can also be considered impulse buyers (Rook, 1987). In this situation, consumers use the retail store and its sales employees as a means of gaining information, exploring options, comparing products and then reaching a purchase decision during the same visit to the retailer (Stern, 1962). Thus, although impulse behaviour is preceded by a consumer's intent to buy impulsively, environments can be designed for specifically evoking multiple impulses at the same time.

Stern's (1962) definition on pure impulse buying is often translated to refer only to products bought by customers that were not originally on their shopping lists before entering a store (Beatty and Ferrell, 1998). This

narrow definition of impulse buying glosses over the possibility that consumers might be unable or unwilling to reveal their shopping intentions.

Impulse buying tendency. In contrast to impulse buying intent, impulse buying tendency is the extent to which an individual is likely to make unintended, immediate and unreflective purchases (Weun *et al.*, 1998). Therefore, people who tend to have a general proclivity to buy on impulse will have a greater susceptibility to purchase items on impulse.

Impulse buying intent. Impulse buying intent has been defined as 'a sudden, often powerful and persistent urge to buy something immediately' (Rook, 1987, p. 191). It should be noted that the time lapse between encountering a product or service and the decision to buy it is often very short (Weun *et al.*, 1998). Impulse buying behaviour may also be accompanied by emotional conflict and a reduced ability to reflect upon the consequences of an individual's own behaviour (Rook, 1987). As a result, people do not always act upon this urge. For this reason, this study distinguishes between the buying intent of consumers and actual purchasing behaviour (Weinberg and Gottwald, 1982).

The framework presented in this study takes into account the four categories outlined by Stern (1962) regarding impulse buying intent mentioned earlier. For example, if consumers are not directly engaged in a shopping activity (e.g. watching a music video), the narrow definition of pure impulse buying is less useful for this study. Further, suggestion impulse buying (Stern, 1962) can be considered relevant in an on-line media environment since it enables consumers to seek additional information and eventually to buy items directly on-line or off-line. In addition, consumers may be unable to buy a favourite music CD impulsively from a song they heard on the radio, e.g. due to lack of time or knowledge about the song details, but may engage in reminder or planned impulse buying when they visit a music store. An on-line environment can therefore provide an appropriate venue for acting upon the buying impulse. Accordingly, certain consumers may be more likely to exhibit impulse buying intent when using on-line shopping functionalities, such as hyperlinks to additional/related product information.

Relationship between buying intent and impulse behaviour

Although this study recognizes that intention is not behaviour, evidence supports the hypotheses that buying intention is a reliable indicator of actual buying behaviour, with several meta-analyses reporting mean intention-behaviour correlations ranging from 0.40 to 0.53 (Sheppard *et al.*, 1988; Kim and Hunter, 1993; Sutton, 1998). Further, a meta-analysis of ten meta-analyses of

the intention-behaviour relationship (based on 422 hypotheses and a total sample size of 82 107) found that the average correlation was 0.53 (Sheeran, 2002). In accordance with the model proposed by Mehrabian and Russell (1974), this study has also used intention as a measure of behaviour.

Based on the discussion of emotions and impulse buying intent (as derived from impulse buying behaviour), the following hypothesis is proposed.

H₂: Subjects' emotional responses will be positively related to their impulse buying intent. Thus, the more a subject feels a positive emotion towards the stimuli, the greater the impulse buying intent.

Furthermore, the discussion regarding media formats and impulse buying intent leads to the following hypothesis.

H₃: Subjects who are exposed to a video stimulus will have a greater impulse buying intent compared to those exposed to still image and text stimuli.

In accordance with the environmental psychology model (Mehrabian and Russell, 1974), which proposes that any environment (such as a retail or on-line environment) will produce an emotional state in an individual that can be categorized into pleasure, arousal or dominance, which can mediate behaviour in environmental situations, hypothesis 4 combines the previous discussions regarding emotions, media formats and impulse buying intent.

H₄: Subjects' emotional responses mediate the effect of media format on their impulse buying intent.

Method

A post-test between-subjects experiment was conducted. The product category of a contemporary music CD was chosen for the stimulus in this study because college students are an important potential target market for this product. In a study by Greenfiend Online, the most common item purchased on-line by college students is CDs, totalling 64% of all purchases (Pastore, 2000).

Stimulus material

In order to determine an appropriate stimulus of a song performed by a popular music artist to be used for this experiment Billboard.com was consulted. Mary J. Blige's hit single 'Family Affair' and Blige's rhythm and blues album 'No More Drama' (which features 'Family Affair') were ultimately selected from an initial list of ten songs

that were rising in the charts. At the time of the experiment, Billboard.com ranked both the single and the album number one. As they had both been number one for several weeks prior to the time of the experiment, the researchers assumed that subjects, as potential buyers and listeners of popular music, would not yet have grown tired of the song.

