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## **Investors’ Reactions to Company Advertisements:**

### **The Persuasive Effect of Product-Featuring Ads**

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### **ABSTRACT**

*Purpose.* This article focuses on product-featuring advertising targeted to stock investors—that is, ads that provide investors with impressions about the company's products, over and above financial information. The purpose is to explicate and test the psychological mechanisms by which such ads may exert influence on investors.

*Design/methodology/approach.* An experiment is conducted with a representative sample of real investors, to test the effect and explore the underlying mechanisms. Two additional lab experiments reveal moderating factors of this effect.

*Findings.* The results show that highlighting the company's product features in an investor ad increases investors' interest in investing in the company's stock, by enhancing investors' subjective evaluations of the company's products. This effect emerges independent of factors related to preexisting brand perceptions (e.g., brand recognizability and likeability) and is mediated by dual causal channels: by increasing expectations about the company's financial returns and by increasing affective attachment with the company's products.

*Research limitations/implications.* The findings identify and confirm different mechanisms of the effect of investor ads, but the relative magnitude of the effects is not generalizable.

*Practical implications.* The results provide corporate marketing, corporate communications, and investor relations professionals insights into how investors may be attracted by product-featuring advertisements.

*Originality/value.* The study is the first to explicate the different channels of influence through which product-featuring ads may affect investors' willingness to invest in companies.

**Keywords:** Investor advertising, investor marketing, investment behavior, financial decision making, stock investing, consumer behavior in financial markets, stock market, investor advertisements, stock advertisements, brand image, brand recognition, brand perceptions

Marketing researchers as well as executives (e.g., Bobinski and Ramirez 1994; Karrh 2004; Kotler et al. 2004) are increasingly interested in how firms can advertise themselves to investors. What fuels this interest, is the increased stock market participation by ordinary consumers, who invest for their retirement plans (e.g., Raghurir and Das 2010), or wish to follow the footprints of celebrity investors like Warren Buffett or CNBC's Jim Cramer (Karniouchina et al. 2009). Although much of the stock market participation of consumers occurs indirectly through mutual funds, many consumers also invest directly in stocks. For example, by running ads in retail investor<sup>1</sup> publications (e.g., Better Investing Magazine), Home Depot has become one of the most widely-held stocks among U.S. individual investors. Also, the stock price of Smithfield Foods reportedly rose almost 10% during a ten day spell following a single investor-targeted ad in the *Wall Street Journal* (Theiss 2004). Indeed, Capon et al. (1996) reported that approximately 25% of individual investors are "advertising-driven."

From a marketing perspective, an especially interesting aspect of investor-targeted ad campaigns<sup>2</sup> is that many of these campaigns not only provide investors financial information about the firm but also feature and highlight the firm's products or brands. Such product-featuring investor ads are the focus of the present study. Ben & Jerry's, for instance, highlighted the company's beloved ice creams when promoting its stock to investors.

However, despite the burgeoning practical examples, we are unaware of any academic research that has examined how such product-featuring, investor-targeted ads may exert their influence on investors. Indeed, while related research (e.g., Karrh 2004; Joshi and Hanssens 2010; McAlister et al. 2007; Grullon et al. 2004) has established that traditional consumer-

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<sup>1</sup> The terms "consumer-investors," "retail investors," and "individual investors" are often used interchangeably.

<sup>2</sup> Also called "financial PR" or "investor relation" campaigns

targeted advertising (e.g., Super Bowl ads) can also have “spill-over” effects on investors, the effects of product-featuring advertisements that are exclusively targeted at investors are not known. The effects of such investor-targeted ads are important to understand in their own right, because the investors themselves are now the main target of persuasion (rather than accidental observers of ads targeted to consumers).

Moreover, the aforementioned, prior research regarding the spill-over effects of consumer-targeted branding and advertising on investors has largely been restricted to looking at their effect in terms of brand awareness or familiarity—that is, the so called “information effects” of advertising. Such information effects refer to the influence that advertising has on target audience by way of informing them about companies or their brands, i.e., increasing their awareness of or familiarity with them<sup>3</sup>. However, it is established in marketing research that advertising also has persuasive, “evaluative effects” on target individuals, by enhancing their evaluations of or attitudes towards the company and its brands. While there are some financial studies acknowledging that besides familiarity and mere information, investors’ attitudinal evaluations of firms’ products/brands may also affect their investment decisions (Frieder and Subrahmanyam 2005; Mizik and Jacobson 2008; Schoenbachler et al. 2004), prior research has neither theoretically explicated nor experimentally verified these effects. In particular, the evaluative effects of investor-focused ads haven’t been examined. For example, whilst recent studies have found that advertising investments can affect stock returns partly due to increased demand by investors for more familiar firms (Joshi and Hanssens 2010) and that advertising can reinforce the favorable effect of positive news on stock returns through investor attention (Xiong and Bharadwaj 2013), these studies do not go

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<sup>3</sup> Even though brand familiarity and recognition primarily refer to the amount of information the consumer holds about a brand (partly as a result of advertising), familiarity-focused advertising may naturally have some affective and emotional effects as well. This is mainly due to the “mere exposure effect” (Zajonc 1980), wherein familiarity often breeds liking, leading to greater positive affect towards the more familiar brand.

beyond the “informational” role of brand familiarity. Thus, the new contribution of the present research is to explicate and experimentally test the attitudinal, evaluation-enhancing effects of product-featuring investor ads, instead of merely their “informational” or familiarity effects.

Addressing this research gap further begs the question: What are the psychological mechanisms through which the evaluations elicited by product-featuring ads exert their influence on an individual investor? The main sources of such effects can be twofold. First, the product-featuring ads may influence investors’ financial expectations. Indeed, while investors are mostly “guided by financial considerations” (Clark-Murphy and Soutar 2004, p. 540), even well-known investors like Warren Buffett are known to emphasize the financial value of good products and brands. In fact, Buffett is known to stick to businesses that have strong brands and products whose financials “we believe we understand” (Livy 2013). Accordingly, product-featuring ads may exert influence on investors by influencing their financial expectations of the firm’s products and brands.

Second, product-featuring investment ads may also exert influence on investors over and above financial expectations. This is because recent research notes that individuals may invest in a company partly due to an affective “liking” for the company (Aspara and Tikkanen 2011b; Fama and French 2007; Statman et al. 2008), or due to self-expressive reasons (Statman 2004). Thus, product-featuring ads may also tap into affective and self-expressive motivations to invest in the company, beyond financial motivations.

To examine these twin sources of influence in detail, we report a theory-driven experiment (Raghubir and Das 1999) with a representative sample of real consumer-investors. Two additional lab experiments are also conducted. A theory-driven experiment has an advantage over correlational studies based on behavioral market data (e.g., Frieder and Subrahmanyam 2005; Mizik and Jacobson 2008) and non-experimental surveys (e.g., Schoenbachler et al.

2004), as it allows for testing the causal effects of the factors of interest.<sup>4</sup> Unlike behavioral market data, our experiments also enable the measurement of investor attitudes and attitudinal effects at the individual level, which allows us to test whether the effects of the investor ads are due to their impact on expectations of financial return, or factors beyond financial expectations.

### **Theory and hypotheses**

As described above, the present research examines the effect that product-featuring ads have on an individual's interest in investing in a company's stock. We define product-featuring investor ads as advertisements that (i) are primarily targeted at stock investors (not product-buyers or end-consumers), (ii) present the company as an investment target, and (iii) describe and highlight some of the company's products via textual and/or visual means. The products described in these ads may be individual products or broader product families of the company (examples available from authors on request). Typically, such ads are distributed in business magazines and newspapers when a firm is conducting its Initial Public Offering (IPO), or otherwise wants to attract new shareholders for its stock. Moreover, in addition to ads appearing in the print media, the following investor communication materials can also be broadly classified as product-featuring investor ads: product description sections in firms' annual reports, interactive brochures in the Investor Relations sections of corporate websites, and even preannouncements of new products at investor roadshows.

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<sup>4</sup> Our theory-driven experiment also has some disadvantages. In particular, in contrast to studies with behavioral market data, which examine individuals' real investment decisions (e.g., Frieder and Subrahmanyam 2005; Mizik and Jacobson 2008), our outcome data is limited to individuals' investment intentions. Also, our experimental approach does not reveal investors' own, subjective perceptions of the degree to which product and brand issues affect their investment decisions (cf. Schoenbachler et al. 2004).

Presently, we focus especially on the attitudinal or evaluative effects that such ads have on investors, rather than informational effects alone. Furthermore, we also measure whether preexisting brand perceptions in investors' minds (prior to ad exposure) moderate the attitudinal or evaluative effects of these ads. The sections that follow examine, in detail, the theoretical bases of these sources of influence, and present a set of hypotheses to be tested.

