


D·I·R·K Forschungsreihe, Band 3

SONJA LEISE

How Behavioural Finance can be used for Key Account focused Investor Relations Activities

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Deutscher Investor Relations Kreis

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Honours Project

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To my parents, who always
encouraged me and supported my decisions.

I WOULD LIKE TO THANK

- Kai, Britta, Elke, Sieglinde, and Vera
  for their special support throughout my studies.
- Susan Pulham and Dr. Martin Karlowitsch
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Finally, I would like to thank
Keith Redhead and Prof. Dr. Uwe Bestmann for
their assistance during the process of
writing this project report.

Coventry, April 2003
Sonja Leise

Vorwort der Präsidentin des DIRK

WIR freuen uns, Ihnen mit der vorliegenden Veröffentlichung „How Behavioural Finance can be used for Key Account focused Investor Relations Activities“ den dritten Band aus der Forschungsreihe des Deutscher Investor Relations Kreis (DIRK) vorstellen zu können. Die Autorin Sonja Leise hat ihre Arbeit als Honours Project an der Coventry University in Großbritannien erstellt und sie in englischer Sprache verfasst. Gleichzeitig reichte sie die Arbeit auch an der Fachhochschule Aachen ein.

Wir sind stolz, dass die Buchreihe des DIRK mit den vorliegenden Ausführungen erfolgreich fortgesetzt wird. Unser Ziel ist es, durch unsere Veröffentlichungen einen Beitrag zur Forschung in neuen, zum Teil noch unerschlossenen Themengebieten rund um die Kapitalmarktkommunikation zu leisten. Frau Leise konzentriert sich in ihrer Veröffentlichung auf die Frage, ob das Wissen um Behavioural Finance, nämlich der Erklärung und Grundlage von irrationalen Entscheidungen institutioneller Investoren auf Basis psychologischer Erkenntnisse, die Arbeit von Investor Relations vereinfacht. Sie kommt in ihrer Arbeit zu der Erkenntnis, dass durch Behavioural Finance Investoren effektiver angesprochen werden können und somit einen Mehrnutzen für Unternehmen geschaffen wird.

Meine Danksagung richtet sich in erster Linie an Sonja Leise, die uns ihre Ausführungen zur Veröffentlichung innerhalb der DIRK Forschungsreihe zur Verfügung gestellt hat, sowie an Keith Redhead von der Coventry University und Professor Dr. Uwe Bestmann von der Fachhochschule Aachen, die die Arbeit wissenschaftlich betreut haben.

Wir hoffen, dass Sie beim Lesen wertvolle Anregungen sammeln können und freuen uns sehr auf weitere Veröffentlichungen im Rahmen der Forschungsreihe.

München, im März 2004

Insa Calsow,
Präsidentin des Deutscher Investor Relations Kreis (DIRK) e.V.

Vorwort der Autorin

NEBEN meinem Betriebswirtschaftslehre-Studium in Aachen habe ich im Bereich Investor Relations der Parsytec AG gearbeitet. Durch die praktische und theoretische Arbeit mit dem Thema Investor Relations bin ich auf die psychologischen Aspekte meiner Tätigkeit aufmerksam geworden. Daraus entstand die Idee mich im Rahmen meiner Diplomarbeit mit der Frage zu beschäftigen, in wie weit die Erkenntnisse aus der Behavioural Finance für die tägliche Investor Relations-Arbeit mit institutionellen Investoren genutzt werden könnten. Da dieser Frage in der Literatur bis dahin nur geringe Beachtung geschenkt wurde, habe ich mich bei meiner Ausarbeitung auf empirische Daten gestützt. Zahlreiche Investor Relations-Manager unterstützten mich durch ihre Teilnahme an meiner Umfrage. Ohne diese Mithilfe und die Unterstützung durch den DIRK, der eine Vielzahl an Kontakten hergestellt hat, wäre diese Arbeit nicht möglich gewesen. Dafür möchte ich mich bei allen Beteiligten bedanken.

Die Resonanz aus Praxis und Wissenschaft auf die Verknüpfung dieser beiden Themenbereiche in dieser Arbeit war durchweg positiv. Ich würde mich freuen, wenn die aufgezeigten Ansätze Anregungen für eine praktische Umsetzung liefern könnten.