Three distinct WWW pages were designed and constructed for the stimulus materials in the experiment (see Appendix A). The sound quality, screen layout and design were controlled while designing the WWW pages and while performing the experiment in order to control for the potential factors that might affect an individual's impulse buying intent. All versions of the stimuli played the same 2-min segment of 'Family Affair', were made to look similar by using a similar colour palette and included a picture of Blige's 'No More Drama' album cover, which included a brief introductory title using text and one line of promotion at the bottom of the page that mentioned the availability of the album in stores. The three experimental stimuli were unique in the following ways: (1) a 'text stimulus' that contained only the lyric text, (2) a 'still image stimulus' that consisted of a series of still images from the 'Family Affair' music video, but no text of the song's lyrics and (3) a 'video stimulus' that contained no text of the song's lyrics.

Participants and procedures

Participants were recruited from undergraduate classes at a large Midwestern university in the USA and offered extra credit in their class for their participation. The experiment was administered in two different computer laboratories on campus that used Macintosh computers equipped with headphones. The participants were scheduled to participate in the study in intervals of 30 min. Upon arrival the participants were welcomed, asked to sign an informed consent form and directed to one of eight computers that were scattered throughout the room with enough space in-between to decrease the possibility of experimental contamination. The experiment was administered to participants in small groups (ranging from one to eight participants at a time) over two consecutive days. The experiment took 15–20 min from start to finish for the participants to complete.

The participants were randomly assigned to one of the three conditions (text, still image or video) after they completed the first section of the survey using a randomization algorithm written in JavaScript and embedded within the on-line survey page. After the subjects had been exposed to one format of the stimuli, a survey based on recall and self-reporting measures was administered (see Appendix B). The final sample size was 95 with 32.6% male participants and 67.4% female participants. The mean age of the sample was 20.37 years (SD = 1.23

years, maximum = 26 years and minimum = 18 years). With regard to education level the sample consisted of undergraduates who were freshmen (3.2%), sophomores (32.6%), juniors (46.3%) and seniors (17.9%). Thirty-six respondents were exposed to the text stimulus, 33 respondents viewed the still image stimulus and 26 experienced the video stimulus. The difference in the frequencies between the three stimuli by gender was not statistically significant ($\chi^2_2 = 5.299$, non-significant) (text version males = 42.9% and females = 57.1%, still image version males = 35.5% and females = 64.5% and video version males = 15.4% and females = 84.6%).

Measures

Before the respondents were randomly assigned to one particular stimulus, a series of questions about their on-line shopping experience, visual/verbal preferences and impulse buying tendencies were asked.

Dependent measures

Emotional responses were measured by using a 14-item scale modified from Mehrabian and Russell's (1974) scale, which is a three-factor structure of pleasure, arousal

and dominance. Semantic differential scales ranging from 1 to 5 were used for deriving an emotion score for each stimulus. A confirmatory factor analysis was performed with AMOS 4.01 (Arbuckle, 1999) using maximum likelihood estimation in order to assess the validity of the factor structure of this measurement model. Listwise deletion was used for missing data. The total 14 items yielded a three-factor model. Multiple fit indices were used for evaluating the model. The goodness-of-fit index was 0.87 and the adjusted goodness-of-fit index was 0.80. The data of the present study yielded a comparative fit index of 0.92, a normed fit index of 0.79 and a root mean square error of approximation of 0.07. The χ^2/df ratio was 1.49. In general, values of 0.8 or above for the goodness-of-fit index and the adjusted goodness-of-fit index, higher than 0.9 for the normed fit index, closer to 1.0 for the comparative fit index, less than or equal to 0.08 for the root mean square error of approximation and 3 or lower for the χ^2/df ratio are considered a good fit (Kelloway, 1998; Kline, 1998). All factor loadings were significant and ranged from 0.33 to 0.87 ($p < 0.001$). As a result, a three-factor measurement model fits the data well. Tables 1 and 2 present the indices of model fit, factor loadings and standard errors. The internal reliability of each factor ranged from 0.65 to 0.85 and

Table 1 Three-factor model of emotional response scales: standardized factor loadings and standard errors^a

