Research Article

The Effects of Different Parts of the Annual Report on Potential Investors' Attitudes Towards the Company and on the Corporate Reputation

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***Abstract*—Research problem:** *Both the function and the appearance of annual reports have changed over the last few decades. These multimodal reports now include many types of information that serve different functions. In this study, the effects of several information types on stakeholders' attitudes toward annual reports and the companies that published them are measured.* **Literature review:** *Not much is known about how stakeholders read annual reports. The literature is not conclusive on the relative importance of several information types in these reports. Most studies investigate the impact of part of the information in annual reports and ignore the combined impact of the information types. Whether the potential investors are more affected by the financial review, the future strategy narrative or by pictures, such as a picture of the CEO, is unknown.* **Methodology:** *An experiment ($2 \times 2 \times 2$ between subjects design) was conducted to test the effects of a good financial review versus a poor one, a good future strategy versus a poor one and a picture of the CEO smiling versus that with a serious facial expression. The effects on potential stakeholders' attitudes toward the information, on their attitudes toward investing in the company, and on their perceptions of the corporate reputation are measured.* **Results and conclusion:** *The results show significant effects of all three information types. A good financial review, a good future strategy, and a serious facial expression have beneficial effects on the potential stakeholders' attitudes and on the corporate reputation. More important, however, the results show that the information types should be aligned with each other. A smiling facial expression, for example, is only beneficial if the content of the other information types is good.*

Index Terms*—Annual reports, corporate reputation, dual processing, effects of information types, experimental research.*

INTRODUCTION

Both the function and the appearance of corporate annual reports have changed over the last few decades. Historically, the annual report consisted entirely of a financial statement to present the financial results of the company to stakeholders. Today, annual reports no longer simply inform stakeholders; the documents also have a persuasive function [1]–[3]. The annual report has been transformed into a public-relations document intended to convince stakeholders of the well-being of the company and to promote the image and reputation of the company. This change of function went hand-in-hand with a change of appearance. An analysis of British annual reports [4] showed that between 1964 and 2004, the annual reports increased in size by almost 200%, the amount of narrative information increased by 375%, the number of pictures increased by 100%, significantly more attention was given to the design of the reports, and the financial information was given a less prominent place in the reports. The researchers concluded that

> the corporate annual report has, for many modern corporations, been transformed from a rather dull financial document to a colorful marketing and public relations document. [4, p. 181]

De Groot et al. [3], [5] compared British and Dutch annual reports and showed that the reports are multimodal documents that include many different types of information. Apart from the financial statements, which are presented mostly in the form of tables and/or graphs, narrative information is included in annual reports to inform stakeholders about, for example, the company's future plans or Corporate Social Responsibility activities. Visual information is also included in most annual reports. Particularly, photographs of the CEO, the director or board members are present in almost all annual reports [5].

Most studies investigate the impact of part of the information in annual reports and do not focus on

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the combined impact of the various information types [6]. Neither the relationship between the narrative and financial sections nor the use of pictures in annual reports have received much attention from researchers [4], [7]. However, it seems important that stakeholders are able to combine the different textual and visual information types in annual reports to obtain a complete understanding of these reports [1]. For example, what if the financial information shows that the financial position of the company is poor, but good and solid plans for the future are presented? How do stakeholders react to a picture of a CEO with a broad smile presenting rather negative information about the company?

Our research goal is to investigate how different information types in annual reports affect stakeholder responses. More specifically, the research question that we try to answer is as follows:

What are the separate and combined effects of either relatively positive or relatively negative content of the following three information types

(1) financial information presented in a table,
(2) narrative information concerning the future,
(3) a picture of the CEO

on stakeholders'

(1) attitude toward the information,
(2) attitude toward investing in the company,
(3) perception of the corporate reputation?

This paper first reviews the literature concerning the use and effects of several information types in annual reports: financial information, information about the future, and a picture of the CEO. Next, the methodology of the study is described. An experiment was conducted to test the effects of the information types on evaluations of the annual report and the company. Following the description of the methodology, the results of the study are presented. This paper ends with the conclusions of the study, and its limitations and suggestions for future research.

Literature Review

We begin with short descriptions of the theoretical orientation and the selection of existing literature from which we derive the expectations of the effects of several information types on the evaluation of an annual report and the company. We then discuss the functions and uses of the financial information and information about the future, followed by a description of the expected effects of these information types. The section ends with a discussion about the functions and uses of pictures in annual reports and a description of the expected effects of pictures.

Theoretical Orientation The theoretical orientation underlying this study is on the effects of information types in business documents on the readers' attitudes and perceptions. More specifically, this study is about multimodal documents that aim to fulfill several communicative functions, such as informing and persuading. So multimodality and the expected effects of information types are important theoretical concepts. In this study, the expected effects are limited to the attitudes toward the information and toward investing in the company and to the perceived reputation of the company.

This study contributes to theoretical development on dual-processing models. Investigating the effects of several information types on the stakeholders' attitudes and on the perceived reputation of the company will provide new insights into how people use complex business documents that present several information types to fulfill different functions. Important questions are whether people primarily use the financial review, narrative information about the future, or a peripheral cue such as the picture of the CEO, and whether it is important that the information types are aligned.

Selection of Literature for the Review We have selected literature with several themes. We started by searching for literature about annual reports to investigate what types of information these reports include. We also searched for research concerning the use of different information types and their effects on stakeholders' appreciation for the information, their attitudes and intentions, and their perception of the reputation of the company. We also selected literature on how to measure these effects. We then focused specifically on the function and effects of pictures in annual reports. We found the literature primarily using the academic literature databases Web of Science and Scopus.

Functions and Uses of Financial Statements and Narrative Information about the Company's Future As Stanton and Stanton [6] note, different information types in annual reports serve different functions that can conflict with each other. The function of financial statements is

purely informative. These statements cannot be manipulated for persuasive purposes because they are strictly regulated. In the European Union, all companies are required by law to present financial statements according to the European Accounting Standards [8], [9]. If the financial statements are not entirely positive, persuading stakeholders of the company's well-being must be achieved through other information types, which are less strongly regulated. The results of several studies show that companies use the narrative part of the report to persuade stakeholders with more positive or less negative narratives than can be justified by the financial information [10], [11].

However, not much is known about how stakeholders read annual reports and how they are used to inform investment decisions. According to Bartlett and Chandler [12], many parts of the annual report are not read by private investors. This is particularly true for the financial statements. Private investors are more interested in the narrative than in the pure financial data. Breton and Taffler [13] draw a comparable conclusion for financial analysts; for these professionals, the financial information does not seem to be the most important information source. However, Barker and Imam [14, p. 320] conclude that although nonfinancial information might receive more attention than the financial statements or accounting data, the financial statements are more important because the nonfinancial information is used only "to contextualize and add meaning to accounting data."

Expected Effects of Financial Statements and Narrative Information about the Company's Future In our study, we investigated the impact of the content of financial statements and narrative information on the company's future to the extent that the annual report's informative and persuasive functions were fulfilled. Potential investors were asked to read a summary of an annual report of a fictitious company that included financial information that was either relatively positive or relatively negative and information about the future that was either relatively positive or relatively negative.

In this study, the informative function was operationalized as the stakeholders' attitude toward the information in the annual report: is the information adequate to decide whether to invest in this company? We expected that the informative function would be rated higher when the financial information and information about the future were aligned. It seems easier to make a sound decision when all of the information in the report about the company's results and prospects is either positive or negative than when some information is positive and some is negative.

Furthermore, we expected that both positive information about the future and positive financial information would increase the persuasive effects, operationalized as the willingness to invest in the company and the perception of the corporate reputation. Based on the results of Bartlett and Chandler [12], it could be expected that positive information about the future would have more of an effect on the willingness to invest than positive financial information. Furthermore, one can assume that inconsistent information would have negative effects on the stakeholders' attitude toward investing. If so, the willingness to invest will be highest when the financial information and the information about the future is positive, and the willingness will be lower when only one of those information types is positive and the other is negative.

Because one of the goals of an annual report is to promote the image and reputation of a company, we measured whether the information types in annual reports affect people's perceptions of the corporate reputation. Walker [15, p. 370] defined corporate reputation as "A relatively stable, issue specific aggregate perceptual representation of a company's past actions and future prospects compared against some standard." This definition shows that a corporate reputation is something that is developed over time. Therefore, reading an annual report is not sufficient to create a complete and stable perception of the corporate reputation for stakeholders. However, Van Riel and Fombrun [16] assume that corporate communications (such as annual reports) can have an effect on the corporate reputation. In earlier research, it was demonstrated that written information about the company's past performance can cause differences in the stakeholders' perceptions of the corporate reputation [17], [18].

It can be expected that positive information about the financial results and positive information about the future strategy would result in a better perception of the corporate reputation and that consistent information about a company results in a better reputation. It may seem suspicious when a company's financial results are good but its strategy and plans for the future are not.

Functions and Uses of a Picture of the CEO
A third information type we investigated is a picture of the CEO. De Groot et al. [5, p. 223] showed that such a picture is present in almost every annual report. According to them, "realistic pictures appear to make a crucial contribution to the persuasive potential of texts included in the annual report." Guthey and Jackson [19] assumed that photographs can contribute to the image and reputation of the company, but research has not explored *how* photographs affect the image and reputation, and what the effects of specific characteristics of these photographs are.

