Original Article

The contextual relevance effect on financial advertising

Received (in revised form): 7th February 2011

Alex Wang

is an associate professor of Communication Sciences at the University of Connecticut, Stamford. His research and consulting activities focus on integrated marketing communications, corporate social responsibility and financial knowledge and communication. His works have been published in the *Journal of Advertising Research*, *Journal of Public Relations Research*, *Journal of Marketing Communications*, *Journal of Behavioral Finance*, *Corporate Reputation Review*, *International Journal of Mobile Marketing*, *Management Research News* and elsewhere. He has also received grants and research papers awards.

ABSTRACT The contextual relevance effect is an important factor for the effectiveness of financial services advertising that corresponds to the message effects such as ad recall (R_{AD}), perceived contextual relevance (PCR), message involvement (MI) and attitude towards the ad (A_{AD}), created during the process. Thus, this study examines whether the contextual relevance effect increases R_{AD}, PCR, MI and A_{AD}. The results reveal that the contextual relevance effect increases R_{AD}, PCR, MI and A_{AD}. Moreover, MI mediates PCR on A_{AD}. Implications based on the findings demonstrate the importance of contextual relevance as a metric for financial services advertising effectiveness.

Journal of Financial Services Marketing (2011) **16,** 50–64. doi:10.1057/fsm.2011.2

Keywords: financial services advertising; PCR; MI; R_{AD}

INTRODUCTION

Advertising financial products or services has to be carefully executed in order to avoid costly mistakes. With strong competition, financial marketers have to keep informing consumers about their services or products to make sure that consumers are aware of them. Thus, it is necessary to have carefully planned advertising strategy and execution in order to recruit more customers and generate more revenue. Although financial marketers are trying to enhance the effectiveness of their advertisements, majority of advertisements do not receive any active processing.[1] This problem is exacerbated by advertising clutter and consumers' involvement in tasks that occupy attention and limit message involvement with financial services advertisements.[2–4]

Correspondence: Alex Wang
Department of Communication Sciences,
University of Connecticut-Stamford, One University Place,
Stamford, Connecticut 06901, USA
E-mail: alex.wang@Uconn.edu

Message involvement is the motivation to process information and an important factor for the effectiveness of financial services advertising.[3] Message involvement occurs when a person's attention is directed toward an advertisement.[5] On the basis of previous research,[3] term often associated with message involvement is information relevance.[6,3] Information relevancy is a primary antecedent of message involvement in processing a financial services advertisement.[3] Message involvement initiated by contextual relevance may be an important factor for the effectiveness of financial services advertising because the level of message involvement influences the consequences of attitude formation.[7,8,3] Thus, this study tries to extend a previous study[3] and examine how the contextual relevance effect can serve as an effective advertising execution for financial marketers.

Specifically in the financial services advertising setting, the contextual relevance effect is defined here as an advertising execution in which financial advertising messages are framed and presented based on its surrounding context. This definition supports the concept of contextual targeting, which is placing highly relevant advertisements adjacent to editorial contents expected to be visited by target consumers.[9] For example, Orbitz's advertisement that invites readers to play a baseball game is placed within an online article about baseball games. In this case, the advertisement highly related to the article (surrounding context) aims to involve readers to play a baseball game. Although readers are involved in reading the article about baseball games, the advertisement may trigger consumer attention and activate processing of the advertisement because of the contextual relevance effect.[3]

Although involvement related to processing advertisements has been an important construct of advertising research, empirical investigations of the contextual relevance effect and its relationship with message involvement have been limited in the context of financial marketing. Thus, the present study aims at examining the contextual relevance effect on ad recall (R_{AD}), perceived contextual relevance (PCR), message involvement (MI) and attitude toward the advertisement (A_{AD}). Moreover, this study tests the relationships between PCR, MI and A_{AD}.

This study specifically examines whether a Bank of America's financial ad placed next to investment information online (the contextual relevance effect) generates better R_{AD}, PCR, MI and A_{AD} than an online ad about WeightWatchers, placed next to the same investment information. As MI and A_{AD} are often necessary conditions for persuasion and branding,[10] showing whether or not the contextual relevance effect enhances MI and A_{AD} would be an important contribution to the understanding of ad effectiveness that significantly affects branding in the context of financial services marketing. Moreover, this study calls for data analysis that demonstrates how to attract consumers by executing financial advertisements effectively. The results of this study can help financial marketers understand the importance of marketing of financial products or services, and, therefore, gaining opportunities to develop and expand their customer base.

LITERATURE REVIEWS

Message involvement

This study aims to examine an advertising execution for financial service marketing that reflects the complexity of today's media choices and consumer-empowered media consumption by understanding how the contextual relevance effect influences message involvement. Thus, the literature reviews identify and examine a variety of exposure and relationship factors, related to message involvement and the contextual relevance effect. Advertising research has identified involvement as a crucial component that underlies the degree of information processing. Involvement occurs because of a brand idea or media, the consumer experiences.[11] It is a critical measurement of when consumers are strongly involved in brands, brand messages and their surrounding tasks.

Greenwald and Leavitt[5] used psychological theories of attention and levels of processing to establish a framework of audience involvement that is highly related to involvement in financial advertising. They outlined four hierarchical levels: preattention, focal attention, comprehension and elaboration. As a higher level of involvement is reached, increased capacity is allocated to a message source. Lower levels use relatively little capacity and extract information needed to determine whether a higher level will be invoked. The higher levels require greater involvement and result in increasingly durable cognitive and attitudinal effects. These levels then serve as the basis for the information consumers store in memory.[12] The final step, elaboration, occurs when consumers restate messages and summarize their reactions to them. These four levels of audience involvement demonstrate that consumers will be likely to process, understand and remember messages featured in financial services advertisements when their levels of involvement with the advertisements increase.