Items	Pleasure		Arousal		Dominance	
	Factor loading	SE	Factor loading	SE	Factor loading	SE
Happy–Unhappy ^b	0.78	–	–	–	–	–
Contented–Melancholic	0.64	0.15	–	–	–	–
Hopeful–Despairing	0.61	0.13	–	–	–	–
Pleased–Annoyed	0.87	0.16	–	–	–	–
Satisfied–Unsatisfied	0.80	0.16	–	–	–	–
Relaxed–Bored	0.66	0.18	–	–	–	–
Stimulated–Relaxed ^b	–	–	0.53	–	–	–
Excited–Calm	–	–	0.58	0.28	–	–
Frenzied–Sluggish	–	–	0.65	0.26	–	–
Jittery–Dull	0.33	0.11	0.65	0.22	–	–
Dominant–Submissive ^b	–	–	0.48	0.23	0.70	–
In Control–Cared for	–	–	–	–	0.49	0.19
Controlling–Controlled	–	–	–	–	0.62	0.20
Influential–Influenced	–	–	–	–	0.51	0.20

Jittery–Dull and dominant–submissive were multi-factor-loaded items.

^aAll factor loadings are significant under $p < 0.001$.

^bIndicator item.

Table 2 Three-factor model of emotional response scales: goodness-of-fit summary

χ^2	df	χ^2/df	GFI	AGFI	NFI	CFI	RMR	RMSEA
104.495	70	1.493	0.87	0.80	0.79	0.92	0.071	0.073

AGFI, adjusted goodness-of-fit index; CFI, comparative fit index; GFI, goodness-of-fit index; NFI, normed fit index; RMR, root mean squared residual; RMSEA, root mean square error of approximation.

Table 3 Three-factor model of emotional response scales: means, standard deviations, α coefficient and factor inter-correlations^a

	Mean	SD	Pleasure	Arousal	Dominance
Pleasure	25.59	4.48	0.85	–	–
Arousal	15.38	3.12	0.22	0.71	–
Dominance	13.27	2.33	0.35	0.31	0.65

^aThe values in the diagonals of the factor correlation matrix are α coefficients.

the items of each factor were summed into a single score for the analysis. Table 3 also shows the means, standard deviations, α coefficients and inter-correlations between the factors. It should be noted that the two multi-factor loaded items as indicated in Table 1 were included in the measurement model and subsequent analyses.

Impulse buying intent was measured using two questions in order to avoid the biases inherent in single-item measures. The range of gradations offered in the measurement of impulse buying intent were ascertained by including two measures, even though each question was similar in form. In the first question (Regarding the Internet WWW site you have just visited, how much do you agree or disagree with the statement ‘I would intend to purchase from the site?’) the respondents were asked to answer using a Likert-type scale ranging from strongly agree (score 5) to strongly disagree (score 1). The second question (After seeing the WWW site, how likely are you to purchase the product featured in the site on-line?) asked the respondents to answer using a Likert-type scale ranging from very likely (score 5) to not likely (score 1). These questions are common measures of impulse buying intent, which are phrased so as to indicate the immediacy of the purchase decision within specific time constraints. The Pearson’s correlation coefficient between these two items was 0.59. They were summed to form a single score for the analysis and higher scores on the summed score represented higher impulse buying intent (mean = 4.39 and SD = 1.79).

Control measures

In order to control for the influence of the predisposition of the subjects’ visual/verbal orientation on the relationship between the three stimulus materials and emotional responses, the participants’ visual/verbal orientation scores were treated as a covariate. Visual/Verbal orientation was measured by using an eight-item scale derived from Bezjian-Avery *et al.* (1998). After assessing the validity and internal consistency of the measure using confirmatory factor analysis, three items with low factor loadings (less than 0.30) were dropped. Finally, five items that demonstrated uni-dimensionality with acceptable reliability ($\alpha = 0.67$) were summed into a single visual/verbal orientation score for the analysis. Each

item was measured on a five-point Likert-type scale from 5 (strongly agree) to 1 (strongly disagree). Higher scores on the summed score indicated greater visual orientation (mean = 18.10, SD = 3.31, maximum = 25.00 and minimum = 9.00).

Since this study expected that impulse buying tendency as a personal trait might moderate the effects of emotional responses on impulse buying intent, the participants’ impulse buying tendency was controlled as a covariate. Five items measured the impulse buying tendency using a scale from Weun *et al.* (1998). After deleting one item with low factor loadings (less than 0.30), the results of a confirmatory factor analysis on the four items showed uni-dimensionality ($\alpha = 0.76$) and were summed into a single impulse buying tendency score for the analysis. These questions were also measured on a five-point Likert-type scale ranging from 5 (strongly agree) to 1 (strongly disagree). A higher score on the summed scores indicated a greater impulse buying tendency (mean = 15.38, SD = 2.42, maximum = 20.00 and minimum = 8.00).