### *Evaluative effects of product-featuring investor ads*

Prior research specifically focusing on the evaluative effects of investor ads is, to the best of our knowledge, non-existent. Nevertheless, some general theories and findings from the consumer behavior literature give us reason to expect that if a product-featuring investor ad is able to enhance an individual's subjective evaluation of the company's products, then such an ad will also increase the individual's interest in investing in the company's stock. The following sections first elaborate on the (1) former part of this causal chain (i.e., product-featuring investor ad → investor's subjective evaluation of the company's products), and then on the (2) latter part of the chain (subjective evaluation of the products → interest in investing in the company's stock).

*Product-highlighting in ad → Product evaluations.* The expectation that (1) product-featuring investor ads may have an effect on investors by enhancing their subjective product evaluations, is based on two streams of literatures. One set of findings suggests that simply highlighting a product in an ad may help individuals "mentally simulate" (e.g., see Elder and Krishna 2012) product experience in their minds (e.g., imagine how useful the products are for end-users). That is, enhancing people's ability to simulate product experience with a certain highlight should enhance their overall evaluations of the firm's products. Another, related theory further suggests that highlighting (e.g., italics) a textual description of an object allows readers to form more abstract assessments of that object (Alter and Oppenheimer

2008). Abstract assessments, in turn, are often correlated with thoughts related to “desirability” of a product (e.g., the attractiveness and usefulness). Thus, the textual highlighting of product information might subtly shape the investor’s abstract thoughts about how and why the firm’s products are relevant for his investment considerations.

Note that a key point here is that such ads do not necessarily increase the *amount* of information available for the investor. Indeed, both of these psychological mechanisms—mental simulation (Elder and Krishna 2012) and thought abstraction/construal (Alter and Oppenheimer 2008)—typically focus on the effects of the presentation format of the information (rather than the information content). In the present research context, this is especially relevant, since any firm is likely to have multiple products to present to investors, making the information setting very complex. Therefore, in line with the mental simulation and abstraction theories, we hypothesize:

**H1:** A textual highlighting (e.g., italics, underlining) of the company’s product features (e.g., user benefits) in an investor ad has a positive effect on an investor’s overall evaluation of the company’s products.

*Product evaluations* → *Investment interest*. How will, then, an investor’s enhanced evaluation of the company’s products influence the investor’s interest in investing in the company? Firstly, a positive evaluation of a company’s products, as elicited by the ad, is likely to lead the investor to reason that because the company’s products are good and likeable, the products are likely to enjoy a lot of demand in the consumer markets, and the company is therefore likely to be a good investment target. Lay investment advice also suggests that individuals should try to spot this kind of companies to invest in, that is, companies with good and popular products with a growing demand (Lynch 1989). In addition, an investor’s reasoning might also involve a somewhat naive projection bias, along



the lines of, “I think the product is so good, others will think the same, the company will succeed and the stock value will rise” (Schoenbachler et al. 2004, p. 496). In sum, enhanced subjective product evaluations are likely to raise expectations of the product’s potential market demand and increase expectations about the company’s financial returns. Thus, we hypothesize:

**H2a:** An investor’s overall evaluation of the company’s products has a positive effect on her expectations about the financial returns of the company.

**H2b:** An investor’s expectation about the financial returns of the company has a positive effect on her interest in investing in the company’s stock.

Furthermore, a positive evaluation of the company’s products may even elicit some degree of affective “attachment” to, or identification with, the products of the company (Aspara and Tikkanen 2011a). Such attachment or identification may in turn provide a certain degree of emotional or experiential utility (Fama and French 2007) or self-expressive benefits (Statman 2004) for the investor. This leads to an additional path of influence, wherein product evaluations may create an affective attachment to those products. This affective attachment, in turn, may further increase the individual’s interest in investing in the company:

**H2c:** An investor’s overall evaluation of the company’s products has a positive effect on her affective attachment with the company’s products.

**H2d:** An investor’s affective attachment with the company’s products has a positive effect on her interest in investing in the company’s stock.

Figure 1 summarizes the hypotheses developed above.

----- PLACE FIGURE 1 ABOUT HERE -----

*Effects of preexisting brand perceptions?*

*Moderating effects of preexisting brand perceptions.* Although preexisting brand perceptions may have their own main effects on investor interest, over and above the effects of the product-featuring investor ads (see the following section), behavioral theory gives no strong reason to expect, a priori, that the evaluative effects of product-featuring investor ads (H1-H2) would be contingent on or moderated by preexisting brand perceptions. If the present study focused purely on the “information” effects of investor ads, then such effects would likely be moderated by preexisting brand familiarity. This is because the level of information that an investor needs and finds useful in making investment decisions is likely to have an upper bound, such that increasing levels of familiarity with the company will not continually increase investment interest in a monotonic fashion (if the person already has “enough” information due to preexisting brand familiarity). However, the “evaluative” effects of investor ads are less likely to be constrained by an upper bound: one’s evaluations can increase from a slightly positive attitude to quite limitless feelings of liking (even love; see Aspara and Tikkanen 2010). Thus, we do not pose any a priori hypotheses about the moderating influence of preexisting brand perceptions.

*Main effects of preexisting brand perceptions.* As the focus of the present research is on studying the main effects and mediated effects of product-featuring investor ads (H1-H2), we offer no formal hypotheses on the main effects of preexisting brand perceptions, either. Nonetheless, two broad effects might be anticipated based on extant research. First, previous research has established that recognized or familiar brands attract greater investment interest than non-recognized or unfamiliar ones (Frieder and Subrahmanyam 2005; Huberman 2001). Second, brand likeability and positive brand equity (Fehle et al. 2005; Mizik and Jacobson 2008) may also increase investors’ aggregate valuation of the company’s stock. Against this backdrop, a particularly interesting empirical question is, whether high preexisting brand

recognition increases investment interest more than low brand likeability decreases it. The present experiment approaches these main effects in an empirical fashion.

## **Main Experiment**

### *Overview*

The present experiment focused on testing whether highlighting the firm's products in an investor ad has a positive effect on investment interest, via the mediating mechanisms hypothesized earlier (H1, H2a-d). In brief, the expectation was that individuals would have higher investment interest for a company when presented with an ad that has a textual highlighting of the company's product features, than when presented with ads with no such highlighting. To focus on the evaluative effects of the product-featuring ads, a key issue in designing this experiment was how to manipulate the highlighting of the company's products in the ad, while maintaining the same information amount. To this end, our experimental treatments contained exactly the same information but only varied the extent to which the ads highlighted the product description content.

### *Method*

*Participants.* We recruited a representative sample of actual stock investors for the experiment. The participants were recruited at several "stock exchange evening" events arranged by the Foundation for Share Promotion in Finland. The events are informational events that are open to the public and especially targeted towards individuals who are active stock investors. Participants were recruited at four such events. Research assistants offered a set of study materials (including a cover letter, the study instrument, and a return envelope) to each investor, as the investors entered the event venue. Almost all passers-by took the materials offered to them. The cover letter informed the participants of a possibility to win a

lottery prize (of approx. €50 in value), should the participants fill in and return the questionnaire by mail. In total, 400 copies of the study material were distributed; 142 investors returned usable responses. This reflects an acceptable response rate of 36%. Appendix 2 provides descriptive statistics concerning our final sample and its representativeness vis-à-vis the Finnish population of individual stock investors.

Due to the 36% response rate, non-response bias was possible. Thus, a common procedure to control for non-response bias was used: the responders who answered late (i.e., closer to the deadline) were compared to the early responders and the differences between these two groups were examined (Armstrong and Overton 1979). The check showed no significant differences between early and late responders. This result indicates that non-response bias was unlikely. Additionally, response rates did not significantly vary across the treatment groups ( $\chi^2 = 3.44$ ,  $df = 5$ ;  $p > .6$ ), despite the slight differences in the number of respondents across the groups.

*Design and procedure.* The main experimental factor of interest, Ad's Product Highlighting (Presence vs. Absence), was manipulated between subjects by randomly exposing participants to investor ads that either (a) highlighted a sentence describing the company's products, or (b) did not highlight that sentence (see below and Appendix 1). The secondary experimental factor of interest, Prior Brand Perceptions, was manipulated between subjects, by exposing participants to selected companies that differed in their brand recognizability and likeability. Specifically, three levels of this factor were used: the participants were presented with a company that either had (1) a non-recognizable brand, (2) a recognizable but not well liked (neutral) brand, or (3) a recognizable and well liked brand. Additionally, as a within-subject factor that was included for control purposes, the experiment manipulated Firm Origin by exposing each participant to two companies, one domestic and one international.

The cover letter told participants that the questionnaire related to research that studied private individuals' investment preferences. The study materials that followed first presented background questions and questions regarding the participant's investor characteristics. These questions were followed by the key manipulations and stimuli, which were then followed by questions pertaining to the dependent measure (INVESTMENT INTEREST). The presentation order of the two company replicates (domestic, foreign) was varied randomly across participants. The final pages of the material presented questions pertaining to control variables and manipulation checks. Appendix 1 illustrates the structure of the materials.