Research has suggested that involvement is best dealt with when it is conceptualized within a particular domain.[13] One domain that is highly related to involvement is message involvement. Message involvement is defined here as 'a motivational construct that influences consumers' motivation to process information at the time of message exposure' (p. 2).[6] Message involvement concerns the message, not the general product class that is deemed relevant and is elaborated upon.[14] Moreover, message involvement exists as an individual state evoked by a particular message at a particular point of time.[15] Consumers often focus their involvement on primary information such as an online article, thus reducing cognitive resources available to involve in secondary information such as an advertisement next to the online article. With advertising clutter, financial marketers have to keep consumers involved in processing advertising messages about their services or products. Thus, it is important for financial marketers to enhance consumers' message involvement with their advertisements.

Research suggests that the operationalizations of message involvement include an attentional (focal attention, direction/intensity) construct and a personal/situational (message/personal relevance) construct.[16] When viewed from attentional- and financial-marketing perspective, message involvement is often concerned with the focus on a particular aspect of an advertisement.[15] Therefore, overall attention paid to a financial advertisement is fundamental component of looking at message involvement – a consumer must pay attention to the financial advertisement in order to experience the advertisement. When viewed from an information relevance perspective, message involvement is often concerned with the relevance of an advertisement or the attempt to create a situation in which consumers are encouraged to process the advertisement relevant to them.[12,15]

By integrating these two perspectives, message involvement represents an individual variable that could indicate the amount of arousal or interest that is evoked by advertising messages.[10] Thus, perceived relevance of the messages, enhanced by the contextual relevance effect, directs consumers' direction of attention and the intensity of processing. Then it influences the consequences of attitudinal effects.[5] Consumers who involve more in processing the messages may undergo a semantic analysis in which the memorial representation of the information is accessed from memory, which in turn affects subsequent attitudes.

Contextual relevance

Research has suggested that there are different drivers of message involvement. They range from an exposure-based standpoint such as attentiveness to qualitative aspects, and information relevance.[10,3] For example, relevant messages in a financial services advertisement will enhance a consumer's message involvement with the advertisement. Other possible drivers are surprise and emotional bonding.[17] For example, using an unexpected idea with a twist and an unexpected association can attract consumer's attention toward financial advertisements.[18] Advertisements that elicit positive affect could also draw attention as liking is believed to be broadly descriptive of positive A_{AD}.[19]

The contextual relevance effect, which can influence message involvement, is grounded in the theory of information relevance.[6] Relevance, the fit between advertising message and the consumer, and advertising and the media environment[17] can speak to the importance of targeting as a factor of message involvement. Advertisements that feature relevance also speak to consumers' interests. This driver, the focus of this study, could be highly functional in driving higher levels of message involvement with financial services advertisements. For example, the information that can help influence a consumer's processing of a financial services advertisement tends to be the most relevant information to the consumer.[20]

Baker and Lutz[6] have proposed and tested their relevance-accessibility model and found that a message appeal is most likely to influence ad processing when it is both relevant and accessible. Their findings have also suggested that when consumers are satisfied with the relevant information they receive from processing an advertisement, their intention is to buy the first acceptable brand they encounter. When consumers believe that there are no significant differences among brands, they are likely to accept the brand information featured in an advertisement that is most relevant to them. As a result, the degree of information relevance influences how consumers utilize such information to help formulate their attitudes.[6,3]

Leigh[21] has reviewed the effects of information congruence among multiple stimulus modalities to demonstrate the importance of congruence to the subject of comparisons between TV and radio broadcast media. Modality refers to the sensory medium through which information is communicated.[22] His study has been concerned with the manner in which stimulus properties of tasks and the processing strategies performed on each task may influence overall and individual information processing. At the core of this processing is the concept of the schema, being integrally involved in a perceptual cycle.[23] This processing relates to the contextual relevance effect because information related to a developing or active schema is more likely to be interpreted coherently and remembered correctly.[22,24] For example, highly congruent and relevant audio and video stimuli exhibit comparable positive effects on processing and memory, compared to the cases where the audio and video provide weakly related or even different information.[25]

Research has also examined the effects of the relevant modalities based on the contextual relevance effect on branding in the co-branded advertising context.[25] The visual cue serves to create the context in which the product is shown.[26,27] The audio cue, on the other hand, can carry the relevant script of a plot. Thus, audio-visual cues can be more contextually related to be more meaningful than visual-only cues. By providing additional information, audio-visual cues served to enhance the contextual relevance effect.[28] Wang and Muehling[25] examined co-branded advertising (two brands featured in the same ad), an executional strategy in which a focal brand is paired with a peripheral brand. The results of an empirical investigation of modifying the contextual relevance effect on the peripheral brand (visual-only versus simultaneous visual and audio references) influenced consumers' perceived associations of the advertised brands and attitudes toward the advertisement. However, additional analyses revealed that attitude toward a co-branded advertisement mediated the brand association effect on purchase intentions toward the focal brand, whereas brand association had a direct effect on purchase intentions toward the peripheral brand.

Research has preliminarily examined how the contextual relevance effect performs in measures of message involvement.[18] The initial results have showed that the editorial environment of contextual relevance can increase attention to advertisements and awareness. Wang[3] also tested the contextual relevance effect created between an online game and an online ad that enabled consumers to play a game on ad recall and message involvement. The results revealed that higher engagement because of the contextual relevance effect increased advertising recall and message involvement. Moreover, message involvement mediated perceived engagement on message believability. These studies again show that the contextual relevance effect can be highly functional in driving higher levels of message involvement with financial services advertisements.

Contextual relevance and message involvement in the context of financial services advertising

Among the four levels of audience involvement, the characteristics of preattention and focal attention are particularly important to demonstrate the relationship between the contextual relevance effect and message involvement. Consumers in the preattention level allocate little capacity to process incoming messages. In this level of audience involvement, sensory buffering and feature analysis are the processing criteria that consumers may employ. Salient cues in the unattended information may be detected and cause a shift of attention to the source of the message that contains the salient cues.[5] As a result, the contextual relevance effect, a salient cue, can cause a shift of attention to the source of the message and increase message involvement, motivation to process information.[3] When consumers are motivated to process an advertisement, the advertisement increasingly becomes the focus of consumer attention. Consumers at the focal attention stage use 'modest capacity to focus on one message source, and to decipher the message's sensory content into categorical codes' (p. 584).[5] In other words, consumers may use perceptual and semantic processing to produce word and category representations.