Results

Hypothesis 1 sought to examine the direct effects of media format on subjects’ emotional responses (pleasure, arousal and dominance) after controlling for the effect of subjects’ visual/verbal orientation. Thus, this study predicted that the subjects who were exposed to the video stimulus would feel a more positive emotion than people who were exposed to the text and still image stimuli when controlling for their visual/verbal orientation. Three analyses of covariance (ANCOVA) tests with the three emotional responses/states as the dependent variables were conducted in order to test hypothesis 1. As noted above, the subjects’ visual/verbal orientation was included in the analysis as a covariate. Table 4 shows the results of the three ANCOVA tests. No significant effects of the subjects’ visual/verbal orientation as a covariate on the three emotional responses were found. As indicated in the first and second columns of Table 4, neither the main effects of media format on pleasure nor arousal were found. However, the third column of Table 4 indicates that the main effect of media format on dominance was significant, even after controlling for subjects’ visual/verbal orientation ($F_{2,89} = 4.14, p < 0.05$ and $\eta^2 = 0.09$). The results of a Bonferroni test indicated that there was a significant difference between the text and picture version conditions ($p < 0.05$). Thus, subjects exposed to the text stimulus (mean = 14.08 and $n = 33$) were likely to feel more emotional feelings of dominance than subjects exposed to the still image stimulus (mean = 12.49 and $n = 33$). However, no significant mean differences of effects on the emotion of dominance were found between

Table 4 The effects of media format on emotional states

Variables	Pleasure				Arousal				Dominance			
	Mean	SD ^a	<i>F</i>	df	Mean	SD ^a	<i>F</i>	df	Mean	SD ^a	<i>F</i>	df
Effects of format	–	–	0.58	2	–	–	1.33	2	–	–	4.14	2*
Text version	25.79	0.79	–	–	16.02	0.54	–	–	14.08	0.39	–	–
Still image version	25.07	0.78	–	–	14.87	0.54	–	–	12.49	0.39	–	–
Video version	26.33	0.90	–	–	14.98	0.62	–	–	13.29	0.45	–	–
Covariate												
Visual/verbal orientation	–	–	0.57	1	–	–	2.44	1	–	–	0.53	1
Error	–	–	19.44	86	–	–	9.58	87	–	–	5.07	87

^aAdjusted means and standard deviations.

* $p < 0.05$, ** $p < 0.01$.

Table 5 Pearson correlations among dependent variables and control variables

	Impulse buying intent ^a	Visual/Verbal orientation	Impulse buying tendency	Pleasure	Arousal
Visual/Verbal orientation ^b	–0.04	–	–	–	–
Impulse buying tendency ^c	0.28**	–0.06	–	–	–
Pleasure	0.17	–0.09	0.15	–	–
Arousal	0.31**	0.18	0.29**	0.22*	–
Dominance	0.16	–0.06	0.00	0.35**	0.31**

^aA higher value means a greater impulse buying intent.

^bA higher value means a greater visual orientation.

^cA higher value means a greater impulse buying tendency.

* $p < 0.05$, ** $p < 0.01$ (two-tailed).

both the still image and video condition and the text and video condition. Therefore, hypothesis 1 was not supported.

It was further hypothesized that the subjects' emotional responses would be positively related to their impulse buying intent. Thus, it was expected that the more a subject felt a positive emotion towards the stimuli, the greater the impulse buying intent. Table 5 shows that while a significant positive association between arousal and impulse buying intent was found ($r = 0.31$, $p < 0.01$ (two-tailed) and $n = 95$), pleasure and dominance were not significantly related to impulse buying intent.

In order to assess whether these bivariate associations held when other dependent and control variables were controlled and whether there were other factors in predicting impulse buying intent, a hierarchical multiple regression was performed. Seven variables grouped into three blocks were entered into a multiple regression model that was used for predicting impulse buying intent (see Table 6). No multi-collinearity was found. The overall model accounted for 20% of the variance. The first block of the regression equation consisted of demographic variables (age and sex). As Table 6 indicates, the first block explained only 4% of the variance in the model. While age was a significant negative predictor of impulse buying intent ($\beta = -0.23$ and $p < 0.05$), sex was

Table 6 Hierarchical multiple regression predicting impulse buying intent^a

	Final β	R^2 change
Block 1	–	0.04
Age	–0.23*	–
Sex ^b	–0.08	–
Block 2	–	0.13**
Pleasure	0.04	–
Arousal	0.31*	–
Dominance	0.09	–
Block 3	–	0.03
Visual/Verbal orientation ^c	–0.10	–
Impulse buying tendency ^d	0.14	–
Total R^2	–	0.20*

^aA high score indicates a greater impulse buying intent.

^bRecorded as 0 = male and 1 = female.

^cA high score indicates a greater visual orientation.