*Stimuli and manipulations.* The information content (i.e., text and sentences) of the investor ads was identical in the two conditions of Ad's Product Highlighting (Presence vs. Absence)—please see Appendix 1. The presence of product highlighting was achieved by (i) adding to the ad's company presentation a heading that highlighted in bold typeface the products of the company and their benefits/context (e.g., “**Carl Zeiss – premium lenses for the sake of faultless vision**”), and (ii) by underlining and italicizing a corresponding sentence in the presentation (e.g., “In other words: *even in your own pocket, there might be a lens product whose performance is ensured by Zeiss's technology*”). For the Absence condition, the ad simply lacked the highlighting of the heading and the sentence highlighting.

Prior Brand Perceptions were manipulated by exposing participants to companies that differed in terms of brand recognizability and likeability. Manipulation checks for this factor are presented in the Results section below.

*Dependent variable.* The dependent variable INVESTMENT INTEREST was measured after presenting the participants with an investment scenario. The scenario asked the participant to imagine having a certain amount of money at hand—an amount that s/he would have to invest in stocks. After the scenario, the participant was asked to state her interest in investing the money in the stocks of the focal companies that were presented. The scenario

described that the amount of money at stake was approximately 7% of the value of the participant's stock portfolio. The dependent variable INVESTMENT INTEREST was measured by asking the subject "How interested would you be to invest  $R$  euros (or a significant part of it) in [*company X*]?" (" $R$ " being the aforementioned 7% of the value of the investor's stock portfolio). The question was asked for both company replicates<sup>5</sup>. The answers were recorded on a 7-point scale, anchored by "0 = not at all interested" and "6 = extremely interested."

*Mediating variables.* The mediating variable SUBJECTIVE EVALUATION OF COMPANY'S PRODUCTS was measured with a two-item, 7-point scale. The two items were:

1. "How good do you think or believe that the firm's products/services are in terms of functionality?" (0 = "very bad"... 6 = "very good")
2. "How good or attractive do you think or believe that the firm's products/services are in terms of design?" (0 = "very unattractive" ...6 = "very attractive")

Note that these two questions pertained to the products' functionality and design, so that participants would respond to these questions according to their subjective evaluation of the company's products (as called for in the theory and H1), and not yet in terms of the products' potential to create financial value for the company<sup>6</sup>. The reliability of this two-item scale was good, as it achieved a Cronbach's Alpha of .80.

The measures for the mediating variable EXPECTATIONS ABOUT THE COMPANY'S FINANCIAL RETURNS pertained explicitly to financial expectations. Thus, the respondents were asked, "If you were considering investing in the company at the moment...":

1. "what would be your rough estimation about the attractiveness of the firm's business in terms of long-term investment returns?" (0 = "highly unattractive" and 6 = "highly attractive")

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<sup>5</sup> Note also that the scenario reassured the participants that in terms of transaction costs (trading fees, account fees etc.), investing in the non-domestic company's stock would not be more costly or more difficult than investing in the domestic company's stock.

<sup>6</sup> Therefore, terms such as value, price-quality ratio, and even product popularity/coolness were avoided in the wording of these questions.

2. “what would be your rough estimation about the long-term earnings prospects of the company?” (0 = “very poor earnings prospects” and 6 = “very good earnings prospects”)

The reliability of this two-item scale was good, as it achieved a Cronbach’s Alpha of .83.

The final mediator, AFFECTIVE ATTACHMENT WITH THE COMPANY’S PRODUCTS, was measured with a single item, asking the participants “Would you say that the company’s products are ‘close to your heart’?” (0 = “Not at all close to my heart”... 6 = “very close to my heart”).

*Control variables.* To control for the information effects (i.e., the amount of information available), the experiment also measured SUBJECTIVE INFORMATION OF THE COMPANY, by asking “How much information do you consider to have about factors that influence the attractiveness of the company as an investment target?” The responses were recorded on a scale ranging from 0 (= “none”) to 6 (= “very much”).

Table 1 presents the correlations between all the focal variables. The table shows that while the variables are positively correlated (as expected per our hypotheses H1-H2), none of the correlations are above .60, suggesting adequate discriminant validity of the constructs. A further, relevant check of construct validity is a comparison of correlations between the two mediating variables SUBJECTIVE EVALUATION OF COMPANY’S PRODUCTS and EXPECTATIONS ABOUT THE COMPANY’S FINANCIAL RETURNS, across those participants who recognized the companies beforehand and those who did not<sup>7</sup>. We find that the correlation between the two variables is substantially higher for those investors who did not recognize the companies beforehand (.68) than those who did recognize the companies (.52). This check provides face validity for our measures, because the more information the individual has about the firm in advance (i.e., before the ad), the less should the subjective product evaluations (as elicited by

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<sup>7</sup> We would like to thank an anonymous reviewer for suggesting this analysis.

the ad) determine her financial expectations. At the same time, the fact that the correlation is still substantial for the latter individuals (.52), supports our general theorization regarding the effects (i.e., the “investor ad → increased product evaluations → increased financial expectations” pathway).

----- PLACE TABLE 1 ABOUT HERE -----

### *Results*

*Manipulation checks.* For the experimental factor Ad’s Product Highlighting (Presence vs. Absence), no manipulation check was necessary in the present study. The manipulation of this factor was *de facto* effective, since the intrinsic features (heading, underlining, and italics) of the message format unquestionably varied across the two conditions, which made manipulation checks unnecessary (see O’Keefe 2003).

The manipulation check for Prior Brand Perceptions was conducted as follows. To verify the recognizability of the companies’ brands, respondents answered the question: “Mark/check, if you recognized the companies before you received this questionnaire,” with the responses recorded as “Yes” or “No.” Panel A of Table 2 presents the manipulation checks for recognizability, indicating that the manipulation of Prior Brand Perceptions was successful in this respect: Less than 10% of the respondents recognized the “non-recognizable” brands, while almost all respondents (78-95%) recognized the “recognizable” brands.

-----PLACE TABLE 2 ABOUT HERE -----

To verify the likeability component of Prior Brand Perceptions, the respondents answered the question, “Describe your opinion of the company’s product trademark, or brand,” on a 7-point response scale, anchored by -3 (= dislikeable) and +3 (= likeable). The results are presented in Panel B of Table 2. An ANOVA suggested that the manipulation was effective as brand likeability differed significantly across the companies ( $F(1, 92) = 11.90, p < .001$ ;



$M_{\text{NotLiked}} = -.01$  vs.  $M_{\text{Liked}} = +.80$ ). Note that the likeability measure of the “non-recognizable brand” companies was irrelevant, since investors would not have a valid likeability opinion of a company that they did not recognize.

*The effects of investor ad’s product highlighting.* To test the hypotheses, an overall ANOVA of INVESTMENT INTEREST was first performed, with Ad’s Product Highlighting and Prior Brand Perceptions as the between-subject factors and the control (replicate) factor of Firm Origin as a within-subject factor.

The analysis revealed a significant main effect of Ad’s Product Highlighting on INVESTMENT INTEREST ( $F(1, 125) = 3.95, p = .049$ , partial  $\eta^2 = 0.03$ ), with participants who encountered an ad with product highlighting exhibiting higher INVESTMENT INTEREST in the company ( $M_{\text{Present}} = 2.74$ ) than those who encountered an ad without the highlighting ( $M_{\text{Absent}} = 2.31; p < .05$ ). The raw cell means are reported in Table 3, showing that in each company’s case, the direction of the effect of Ad’s Product Highlighting is the same. These results provide overall support for our hypotheses, which together predicted that product highlighting in an investor ad has a positive effect on individuals’ investment interest.

Mediation tests are reported below.

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Before the mediation tests, the ANOVA also revealed a significant main effect of Prior Brand Perceptions ( $F(2, 125) = 6.40, p = .0023$ , partial  $\eta^2 = 0.09$ ). Specifically, investors exhibited higher INVESTMENT INTEREST in companies whose brands were recognizable and well liked than towards companies whose brands were recognizable but not well liked ( $M_{\text{Recog.Liked}} = 2.90$  vs.  $M_{\text{Recog.NotLiked}} = 2.01; p < .001$ ). The INVESTMENT INTEREST for companies whose brands were recognized and well liked was also higher than for companies whose brands were non-recognizable, but this difference was not statistically significant ( $M_{\text{Recog.Liked}} = 2.90$  vs.  $M_{\text{Non-recog.}} = 2.67; p = .19$ ). This finding is interesting: it appears that

companies with the strongest prior brand perceptions, in terms of recognizability and likeability, do not seem to automatically enjoy greater investment interest than companies with low recognizability. Furthermore, and even more interestingly, INVESTMENT INTEREST for companies whose brands were recognizable but not well liked was the lowest of all, even lower than for companies whose brands were non-recognizable ( $M_{\text{Recog.NotLiked}} = 2.01$  vs.  $M_{\text{Non-recog.}} = 2.67$ ;  $p < .01$ ). This finding suggests that a lack of brand likeability decreases investors' willingness to invest in the company more than high brand recognition increases it.