In contrast to information about the financial results or about future plans, a picture of the CEO does not provide the stakeholders with factual information about the company's results or well-being. In terms of the classic Elaboration Likelihood Model [20], it can be considered a peripheral cue. According to this model, people can process messages via two routes: the central route and the peripheral route. This is also assumed by other dual process models, such as the heuristic-systematic model [21].

Processing a message via the central route means that people read a message carefully and consider arguments pro and con before determining their positions. Processing a message using the peripheral route means that people base their positions on superficial cues and do not consider the content of a message carefully. The information in annual reports about the financial results and the future plans can be considered to support the central route, while a picture of the CEO would support the peripheral route. It is difficult to predict how stakeholders process the information in annual reports. They may primarily use the content, but they may also base their attitudes on the peripheral cues.

No research has been conducted into the effects of facial expressions of the CEOs. Davison [22] mentions that a smile might represent leadership and that a pensive pose might represent an innovative and creative mind, but no comparative studies exist in which the effects of several facial expressions were measured. In this study, we compared the effects of a photo of a smiling CEO with the effects of a photo of a CEO with a serious facial expression.

Expected Effects of the Facial Expression of the CEO Based on the literature, it is difficult to predict what effects the facial expression would have on potential investors' attitudes and on the perceived corporate reputation. The facial expression may have no effects. If stakeholders process the report based exclusively on its informational content, their attitudes will be based on the financial performance and future strategy. It may also be that stakeholders consider a CEO's positive expression as a good sign. In this case, a CEO's smiling facial expression may have positive effects on attitudes toward investing and the corporate reputation. However, it may also be that the stakeholders consider annual reports to be a serious genre and think that a serious facial expression is more appropriate for the CEO. Furthermore, it is possible that the effects of the facial expression will interact with the effects of the other information types. For example, a smiling facial expression might lead to lower attitudes when the financial results are bad because in that case, the CEO has no reason to smile.

METHODOLOGY

This section describes the methodology of our study. By conducting a controlled experimental study, we were able to answer the research question:

What are the separate and combined effects of either relatively positive or relatively negative content in the following three information types:

(1) financial information presented in a table,
(2) narrative information about the future,
(3) a picture of the CEO

on stakeholders

(1) attitude toward the information,
(2) attitude toward investing in the company,
(3) perception of the corporate reputation?

This section begins with an explanation of why we chose a controlled experimental study. We then describe the selection of the participants and the experimental tasks. Our description includes the design of the study and extensive details of the materials used. This is followed by the study procedure. The section ends with a description of the data analysis and an explanation of how the reliability and the validity of the data were ensured.

Choice of Research Methodology An experiment was conducted to thoroughly investigate the effects of several information types on stakeholders' attitudes. We constructed several versions of a

summary of an annual report of a fictitious energy company. By creating the summaries ourselves, we ensured that the summaries are identical, apart from our manipulations with respect to the information types that are investigated in this study. Therefore, any differences between the various participants' attitudes and perceptions of the company's reputation must be a result of our manipulations.

How Data Were Collected

In this section, a detailed description of the data-collection process is given.

Participants: Individuals with the ability to evaluate information were invited to participate. We ensured the participants' anonymity, but for this type of study, no official ethical approval was needed at our university. Participants were required to have some affinity for business in general or investing in particular. Most participants were Dutch university students in business-related studies with some experience in investing. Participants needed to fluently read business information in English because the summary of the annual report was in English. Annual reports in the Netherlands are often written in English. Since all university students must study English books and articles, we could assume that all recruited participants could comprehend the information. In total, 160 participants were recruited.

Experimental task: The experiment tested the effects of the independent variables (characteristics of the annual report) on the dependent variables (participants' attitudes and perceived reputation of the company). The three independent variables were:

(1) content of financial review: relatively good versus relatively poor,
(2) content of future strategy: relatively good versus relatively poor,
(3) CEO's facial expression: smiling versus serious.

The manipulations of these three independent variables resulted in eight variants of (a summary of) an annual report. A design of $2 \times 2 \times 2$ subjects was employed, and each participant was asked to read one of the eight variants of the report:

(1) good financial review, good future strategy, smiling facial expression;
(2) good financial review, good future strategy, serious facial expression;
(3) good financial review, poor future strategy, smiling facial expression;
(4) good financial review, poor future strategy, serious facial expression;
(5) poor financial review, good future strategy, smiling facial expression;
(6) poor financial review, good future strategy, serious facial expression;
(7) poor financial review, poor future strategy, smiling facial expression;
(8) poor financial review, poor future strategy, serious facial expression.

After having read a version of the report, the participants were asked to answer questions regarding the three dependent variables:

- attitude toward the information in the annual report;
- attitude toward investing in the company;
- corporate reputation of the company.

Materials; Summary of an Annual Report: A one-page English summary of an annual report of a fictitious international energy company was constructed that consisted of three parts (see Fig. 1). On top of the page, a picture of the CEO was presented, together with his name, title, and a quote: John B. T. McNemar, chairman and CEO, "Our business is about delivering energy to the world: Oil, gas and alternative energy." The financial review was presented on the left side of the page in the form of a table with the company's performance over the last three years. On the right side of the page, a narrative about expectations for the future was presented. To create realistic content, the financial reviews and narratives were based on the contents of three annual reports of existing energy companies.

Financial Review: The financial review consisted of four components: (a) income statement, (b) balance sheet, (c) dividend and shareholder return information, and (d) statement of cash flows. A statement of retained earnings was included in the balance sheet. This composition of the financial review information section is in agreement with theory [23, p. 36]. The financial review was composed of tables with financial numbers, as in the three annual reports that served as reference material. The review referred exclusively to the past results of the firm, the company's financial development over the last three years. Special care was taken to maintain proportions among financial