^dA high score indicates a greater impulse buying tendency.

* $p < 0.05$, ** $p < 0.01$.

not a significant predictor. However, there was no significant effect for block 1. The second block consisted of emotional response variables (pleasure, arousal and dominance). Consistent with the results of the bivariate correlations, arousal had a significant positive association with impulse buying intent ($\beta = 0.31$ and $p < 0.05$). This

suggests that arousal remained a significant positive predictor for impulse buying intent even when controlling for other dependent and control variables. Neither pleasure nor dominance was a significant predictor of impulse buying intent. The block of emotional response variables significantly accounted for an additional 13% of the variance in the model ($p < 0.01$). The third block consisted of control variables (visual/verbal orientation and impulse buying tendency) and explained an additional 3% of the variance. Neither was significantly related to impulse buying intent. As such, hypothesis 2 was partly supported.

Hypothesis 3 predicted that subjects who were exposed to the video stimulus would have a greater impulse buying intent compared to subjects exposed to the still image and text stimuli. Thus, the direct effect of media format on impulse buying intent was examined. An ANCOVA test with two covariates, visual/verbal orientation and impulse buying tendency, was performed in order to test this hypothesis. Table 7 shows that there was a significant main effect of media format on impulse buying intent ($F_{2,88} = 3.34$, $p < 0.05$ and $\eta^2 = 0.07$) after controlling for the two covariates. However, the results of a Bonferroni test indicated that there was a significant difference only between the text and picture version conditions ($p < 0.05$). Thus, subjects exposed to the text stimulus (mean = 4.92 and $n = 32$) were more likely to exhibit greater impulse buying intent than subjects who were exposed to the still image stimulus (mean = 3.81 and $n = 33$). No significant mean difference of effects on dominance between the still image and video or between the text and video conditions was found. However, a significant positive effect of impulse buying tendency as a covariate was found ($\beta = 0.18$, $t_{89} = 2.43$ and $p < 0.05$). Thus, impulse buying tendency significantly covaried with impulse buying intent. On the contrary, no effect of visual/verbal orientation as another covariate was found. Thus, hypothesis 3 was partly supported.

Table 7 The effects of media format on impulse buying intent

Variables	Impulse buying intent			
	Mean	SD ^a	df	F
Effects of format	–	–	2	3.34*
Text version	4.92	0.31	–	–
Still image version	3.81	0.30	–	–
Video version	4.43	0.35	–	–
Covariates				
Visual/Verbal orientation	–	–	1	0.09
Impulse buying tendency	–	–	1	5.88*
Error	–	–	85	2.96 ^b

^aAdjusted means and standard deviations.

^bThe values represent mean square errors.

* $p < 0.05$.

Hypothesis 4 sought to examine the mediating effect of emotional responses on the relationship between media format and impulse buying intent and was assessed using four criteria proposed by Baron and Kenny (1986), which indicated the following characteristics of the relationship's mediating effects.

- (1) The relationship between the independent variable (media format) and the dependent variable (impulse buying intent) should be significant.
- (2) The relationship between the independent variable and mediator variables (emotional responses) should be significant.
- (3) The relationship between the mediator variables and the dependent variable should be significant.
- (4) Whether the significant relationship between the independent variable and the dependent variable would become non-significant after controlling for the mediator should be assessed.

As shown in Tables 4, 6 and 7, the first three criteria were satisfied. In order to assess the fourth criterion, an ANCOVA test was conducted in which the three emotional response variables (pleasure, arousal and dominance) were added to the model that was used for testing hypothesis 3 as additional covariates. The results of this ANCOVA test indicated that the main effect of media format became non-significant ($F_{2,87} = 0.33$, non-significant) after controlling for the three emotional response variables. Thus, when controlling for the emotional response, the direct effect of media format on impulse buying intent disappeared. This suggests that the emotional response was mediating the effect of media format on impulse buying intent. As such, hypothesis 4 was supported by the results of assessing the four criteria.

Discussion

The results of this study indicate that the presence of a video did not generate the impulse buying intent that was expected, nor did the display of the video increase a positive feeling about the content-related product. On the contrary, playing a song in combination with displaying the lyrics of the song text generated a higher impulse buying intent compared to showing a series of still images from the related music video.