Frankfurt am Main, im März 2004

Sonja Leise

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List of Abbreviations

BF	Behavioural finance
CEO	Chief executive officer
CFO	Chief financial officer
CG	Corporate governance
e.g.	example given
EMH	Efficient market hypothesis
EUR	Euro
i.e.	it est (that is)
IR	Investor relations
SV	Shareholder value

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1. Abstract

In times of global competition for capital and a severe downturn of the market, gaining investors' confidence is a main issue for public limited companies. Thus, corporate communication and investor relations becomes increasingly important. In order to carry out effective investor relations, it would be helpful for a company to understand the decision making process of its most important investors. Traditional finance theory assumes that investors are rational, markets are efficient and that prices reflect all available information and only change due to new information. However, there has been evidence of irrational tendencies among market participants which are mirrored in market prices. Behavioural finance (BF) tries to explain irrational behaviour of investors by use of psychological findings.
As inefficient market prices are said to be caused by investors' irrationalities but also counteract the process of rebuilding trust of investors, this honours project focuses on the question whether the knowledge of behavioural finance can help investor relations (IR) to approach its key investors more effectively.
Using secondary literature, characteristics of IR and BF are pointed out. Furthermore, the concept of key account management is applied to identify institutional investors as the main target group of investor relations. This basic information have provided the ground for primary research which has been conducted among IR managers via an on-line questionnaire. The results show that a majority of companies can identify characteristics of irrational behaviour of investors, even though some respondents have found it difficult to assess their investors' decision making process. Furthermore, the responses suggest that most companies communicate in a way which is suitable to counteract negative effects of heuristics and biases of investors. However, findings indicate that most IR

managers do not actively incorporate knowledge of BF in their IR approaches but there are hints that psychological findings are not sufficiently covered by today's approaches. The conclusion is drawn that the knowledge of BF can provide additional value to companies as they gain a general understanding of their investors' fallacies.

2. *Introduction*

This chapter gives a short overview of why the topic seems worthwhile and how the report is structured.

2.1 The topic

In times of growing competition for capital, the relationship between a public limited company and its investors becomes increasingly important (Deutscher Investor Relations Kreis e.V., 2000). Thus, investor relations (IR) which can be seen as the financial part of corporate communication (Piwinger, 2001) grows in significance. Research shows that the performance of companies with IR activities is superior to the performance of companies without actively promoted IR (Kirchhoff, 2001). After a severe market downturn in 2000 and the collapse of popular companies such as Enron, IR has further gained in importance as companies need to rebuild investor confidence (Allen, 2002). According to literature, investor confidence depends on continuous and open communication to reduce information deficits and on creating transparency to assess the reliability of the management among others (Kirchhoff, 2001).
Traditional finance theory assumes that investors are rational, markets are efficient and that prices reflect all available information and only change according to new facts (Shleifer, 2000). Thus, given that a company continuously provides its investors with all necessary information, share prices should be fair and rather stable. However, experience shows that prices are volatile and that "people and markets have inherent tendencies towards irrationality" (Hilton, 2001). The relatively new field of behavioural finance (BF) assumes that markets and players are imperfect (Hilton, 2001) and tries to explain their irrational behaviour by use of psychological findings.

In order to carry out effective IR, it would be helpful for a company to understand the decision making process and possible irrationalities of its most important investors. Therefore, this honours project focuses on the question whether the knowledge of BF can help IR managers to approach their key investors more effectively. The detailed research questions and objectives are outlined below.

Due to constraints in words and time no comparison of different financial markets can be performed. This project focuses the German market as experience has shown that German companies are very supportive concerning primary research.

Research objectives which are investigated by using secondary literature:

- To characterise investor relations
- To define "key accounts" for investor relations
- To identify important instruments for communicating with "key accounts"
- To characterise behavioural finance
- To identify relevant issues of behavioural finance for investor relations

Research questions which are investigated by using primary research:

- Can IR managers identify characteristics of irrational behaviour of investors as suggested by BF?
- Has the knowledge of BF been taken into consideration for daily IR activities yet – consciously or unconsciously?
- Which IR approaches are applied by IR managers and do they see scope for considering BF knowledge in their activities?