To apply the above literature reviews to financial services advertisements, this study argues that consumers' message involvement with a financial services advertisement needs to be enhanced in order for the advertisements to be effective. As message involvement occurs when consumers are evoked by a financial services advertisement at a particular point of time,[29] financial marketers should attempt to create a situation in which consumers are encouraged to process the financial services advertisement relevant to them based on the information relevance perspective. According to the above literature reviews, the contextual relevance effect based on the information relevance perspective is one of the advertising executions that can establish a particular point of time in which consumers are encouraged to process the financial services advertisement. Once consumers are encouraged and motivated to process the financial services advertisement, they will be more likely to involve in processing the messages featured in the financial services advertisement.

Several important effects will materialize after consumers' message involvement with the financial services advertisement increases. When consumers' overall attention paid to the financial services advertisement is evoked by the contextual relevance effect created between the financial services advertisement and its surrounding context, the contextual relevance effect directs consumers' direction of attention and the intensity of processing. Therefore, the contextual relevance effect will influence the consequences of attitudinal effects, because consumers who highly involve in processing the messages in the financial services advertisements may undergo a semantic analysis in which the memorial representation affects subsequent attitudes.

On account of the memorial representation, it is likely that the contextual relevance effect will increase the likelihood of stronger R_{AD} because of stronger message involvement with the financial services advertisement. Studies have shown that information relevance facilitates naming and categorizing semantically related information.[30] The heightened attention and possible elaboration because of the contextual relevance effect can create cognitive pathways back to the originating message, which then increases the probability of R_{AD}. In this study, the contextual relevance effect is established between financial information and a financial services advertisement. A consumer who is reviewing financial information and exposed to a financial services advertisement and an advertisement, unrelated to financial services, should pay more attention to the financial services advertisement. Thus, this study tests the following hypotheses.

Hypothesis 1: A condition with the contextual relevance effect between financial information and a financial services advertisement will enhance R_{AD}, compared to a condition without the contextual relevance effect.

Hypothesis 2: A condition with the contextual relevance effect between financial information and a financial services advertisement will enhance MI, compared to a condition without the contextual relevance effect.

Research has also showed that the preattentive analysis of information can enhance liking for it[31] as the subconscious analyses can influence preference for the information.[32] As the contextual relevance effect increases message involvement with a financial services advertisement, consumers' liking of the messages in the financial services advertisement will increase. This is because either subconscious or conscious analyses can create a feeling of familiarity that is interpreted as affect or preference for the messages in the financial services advertisement.[33,34] Similarly, positive effects are expected to foster improvement of evaluations of the financial services advertisement.[35,3,25] Thus, this study tests the following hypotheses.

Hypothesis 3: A condition with the contextual relevance effect between financial information and a financial services advertisement will generate stronger A_{AD}, compared to a condition without the contextual relevance effect.

Hypothesis 4: The impact of PCR on A_{AD} will be mediated by MI.

METHOD

Design

The contextual relevance effect created between financial information and an online advertisement was manipulated (Figure 1) in a within-subject design, exposing two advertisements that represented two levels of contextual relevance (relevant versus irrelevant). This design of contextual relevance was based on the study's definition of the contextual relevance effect, in which a financial brand's messages are framed and presented in a financial services advertisement related to its surrounding context. Participants were involved in a primary task of reviewing financial information featured in a web site. Two advertisements that represented a relevant advertisement and an irrelevant advertisement were flashed in turn at the same placement next to the financial information. The irrelevant advertisement featured WeightWatchers that asked participants to calculate their ideal weight. The relevant advertisement featured Bank of America that described financial information about the line of credit promotion. These two advertisements were flashed in turn in

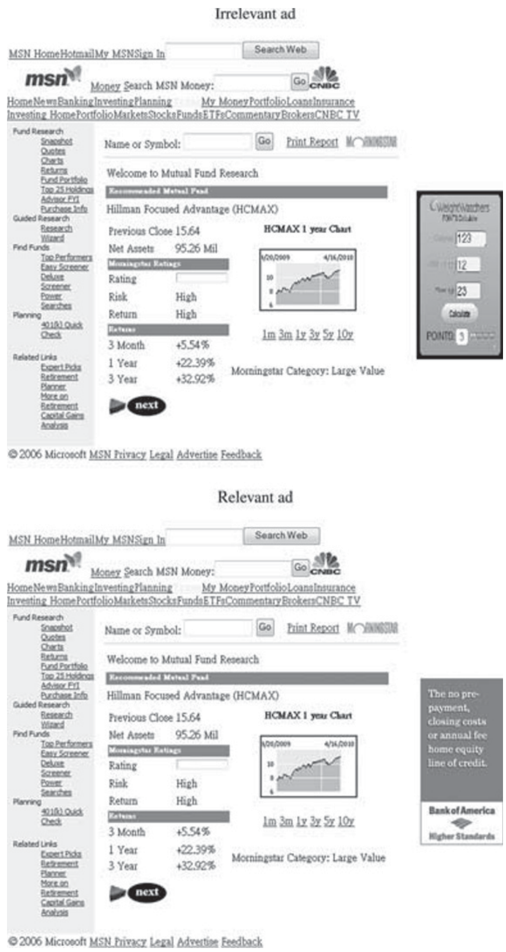

Figure 1: Relevant and irrelevant advertisements.

1 min so that they had equal exposure time and placement. In other words, each participant was exposed to both advertisements. As the participants were only exposed to the flashing advertisements about 1 min, this approach should mitigate possible bias created by factors such as fatigue.