When it comes to Firm Origin, the ANOVA found no significant effect of this factor on INVESTMENT INTEREST ( $F(1, 125) = 2.85, p > .05$ ). This finding contrasts to some earlier research that found investors prefer domestic companies (see e.g., Karlsson and Norden 2007). The present, contrasting finding is likely due to the fact that our experiment scenario emphasized that investing in foreign companies would not be more costly or difficult than investing in domestic ones (see footnote 5).

Finally, the interaction terms included in the ANOVA revealed that none of the two-way interactions involving Prior Brand Perceptions, Ad's Product-Highlighting, and Firm Origin were significant ( $p > .5$ ). This suggests that the main effects reported above are independent, as illustrated in Figure 2. Notably, the positive effect of Ad's Product-Highlighting is similar across the conditions. This supports the notion that the evaluation-enhancing effect of product highlighting on investment interest does not significantly depend on prior brand perceptions.

-----PLACE FIGURE 2 ABOUT HERE -----

*Mediation analyses.* Hypotheses H1 and H2a-d further anticipated that the effect of product highlighting on investment interest would be mediated by the investor's enhanced evaluation of the company's products (H1), which in turn would be mediated partly by increased expectations about the company's financial returns (H2a-b) and partly by increased affective attachment towards the company's products (H2b-d).

The earlier analyses already revealed a significant experimental effect of Ad's Product-Highlighting on INVESTMENT INTEREST ( $\beta = .44$ , s.e. = .22,  $p = .05$ ). The mediation tests parsing this total effect were conducted along the guidelines of Baron and Kenny (1986). The path model of Figure 3 summarizes the results of this mediation analysis. The analysis reveals that product highlighting significantly increases investors' SUBJECTIVE EVALUATION OF THE COMPANY'S PRODUCTS ( $\beta = .79$ , s.e. = .31,  $p = .05$ ). This variable, in turn, has a significant positive effect on INVESTMENT INTEREST ( $\beta = .28$ , s.e. = .04,  $p = .0001$ ). The latter effect is further mediated by EXPECTATIONS ABOUT THE COMPANY'S FINANCIAL RETURNS and AFFECTIVE ATTACHMENT WITH THE COMPANY'S PRODUCTS. Together, the mediations are full, since the significant direct path effects between the variables become insignificant when the mediating variable are included to the model. Further, the Sobel test statistics confirm that all the aforementioned mediators are significant (in support of our hypotheses H1 and H2a-d). In summary, mediation is established:

- for the effect of Ad's Product Highlighting on INVESTMENT INTEREST *via* SUBJECTIVE EVALUATION OF THE COMPANY'S PRODUCTS ( $z = 2.4$ ,  $p = .02$ ); and
- for the effect of SUBJECTIVE EVALUATION OF THE COMPANY'S PRODUCTS on INVESTMENT INTEREST
  - *via* EXPECTATIONS OF THE COMPANY'S FINANCIAL RETURNS ( $z = 6.4$ ,  $p < .001$ ), and
  - *via* AFFECTIVE ATTACHMENT WITH THE COMPANY'S PRODUCTS ( $z = 2.8$ ,  $p < .01$ ).

-----PLACE FIGURE 3 ABOUT HERE-----

Finally, none of these effects are significantly altered when the control variable SUBJECTIVE INFORMATION OF THE COMPANY is included in the analysis, suggesting that the effects revealed in the experiment are due to evaluative effects rather than mere information effects. This covariate itself was non-significant as well ( $\beta = .05$ , s.e. = .07,  $p > .40$ ).

*Additional analyses.* As the effects of the investor ad’s product highlighting and preexisting brand equity are partly due to subjective and affective factors, it is useful to further check whether these effects are moderated by the investor’s skill level. For this additional check, we performed a median-split of the sample on the background question pertaining to the participants’ skills as investors<sup>8</sup>. In an ANOVA that followed, the interaction effect of Ad’s Product Highlighting and Investor Skills (High vs. Low) on INVESTMENT INTEREST was non-significant ( $F(1, 120) = .93, p > .3$ ). This confirms the overall effectiveness of product highlighting— independent of investor skill level. Nevertheless, the interaction of Prior Brand Perceptions and Investor Skills was significant ( $F(1, 120) = 3.45, p < .05$ ). Specifically, for consumers with lower-than-median investment skills, the effects of Prior Brand Perceptions on INVESTMENT INTEREST were in the same directions as in Figure 2 ( $M_{\text{Non-recog.}} = 2.49, M_{\text{Recog.NotLiked}} = 1.85, M_{\text{Recog.Liked}} = 3.26, p < .05$ ); however, for consumers with high investment skills, the differences in INVESTMENT INTEREST were almost eliminated ( $M_{\text{Non-recog.}} = 2.80, M_{\text{Recog.NotLiked}} = 2.52, M_{\text{Recog.Liked}} = 2.50, p > .40$ ). This is a reassuring finding, since it is logical that more skillful investors may prevent their prior brand opinions from exerting undue influence on their investment decisions (cf. Statman et al. 2008).

### **Additional lab experiment 1**

#### *Purpose and predictions*

Our main experiment above focused on the effect of product-featuring investor ads on investment interest, through the influence that such ads have on investors’ subjective evaluations of the company’s products. However, there remains a concern as to what extent our manipulation of the product-highlighting in the ads (e.g., “even in your own pocket, there

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<sup>8</sup> The question was “How would you describe your own abilities and skills as a stock investor?” and the answers were recorded on a 5-point scale ranging from “my skills are considerably weaker than those of an average individual investor” (= 1) to “my skills are considerably better than those of an average individual investor” (= 5).

*might be a product whose performance is ensured by Zeiss's technology*") might in fact have *directly* signaled higher financial returns to participants by suggesting that the company's products are popular in the market. This would be at odds with our theory which is based on the notion of *indirect* effects (H1 and H2a-d) through subjective product evaluations (and mental simulation/abstraction provided by the product highlighting). Thus, we set up an additional experiment to rule out the possibility that our manipulation *directly* signaled higher market popularity for the products. This study aimed to provide further evidence that the psychological process that takes place involves the chain of effects we hypothesized earlier (i.e., the pathway of "product highlighting for investment purposes → enhanced abstraction and mental simulation about the company's products from an investment perspective → greater financial expectations in terms of market potential")

Given this backdrop, we designed the additional experiment to show that while product-highlighting should *not* directly signal market potential *among a control group*, it should raise expectations about the company's product market potential among individuals *who are in an investor's frame of mind*. This is because only for individuals in an investor's frame of mind, will it be relevant to engage in abstraction and mental simulation of the products' market potential (Alter and Oppenheimer 2008; Elder and Krishna 2012). Formally, for the additional lab experiment, we hypothesized:

**H3:** A textual highlighting of the company's products in an investment ad has a positive effect on an individual's expectation of the products' market potential when the individual is in an investor's frame of mind, but not when she is not in an investor's frame of mind.

## *Method*

*Participants.* One hundred and fourteen graduate students of business were recruited to participate in the experiment at a university in New York, for extra course credit. Of the participants, 61% were female and 39% were male, and the mean age was 23 years.

*Design and procedure.* The experiment employed a 2 (Ad's Product Highlighting: Presence vs. Absence) x 2 (Frame of Mind: Investor vs. Neutral) design. Ad's Product Highlighting factor was manipulated between subjects like in the previous experiment. Frame of Mind was also manipulated between subjects, by randomly assigning participants to one of two conditions: Investor frame of mind or Neutral frame of mind. In the former condition, the participants were asked to answer the questions with the following instruction: "**As an investor**, please tell us your opinions on the questions below. " In the neutral control condition, the instruction was simply: "Please tell us your opinions on the questions below."

The experiment was conducted using paper and pencil, in the university's experimental lab. In the cover letter, the participants were told that the questionnaire was about their thoughts and opinions on a company. The company was one of the companies from the main experiment (Zeiss). After the cover page, the participants were presented with the investor ad for the company and then asked about their opinions about the company's products and brands. The following page included the previously discussed Frame of Mind manipulation, and the questions related to the dependent measure (expectations about product market potential). Finally, a set of background questions were asked.

*Measures.* The dependent variable EXPECTATION ABOUT PRODUCT MARKET POTENTIAL was measured by simply asking the participants "How much demand do you think the company has for its products in markets in future?" The question was interspersed among a set of other questions about the company. The responses were recorded on a 7-point scale anchored by 0 (= "no demand at all") and 6 (= "very high demand").