2.2 Structure of the project report

The structure of the project report can be divided into five parts, whereas the first three parts contain the secondary literature review, followed by the primary research and the conclusion.
In the first part, IR in general is characterised by identifying goals of IR and its position within the company. Furthermore, the IR target groups are introduced and the concept of key account management is applied to segment IR's key investors. Moreover, instruments of IR activities are presented and appropriate instruments for 'flexible' communication with key accounts are pointed out.
In the second part of the report, the development of BF is outlined and BF phenomena are classified and explained.
The third part identifies links between BF and IR and deducts from the literature review why and how BF can be useful for IR. From the findings, the search questions for the primary research are derived.
The fourth part of the report describes the applied methodology of primary research, explains the questions posed, presents the results of the survey and concludes with the performance of a critical review of the survey.
The final chapter of this report summarises findings derived from literature review as well as the primary research and draws a conclusion with special reference to the question whether the knowledge of BF can help IR managers to approach their key investors more effectively.

3. Investor relations

In order to understand the effects which BF may have on IR activities, IR needs to be defined and their goals, target groups and instruments need to be explained. In the following chapters these basic ideas of IR will be introduced. However, not all aspects of IR will be covered.

3.1 Definition

There are different definitions of investor relations.
IR can be described as the management of a planned and strategic relationship between a public limited company and individual members of the financial community (Drill and Hubmann, 2001). Similarly, the Investor Relations Society defines IR as "the management of the relationship between a company with publicly traded securities and the holders or potential holders of such securities" (Investor Relations Society, 1997; cited by Marston and Straker, 2001: 82).
Furthermore, IR can be seen as the financial part of corporate communications. As such, it communicates information that is obligatory by law as well as information which helps to establish relationships between the company and its investors (Piwinger, 2001). Likewise Mindermann (2000: 27) defines IR as "sämtliche kommunikativen Maßnahmen eines Emittenten mit dem Ziel einer Senkung der eigenen Kapitalkosten", i.e. all communicational activities of a public limited company aiming at reducing own capital costs.
In the following IR shall be regarded as the management of the relationships between a public limited company and its current and potential investors as well as multipliers focusing on financial communications.

3.2 Short history & situation today

The communication between a public limited company and its investors has been institutionalised by the term investor relations, which was already introduced in 1953 by the US company General Electric (Dürr, 1995; cited by Piwinger, 2001). The idea was to give as much information as possible to current and potential shareholders in order to reduce the cost of capital for the company. However, it took about 30 years until this concept of communication was acknowledged by German limited companies (Hocker, 2001a). Even then it was not used as a communicational approach to all investors but was restricted to professionals – institutional investors, analysts, investment consultants (Hocker, 2001a).
In the 1990s and particularly after the going-public of the Deutsche Telekom in 1996 IR became increasingly important. According to a survey by Marston and Straker (2001) IR is regarded as an important function in a company and there are well established IR practices in most of the German blue-chip and mid-cap companies today.

3.3 Goals & position within the company

Goals
Literature suggests several primary goals for IR such as
- Closing the gap between the real company value and its market capitalisation (Drill and Hubmann, 2001).
- Achieving a fair price and low volatility for the company's shares at the stock market (Kirchhoff, 2001; Mindermann, 2000).
- Reducing capital costs (Mindermann, 2000).
- Creating shareholder value (Drill and Hubmann, 200; Piwinger, 2001).
- Increasing company value and share price (Piwinger, 2001).
- Ensuring future raising of funds (Piwinger, 2001).

Furthermore, subordinate goals and tasks are proposed to achieve the primary goals such as