One explanation for these findings might be that the presence of the song's lyrics involved greater cognitive skills of the audience. Krugman (1977) suggested that reading is more cognitively involved than simply viewing and previous studies have suggested that mass media can invoke differential cognitive involvement (Grunig, 1983; Brians and Wattenberg, 1996). It is therefore possible that text stimuli could generate higher impulse buying intent based on higher cognitive involvement. In addition,

combinations of verbal and visual stimuli have the potential to strengthen or weaken the overall impact of the emotional and behavioural responses of consumers. The underlying idea is based on the dual coding approach, which suggests that when a person simultaneously processes multiple media formats, individuals might have a greater chance of remembering the stimuli (Paivio, 1990). Furthermore, if one considers how the presence of subtitles and captioning in films or television tends to draw the attention of the viewer to pay more attention to the text than the moving images, then this could help to explain why a group of text that relates directly to the song that is being heard has a greater capacity to involve consumers and audiences. Greater involvement may have led to a more positive emotional response and behavioural intent. In accordance with Grunig (1983) and Brians and Wattenberg (1996), it is possible that text stimuli could generate higher impulse buying intent based on higher cognitive involvement.

A second explanation could be that although lyric texts are available on the Internet, they are not often displayed in combination with playing the song. The novelty of showing the lyric text in combination with a song playing in the background may explain why the text stimulus had a greater emotional effect compared to the picture stimulus. Third, showing the individuals still images from a music video could have caused a conflict between the cognitive processing of the visual (still images) and verbal (sound) stimuli. This dissonance and/or confusion between the ways in which individuals simultaneously process visual and verbal material may explain the lower impulse buying intent resulting from the still image version compared to the text stimulus. Similarly, text and music, which are both characterized as verbal, may have reinforced the subjects' responses.

Lastly, the effects on dominance as an emotion generated by the text stimuli may have been due to a tendency of the respondents to perceive the text stimulus as easier to interpret and/or process. The sound of the music might have enabled greater freedom to explore mental associations (enactive imagery) compared to the visual stimuli. The pictures may have limited the audience's emotional response since they may have offered less room for exploring enactive imagery associated with the song.

This study also indicated that emotions of arousal had a significant effect on the subjects' intention to buy the content-related featured product. This relationship has face validity since arousal may have been a result of the stimuli, which in turn could have had an effect on the intention to buy the featured product. One explanation for these findings can be derived from the Elaboration Likelihood Model proposed by Petty and Cacioppo (1996a,b,c), which suggests that consumers process information about purchases regarding high-involvement products (i.e. motor vehicles, houses, computers, etc.) centrally. In contrast, information about low-involvement products

(i.e. toothpaste, shampoo, confectionary bars, etc.) is processed peripherally. Peripheral processing suggests that the attention given to the product is involuntary and not elaborated upon in depth and that cognitive and affective responses are related to the type of behaviour executed. Furthermore, purchase decisions with low-involvement products are often prompted by displays and how entertaining promotional means are executed rather than rational information processing. Based on the Elaboration Likelihood Model consumers process information after exposure to a specific stimulus based on personal attributes such as the amount of attention given to the stimulus and the individual's capacity to process the information presented by the stimulus. Consumers can then respond either cognitively or emotionally to the stimulus, thereby affecting their attitudes towards the brand.

Although the limitations of the elaboration likelihood model are recognized, it could be used for explaining why emotions may have played a significant role on the participants' intent to purchase Mary J. Blige's album in this study. Although this finding might seem contradictory, the elaboration likelihood model might suggest that, while the subjects exposed to the still image and video stimuli might have continued to treat the song as a low-involvement product, the participants exposed to the text stimulus were instantly more involved with the stimulus. Thus, a greater involvement may have caused a more positive emotional response.

However, it is important to note that there were confounding relations among media format, emotional response and impulse buying intent. In other words, while the media format affected dominance, impulse buying intent was affected by arousal, but not by dominance. To support the mediating role of emotional response, it was presumed that a recursive model in which dominance influences arousal then leads to impulse buying intent. Therefore, a path analysis was performed for testing the simple recursive model. The results of the analysis indicated that the data were consistent with the model. These results suggest that the media format influences dominance as one emotional response variable, which then influences arousal, in turn leading to impulse buying intent. The results of the analysis for the missing link between dominance and impulse buying intent (error = 0.06, $z = 0.36$ and $p > 0.05$) indicated that the data were consistent with the model suggested. The overall fit test also supported the idea that the data were consistent with the model as a whole ($\chi^2_1 = 0.13$ and $p > 0.05$).

Limitations and implications

This study sought to propose a theoretical model of how media formats might influence impulse buying and

tested several parts of the overall model. However, this work was subject to some limitations. First, the use of college students as participants in this study might be a concern that limits the generalizability of the results. However, undergraduates are particularly appropriate for Internet research because they comprise a homogeneous target market for electronic advertisers and marketers (Coyle and Gould, 2002). Indeed, college students represent the most active single group on the Internet with 93% of college students on-line (Greenspan, 2003). Therefore, when considering media formats and impulse buying issues, a college student sample is an appropriate place to start.