The argument – reviewing financial information next to a financial services advertisement could attract attention – was based on the contextual relevance effect created between the advertisement and the financial information. Once encountered, the advertisement that was associated with the surrounding context (financial information) could initiate the contextual relevance effect. However, it is not possible to evaluate this

Table 1: Study procedure

Step	*Procedure*
1	Participants were seated in front of a computer in the laboratory
2	Participants were explained the purpose of this study
3	Participants reviewed financial information
4	Participants answered a questionnaire online
5	The administrator briefed participants about the study
6	Participants were given their compensation

argument with a research design that explicitly directs participants to process the advertisement.[36] Instead, this study used a research design representing a realistic exposure condition in which participants were told to get involved in reviewing the financial information to which processing resources were applied. In other words, there was no coaching and mentioning of looking at both advertisements.

Participants were asked to complete this study in a computer laboratory. Table 1 summarizes the procedure. Participants' qualifications were verified by the proofs of their online investment accounts when checking into the computer lab. Once confirmed, the study administrator asked the participants to sit in front of a computer. The participants then received an instruction booklet that informed them that the researcher is interested in their opinions about certain financial information and directed them to log on to a web site to review the financial information. Once they finished reviewing the financial information, they completed an online survey. Upon completion of the study, the participants received compensation.

Participants

This study used online investors as study's participants. According to Galante,[37] investors in their late 20s to mid 40s comprise the bulk of those making online trades. Moreover, a new boom in online investing is taking place among those 25-years-old and younger. Thus, this study recruited online investors ages 18–45. This methodology focused the research on testing the effectiveness of the financial services advertisement by capturing representative online investors. This study used screening and scheduling surveys to recruit and identify potential participants. Recruiting advertisements were posted on several finance-related blogs and web sites that targeted online investors. Online investors interested in participating in the study clicked on the screening survey link that directed them to answer questions that asked their qualifications and availability. It is important to acknowledge that the screening survey sample was not randomly selected. However, the advertisements used to recruit the sample covered a wide range of groups whose members specialized in finance and in online investing. On the basis of participants' availability, they were invited to come to a computer lab to complete the study. A total of 301 participants completed the study, and their responses were used for data analysis.

Measures

A question was asked to the participants, whether they noticed the tested advertisements while reviewing the financial information during the study, where one indicated 'yes' and zero indicated 'no'. This measure ensured that the study only analyzed the data collected from the online investors who noticed the tested advertisements. It was unlikely that the participants could answer questions regarding the tested advertisements when they did not even notice the advertisements.

R_{AD} was measured by asking the participants to list what they remembered about the tested advertisements.[38,3] In other words, the participants needed to remember the brand names and what they were about to produce a correct R_{AD}. Participants' answers were recorded by three categories. A correct R_{AD} of Bank of America's line of credit promotion was labeled as a relevant R_{AD}, whereas a correct R_{AD} of WeightWatchers' weight calculation was labeled as an irrelevant R_{AD}. Wrong R_{AD}, no answer, do not know, or do not remember were labeled as an incorrect R_{AD}.

PCR ($M=2.84$, $SD=1.78$) was measured by asking the participants how relevant it was for them to process the advertisement although reviewing the financial information.[3] MI ($M=3.85$, $SD=1.76$) was measured by asking the participants how involving it was for them to process the advertisement.[16] These two questions were measured on a 7-point scale, where one indicated 'not at all' and seven indicated 'extremely'. A_{AD} ($M=4.49$, $SD=1.51$) was measured by asking the participants to complete the sentence, 'I would describe the advertisement as … ', using a scale composed of unfavorable/favorable.[39]

This study measured and used covariates for data analysis. Participants' gender was asked and coded. There were 192 male participants (64 per cent) and 109 female participants (36 per cent). Participants' education levels were also asked, as 84 per cent of them had at least a college degree. Participants' income levels were also asked, as 51 per cent of them made less than US$85 000 a year and 49 per cent of them made at least $85 000 a year. Participants' age was also recorded ($M=32$, $SD=9.13$). Research suggests that amount of experience is an important factor in influencing information processing and attitude.[39,3,4] Thus, experience with searching investment information ($M=4.45$, $SD=1.89$) was measured by asking the participants how often they browse online for investment information. Investing experience ($M=3.42$, $SD=1.89$) was measured by asking the participants how often they invest. These questions were measured on a 7-point scale, where one indicated 'not often at all' and seven indicated 'very often'. Familiarity with reviewing financial information ($M=4.45$, $SD=1.67$) was measured by asking the participants 'how familiar they are with reviewing financial information. This question was measured on a 7-point scale, where one indicated 'not familiar at all' and seven indicated 'very familiar'.

To ensure that the participants were equally familiar with Bank of America and WeightWatchers, familiarity with Bank of America and WeightWatchers were asked in the end of the study by asking the participants, 'how familiar you are with Bank of America/WeightWatchers as a brand'. These two questions were measured on a 7-point scale, where one indicated 'not familiar at all' and seven indicated 'very familiar'. A paired samples *t*-test was conducted to compare participants' familiarity with two brands. The results revealed participants' familiarity with Bank of America (M=4.46, SD=1.45) were not different from their familiarity and WeightWatchers (M=4.44, SD=1.52), t (300)=0.35, P=0.724.

RESULTS

The contextual relevance effect

A χ^2 test was performed to examine the relationship between ad notice and correct R_{AD} (Table 2). The results revealed that 160 (53 per cent) out of 301 participants noticed the advertisements. Among the participants who noticed the advertisements, 70 of them (44 per cent) recalled the relevant advertisement correctly, whereas 17 of them (11 per cent) recalled the irrelevant advertisement correctly, χ^2 (2)=107.84, P<0.001. Thus, the Hypothesis 1 was supported.

To confirm and examine the contextual relevance effect, the *MANCOVA* procedure was used with 87 responses from the participants who correctly recalled both relevant and irrelevant advertisements. This approach was used because it was unlikely that the participants could answer questions measuring PCR, MI and A_{AD} regarding the tested advertisements when they did not even remember about what they were. The bivariate correlations tests supported the use of the *MANCOVA* procedure because PCR, MI and A_{AD} were correlated with each other (P<0.001). Consequently, PCR, MI and A_{AD} were used as the dependent variables, whereas correct R_{AD} (relevant ad versus irrelevant ad) was used as the independent variable. Age, gender, education, income, experience with searching investment information, investing experience, familiarity with reviewing financial information were used as covariates.