## *Results*

An ANOVA revealed no significant main effect of the Ad's Product Highlighting ( $F(1, 108) = .84, p > .3$ ), or the Frame of Mind ( $F(1, 108) = .40, p > .5$ ). This suggests that our manipulation, *on its own*, did not increase participant's perceptions of product market potential. But, there was a significant interaction between the Ad's Product Highlighting and Frame of Mind factors ( $F(1, 107) = 3.35, p < .05$ ). For participants in the control group, EXPECTATION ABOUT PRODUCT MARKET POTENTIAL did not differ significantly between those whose received the ad with product highlighting vs. those who received the ad without the highlighting ( $M_{\text{Present}} = 3.86; M_{\text{Absent}} = 4.06; p > .4$ ). In contrast, for participants in the investor frame of mind, the presence of highlighting led to significantly higher EXPECTATION ABOUT PRODUCT MARKET POTENTIAL than the absence of highlighting ( $M_{\text{Present}} = 4.48; M_{\text{Absent}} = 3.79; p = .05$ ). Figure 4 illustrates the results. This finding supports the notion that our manipulation *on its own* did not directly signal product demand and financial success; rather, it did so only for decision makers who were in an investor frame of mind. This is consistent with our theorization about the ads' overall effects (H1, H2a-d) as well as the role of the investor mindset and the mental abstraction processes.

----- PLACE FIGURE 4 ABOUT HERE -----

## **Additional lab experiment 2**

### *Purpose and predictions*

As the previous lab experiment confirmed that the effects of product highlighting stem from the information processing mindset of the investors, we set up another experiment to explore the following question: What happens if in addition to the textual highlighting, visual information (e.g., photos related to the company's products) is added to the ad?

Overall, we expected that the addition of photos would not necessarily increase investment interest in comparison to the ad with the textual product-highlighting alone because the photos might be redundant in terms of the focal evaluation-enhancing effects. The photos could even distract investors' attention away from the diagnostic information contained in the text. We also expected that the marginal effect of the additional photos should be qualified by the investor's information processing style. Specifically, we expected that the effect would be qualified by the degree to which the individual is a "visualizer" (Richardson 1977; Mendelson and Thorson 2004), that is, the ease with which the individual is able to visualize things in her mind.

### *Method*

*Participants.* Fifty graduate students of business administration were recruited to participate in the experiment at a university in Finland, for a reward of one extra course point. The participants had basic knowledge of investing and finance, and most had some experience of stock investments. Of the participants, 59% were female and 41% male, and the mean age was 25.6 years.

*Design and procedure.* The participants were randomly assigned to one of two conditions of Ad's Product Highlighting: an ad with textual product-highlighting, or an ad with textual product-highlighting as well as photos. In addition to this between-subject factor, a Firm Replicate factor was included within-subjects: that is, each subject was presented with two companies, and their interest in investing in both companies was elicited.

The experiment was conducted using pencil and paper, in the university's experimental lab room. In the cover letter, the participants were told that the questionnaire included questions about several unrelated survey tasks. The first task presented to participants asked about their interest in investing in companies. This was our experimental task of interest. In this task,



participants were first presented with the investor ads for the two companies, then asked about their interest in investing in the companies, and finally asked some control and background questions. The second task was presented as a study of students' style of learning. This task included questions for the "visualizer" scale (the proposed moderator), along with some filler items. The two other tasks during the experiment session were unrelated filler tasks that were common across all participants.

*Stimuli and manipulations.* The main experimental factor was manipulated as follows. In the condition with textual product-highlighting alone, the stimuli was similar to that of the main experiment and lab experiment 1. In the condition with textual product-highlighting and photos, the text and highlighting were the same as in the other condition; however under the text there were also three photos related to the company's products and their users. These photos were, naturally, absent from the ads in the other condition.

*Measures.* For the key moderator variables, the participant's information processing style or trait as a "visualizer" was elicited with a 10-item scale adapted from Richardson's (1977) "visualizer-verbalizer" scale. The scale measures an individual's cognitive ability to construct mental images. The scale contains statements like "I find maps useful in finding my way around a new city" and "I don't believe that anyone can think in terms of mental photos" (reverse-coded).

### *Results*

No significant main effect was found for Firm Replicate, so this factor was collapsed. For the main experimental factor, Ad's Product Highlighting, no significant main effects in INVESTMENT INTEREST were found across participants who received the ad with textual highlighting alone versus those who received the ad with the textual highlighting and photos ( $M_{\text{Textual}} = 3.45$ ,  $M_{\text{Textual\&Photos}} = 3.46$ ,  $p > .9$ ).

However, we expected that the effects of the additional photos would be qualified by the extent to which the investor is a “visualizer.” To test this interaction, we conducted a median split analysis using the visualizer scale. Pairwise comparisons show that for low visualizers, ads with textual product-highlighting *and* photos yielded higher INVESTMENT INTEREST ( $M_{\text{Textual\&Photos}} = 3.88$ ,  $M_{\text{Textual}} = 3.48$ ,  $p < .05$ ); however, for high visualizers, ads with textual highlighting only yielded higher INVESTMENT INTEREST ( $M_{\text{Textual}} = 3.83$ ,  $M_{\text{Textual\&Photos}} = 3.01$ ,  $p < .05$ ). These results suggest that low visualizers’ evaluations of the company’s products, and therefore, their investment interest, is enhanced by photos, probably because they are poor at constructing mental impressions without visual cues that aid them. High visualizers’ evaluations of the company’s products and investment interest is, in contrast, enhanced more by textual highlighting alone, probably because the photos do not provide additional value to these consumers over and above what they can already mentally imagine based on the text alone.

## **Discussion and conclusion**

### *Contributions to research*

The main finding from the present experiments is that highlighting product feature content in an investor ad has a systematic, positive effect on investors’ interest in investing in the company. While the sample sizes of our individual experiments were not extremely high, together they involved over 300 consumer-investors, and the impact of investor ads was consistent in all three experiments. Furthermore, the experiments found that the investor ad’s effect does not significantly depend on the prior recognition or likeability of the company’s brand. In sum, while earlier research has implied that advertising may influence investment interest by making investors more informed about a company (Fehle et al. 2005; Grullon et al. 2004; McAlister et al. 2007; see also Karrh 2004), the present findings extend this

research by suggesting that product-featuring ads can also affect investment interest by enhancing investors' subjective product or brand evaluations.

The additional lab experiments also showed that the product highlighting in the ad does not need to be dramatic in order to be influential. Rather, subtle emphases on the company's products enhance investors' product evaluations and investment interest, provided the investor is in an investing frame of mind (additional experiment 1). Even visual photos are not necessarily needed, albeit that for investors with low visualizing tendencies, the presence of visual product cues could increase investment interest even further (additional experiment 2).

Additionally, the present findings extend previous research by explicating the precise mechanisms through which investors' product evaluations—as enhanced by the product highlighting in ads—exert their influence on investment interest. The experiment revealed that the effect on investment interest is mediated both by investors' expectations about the company's financial returns and by investors' affective attachment with the company's products. In so doing, these results also add to the emerging literatures on (a) the sources of individual investors' expectations or optimism about a particular stock's financial returns (e.g., Kilka and Weber 2000), and (b) the sources of investment preferences that go beyond pure financial expectations (e.g., Aspara and Tikkanen 2011b; Statman 2004). The present research identifies ad-elicited product evaluations as a new source of investment motivation for both these literatures.

The present research also provided novel empirical results on the main effects of preexisting brand perceptions. Specifically, the main experiment found that investors' interest in investing in companies whose brands had low brand recognition was significantly higher than their interest in investing in companies whose brands had high brand recognition but did not enjoy high brand likeability. This result implies that earlier behavioral finance research

may have overemphasized the role of brand recognition in investment decisions. These earlier papers often imply that brand recognition matters more to investors than does brand likeability (Frieder and Subrahmanyam 2005). However, according to the present results, a low brand recognition does *not* lead to low investment interest; in fact, low brand likeability decreased investment interest more than high brand recognition increased it. In short, our results appear to demonstrate that brand likeability can matter more than brand recognition.

Finally, the present research is among the first to explicitly investigate ads targeted at investors. Previous research in both marketing/consumer behavior (e.g., He, Inman, and Mittal 2008; Raghurir and Das 2010; Townsend and Shu 2010) and in behavioral economics/finance (e.g., Kahneman and Tversky 1979) has studied how different amounts of information and framing of information may affect investment decisions, thereby providing implicit guidance on how different kinds of investor-directed ads might work (albeit not explicitly studying “advertising”). Typically, this research has concentrated on the effects of different framings of financial information (related to risk and return) on investor behavior, or the effects of non-financial information such as information related to patriotism or social responsibility (e.g., Getzner & Grabner-Kräuter 2004; Statman 2004; Ke et al. 2010). We extend this literature with a study that is among the first to explicitly deal with investor advertisements in particular, especially those that feature the company’s products. The relevance of such ads are apparent from our findings as they significantly influence investor decisions. Note also that even though our experiments do not allow comparison of the relative effects of highlighting product information in an ad vs. highlighting other non-financial information, our results did indicate that highlighting the product/brand information in an ad may have a greater impact on investors than the country of origin of the company (recall that the latter did not presently influence investment interest). This is an interesting finding, since research in finance has traditionally viewed the “home country bias” (Ke et al.