This study also recognizes that participants exposed to similar types of stimuli in a field study as opposed to the laboratory might have yielded different results. In connection with this and within the context of the experiment, one particular song of Mary J. Blige's was pushed towards the respondents in order to observe their reactions. If multiple songs and/or visual stimuli had been made available to the participants, it is possible that the respondents would have responded differently. Thus, real-world situations would not only be mimicked better by the availability of music choices, but subjects would also be provided with more 'shopping' freedom. Alternative methods might be expected to reveal complementary aspects that could affect the potential of presenting products within a related context. Similarly, future research should continue to explicate how emotions such as dominance and arousal are related to each other and to the level of consumer involvement of a product.

Third, because a separate evaluation of the responses towards the music without any verbal or visual representations was not conducted, it is possible that it was the actual song that may also have influenced the observed effects, independent of the visual or verbal representations. Future studies should include a test of the visual and verbal presentation and the sound separately in order to improve our understanding of behavioural and emotional responses.

In addition, an extension to other media formats, such as soap operas, situation comedies and sporting events that may provide additional insight into the effects of media on emotional responses and buying intent should be explored.

The results of this study may assist marketing managers in their decision to use readily available media formats in an on-line environment such as lyric text, still images and sound. Adding interactive features to textual media content could capitalize directly upon the buying intent of consumers. Therefore, business models based on media content could generate additional revenue streams more efficiently.

Overall, the results from this study imply that broadband video may not be as effective a marketing tool as it was initially thought to be. Furthermore, it may not be

the ideal way of presenting content in a context where consumers are invited to perform direct or indirect transactions. On the other hand, the results indicate that there are multiple marketing opportunities for integrating electronic commerce features within textual content that require less bandwidth and less sophisticated multi-media computers. Therefore, the success of generating electronic commerce revenues from products and services presented in the mediated context may be dependent on other characteristics rather than just a blunt increase of bandwidth and associated content.

For example, it may be that it is not only visual or verbal media content that will affect consumers' purchasing decisions, but rather the way in which different media formats are integrated or related to each other for stimulating the greatest effect on impulse buying intent and emotional responses. As suggested earlier, combinations of visual and verbal messages may reinforce or weaken the effects. Electronic commerce and marketing managers should therefore consider multiple options for increasing the returns on their investment in a broadband era.

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Appendix A: stimuli World Wide Web pages

Text stimulus



From Yonkers, NY, Mary J. Blige has become both a multi faceted talent and a template for contemporary R&B.

<http://www.mjblige.com>

"Family Affair"

"... Come on everybody get on up
Cause you know we gots to get it crunk
Mary J. is in the spot tonight
As I'mma make it feel alright
Come on baby just party with me
Let loose and set your body free
Leave your situations at the door
So when you step inside jump on the floor

Let's get it crunk, we gon' have fun
Up on in this, dance for me
We got ya open, now ya floatin'
So you gots to dance for me
Don't need no hateration, holleratin'
In this dance for me
Let's get it percolatin', while you're waiting
So just dance for me

It's only gonna be about a matter of time
Before you get loose and start loose your mind
Cop you a drink, go 'head and rock your ice
Cause we celebratin' No More Drama in our life
With a great track pumpin', everybody's jumpin'
Goin ahead and twist your back and get your body bumpin'
I told you leave your situations at the door
So grab somebody and get your ass on the dance floor

Let's get it crunk, we gon' have fun
Up on in this, dance for me
We got ya open, now ya floatin'
So you gots to dance for me
Don't need no hateration, holleratin'
In this dance for me
Let's get it percolatin', while you're waiting
So just dance for me

We dont need, dont need, no haters
Just try to love one another
We just want y'all have a good time
No More Drama in your life
Work real hard to make a dime
If you got beef, your problem, notmine
Leave all that BS outside
We're gonna celebrate all night
Let's have fun, tonight, no fights
Turn the great track way
Making you dance all night and I
Got some real heat for ya this time
Doesn't matter if you're white or black
Let's get crunk 'cuz Mary's back..."

"Family Affair" is available on Mary J. Blige's Hit Album "No More Drama"
IN STORES NOW

Still image stimulus



From Yonkers, NY, Mary J. Blige has become both a multi faceted talent and a template for contemporary R&B.

<http://www.mjblige.com>



"Family Affair" is available on Mary J. Blige's Hit Album "No More Drama"
IN STORES NOW

Video stimulus

Appendix B: survey

Welcome. Your answers will be kept completely confidential. Select your answers by clicking on the appropriate circle next to each question.

Your general shopping habits

Consider your general shopping behaviour when you are not on the Internet, how much do you agree or disagree with the following statements about your shopping habits?