The multivariate tests in Table 3 revealed that there was a main effect for correct R_{AD}, Wilks' λ=0.88, F (3, 76)=3.31, P<0.024, η^2=0.12. Familiarity with reviewing financial

Table 2: Cross tabulation of ad notice and recall

			R_{AD}			
			Incorrect	*Relevant*	*Irrelevant*	*Total*
Ad notice	Did not notice an ad	*N*	141	0	0	141
		Ad notice (%)	100.0	0.0	0.0	100.0
		R_{AD} (%)	65.9	0.0	0.0	46.8
		Total (%)	46.8	0.0	0.0	46.8
	Notices an ad	*N*	73	70	17	160
		Ad notice (%)	45.6	43.8	10.6	100.0
		R_{AD} (%)	34.1	100.0	100.0	53.2
		Total (%)	24.3	23.3	5.6	53.2
Total		*N*	214	70	17	301
		Ad notice (%)	71.1	23.3	5.6	100.0
		R_{AD} (%)	100.0	100.0	100.0	100.0
		Total (%)	71.1	23.3	5.6	100.0

Table 3: Multivariate tests

Effect	*Wilks' λ*	*F*	*DF*	*P*	η^2
Intercept	0.932	1.853	3, 76	0.145	0.068
Age	0.933	1.833	3, 76	0.148	0.067
Education	0.948	1.400	3, 76	0.249	0.052
Income	0.994	0.152	3, 76	0.928	0.006
Experience with searching investment information	0.921	2.182	3, 76	0.097	0.079
Investing experience	0.959	1.081	3, 76	0.362	0.041
Gender	0.905	2.655	3, 76	0.054	0.095
Familiarity with reviewing financial information	0.893	3.026	3, 76	0.035	0.107
Correct R_{AD}	0.884	3.311	3, 76	0.024	0.116

information was found to contribute to the model significantly as a covariate, Wilks' $\lambda = 0.89$, F (3, 76) = 3.03, $P < 0.035$, $\eta^2 = 0.11$. The tests of between-subjects effects based on the individual univariate tests and means (standard deviations) of key dependent variables were reported in Tables 4 and 5, respectively. The participants recalling the relevant advertisement ($M = 2.63$, $SD = 1.45$) perceived higher contextual relevance than the participants recalling the irrelevant advertisement ($M = 1.88$, $SD = 1.32$), F (1, 78) = 4.54, $P < 0.036$, $\eta^2 < 0.06$. This result served as a confirmation of the contextual relevance effect, manipulated and represented by the study's relevant and irrelevant advertisements.

The dependent variables' mean comparisons were depicted in Figure 2. The participants recalling the relevant advertisement ($M = 3.70$, $SD = 1.37$) indicated stronger MI than the participants recalling the irrelevant advertisement ($M = 2.65$, $SD = 1.69$), F (1, 78) = 6.79, $P < 0.011$, $\eta^2 < 0.08$. The participants recalling the relevant advertisement ($M = 4.77$, $SD = 1.27$) also showed stronger A_{AD} than the participants recalling the irrelevant advertisement ($M = 4.12$, $SD = 1.61$), F (1, 78) = 5.97, $P < 0.017$, $\eta^2 < 0.07$. Thus, the Hypothesis 2 and Hypothesis 3 were supported.

The mediating effect

To test the Hypothesis 4, this study examined the relationships (Figure 3) between PCR, MI and A_{AD}. A series of regression analyses were used to test for the mediating effect among the above dependent variables.[40] MI was regressed on PCR ($\beta = 0.42$, $P < 0.001$), F (1, 85) = 18.60, $P < 0.001$, $R^2 = 0.18$. The results revealed that higher levels of PCR enhanced MI. A_{AD} was regressed on PCR ($\beta = 0.31$, $P < 0.004$), F (1, 85) = 8.94, $P < 0.004$, $R^2 = 0.10$. The results revealed that higher levels of PCR enhanced A_{AD}. A_{AD} was regressed on PCR ($\beta = 0.16$, $P = 0.142$) and MI ($\beta = 0.35$, $P < 0.002$), F (2, 84) = 10.21, $P < 0.000$, $R^2 = 0.20$. The results based on the simultaneous regression analysis revealed that PCR was no longer evident on A_{AD}, whereas higher levels of MI enhanced A_{AD}.

As Baron and Kenny[41] have suggested, the results of three regression equations provided the tests of the linkages of the mediating effect. The results revealed that there was a perfect mediation between MI and PCR on A_{AD} as three conditions of mediation held. First, PCR affected MI in the first equation. Second, PCR also affected A_{AD} in the second equation. Finally, MI affected A_{AD}, whereas PCR did not affect A_{AD} in the third equation. As depicted in Figure 3, an important mediator emerged from the examined relations among PCR, MI and A_{AD} as MI mediated PCR on A_{AD}.