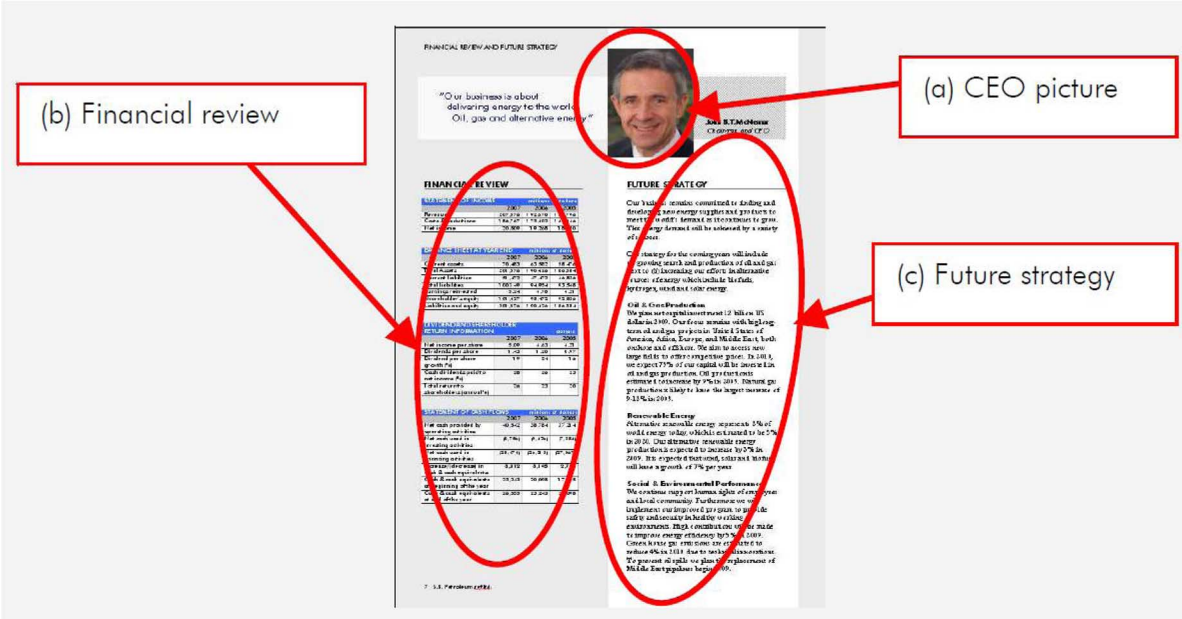


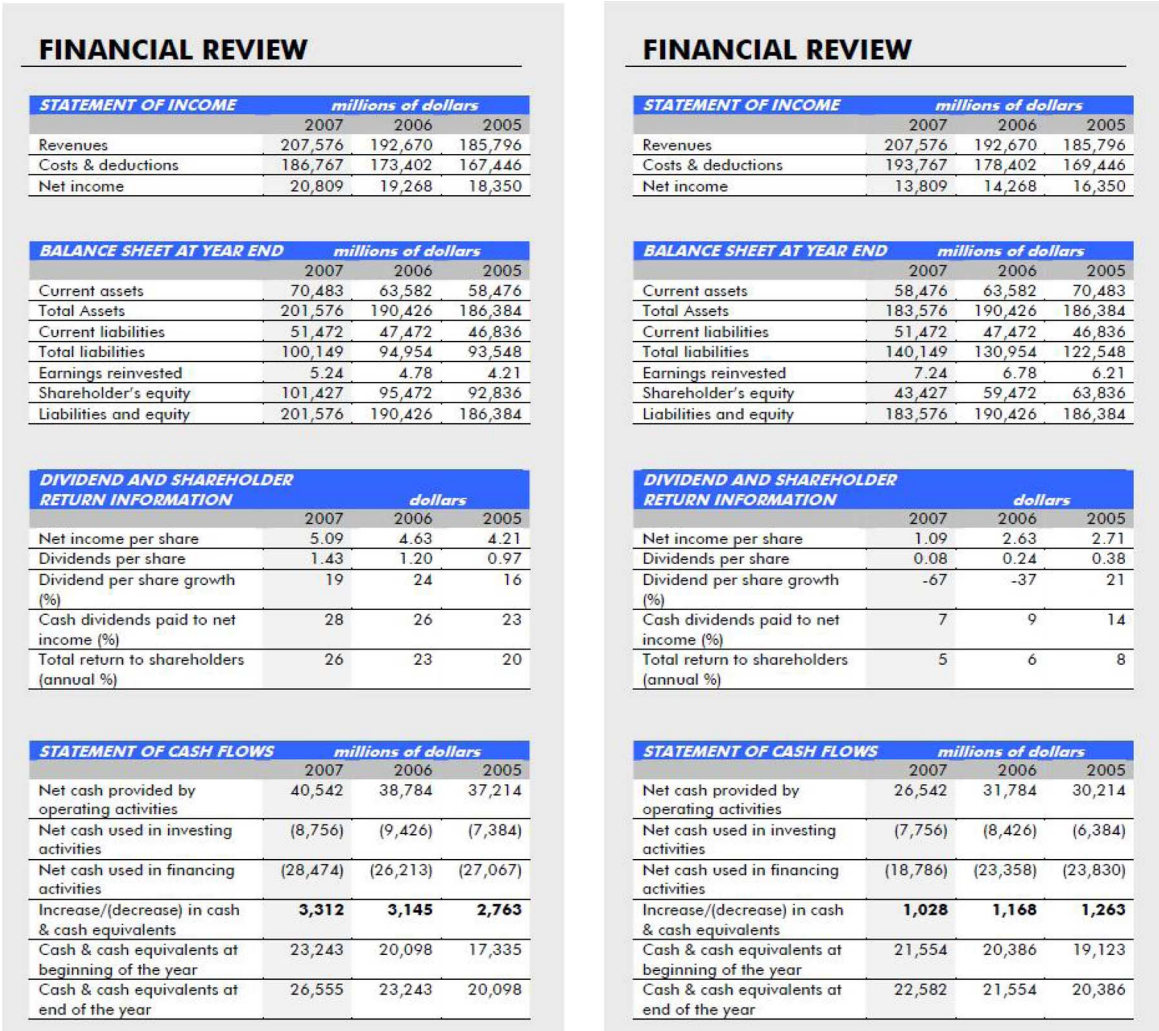
Fig. 1. One-page summary of the annual report.

numbers (such as revenues, costs, net income, debt, assets, and liabilities) and ratios to achieve realistic financial performance. Subsequently, the typical "average" financial review served as the basis for two financial review versions: (1) good financial performance, with better performance than average and increasing the performance over the last three years, and (2) poor financial performance, with worse performance than average and with decreasing performance over the last three years. The differences between these two versions are shown in Fig. 2.

Future Strategy: The future strategy section on the right side of the page refers to the company's prospects and management's future plans. The section consisted of four key text components: (a) introduction, (b) information on oil and gas production, (c) information on renewable energy, and (d) a discussion of social and environmental responsibility. As was conducted in the financial review, the future strategy was constructed on the basis of descriptions from the three annual reports of existing energy companies to create an "average" typical future strategy, which served as the basis for two future strategy versions: (1) good future strategy performance, with better performance than the future strategy with average performance and (2) poor future strategy performance, with worse performance than average. "Good" in this context meant positive outcomes for the company as a whole with regard to financial, social, and environmental performance.

The differences between these two versions are shown in Fig. 3. The differences were of two types. The first type included numerical differences, such as "Oil production is estimated to increase by 9% in 2009" (good future strategy performance) versus "Oil production is estimated to decrease by 6% in 2009" (poor future strategy performance). Other differences can be characterized by the use of positive versus negative descriptions of planned actions or positive or negative descriptions of the reasons for or causes of future plans such as "We aim to access new large fields to offer competitive prices" (good future strategy performance) versus "We aim to access new unconventional large fields to maintain our decreasing reserves" (poor future strategy performance).

Facial Expression CEO: A picture of a fictitious CEO was constructed with a morphing computer program. The program had the ability to smoothly combine two faces (and their characteristics) into one face containing characteristics of both faces while maintaining a realistic and natural appearance. The CEO was pictured wearing formal attire showing only his face and part of his shoulders (passport-style). According to Davison [22], this is the most common way of picturing a CEO in an annual report. The CEO looked into the camera lens, which is a typical pose for a CEO in a Dutch annual report [24]. Two versions of the picture were created (see Fig. 4), one in which



FINANCIAL REVIEW

STATEMENT OF INCOME	millions of dollars		
	2007	2006	2005
Revenues	207,576	192,670	185,796
Costs & deductions	186,767	173,402	167,446
Net income	20,809	19,268	18,350

BALANCE SHEET AT YEAR END	millions of dollars		
	2007	2006	2005
Current assets	70,483	63,582	58,476
Total Assets	201,576	190,426	186,384
Current liabilities	51,472	47,472	46,836
Total liabilities	100,149	94,954	93,548
Earnings reinvested	5.24	4.78	4.21
Shareholder's equity	101,427	95,472	92,836
Liabilities and equity	201,576	190,426	186,384

DIVIDEND AND SHAREHOLDER RETURN INFORMATION	dollars		
	2007	2006	2005
Net income per share	5.09	4.63	4.21
Dividends per share	1.43	1.20	0.97
Dividend per share growth (%)	19	24	16
Cash dividends paid to net income (%)	28	26	23
Total return to shareholders (annual %)	26	23	20

STATEMENT OF CASH FLOWS	millions of dollars		
	2007	2006	2005
Net cash provided by operating activities	40,542	38,784	37,214
Net cash used in investing activities	(8,756)	(9,426)	(7,384)
Net cash used in financing activities	(28,474)	(26,213)	(27,067)
Increase/(decrease) in cash & cash equivalents	**3,312**	**3,145**	**2,763**
Cash & cash equivalents at beginning of the year	23,243	20,098	17,335
Cash & cash equivalents at end of the year	26,555	23,243	20,098

FINANCIAL REVIEW

STATEMENT OF INCOME	millions of dollars		
	2007	2006	2005
Revenues	207,576	192,670	185,796
Costs & deductions	193,767	178,402	169,446
Net income	13,809	14,268	16,350

BALANCE SHEET AT YEAR END	millions of dollars		
	2007	2006	2005
Current assets	58,476	63,582	70,483
Total Assets	183,576	190,426	186,384
Current liabilities	51,472	47,472	46,836
Total liabilities	140,149	130,954	122,548
Earnings reinvested	7.24	6.78	6.21
Shareholder's equity	43,427	59,472	63,836
Liabilities and equity	183,576	190,426	186,384

DIVIDEND AND SHAREHOLDER RETURN INFORMATION	dollars		
	2007	2006	2005
Net income per share	1.09	2.63	2.71
Dividends per share	0.08	0.24	0.38
Dividend per share growth (%)	-67	-37	21
Cash dividends paid to net income (%)	7	9	14
Total return to shareholders (annual %)	5	6	8

STATEMENT OF CASH FLOWS	millions of dollars		
	2007	2006	2005
Net cash provided by operating activities	26,542	31,784	30,214
Net cash used in investing activities	(7,756)	(8,426)	(6,384)
Net cash used in financing activities	(18,786)	(23,358)	(23,830)
Increase/(decrease) in cash & cash equivalents	**1,028**	**1,168**	**1,263**
Cash & cash equivalents at beginning of the year	21,554	20,386	19,123
Cash & cash equivalents at end of the year	22,582	21,554	20,386

Fig. 2. Financial review; good (left), poor (right).

the CEO clearly smiled and one in which he had a serious facial expression. The text "John B.T. McNemar, chairman and CEO" appeared next to the picture to convey expertise and authority.

To verify that the participants' perceptions of the facial expression were as intended, two statements were formulated for them to judge on a 7-point scale, from "strongly disagree" (1) to "strongly agree" (7). One statement measured whether the CEO smiled. The second statement measured the CEO's perceived seriousness. The participants were also asked to rate statements about the man's attractiveness and credibility on a 7-point scale.