Statement	Strongly agree 5	Agree 4	Neither 3	Disagree 2	Strongly disagree 1
When I go shopping, I buy things that I had not intended to purchase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a person who makes unplanned purchases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see something that really interests me I buy it without considering the consequences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is fun to buy spontaneously	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid buying things that are not on my shopping list	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you process information?

How much do you agree or disagree with the following statements?

Statement	Strongly agree	Agree	Neither	Disagree	Strongly disagree
	5	4	3	2	1
I like to daydream	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer to read instructions about how to do something rather than have someone show me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer activities that do not require a lot of reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My thinking always consists of mental images or pictures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am learning something new I would rather watch a demonstration than read how to do it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I generally prefer to use a diagram than a written set of instructions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can never seem to find the right word when I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy doing work that requires the use of words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On-line shopping experience

The following questions deal with on-line shopping, also known as electronic commerce. It includes WWW sites where you can obtain information about products, actually buy products or participate in on-line auctions. Have you ever visited one of these sites?

- (1) Yes (continue with the next question)
- (2) No (skip to on-line shopping perceptions below)

How often have you. . .	Very often	Often	Sometimes	Never	Almost never
	5	4	3	2	1
Visited electronic commerce sites on the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searched for product information on-line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Actually bought a product on the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Placed a bid at an Internet auction site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bought a product on the Internet that I did not originally intend to buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt a sudden urge to buy something I saw on the WWW	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bought something on the Internet I knew I could not afford	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bought something on the WWW that I did not really need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Browsed for products I was not really serious about buying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clicked on a banner advertisement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visited a store to purchase a product I saw advertised on the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visited a WWW site I heard advertised on the radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On-line shopping perceptions

Whether or not you have ever bought something over the Internet, how much do you agree or disagree with the following statements about on-line shopping?

Internet World Wide Web sites

The next set of questions has to do with the Internet WWW site you have just visited. How much do you agree or disagree with the following statements?

Statement	Strongly agree 5	Agree 4	Neither 3	Disagree 2	Strongly disagree 1
While I was on the site, I was always able to go where I thought I was going	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was trustworthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was appealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The hyper-linked images and texts told me exactly what to expect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was honest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was believable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The visual layout was like a roadmap during my exploration of the site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was attractive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was likeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I clicked on hyper-linked images or text I felt good about the instantaneous display of information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was entertaining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the site was stimulating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
While I was on the site, I could quickly jump from one page to another	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would bookmark the site as my favourite site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend the site to my friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was delighted to be able to choose which link and when to click	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would intend to purchase from the site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The next set of questions also has to do with the Internet WWW site you have just viewed. When you were looking at the site, how interested were you in the following?

	Very interested 5	Somewhat interested 4	Neither 3	Somewhat disinterested 2	Not interested 1
The ability to quickly link to the WWW site of the artist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to buy the CD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to access reviews on the artist on-line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accessing information about local concerts by the artist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to connect to a radio station playing this kind of music	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to subscribe to a mailing list about the artist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

After seeing the WWW site, how likely are you to . . .	Very likely	Somewhat likely	Neither	Somewhat unlikely	Not likely
	5	4	3	2	1
Visit the WWW site of the artist shown	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visit WWW sites learned about from radio advertisements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bookmark a radio station WWW site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Click on WWW site advertising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchase the product featured in the site on-line.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visit a store to purchase the product featured	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Now just a few final questions about the site you have just viewed.

Do you think the site provided sufficient information for you to make a purchase decision?

- Yes
- No

On a scale of 1 to 5, with 1 being the worst and 5 being the best, please rate your overall experience with the site.

- 1
- 2
- 3
- 4
- 5

Are you planning to buy the Mary J. Blige music CD in the following week?

- Yes
- No

Have you already purchased the music CD of Mary J. Blige shown during the video?

- Yes
- No

Do you already own the music CD of Mary J. Blige shown during the video?

- Yes
- No

Are you going to tell your friend about the site?

- Yes
- No

About you

Now just a few personal questions to help us classify your responses.

Are you

- Female
- Male

What is your current academic status?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate
- Other

What is your year of birth? 19 _____

Approximately how long have you been using the Internet?

- Less than 6 months
- 6–12 months
- 7–12 months
- 13–24 months
- 25–36 months
- 37–48 months
- Over 48 months (4 years)

In a typical week how many days do you access the Internet?

- 0 1 2 3 4 5 6 7

On a typical weekday approximately how much time do you spend using the Internet?

_____ minutes

On a typical weekend day approximately how much time do you spend using the Internet?

_____ minutes

This completes our survey. Thank for your time!