2010; Morse and Shive 2011) as perhaps the most important non-financial factor affecting investor behavior.

### *Managerial implications*

The main managerial implication of the present research is as follows: It is beneficial for a firm to emphasize its products and highlight the features of the products (e.g., benefits/usage context) when presenting or advertising the firm to investors. Considering that there is not much space available in most advertisements targeted towards investors (e.g., a half-page business magazine ad), the present results give managers confidence that if part of that space is used for vividly describing and highlighting the company's products and brands, it is likely to significantly enhance investment interest. Spending advertising space highlighting the firm's products and brands may, accordingly, yield greater investment interest than, say, highlighting additional financial aspects or other non-financial aspects of the company (such as the company's country of origin).

Indeed, according to the results, an investor ad's product highlighting will potentially increase investors' interest in investing in the company both by (a) reinforcing their expectations about the company's financial returns and by (b) creating an affective preference for investing in the company, over and above expected financial returns. It is also reassuring for managers that the positive effect of product-highlighting seems to be independent of the firm's preexisting brand goodwill in the market. This means that firms should benefit from such advertising regardless of their preexisting brand power. For example, even if a firm's brand was unrecognizable, it should benefit from highlighting its products and brands in its communications aimed at individual investors.

### *Limitations and further research*

One limitation of the present research is due to the nature of the experiment: while the present dependent variable (investment interest) reflects an individual's investment intentions, it does not necessarily predict actual behavior. Additionally, while the experiment included a representative sample of active individual investors from one country (Finland), the results might differ for investors from other countries, for investors who are more passive in their investment behavior, or for investors who differ in other ways (e.g., in terms of their risk appetites). Replicating the study in different countries would help in confirming the generalizability of our results. It would also help to increase the sample size, as that would increase the statistical power and significance of our findings (from the present .05 level to an often recommended .01 level). Several companies from different industries should also be included in future studies, so that industry-level effects could be controlled for. Another relevant avenue for future research would be to gather a set of real investor ads (e.g., from newspapers, TV, and investor magazines) and track stock metrics (e.g., number of individual investors who are shareholders) before and after the airing of those ads.

Theoretically, it is also important to note that while the present study focused on product-featuring investor ads and found them to exert a significant influence on investors' investment interest, these results should not be interpreted to mean that preexisting brand perceptions (e.g., recognizability, likeability) do not have an effect. In fact, the statistics in the present study indicate that preexisting brand perceptions, especially brand likeability, had a more substantial (albeit independent) effect on investment interest than the single product-featuring ad that the investors were exposed to. Moreover, our experiments did not consider different types of corporate branding strategies. Specifically, the potentially different effects of a corporate "branded-house" strategy (whereby product brand names include the corporate name) vis-à-vis a "house-of-brands" strategy (whereby product brand names do not include references to the corporate name; Rao et al., 2004) were not explicitly taken into account.

Indeed, the companies included in our experiments mostly followed a branded-house strategy (e.g., Zeiss, Hilti), and it may be that the documented effects are less strong for companies that follow a house-of-brands strategy (cf. Rao et al., 2004). This issue is a very pertinent question for future research. Also, based on the present results, it is not clear what happens if the investor has mixed evaluations of the company's products (e.g., simultaneously liking one product but disliking another product from the same firm). Our assumption is that the overall evaluation of the company's products tends to be a rough average of the individual evaluations of the different products; however, this conjecture should be tested in future research.

Finally, another interesting question that would merit examination is whether the results of this study also apply to institutional investors, investment market intermediaries, and investment professionals (e.g., investment analysts). One might argue that the somewhat "soft," attitudinal product and brand evaluation factors documented in this research would not hold sway over professional investors. Yet, some existing studies show that decisions of professional stock analysts and brokers are also susceptible to affective/attitudinal factors (Ganzach 2001) as well as product-market perceptions related to customer satisfaction (Luo et al. 2014) and product design (Aspara 2010).

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**TABLE 1.**

**Main experiment: Correlations between the measured variables**

	1	2	3	4	5
1. Subjective evaluation of the company's products	(.80)				
2. Subjective information of the company	.48	(N/A)			
3. Expectations about the company's financial returns	.54	.49	(.83)		
4. Affective attachment with the company's products	.50	.47	.49	(N/A)	
5. Investment interest	.35	.40	.58	.45	(N/A )

Notes. The figures on the diagonal are Cronbach's alphas. N/A indicates that Cronbach's alpha is not available for the construct in question, due to single-item measurement

TABLE 2.

## Main experiment: Manipulation check results

	<i>Prior Brand Perceptions</i>		
	<i>Non-recognizable</i>	<i>Recognizable– Not highly liked</i>	<i>Recognizable– Highly liked</i>
<b>Panel A: Recognizability <sup>a</sup></b>			
“Did you recognize [company X] by name?”			
<i>Domestic replicate companies</i>	<i>Fasttrax</i> : 10.4% <sup>b*</sup>	<i>Pomarfin</i> : 78.9% <sup>c*</sup>	<i>Halti</i> : 95.2% <sup>c*</sup>
<i>Non-domestic replicate companies</i>	<i>Novexel</i> : 7.9% <sup>b*</sup>	<i>Specsavers</i> : 92.3% <sup>c*</sup>	<i>Zeiss</i> : 86.7% <sup>c*</sup>
<b>Panel B: Likeability <sup>d</sup></b>			
“Describe your opinion of the company’s product trademark or brand.” (0 = “dislikeable”... 6 = “likeable”)			
<i>Domestic replicate companies</i>	<i>Fasttrax</i> : N/A	<i>Pomarfin</i> : .33 <sup>e NS</sup>	<i>Halti</i> : <b>+1.07<sup>f*</sup></b>
<i>Non-domestic replicate companies</i>	<i>Novexel</i> : N/A	<i>Specsavers</i> : -.35 <sup>e NS</sup>	<i>Zeiss</i> : <b>+1.49<sup>f*</sup></b>

<sup>a</sup> The figures indicate the proportion of investors who had prior recognition of the company’s brand.

<sup>b\*</sup> The proportion is significantly lower than the norm of 33%, at  $p=.05$  level.

<sup>c\*</sup> The proportion is significantly higher than the norm of 66% at  $p=.05$  level.

<sup>d</sup> The figures indicate the mean values of investors’ responses to the question about prior brand opinion.

<sup>e NS</sup> Not significantly different from the scale neutral value 0, at  $p=.05$  level.

<sup>f\*</sup> Significantly higher than the scale neutral value 0, at  $p=.05$  level.

N/A For the non-recognized companies, no valid brand opinion (likeability rating) is available.

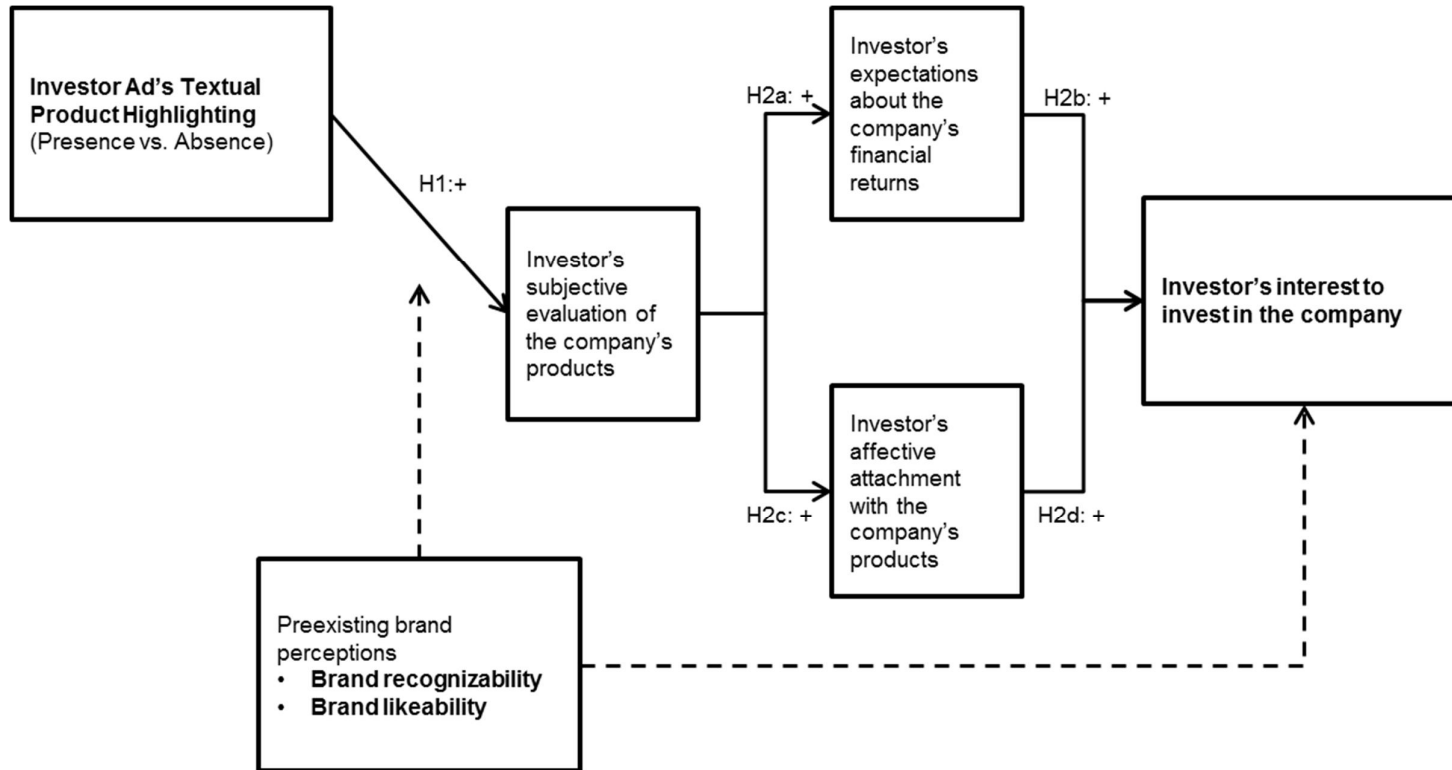
**TABLE 3****Main experiment: Cell means for investment interest**