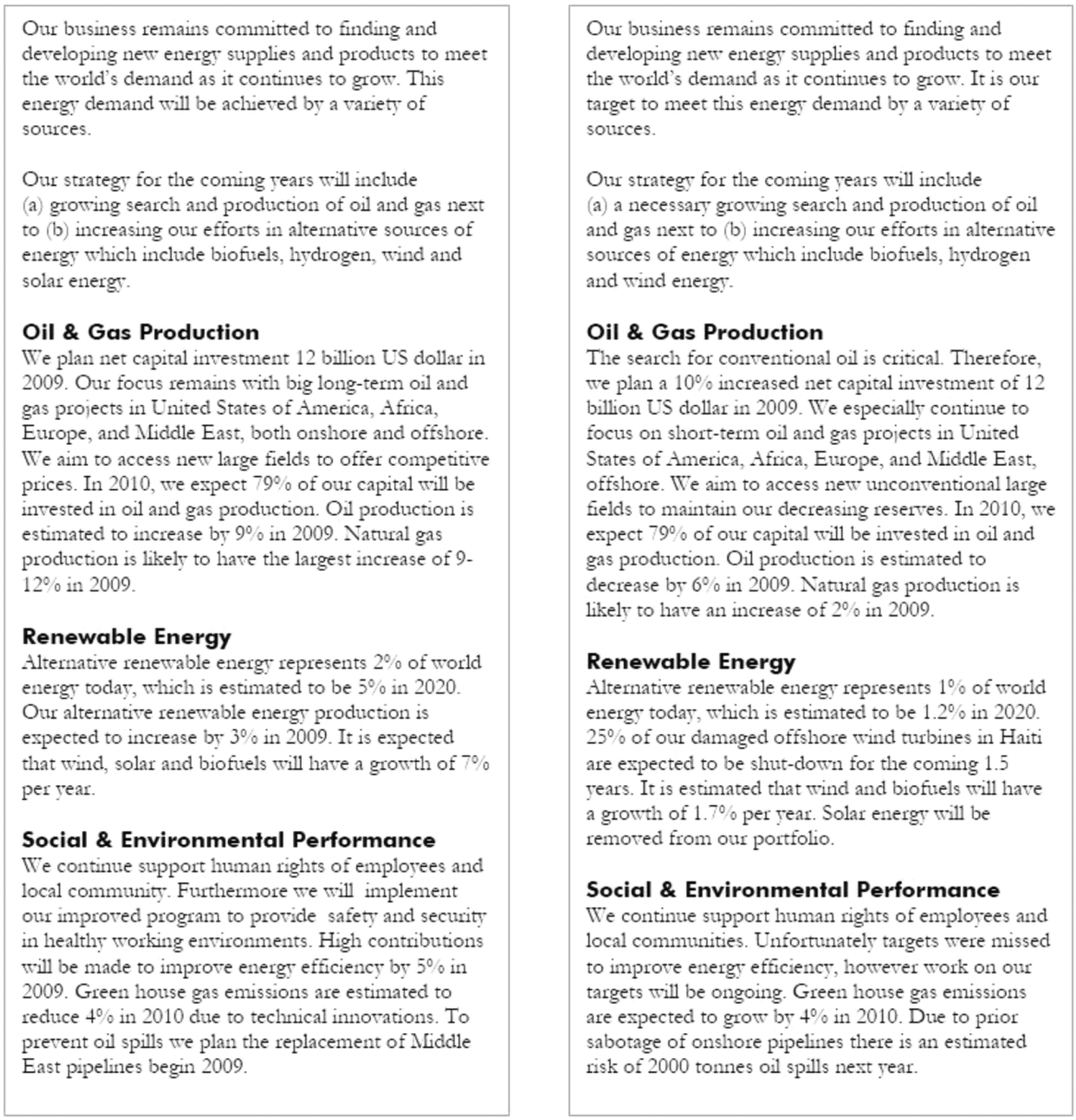
Materials; Questions to Measure the Dependent Variables

Attitudes Toward the Information in the Annual Report Summary: Three statements were formulated to measure the participants' attitudes toward the information (translated from Dutch):

- I have sufficient information to make a sound investment decision.
- The quality of the information enables me to make a sound investment decision.
- I feel satisfactorily informed about the company's activities and performance and can make a sound investment decision.

The participants were asked to indicate to what extent they agreed with the statements on a 7-point rating scale, ranging from "strongly disagree" (1) to "strongly agree" (7).

Attitudes Toward Investing: Five statements were formulated to measure the participants' attitudes toward investing (translated from Dutch):



Our business remains committed to finding and developing new energy supplies and products to meet the world's demand as it continues to grow. This energy demand will be achieved by a variety of sources.

Our strategy for the coming years will include (a) growing search and production of oil and gas next to (b) increasing our efforts in alternative sources of energy which include biofuels, hydrogen, wind and solar energy.

Oil & Gas Production
We plan net capital investment 12 billion US dollar in 2009. Our focus remains with big long-term oil and gas projects in United States of America, Africa, Europe, and Middle East, both onshore and offshore. We aim to access new large fields to offer competitive prices. In 2010, we expect 79% of our capital will be invested in oil and gas production. Oil production is estimated to increase by 9% in 2009. Natural gas production is likely to have the largest increase of 9-12% in 2009.

Renewable Energy
Alternative renewable energy represents 2% of world energy today, which is estimated to be 5% in 2020. Our alternative renewable energy production is expected to increase by 3% in 2009. It is expected that wind, solar and biofuels will have a growth of 7% per year.

Social & Environmental Performance
We continue support human rights of employees and local community. Furthermore we will implement our improved program to provide safety and security in healthy working environments. High contributions will be made to improve energy efficiency by 5% in 2009. Green house gas emissions are estimated to reduce 4% in 2010 due to technical innovations. To prevent oil spills we plan the replacement of Middle East pipelines begin 2009.

Our business remains committed to finding and developing new energy supplies and products to meet the world's demand as it continues to grow. It is our target to meet this energy demand by a variety of sources.

Our strategy for the coming years will include (a) a necessary growing search and production of oil and gas next to (b) increasing our efforts in alternative sources of energy which include biofuels, hydrogen and wind energy.

Oil & Gas Production
The search for conventional oil is critical. Therefore, we plan a 10% increased net capital investment of 12 billion US dollar in 2009. We especially continue to focus on short-term oil and gas projects in United States of America, Africa, Europe, and Middle East, offshore. We aim to access new unconventional large fields to maintain our decreasing reserves. In 2010, we expect 79% of our capital will be invested in oil and gas production. Oil production is estimated to decrease by 6% in 2009. Natural gas production is likely to have an increase of 2% in 2009.

Renewable Energy
Alternative renewable energy represents 1% of world energy today, which is estimated to be 1.2% in 2020. 25% of our damaged offshore wind turbines in Haiti are expected to be shut-down for the coming 1.5 years. It is estimated that wind and biofuels will have a growth of 1.7% per year. Solar energy will be removed from our portfolio.

Social & Environmental Performance
We continue support human rights of employees and local communities. Unfortunately targets were missed to improve energy efficiency, however work on our targets will be ongoing. Green house gas emissions are expected to grow by 4% in 2010. Due to prior sabotage of onshore pipelines there is an estimated risk of 2000 tonnes oil spills next year.

Fig. 3. Future strategy; good (left), poor (right).

- I feel inclined to invest in this company.
- I am likely to buy shares of this company.
- The intrinsic value of this company will grow.
- Investing in this company is not risky.
- The stock of this company will deliver financial advantage.

The participants were asked to indicate to what extent they agreed with the statements on a 7-point rating scale, ranging from "strongly disagree" (1) to "strongly agree" (7).

Corporate Reputation: A validated corporate reputation questionnaire, the Reputation Quotient, was used for measuring corporate reputation [25]. The Reputation Quotient consists of 20 statements divided into six constructs: emotional appeal, products and services, vision and leadership, workplace environment, social and environmental responsibility, and financial performance. The statements within the groups "products and services" and "workplace environment" were excluded because they were not related to the information in the annual report. This resulted in 13 statements that were translated into Dutch. They were measured on 7-point rating scales, ranging from "strongly disagree" (1) to "strongly agree" (7). The English versions of the statements are as follows.

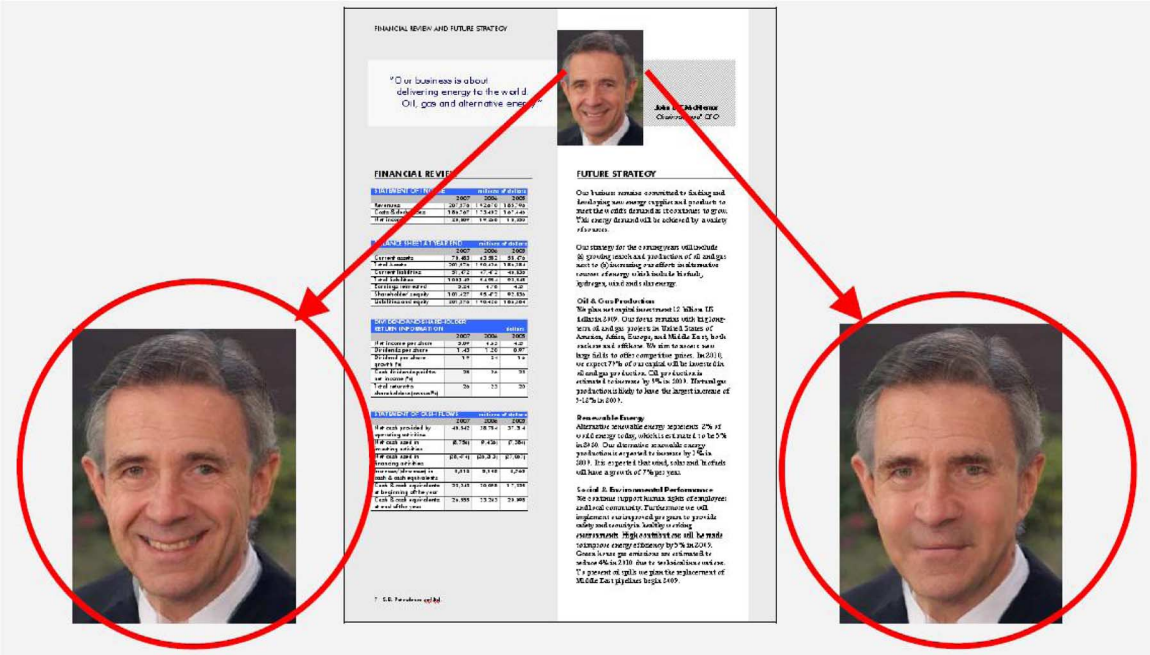


Fig. 4. Photograph of the CEO; smiling (left), serious (right).