DISCUSSION

As financial marketers grapple with the profound changes in media such as the Internet, the contextual relevance effect has

Table 4: Tests of between-subjects effects

Source	*Dependent variable*	*df*	*F*	*Significant*	η^2
Corrected model	Contextual relevance	8	2.696	0.011	0.217
	Message involvement	8	1.610	0.136	0.142
	A_{AD}	8	1.676	0.118	0.147
Intercept	Contextual relevance	1	0.334	0.565	0.004
	Message involvement	1	2.268	0.136	0.028
	A_{AD}	1	5.225	0.025	0.063
Age	Contextual relevance	1	0.848	0.360	0.011
	Message involvement	1	0.074	0.786	0.001
	A_{AD}	1	2.862	0.095	0.035
Education	Contextual relevance	1	2.762	0.101	0.034
	Message involvement	1	0.032	0.858	0.000
	A_{AD}	1	0.457	0.501	0.006
Income	Contextual relevance	1	0.002	0.967	0.000
	Message involvement	1	0.160	0.690	0.002
	A_{AD}	1	0.401	0.529	0.005
Experience with searching investment information	Contextual relevance	1	5.560	0.021	0.067
	Message involvement	1	2.829	0.097	0.035
	A_{AD}	1	0.318	0.574	0.004
Investing experience	Contextual relevance	1	3.008	0.087	0.037
	Message involvement	1	1.243	0.268	0.016
	A_{AD}	1	0.556	0.458	0.007
Gender	Contextual relevance	1	5.992	0.017	0.071
	Message involvement	1	0.850	0.359	0.011
	A_{AD}	1	4.422	0.039	0.054
Familiarity with reviewing financial information	Contextual relevance	1	2.333	0.131	0.029
	Message involvement	1	1.764	0.188	0.022
	A_{AD}	1	2.216	0.141	0.028
Correct R_{AD}	Contextual relevance	1	4.543	0.036	0.055
	Message involvement	1	6.793	0.011	0.080
	A_{AD}	1	5.966	0.017	0.071
Error	Contextual relevance	78	—	—	—
	Message involvement	78	—	—	—
	A_{AD}	78	—	—	—
Total	Contextual relevance	87	—	—	—
	Message involvement	87	—	—	—
	A_{AD}	87	—	—	—
Corrected total	Contextual relevance	86	—	—	—
	Message involvement	86	—	—	—
	A_{AD}	86	—	—	—

emerged as a demand creation paradigm than the reach or awareness focused paradigm.[17] The evolving field of interactive and digital media such as the Internet is presenting new opportunities to generate higher involvement with financial services advertising. Although limited studies have empirically examined the contextual relevance effect, this study not only contributes to the advertising literature, but also contributes to financial services marketing research by investigating the contextual relevance effect on R_{AD}, MI and A_{AD}. First,

Table 5: Means (Standard Deviations) of key dependent measures

N	*Relevant ad*		*Irrelevant ad*		*F*
	70		*17*		
	Mean	*SD*	*M*	*SD*	
Contextual relevance	2.63	1.45	1.88	1.32	12.94***
Message involvement	3.70	1.37	2.65	1.69	6.91**
A_{AD}	4.77	1.27	4.12	1.36	6.86**

Note: *$P<0.05$, **$P<0.01$, ***$P<0.001$.

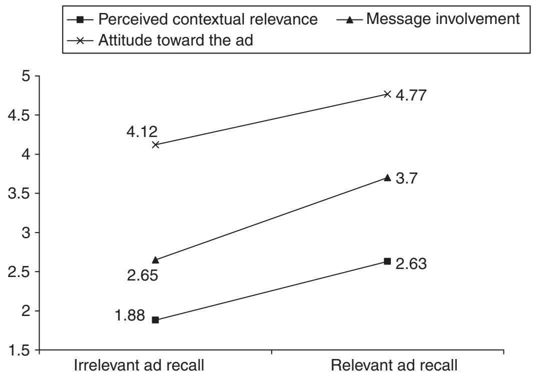

Figure 2: Mean comparisons.

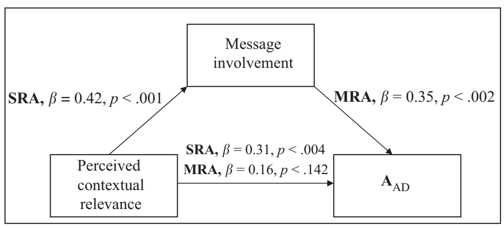

Figure 3: The mediating effect.
Notes: SRA means single regression analysis; MRA means multiple regression analysis.

the results suggest that PCR initiated by the contextual relevance effect can be influential.[18] The most important finding in this study, however, is that the impact of PCR on A_{AD} is mediated by MI. This result is extremely important as it supports the study's argument that the contextual relevance effect is an influential driver of MI.

Practical implications

Financial marketers should be encouraged by the results presented here as the results confirm the importance of contextual relevance in many aspects of financial services marketing. Preemptively, the results suggest a solution to advertising clutter. On account of too many advertisements for the same product category fighting for consumers' attention, consumers may tend to avoid looking at any of them. Financial marketers should be cautious about media planning for their advertising or promotion campaigns. Many financial marketers use different targeting criteria such as demographics to buy advertising spaces in media. They should reconsider this approach, because simply basing on demographics to purchase advertising spaces in media may not be cost efficient as so many financial services advertisements were unnoticed by consumers because of advertising clutter and consumers' involvement in other tasks. The immediate implication of this study is that initiating the contextual relevance effect not only can help financial marketers have their online advertisements actually noticed by consumers, but also can create higher consumer message involvement. Once higher message involvement is established, positive attitude toward financial services advertising can be obtained.

Progressively, financial marketers can generate the contextual relevance effect by using Internet technologies to reach consumers with highly relevant advertisements based on what they read or do while placing advertisements adjacent to editorial contents expected to be visited by target consumers. The same strategy can be used to reach consumers based on where they navigate. In the same line of reasoning, enhancing message involvement based on the contextual relevance effect should also be implemented in traditional media. In the newspaper or magazine context, the contextual relevance effect can be initiated by reaching consumers with highly relevant financial services advertisements based on what they read while placing advertisements adjacent to editorial contents. In fact, the contextual relevance effect created between an advertisement and a primary task can be employed in formulating advertorial contents. This approach can be used as a targeting approach by financial marketers.[18,3] For example, financial marketers should work with magazine publishers to secure the spaces that will allow their advertisements to be placed next to the articles, relevant to the messages in the advertisements.