<i>Prior Brand Equity</i>	<i>Ad's Product Highlighting = Absent</i>	<i>Ad's Product Highlighting = Present</i>
Non-recognizable brand:		
Fasttrax	2.41 (S.D. = 1.77, n = 17)	2.73 (S.D. = 1.83, n = 22)
Novexel	2.53 (S.D. = 2.03, n = 17)	3.00 (S.D. = 1.77, n = 22)
Recognizable –Not highly-liked brand		
Pomarfin	1.66 (S.D. = 1.65, n = 29)	1.74 (S.D. = 1.54, n = 23)
Specsavers	1.79 (S.D. = 1.82, n = 29)	2.87 (S.D. = 1.63, n = 23)
Recognizable–Highly liked brand		
Halti	2.53 (S.D. = 1.61, n = 19)	3.00 (S.D. = 1.76, n = 21)
Zeiss	2.95 (S.D. = 1.93, n = 19)	3.14 (S.D. = 1.71, n = 21)

Notes. The ratings indicate mean interest to invest in the focal company (0 = "not at all interested"... 6 = "extremely interested").

**FIGURE 1.**

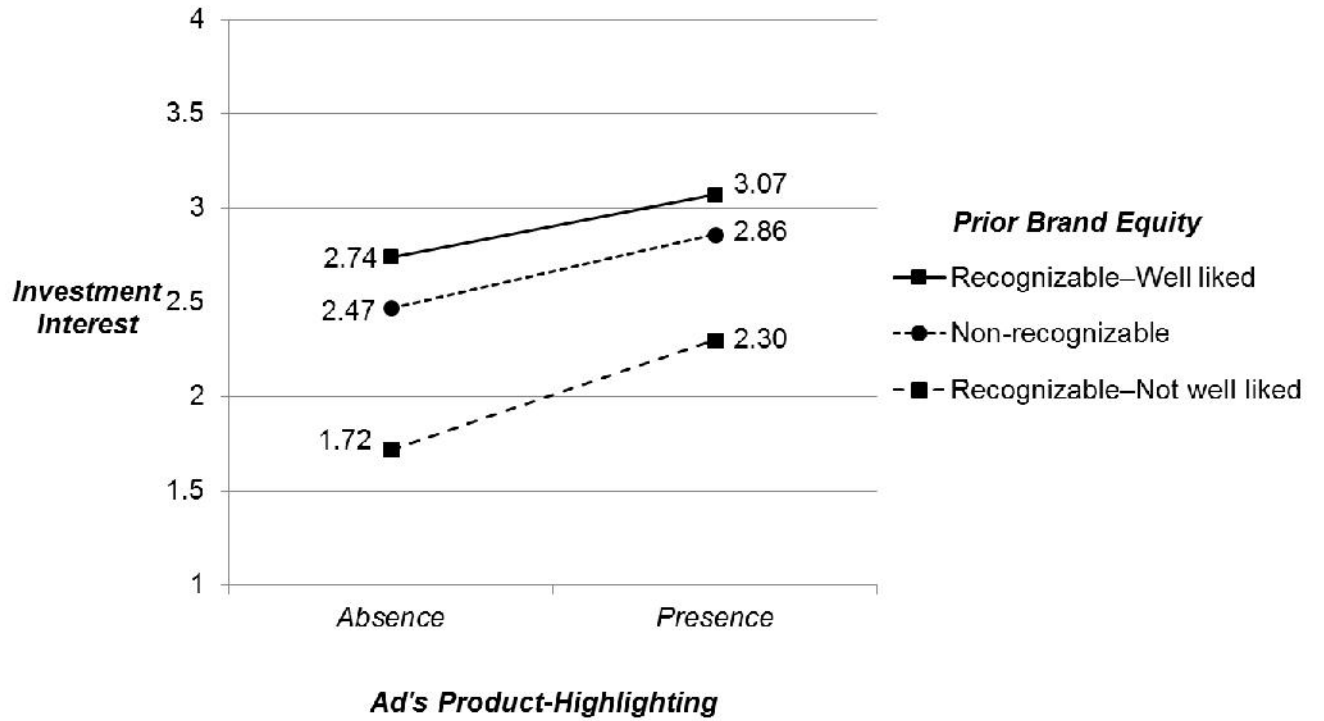
**The hypothesized effects**



**Notes.** The lines indicate the main hypothesized effects. The dashed lines indicate effects for which the present experiment does not pose a priori hypotheses but which are studied as empirical questions

FIGURE 2.

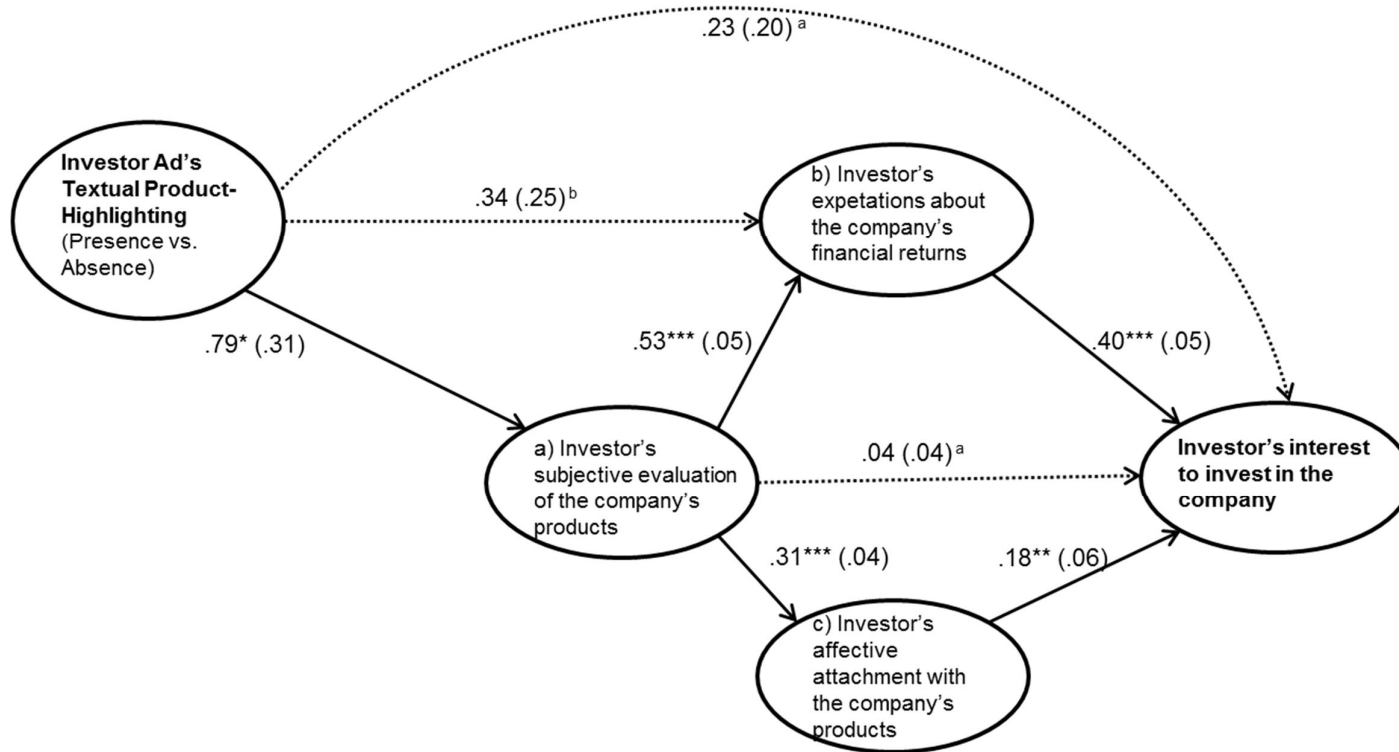
Main experiment results: The effect of the investor ad's product highlighting





**FIGURE 3**

**Main experiment results: Mediation analysis**



Notes.