- I have a good feeling about the company.
- I admire and respect the company.
- I trust this company.
- The management of this company has excellent leadership qualities.
- The management of this company has a clear vision for its future.
- The management of this company recognizes and takes clear advantage of market opportunities.
- This company supports good causes.
- This is an environmentally responsible company.
- This company maintains high standards in the way it treats people.
- This company has a strong record of profitability.
- This company looks like a low risk investment.
- This company tends to outperform its competitors.
- This company looks like a company with strong prospects for future growth.

Procedure: Potential participants were invited by email to take part in the online experiment. This invitation was in Dutch. After they had clicked on the link in the invitation, they were first asked to answer a few demographic questions (gender, age), also in Dutch, and questions concerning their experience in investing and reading annual reports. One of the variants of the annual report summary was then presented to them. The report was written in English. The company was presented as a large international Dutch company; for this type of company, annual reports in English are common [3], [5].

After having read the report, the participants were asked to answer questions in Dutch about their attitudes toward investing in the company, to answer questions about their attitudes toward the usefulness of the information in the report, and, finally, to give their opinions about the corporate reputation of the company. The questions were in the same order for all participants.

The study ended with a manipulation check. The participants were asked for their opinions about the CEO, whose picture they had seen in the report, to check whether they considered the CEO equally attractive and credible in both versions of the picture. In addition, the following items were checked: whether the CEO with a smiling facial expression was considered to be smiling and was considered less serious than the CEO with a serious facial expression. After the participants had answered these questions, they were thanked for their participation.

How Data Were Analyzed We did a manipulation check on the facial expression of the CEO using independent sample t-tests. A t-test compares the mean scores of two independent groups of participants. In this case, the mean score of the 80 participants who saw a picture of a CEO with

a smile was compared to the mean score of the 80 participants who saw a picture of a CEO with a serious facial expression. A t-test analyzes the variance and calculates whether the difference between the means of the two groups is statistically significant. The results of a t-test consist of a t-value and a p-value. The last value is an indicator of the probability that the difference between the mean values of two groups is caused by random variations. If the p-value is lower than 0.05, the chance that the difference is caused by random variations is less than 5% and the difference is considered to be statistically significant. A t-test assumes that within the scores of each group, the variance is the same. Furthermore, it is assumed that the scores of the participants are normally distributed. If these two assumptions are not met, corrections are made.

The participants' answers about their attitudes toward the information and toward investing in this company and concerning the perceived reputation of the company were statistically analyzed to determine whether the participants' answers differed depending on the version of the annual report they read. We used analysis of variance (ANOVA) to measure the differences between participants' mean scores on the three dependent variables. An ANOVA is the same type of test as a t-test; it also compares the mean scores of the groups of participants. However, this test can be used for more than two groups of participants and for more than one dependent variable.

Ensuring Reliability and Validity Cronbach's alpha, a measure of internal consistency, was used to ensure the reliability of the scales that measured the attitudes toward the information and toward investing. Three statements were used to measure the participants' attitudes toward the information. The reliability of this scale was good: Cronbach's alpha = 0.85. Another five statements were used to measure the participants' attitudes toward investing. The reliability of this scale was good: Cronbach's alpha = 0.87. We concluded that both scales were internally consistent. This means that the separate statements that measured attitude toward the information form a reliable construct. The same holds true for the statements that measured attitude toward investing. Therefore, we may calculate the mean of the separate statements within one construct and use this mean score as the value for attitude toward the information and attitude toward investing.

The perceived reputation of the company was measured using a selection of statements from a validated questionnaire, the Reputation Quotient [25]. According to this questionnaire, the 13 statements that we used formed four different subconstructs. We conducted a principal component factor analysis to check whether the same constructs as those divided in the Reputation Quotient could be used. This analysis showed that three instead of four constructs could be distinguished. Because the dependent variable in the study was the corporate reputation of the company in general and distinguishing between several subcomponents of reputation was not necessary, the statements were considered to belong to one construct: Cronbach's alpha = 0.92. Therefore, the reliability of this scale was concluded to be good.

The eight different versions of the summary of the annual report were formulated carefully to ensure internal validity. The eight versions were exactly the same, apart from the differences caused by the manipulations that are described in the previous section on how the summary was constructed. The only difference between the two pictures of the CEO was the presence or absence of a smile on the CEO's face. The only difference between the two versions of the financial review were the exact numbers that reflected either good or poor financial performance. The differences between the two narratives about the future were of two types: numerical differences and verbal descriptions that were either positive or negative. Since these two differences both indicate how good the future plans are, this is not a serious threat to the internal validity of the study. However, it is not possible to distinguish whether effects of the narratives about the future are caused by the numerical differences or by the verbal descriptions that were either positive or negative.

RESULTS

Our results section begins with a description of the participants, followed by the results of the manipulation check. We then address the effects of the manipulations of the independent variables on the dependent variables. We first describe the effects on attitudes toward information in the annual report summary, then the effects on attitudes toward investing, and, finally, the effects on corporate reputation.

Who Participated in the Study A total of 160 people volunteered to participate in this study. Each variant of the report was read by 20

TABLE I
MEAN ATTITUDE TOWARD INFORMATION (STANDARD DEVIATION); THE MEAN SCORES OF THE EIGHT CONDITIONS ARE PRINTED IN BOLD

		Good future strategy	Poor future strategy	Combined
Good financial review	Smile	**3.88 (1.48)**	**2.12 (0.73)**	3.00 (1.46)
	Serious	**2.98 (1.20)**	**2.28 (0.48)**	2.63 (0.97)
	Combined	3.43 (1.41)	2.20 (0.61)	2.82 (1.24)
Poor financial review	Smile	**2.20 (1.20)**	**2.98 (1.29)**	2.59 (1.29)
	Serious	**3.13 (1.73)**	**3.30 (1.53)**	3.22 (1.61)
	Combined	2.67 (1.54)	3.14 (1.41)	2.90 (1.49)
Combined		3.05 (1.52)	2.67 (1.18)	2.86 (1.37)

participants. Of the participants, 34 (21%) were female and 126 (79%) were male. The participants' ages varied from 19 to 52 years old, with a mean age of 25.8 years and a standard deviation of 6.2 years; 75% of all participants were younger than 27. The participants did not receive an incentive for their participation.

Manipulation Check One statement concerned whether the CEO smiled. The mean score of the 80 participants seeing a CEO with a serious facial expression ($M = 3.73$) was significantly lower ($t = -3.31$, $DF = 140.22$ (equal variances not assumed), two-tailed $p = 0.001$) than the mean score of the 80 participants seeing a smiling CEO ($M = 4.56$). The second statement was about the CEO's perceived seriousness. As intended, the mean score of perceived CEO seriousness for the CEO with a serious facial expression ($M = 4.61$) was significantly higher ($t = 5.78$, $DF = 144.74$ (equal variances not assumed), two-tailed $p < 0.001$) than that of the smiling CEO ($M = 3.40$).

Average CEO attractiveness was rated slightly positive ($M = 4.30$). No statistically significant difference was found in CEO attractiveness between the smiling and nonsmiling CEO ($t = -0.62$, $DF = 148.39$ (equal variances not assumed), two-tailed $p = 0.53$). With regard to CEO credibility, the participants perceived the CEO as moderately credible. The mean score for the nonsmiling CEO was 3.68 and for the smiling CEO, it was 4.05. This difference was not significant, although there was a tendency to perceive the nonsmiling CEO as more credible than the smiling CEO ($t = 1.82$, $DF = 145.85$ (equal variances not assumed), two-tailed $p = 0.07$).

From these manipulation checks, it can be concluded that the difference between the two manipulated facial expressions was clear; one was considered as significantly more smiling and less serious. However, no statistically significant differences in attractiveness or credibility were observed.