Finally, financial markets should not regard the contextual relevance effect as a direct indicator of advertising results. Rather, message involvement is the goal. The contextual relevance effect works as the door attendants of message involvement, which, in turn, directs the way consumers respond to a financial services advertisement. In this case, the key to achieve message involvement is to understand how to materialize the drivers of message involvement. As Ephron,[7] Harvey[9] and Wang[3] suggest, message involvement does not just depend on the contextual relevance effect. It also depends on the creativity and advertising messages. Financial marketers should strategize to enhance message involvement with their advertisements by integrating various drivers of message involvement into their advertising executions.[3] Consistent with past research, message novelty, utility and affect are factors that may enhance message involvement.[18,42,43] Consequently, enhancing message involvement by integrating various drivers of message involvement into advertising executions can create complementary effects of these drivers and achieve the greatest advertising and branding effectiveness for financial marketers.

Limitations and future research

Although this study confirms several aspects of advertising research such as message involvement and makes notable and new contributions to the understanding of the contextual relevance effect in the context of financial services marketing, several limitations should be noted. First, this study encourages caution when generalizing the study's results beyond online investors. Albeit the focus of the study population is online investor, the sample for this study is limited to regional level. Thus, future studies should incorporate a larger, more diverse sample. On a related note, additional research is needed to determine the underlying process and generalizability of the findings.

Although attempting to preserve the realism of the stimulus materials tested in this study, one aspect of the natural phenomenon of online browsing was not preserved because of the impracticality of reproducing the natural viewing situation at home. This study did not account for the differing levels of viewing involvement with the advertisements that the participants may have had even though the principal investigator asked all participants to consider themselves at home. This factor may shift the focus of a participant's attention toward or away from the advertisements, and thus moderate the effect on memory and attitudes. Thus, manipulating or measuring viewing involvement could provide another means of assessing the contextual relevance effect.[25]

In the same line of reasoning, the study's participants might try to stay focused on reviewing the financial information, resisting the advertising messages even though the messages were relevant. Future study should examine, whether consumers may react to the surprise of unexpected event by looking at a financial services advertisement when finding the advertisement in a completely unrelated environment. Future research should also examine the robustness of the contextual relevance effect in cross-media contexts. For example, financial marketers have used TV commercials to invite investors to go to their web sites for specific financial products or services. The comparisons of cross-media use in terms of the contextual relevance effect warrant future investigations.[4]

On a related note, one of the reviewers kindly pointed out that the two advertisements tested in this study did not just differ in the subject matter, but also in other factors such as the interactivity effect. The results of this study seem to suggest that the contextual relevance effect is more influential than interactivity under this study's circumstance. However, future research should examine whether consumers may react to the interactivity featured in a financial services advertisement more than a static financial services advertisement in addition to the contextual relevance effect. Moreover, future research should use a 2-by-2 between-subject experiment to examine whether the interactivity effect and the contextual relevance effect would yield an interaction effect on R_{AD}, MI and $A_{AD.}$

Finally, the study's dependent variables were measured immediately following exposure to the tested advertisements. Future research should test potential delay effects on the same dependent variables used in this study. Future study may also wish to consider examining participants' online cognitive responses so that thoughts including counter arguments, discounting elaborations or other indicators of access to persuasion knowledge can be gathered and used to explain the contextual relevance effect.[25]

CONCLUSION

This study examines an advertising execution that reflects the complexity of today's media choices and consumer-empowered media consumption for financial marketers by understanding how the contextual relevance effect influences message involvement. In reality, consumers do not usually look for financial services advertisements to process. Thus, this study uses a realistic online environment to test the contextual relevance effect. The results certainly confirm the importance of contextual relevance as a driver of MI in the context of financial services marketing. The study findings also suggest that financial marketers should strategize their advertising campaigns based on the correlated factors among consumers, advertising messages and advertising environments. Financial marketers should also identify and examine a variety of exposure and relationship factors that can initiate the contextual relevance effect. In the same line of reasoning, financial marketers should strategize ways that can affect targeting based on contextual relevance by examining the fit among consumers, advertising messages and brands. Drivers of message involvement may vary by demographics, product categories and genres within media. Thus, financial marketers should explore how creativity employed in various advertising environments differs, perhaps resulting in the development of different financial services advertising messages for each medium. New research and in market experience will increase the understanding of the contextual relevance effect in improving financial services advertising effectiveness.
As financial marketers' knowledge about involving consumers continues to grow, enhanced advertising execution with targeted and involving messages will lead to better financial services marketing and better results ultimately.

REFERENCES

1 Webb, P. and Ray, M. (2001) Effects of TV clutter. *Journal of Advertising Research* 19(2): 7–12.
2 MacInnis, D.J. and Jaworski, B.J. (1989) Information processing from advertisements: Toward an integrative framework. *Journal of Marketing* 53(4): 1–23.
3 Wang, A. (2006) Ad engagement: A driver of message involvement on message effects. *Journal of Advertising Research* 46(4): 355–368.
4 Wang, A. (2009) Cross-channel integration of advertising: Does personal involvement matter? *Management Research News* 32(9): 858–873.
5 Greenwald, A.G. and Leavitt, C. (1984) Audience involvement in advertising: Four levels. *Journal of Consumer Research* 11(2): 581–592.
6 Baker, W.E. and Lutz, R.J. (2000) An empirical test of an updated relevance accessibility model of advertising effectiveness. *Journal of Advertising* 29(1): 1–14.
7 Ephron, E. (2006) Want engagement? Make a more engaging ad, http://ephrononmedia.com/article_archive/articleViewerPublic.asp?articleID=148, accessed January 2011.
8 Harvey, B. (1997) The expanded ARF model: Bridge to accountable advertising future. *Journal of Advertising Research* 37(1): 11–20.
9 Harvey, B. (2006) Engagement and the ARF model, http://www.nextcenturymedia.com/blog.htm, accessed January 2011.
10 Laczniak, R.N., Kempf, D.S. and Muehling, D.D. (1999) Advertising message involvement: The role of enduring and situational factors. *Journal of Current Issues and Research in Advertising* 21(1): 51–61.

11 Advertising Research Foundation (2006) Defining engagement initiative, http://www.thearf.org/assets/research-arf-initiatives-defining-engagement, accessed March 2011.