The bolded lines depict effects that are significant in the full, mediated model. The dashed lines depict effects which are initially significant, but which are rendered non-significant when the mediators are included in the model (i.e., which are fully mediated).

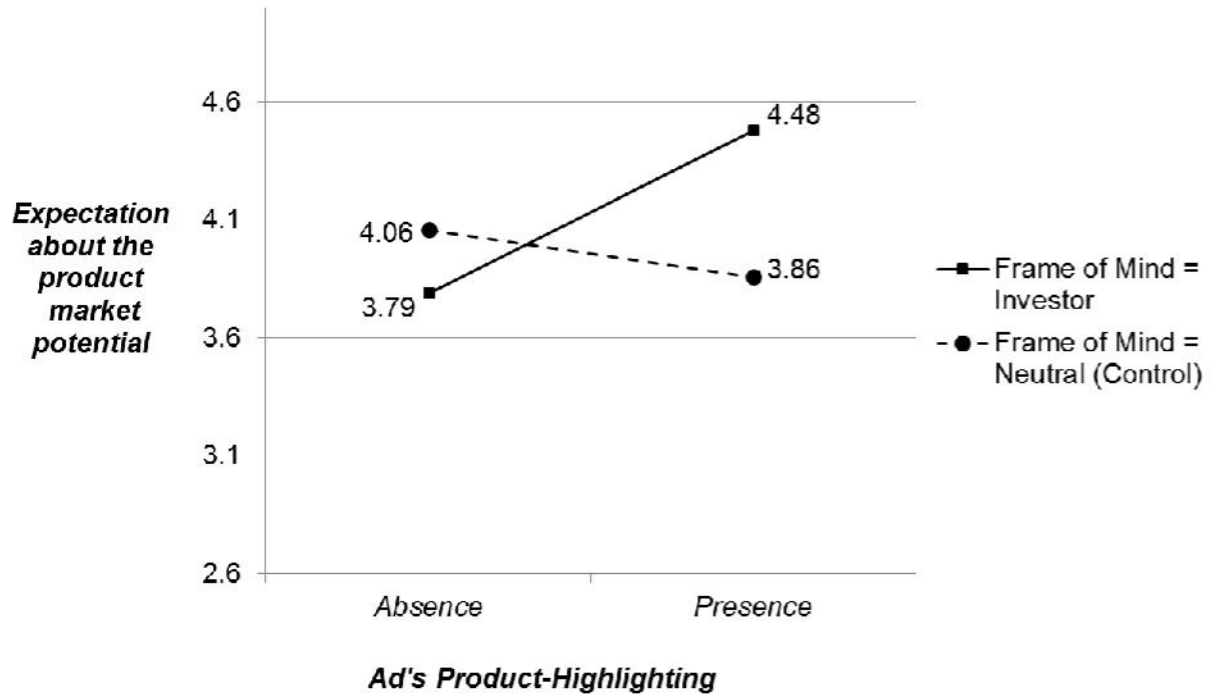
<sup>a</sup> The direct path coefficient, when the mediating variables are not included, is  $.44^* (.22)$ .

<sup>b</sup> The direct path coefficient, when the mediating variables are not included, is  $.73^* (.30)$

<sup>c</sup> The direct path coefficient, when the mediating variables are not included, is  $.28^{***} (.04)$

**FIGURE 4.**

**Additional lab experiment 1 results: The effect of the investor frame of mind**



## APPENDIX 1. Experiment materials of the main experiment

### Structure of the experiment materials

1. Cover letter
  - Telling participants that the attached questionnaire related to research that studied private individuals' stock investment preferences
2. Study background questionnaire
  - Demographics
  - Participant's general characteristics as an investor (e.g., the investment experience questions)
3. Manipulated experimental stimuli
  - Two company-specific ads (similar ad for both companies for one respondent, different across treatment groups)
4. Questions related to the dependent measure (INVESTMENT INTEREST).
5. Questions related to the covariates and manipulation checks

### Examples of experimental stimuli for different treatment groups

#### **Treatment group: Investor Ad's Product-Highlighting = PRESENT**

##### **Carl Zeiss – premium lenses for the sake of faultless vision**

Carl Zeiss is a Germany-based company that develops, manufactures, and sells optics and lens products to various industries, as well as licenses its trademark to selected companies. The products, such as eyeglass lenses, contact lenses, and camera lenses, are manufactured with premium materials and techniques. The high quality and faultlessness of the end products is important in their daily use, whether the question is about spectacles or the lens of a cell phone camera. In other words: even in your own pocket, there might be a product whose performance is ensured by Zeiss's technology.

Zeiss's international business has grown fairly quickly in the past years, and its future prospects as a company are promising.



#### **Treatment group: Investor Ad's Product-Highlighting = ABSENT**

Carl Zeiss is a Germany-based company that develops, manufactures, and sells optics and lens products to various industries, as well as licenses its trademark to selected companies. The products, such as eyeglass lenses, contact lenses, and camera lenses, are manufactured with premium materials and techniques. The high quality and faultlessness of the end products is important in their daily use, whether the question is about spectacles or the lens of a cell phone camera. In other words: even in your own pocket, there might be a product whose performance is ensured by Zeiss's technology.

Zeiss's international business has grown fairly quickly in the past years, and its future prospects as a company are promising.



## APPENDIX 2. Sample description of the main experiment and a comparison study

The below Table provides descriptive statistics pertaining to the final sample of investor-participants of the present main experiment.

Due to the fact that no census studies exist, that would map the characteristics of the entire population of Finnish active investors, we are unable to definitively compare the characteristics of the participants in the present study to the typical investor in the whole population. However, one of the authors has conducted an earlier study (reference available), whereby a random sample was drawn of the individual shareholders of a set of companies in the Finnish stock market. Thus, we are able to examine the present study's sample vis-à-vis the comparison sample, with chi-square tests for independence. The tests indicate that no significant differences exist between the samples, on any of the background variables (see Table below). This suggests that the present sample comes from the same population as the comparison sample—and is, thereby, representative of the population of Finnish active individual stock investors with a high likelihood. Moreover, assessment of the investor characteristics in our sample(s) seems to accord to an intuitive notion of individual investors: There are more male than female investors, and the distribution of the investors is bent towards middle-aged (rather than very young or very old) and college/university educated people, with and medium/high incomes (median income being around 50,000€). Most of the investors also have moderately diversified stock portfolios (with 6 or more stocks).

	<i>Present experiment sample</i>	<i>Comparison sample</i>	<i>Chi square</i>	<i>p value</i>
Gender			3.57	.06
• female	32.0%	23.7%		
• male	68.0%	76.3%		
Age			2.67	.10
• below 25	4.0%	3.0%		
• 25–45	17.3%	22.3% (26-40)		
• 46–65	55.7%	44.5% (41-60)		
• over 65	22.7%	30.3% (61 or more)		
Education (highest)			1.39	.24
• middle/high school	11.3%	15.2%		
• vocational school	9.6%	11.6%		
• college/bachelor	31.1%	22.9%		
• university	48.0%	50.3%		
Yearly income			1.66	.20
• 1–50 000€	55.9%	62.2% (less than		
• 50 000–100 000€	32.8%	50 000€)		
• 100 001–150 000€	7.9%	37.8% (50 000€ or		
• 150 001–250 000€	1.7%	more)		
• 250 001–500 000€	1.1%			
• 500 001–1000 000€	0.6%			
Total no. of stocks owned			1.67	.20
• 0	6.3%			
• 1–2 stocks	6.8%	23.4% (0-5 stocks)		
• 3–5 stocks	15.9%	76.6% (6 or more		
• 6–10 stocks	24.4%	stocks)		
• over 10 stocks	46.6%			

Notes. The comparison sample variables had more limited scales (i.e., fewer categories in the scales). When the variable scales/categories differed across the samples (especially: Yearly income, Total no. of stocks owned), the variable categories of the present sample were collapsed to match the categories of the comparison sample, for the calculation of the chi-square test statistics.