Effects on Attitude Toward Information in the Annual Report Summary The results of a MANOVA test served as the basis to further justify examination of the potential factor effects on each dependent variable individually. This test was used to achieve a general orientation for potential factor effects (performance of the financial review section, performance of the future strategy section, and CEO facial expression) on the combined dependent groups (attitude toward information, attitude toward investing, and corporate reputation). Using the Wilk's Lambda criterion (Q) statistic, all of the combined dependent variables resulted in significant main effects and interaction effects.

The mean values of the attitude toward information are shown in Table I. These values are visually depicted in Fig. 5(a) and (b). Fig. 5(a) shows the mean scores of the four groups of respondents who read a summary with good future strategy performance, and Fig. 5(b) shows the mean scores of the four groups of respondents who read a summary with poor future strategy performance.

As expected, no statistically significant effects of the three independent variables on attitude toward the information were found.

The ANOVA yielded a *financial review* × *future strategy performance* interaction ($F(1, 152) = 18.21$, $p < 0.001$, $\eta_p^2 = 0.11$). A t-test showed that for good future strategy performance, the mean attitude toward the information was significantly higher for good financial performance ($M = 3.43$) than for poor financial performance

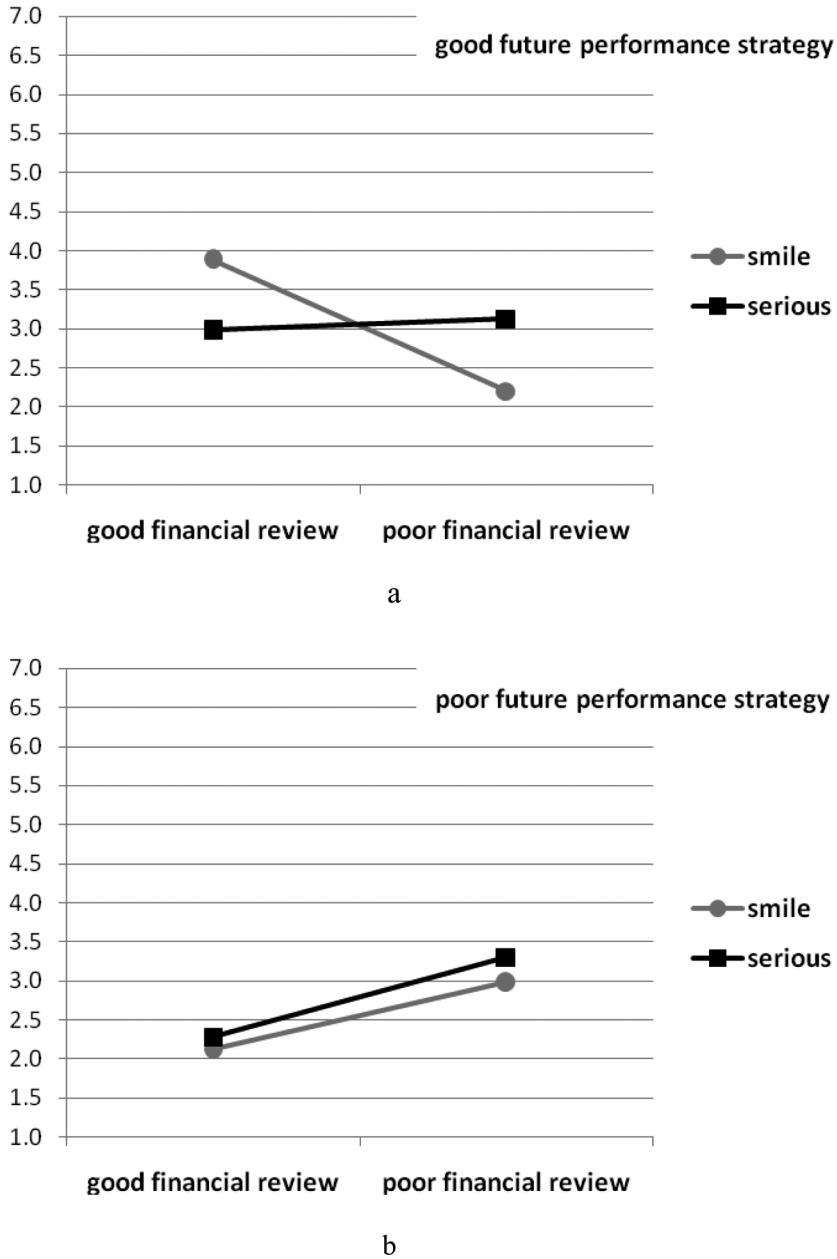


Fig. 5. (a) Mean scores on attitude toward information of the four groups who read a summary with good future strategy performance. (b) Mean scores on attitude toward information of the four groups who read a summary with poor future strategy performance.

($M = 2.67$) ($t = 2.32$, $DF = 78$, two-tailed $p < 0.05$). However, another t-test showed that for poor future strategy performance, the mean attitude toward the information was significantly lower for good financial performance ($M = 2.20$) than for poor financial performance ($M = 3.14$) ($t = -3.88$, $DF = 53.28$ (equal variances not assumed), two-tailed $p < 0.001$), as is clearly shown in Fig. 5(b).

The ANOVA also indicated a *financial review* × *facial expression* interaction ($F(1, 152) = 6.14$, $p = 0.01$, $\eta_p^2 = 0.04$). When the financial review was good, the attitude toward the information of participants who read a report with a picture of a smiling CEO seemed to be somewhat higher than the attitude of participants who read an annual report with a nonsmiling CEO. When the financial report was poor, the attitude of participants who read an annual report with a nonsmiling CEO seemed to be higher. However, t-tests did not show significant differences.

The interaction effect of *future strategy performance* × *facial expression* was not statistically significant.

TABLE II
MEAN ATTITUDE TOWARD INVESTING (STANDARD DEVIATION); THE MEAN SCORES OF THE EIGHT CONDITIONS ARE PRINTED IN BOLD

		Good future strategy	Poor future strategy	Combined
Good financial review	Smile	**4.57 (1.28)**	**1.96 (0.54)**	3.27 (1.64)
	Serious	**3.92 (0.80)**	**3.07 (0.81)**	3.50 (0.90)
	Combined	4.25 (1.10)	2.52 (0.88)	3.38 (1.32)
Poor financial review	Smile	**2.76 (0.62)**	**2.29 (0.85)**	2.53 (0.77)
	Serious	**3.44 (1.21)**	**3.11 (1.25)**	3.28 (1.23)
	Combined	3.10 (1.01)	2.70 (1.14)	2.90 (1.09)
Combined		3.67 (1.20)	2.61 (1.02)	3.14 (1.22)

A statistically significant three-way interaction effect was found, although it is difficult to interpret: *financial review* × *future strategy performance* × *facial expression interaction* ($\mathrm{F}(1, 152) = 4.42, p < 0.05, \eta_p^2 = 0.03$).

Effects on Attitude Toward Investing Mean values on the attitude toward investing are shown in Table II. These values are visually depicted in Fig. 6(a) and (b). Fig. 6(a) shows the mean scores of the four groups of respondents who read a summary with good future strategy performance, and Fig. 6(b) shows the mean scores of the four groups of respondents who read a summary with poor future strategy performance.

As expected, *financial review* and *future strategy* had statistically significant effects on the participants' attitude toward investing ($F(1,152) = 9.99, p < 0.01, \eta_p^2 = 0.06$; $F(1,152) = 49.18, p < 0.001, \eta_p^2 = 0.24$, respectively). The participants' attitudes toward investing were higher when the financial review was good than when it was poor, and the participants' attitudes toward investing were higher when the future strategy was good than when it was poor. The CEO's *facial expression* also had a significant effect on the attitudes toward investing ($F(1,152) = 10.41$, $p < 0.01$, $\eta_p^2 = 0.06$). The participants' attitudes toward investing were higher when the CEO's facial expression was serious than when he smiled.

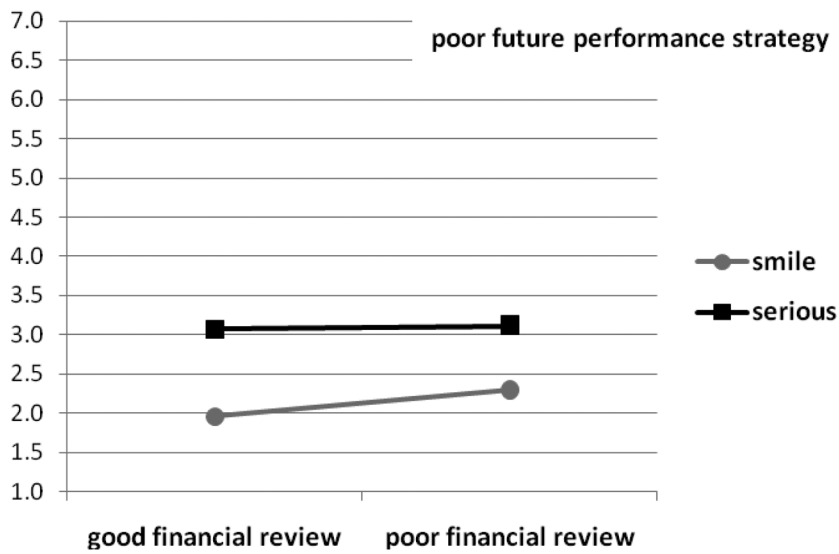
The ANOVA yielded a *financial review* × *future strategy performance* interaction ($F(1, 152) = 19.18$, $p < 0.001$, $\eta_p^2 = 0.11$). This effect was comparable to the interaction effect that was found with the attitudes toward information. A t-test showed that for good future strategy performance, the mean attitude toward investing was significantly higher for good financial performance ($M = 4.25$) than for poor financial performance ($M = 3.10$)($t = 4.84$, $DF = 78$, $p < 0.001$), as shown in Fig. 6(a). However, another t-test showed no statistically significant difference between the mean attitudes toward investing for good and poor financial reviews with poor future strategy performance.