12 Andrews, J.C. and Shimp, T.A. (1990) Effects of involvement argument strength, and source characteristics on central and peripheral processing of advertising. *Psychology and Marketing* 7(3): 195–214.

13 Andrews, J.C., Durvasula, S. and Ahkter, S.H. (1990) A framework for conceptualizing and measuring the involvement construct in advertising research. *Journal of Advertising* 19(4): 27–40.

14 Batra, R. and Ray, M. (1985) How advertising works at contact. In: L.F. Alwitt and A.A. Mitchell (eds.) *Psychological Processes and Advertising Effects*. Hillsdale, NJ: Lawrence Erlbaum Associates.

15 Laczniak, R.N., Muehling, D.D. and Grossbart, S. (1989) Manipulating message involvement in advertising research. *Journal of Advertising* 18(2): 28–38.

16 Laczniak, R.N. and Muehling, D.D. (1993) The relationship between experimental manipulations and tests of theory in an advertising message involvement context. *Journal of Advertising* 22(3): 59–74.

17 Harvey, B. (2006) ARF engagement recipe: Surprise, utility, and emotion, http://www.nextcenturymedia.com/blog.htm, accessed January 2011.

18 Wells, W., Burnett, J. and Moriarty, S. (1992) *Advertising: Principles and Practice*. Englewood Cliffs, NJ: Prentice-Hall.

19 Seamon, J.G., Marsh, R.L. and Brody, N. (1984) Critical importance of exposure duration for affective discrimination of stimuli that are not recognized. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 10(3): 465–469.

20 Feldman, J.M. and Lynch, J.G. (1988) Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. *Journal of Applied Psychology* 73(3): 421–435.

21 Leigh, J.H. (1991) Information processing difference among broadcast media: Review and suggestions for research. *Journal of Advertising* 20(2): 71–75.

22 Unnava, H.R., Agarwal, S. and Haugtvedt, C.P. (1996) Interactive effects of presentation modality and message-generated imagery on recall of advertising information. *Journal of Consumer Research* 23(1): 81–86.

23 Neisser, U. (1976) *Cognition and Reality. Principles and Implications of Cognitive Psychology*. San Francisco, CA: W.H. Freeman.

24 Wang, A. and Muehling, D.D. (2010) The effects of audio-visual and visual-only cues on consumers' responses to co-branded advertising. *Journal of Marketing Communications* 16(5): 307–324.

25 Leigh, J.H. (1992) Modality congruence, multiple resource theory and intermedia broadcast comparisons: An elaboration. *Journal of Advertising* 23(2): 55–62.

26 Solomon, M.R. and Greenberg, L. (1993) Setting the stage: Collective selection in the stylistic context of commercials. *Journal of Advertising* 22(1): 11–24.

27 Solomon, M.R. and Englis, B.G. (1994) The big picture: Product complementarity and integrated communications. *Journal of Advertising Research* 34(1): 57–64.

28 Peck, J. and Childers, T.L. (2008) Effects of sensory factors on consumer behavior. In: C.P. Haugtvedt, P.M. Herr and F.R. Kardes (eds.) *Handbook of Consumer Psychology*. New York, NY: Psychology Press, pp. 193–220.

29 Laczniak, R.N., Muehling, D.D. and Grossbart, S. (1989) Manipulating message involvement in advertising research. *Journal of Advertising* 18(2): 28–38.

30 Fuentes, L.J., Carmona, E., Agis, I.F. and Catena, A. (1994) The role of the anterior attention system in semantic processing of both foveal and parafoveal words. *Journal of Cognitive Neuroscience* 6(4): 17–25.

31 Janiszewski, C. (1988) Preconscious processing effects: The independence of attitude formation and conscious thought. *Journal of Consumer Research* 15(3): 199–209.

32 Anand, P., Holbrook, M.B. and Stephens, D. (1988) The formation of affective judgments: The cognitive-affective model versus the independence hypothesis. *Journal of Consumer Research* 15(4): 386–391.

33 Bonanno, G.A. and Stillings, N.A. (1986) Preference, familiarity, and recognition after repeated exposures to random geometric shapes. *American Journal of Psychology* 99(4): 403–415.

34 MacInnis, D.J., Moorman, C. and Jaworski, B.J. (1991) Enhancing and measuring consumers' motivation, opportunity, and ability to process brand information from ads. *Journal of Marketing* 55(4): 32–53.

35 Leigh, J.H. (1994) The use of figures of speech in print ad headlines. *Journal of Advertising* 23(4): 17–34.

36 McQuarrie, E.F. and Mick, D.G. (2003) Visual and verbal rhetorical figures under directed processing versus incidental exposure to advertising. *Journal of Consumer Research* 29(1): 579–587.

37 Galante, S. (1998) Online investors come of age at 25, http://www.news.com/2009-1001-207061.html?legacy=cnet, accessed January 2011.

38 Cacioppo, J.T. and Petty, R.E. (1981) Social psychological procedures for cognitive response assessment: The thought-listing technique. In: R.E. Petty, T. Ostrom and T.C. Brock (eds.) *Cognitive Responses in Persuasion*. Hillsdale, NJ: Lawrence Erlbaum Associates.

39 Hallahan, K. (1999) Content class as a contextual cue in the cognitive processing of publicity versus advertising. *Journal of Public Relations Research* 11(4): 293–320.

40 Judd, C.M. and Kenny, D.A. (1981) Process analysis: Estimating mediation in evaluation research. *Evaluation Research* 5(3): 602–619.

41 Baron, R.M. and Kenny, D.A. (1986) The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology* 51(6): 1173–1182.

42 Seamon, J.G., Brody, N. and Kauff, D. (1983) Affective discrimination of stimuli that are not recognized: Effects of shadowing, masking, and cerebral laterality. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 9(3): 544–555.

43 Seamon, J.G., Brody, N. and Kauff, D. (1983) Affective discrimination of stimuli that are not recognized: Effects of delay between study and test. *Bulletin of the Psychonomic Society* 21(2): 187–189.