The interaction of *financial review* × *facial expression* is not statistically significant.

The ANOVA yielded a *future strategy performance* × *facial expression* interaction ($F(1, 152) = 9.78$, $p < 0.01$, $\eta_p^2 = 0.06$). In case of a good future strategy, whether the CEO had a serious or a smiling facial expression showed no effect; a t-test showed no difference with regard to the attitudes toward investing ($M = 3.68$ for a serious expression, $M = 3.67$ for a smiling expression). However, with a poor future strategy, another t-test showed that a serious facial expression resulted in a significantly higher mean score for the attitudes toward investing ($M = 3.09$) than a smiling expression ($M = 2.13$)($t = -4.81$, $DF = 78$, $p < 0.001$). This is shown in Fig. 6(b), where the line that connects both mean scores for a CEO with a serious facial expression is considerably higher than the line that connects both mean scores for a CEO with a smiling facial expression.

Finally, a statistically significant three-way interaction effect was found ($F(1, 152) = 7.11$, $p < 0.01$, $\eta_p^2 = 0.05$). The effect indicates that when the financial review and the future strategy are good, the mean scores are significantly higher than when one or both of these are poor. Furthermore, the interaction effect indicated that when the financial review and future strategy were good, it did not matter whether the CEO smiled or not. The scores of the two groups of participants who read a summary with good financial review and with good future strategy did not differ significantly from each other (tested with an ANOVA, followed by a Tukey test).

a



b

Fig. 6. (a) Mean scores on attitude toward investing of the four groups who read a summary with good future strategy performance. (b) Mean scores on attitude toward investing of the four groups who read a summary with poor future strategy performance.

Effects on Corporate Reputation The mean values of the attitudes toward corporate reputation are shown in Table III. These values are visually depicted in Fig. 7(a) and (b). Fig. 7(a) shows the mean scores of the four groups of respondents who read a summary with good future strategy performance, and Fig. 7(b) shows the mean scores of the four groups of respondents who read a summary with poor future strategy performance.

Unexpectedly, *financial review* did not have a significant effect on corporate reputation. As expected, *future strategy* had a statistically significant effect on corporate reputation ($F(1,152) = 35.23$, $p < 0.001$, $\eta_p^2 = 0.19$). The perceived corporation reputation is higher when the future strategy was good than when it was poor. The third variable, the CEO's *facial expression*, did have a significant effect on the perceived corporate reputation ($F(1,152) = 12.33$, $p = 0.001, \eta_p^2 = 0.08$). The perceived corporation reputation was higher when the CEO had a serious facial expression than when he smiled.

TABLE III
MEAN CORPORATE REPUTATION (STANDARD DEVIATION); THE MEAN SCORES OF THE EIGHT CONDITIONS ARE PRINTED IN BOLD

		Good future strategy	Poor future strategy	Combined
Good financial review	Smile	**4.39 (0.86)**	**1.94 (0.45)**	3.17 (1.42)
	Serious	**3.87 (0.62)**	**3.18 (0.62)**	3.52 (0.70)
	Combined	4.13 (0.79)	2.56 (0.82)	3.35 (1.12)
Poor financial review	Smile	**2.77 (0.76)**	**3.28 (0.39)**	3.02 (0.65)
	Serious	**3.55 (0.98)**	**3.42 (0.97)**	3.48 (0.96)
	Combined	3.16 (0.96)	3.35 (0.73)	3.25 (0.85)
Combined		3.65 (1.00)	2.95 (0.87)	3.29 (1.00)

The ANOVA yielded a *financial review* $\times$ *future strategy performance* interaction ($F(1, 152) = 56.77$, $p < 0.001$, $\eta_p^2 = 0.27$). This effect is comparable to the interaction effects that were found with regard to the attitudes toward information and toward investing. For good future strategy performance, a t-test showed that the mean corporate reputation was significantly higher for good financial performance ($M = 4.13$) than for poor financial performance ($M = 3.16$)($t = 4.96$, $DF = 78$, $p < 0.001$). However, for poor future strategy performance, a t-test showed that the mean corporate reputation was significantly lower for good financial performance ($M = 2.56$) than for poor financial performance ($M = 3.35$)($t = -4.52$, $DF = 78$, $p < 0.001$).

The interaction between *financial review* and *facial expression* was not statistically significant.

The ANOVA yielded a *future strategy performance* $\times$ *facial expression* interaction ($F(1, 152) = 5.64$, $p < 0.05$, $\eta_p^2 = 0.04$). With a good future strategy, it did not matter whether the CEO had a serious or a smiling facial expression; a t-test showed no difference with regard to the corporate reputation ($M = 3.71$ for a serious expression, $M = 3.58$ for a smiling expression). However, with a poor future strategy, a serious facial expression resulted in a significantly higher mean score for the corporate reputation ($M = 3.30$) than a smiling expression ($M = 2.61$), as shown by a t-test ($t = -3.82, DF = 78, p < 0.001$). This is shown in Fig. 7(b), where the line connecting both mean scores for a CEO with a serious facial expression is higher than the line connecting both mean scores for a CEO with a smiling facial expression.

Finally, a statistically significant three-way interaction effect was found ($F(1, 152) = 26.63$, $p < 0.001$, $\eta_p^2 = 0.15$) that shows the same pattern as the interaction effect on attitude toward investing. When the financial review and the future strategy were good, the mean scores on perceived corporate reputation were significantly higher than when one of these or both, were poor. When the financial review and the future strategy were good, it did not matter whether the CEO smiled or not. The scores of the two groups of participants who read a summary with a good financial review and with a good future strategy did not differ significantly from each other (tested with an ANOVA, followed by a Tukey test).

CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

In this section, we discuss the results and draw conclusions regarding the effects of the content of annual reports on readers' attitudes and their perceived reputation of the company. The section starts with the presentation of the conclusions. In this subsection, the results are discussed, followed by the implications for practice, and the implications for theory and research. The section continues with a subsection on some limitations of the study and ends with suggestions for future research.

Conclusions In this study, we investigated the effects of the content of several parts of a summary of a company's annual report on the participants' attitudes toward the content of the information and toward investing in the company and on the corporate reputation. The results showed significant effects of the financial review that was presented as a table with the company's financial results over the last three years, the narrative that contained information about the company's future strategy and the facial expression of the CEO, whose picture was presented at the top of the page.

Effects of the Financial Review and Future Strategy on the Attitude Toward the Information in the Report: As expected, the participants judged the quality of the information for making an investment decision to be higher when the information about the financial performance and about the future strategy

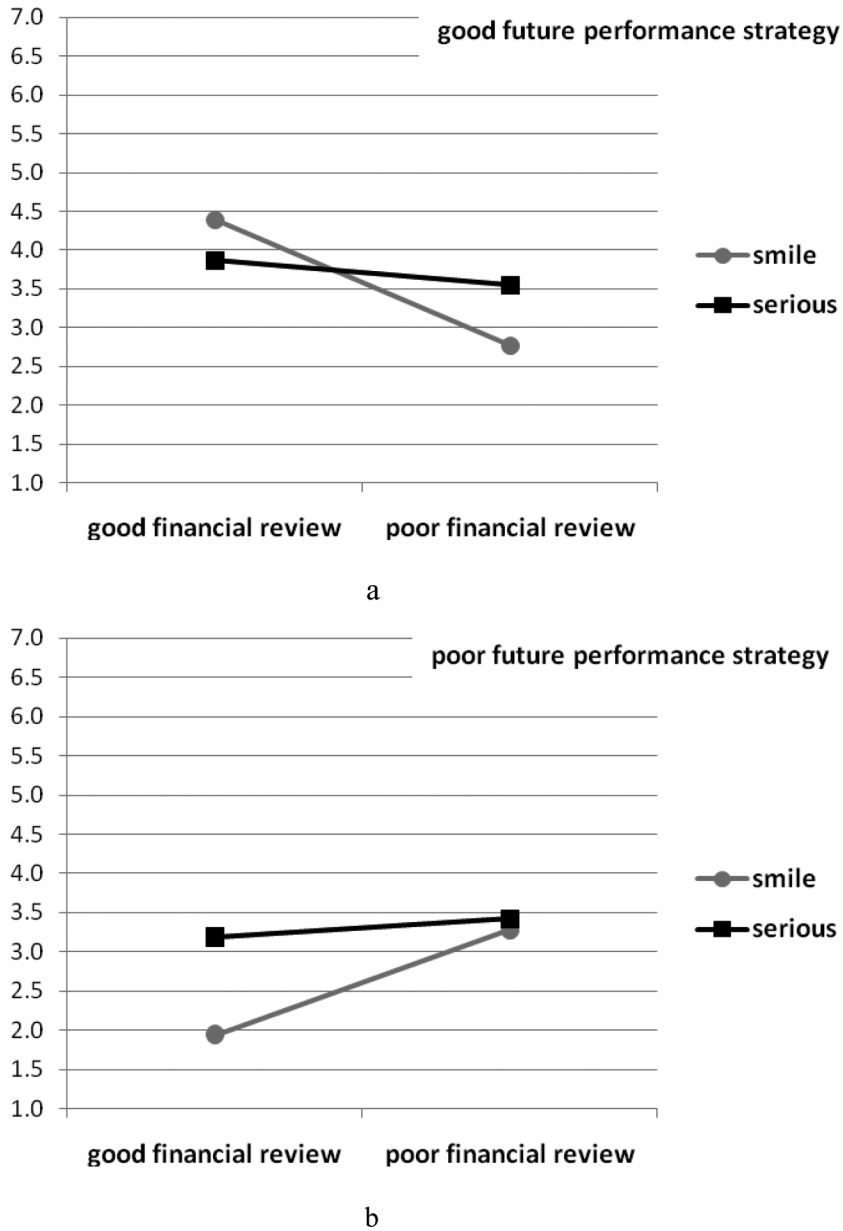


Fig. 7. (a) Mean scores on corporate reputation of the four groups who read a summary with good future strategy performance. (b) Mean scores on corporate reputation of the four groups who read a summary with poor future strategy performance.

was aligned. An interaction effect was found: if the future strategy performance was good, the participants' attitudes toward the information were higher when the financial review was also good than when the financial review was poor. If the future strategy was poor, the results show the opposite pattern: the participants' attitudes were higher when the financial review was also poor. Therefore, it seemed easier to make a decision (positive or negative) based on consistent information than on partly positive, partly negative information.

Effects of the Financial Review and Future Strategy on the Attitude Toward Investing: It is not surprising that the results demonstrate significant effects of financial performance and future strategy on the attitude toward investing. Good financial performance resulted in higher scores on the questions about the attitude toward investing, as did good future strategy. Furthermore, an interaction effect was found. With respect to attitude toward the information and the attitude toward investing, it helped when the information in the different parts of the report was consistent.

The interaction can be explained by assuming that potential investors primarily rely on the future strategy. If the future plans seem promising, they are more willing to invest than when these plans are less positive. This effect was even stronger when the financial review of the last three years was good because this showed that this company was able to realize its plans. However, when the future strategy was poor, people were less inclined to invest, regardless of whether the financial review was good or poor. This contradicts Barker and Imam [14], who concluded that for professional analysts, the information communicated by the financial statements was more important. Professionals are most likely to rely more on financial information because they have more experience and better skills to evaluate these data than the participants in this study.

Effects of the Financial Review and Future Strategy on Corporate Reputation: With respect to the corporate reputation of a company, the financial review is apparently less important than the future strategy. No significant effect of the financial review on corporate reputation was found. However, the results show that a good future strategy resulted in a significantly higher score for corporate reputation than a poor future strategy. Again, an interaction effect was found. Regarding the corporate reputation, it also helped when the financial review and the future strategy are aligned. This interaction can be explained by assuming that consistency is important when evaluating corporate reputation. For example, people might not be able to understand why a company that seems healthy in terms of financial results does not have well-formulated and positive plans for the future or why a company with a poor financial results does have well-formulated and positive plans for the future. Such an inconsistent description of the company leads to a lower corporate reputation. These results suggest that it might not be beneficial for companies to use the narrative parts of the annual report to try to persuade stakeholders of the well-being of the company by using more positive or less negative formulations than can be justified by the financial information. Rutherford [9] and Schleicher and Walker [10] have noted that companies do this.

To summarize, as expected, a good financial review and good future strategy in the summary of an annual report affect the attitude toward investing and the corporate reputation positively. However, consistency also results in higher scores.

Effects of the CEO's Facial Expression: Because photographs in annual reports and their effects on readers have received surprisingly little attention in research, the effects of the facial expression of the CEO were unclear. It might be that the facial expression would not have any effect because potential investors do not pay attention to this peripheral cue or that it does not make any difference whether the CEO smiles or not. If potential investors were affected by the facial expression, it is difficult to predict whether a serious expression or a smile would be more beneficial.

The results indicated that the facial expression had a considerable impact on the participants' perceptions of the company. Facial expression affected the participants' attitudes and the corporate reputation in several ways. Overall, a serious facial expression resulted in a higher attitude toward investing and a better corporate reputation than a smiling expression. These effects might be partly due to differences in credibility between the CEO's pictures. The manipulation check indicated a tendency toward higher credibility scores for the picture of the CEO with a serious facial expression. Since other studies have shown that endorser credibility affects consumers' attitudes toward brands and purchase intent [26], this higher credibility might have affected the effect of facial expression on the attitudes of the participants and on the corporate reputation score.

However, the interaction effects between facial expression and the other two variables—financial review and future performance—cannot be assigned to differences in credibility. The interactions indicated that the facial expression of the CEO should be aligned with the other information in the report. The results showed that in case of a poor future strategy, a CEO with a serious facial expression leads to higher scores on the attitude toward investing and on the perceived corporate reputation than a smiling CEO. Therefore, it seems that a CEO should not smile when he has no reason to.

Implications for Practice: The results of this study indicate that alignment of the different parts of an annual report is important for potential investors. Our participants paid attention to the content of the information but also to a peripheral cue, the facial expression of the CEO in the photograph. Their attitudes toward the information and toward investing and the corporate reputation were higher when the different parts were aligned with each

other. Therefore, in general, we would advise that the different parts of an annual report be consistent. However, it might not always be advisable to align the content of the tables in the financial review with the narrative information about the future strategy. We do not consider it advisable to present a poor future strategy when the financial review turns out to be less positive than expected. However, we do consider it advisable to present a photograph of the CEO with a serious facial expression. A CEO can smile only when positive information is presented in all other parts of the annual report.

Limitations This study has several limitations. First, we should mention that the characteristics of the participants and the artificial setting of the study might have affected the results. Although all of our participants had some experience reading annual reports, not all of them had much experience with investing. In addition, although the participants' ages varied from 19 to 52 years old, most were rather young (75% were younger than 27). A considerable fraction of the participants were university students enrolled in a business administration program. More experienced investors might have other strategies when deciding to invest than the participants in this study.

Second, the participants read a one-page summary of an annual report of a fictitious company instead of a complete report of a real company, which is normally longer. Beattie, Dhanani, and Jones [4] reported that in 2004, the annual reports in the UK averaged 75 pages. Reading a complete annual report of a real company with the goal of making an investment decision is a different situation than that in this study. Therefore, it might be that the effects of the content of the financial review and the future strategy and of the facial expression of the CEO will be less clear in a real-life situation, where a number of other factors play a role in making the decision to invest and where the perception of the corporate reputation is influenced by other factors. Further research must be conducted to determine whether these effects persist in other participant groups and when people are asked to read complete reports.

Third, the manipulation of the future strategy was not optimal. The two descriptions of the future strategy differed in more than one way from each other. Both the numerical values and the verbal descriptions were different. Furthermore, we did not control for the number of negative words in the poor performance version and the number of positive words in the good performance version. In retrospect, it seems that a larger number of words that prime a negative feeling were in the poor performance version (sabotage, removed, critical) than the number of words that prime a positive feeling in the good performance version. Therefore, the differences between the participants who read the good future strategy and those who read the poor future strategy in their attitudes toward the report and toward investing and on the perceived reputation may have been caused by several differences in the description.

Suggestions for Future Research As already mentioned, future research should study whether the effects of the different information types persist in less artificial settings. A future study in which participants are asked to read more than just a one-page summary would be valuable. On what do people base their attitudes when they can read more detailed information about the company? A study with participants who have more experience reading annual reports could be performed to find out if their attitudes are influenced to a greater extent by the financial statement than the attitudes of the participants in this study. It would also be interesting to measure whether participants with more experience with annual reports and investing are less influenced by a peripheral cue than the participants in this study. Furthermore, we did not measure other participant characteristics that may influence their intention to invest, such as their attitudes toward risky investments and their risk perceptions. Including these variables may provide more insight into the effects of the annual report on investment decisions.

Although Guthey and Jackson [19] studied the function of CEO portraits, the effects of pictures of the CEO as endorsers in annual reports had not been investigated. Because this study shows clear results concerning the facial expression of the depicted CEO, it might be valuable to investigate the effects of facial expressions of CEOs more thoroughly or to investigate the effects of other peripheral cues in annual reports to obtain more knowledge about the importance of information types in business documents that do not provide stakeholders with factual information about the company, but that can be considered as peripheral cues.

De Groot et al. [3], [5] showed that annual reports differ from country to country. Therefore, repeating this study in another country might lead to different results and to more knowledge on the effects of cultural differences on using business

documents. Cross-cultural research about the effects of different parts of the annual report, including photos, is feasible since a new scale for measuring corporate reputation was published and is validated for cross-cultural research: the RepTrak Pulse scale [27].

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