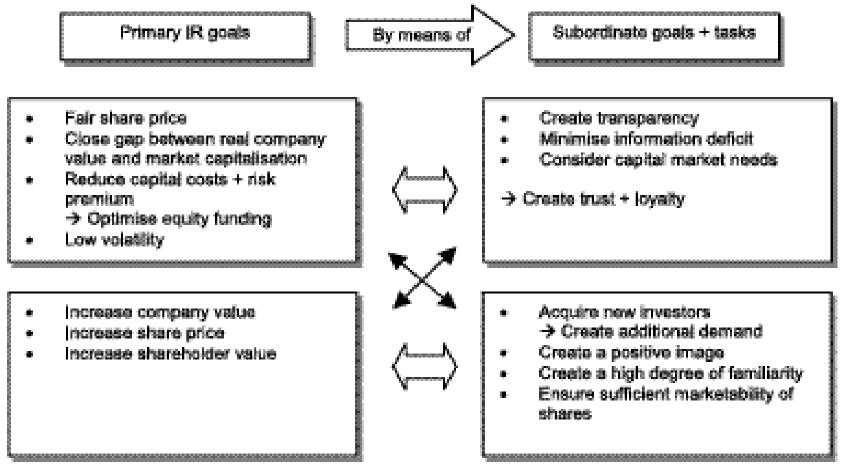


Illustration 1 – Interrelations of IR goals

- Minimise information deficits (Kirchhoff, 2000).
- Extend shareholder base (Mindermann, 2000).
- Create transparency of actions and intentions (Kirchhoff, 2000).
- Create and cultivate positive company image (Drill and Hubmann, 2001; Piwinger, 2001).

On first sight, some of these goals seem to be contradictory, e.g. achieving a fair share price and increasing share price. However, this does not have to be a contradiction. IR aims at increasing company value in order to increase shareholder value. Furthermore, the share price should be fair, i.e. it should perfectly reflect the company value. Therefore, the share price should rise according to a growing company value. Thus, IR aims at an increasing but fair value of its shares.
Additionally, Mindermann (2001) distinguishes between external and internal goals. External goals relate to activities whose outcome is immediately discernible for the financial community (share price, volatility, disclosure of information). Internal goals relate to activities which are only indirectly perceptible. Besides an appropriate editing of information, this is particularly the communication of external demand, i.e. demand of the financial community, to the company and

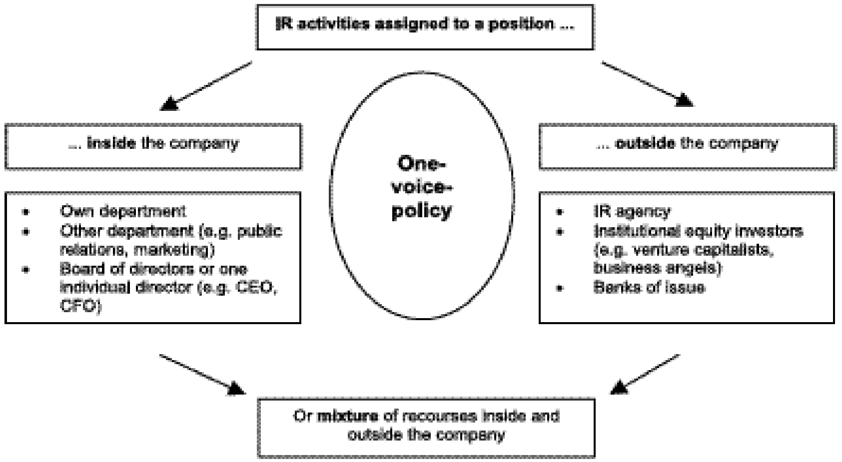


Illustration 2 – IR position within the company

thus to advise the board of directors in its decisions (Deter, 2002; Mindermann, 2001; Schmidt, 2000).
Illustration 1 gives an overview of the different IR goals and their interrelations. Obviously, there is an overlapping of tasks between IR, public relations and marketing. However, IR aims at the financial community and only communicates financially relevant information (Kirchhoff, 2001).

Position within the company
IR can be organised inside or outside of the company as visualised in illustration 2.
If it was located within a company, IR activities could be carried out by an own department or they could be assigned to the whole board of directors or one of the directors. Moreover, IR activities could be carried out by related departments, e.g. by public relations, as there is an overlapping of tasks between IR and public relations. IR activities outside the company could be assigned to an IR agency or to institutional equity investors, such as venture capitalist or business angels. Furthermore, activities could be taken on by the bank of issue (Thommen and Struß, 2001).

In practice there can also be a mixture of internal and external agents, e.g. there is an own IR department within the company which is backed and supported by the CEO and CFO. For certain events such as the general annual meeting an external agency is consulted. Generally it can be said, that the more company specific information are required the more efficient it is to implement an internal position responsible for IR (Thommen and Struß, 2001). Furthermore, backing by the board of directors is very essential to emphasise the importance of IR and to demonstrate this to the financial community (Kirchhoff, 2001; Thommen and Struß, 2001). Moreover, regardless whether IR activities are split between internal and external positions, communications need to be co-ordinated within the company so that there are no contradictory messages given by the company (one-voice policy) (Ahlers, 2000).

3.4 IR – target groups & characteristics

Investor relations has three main target groups as illustrated below:

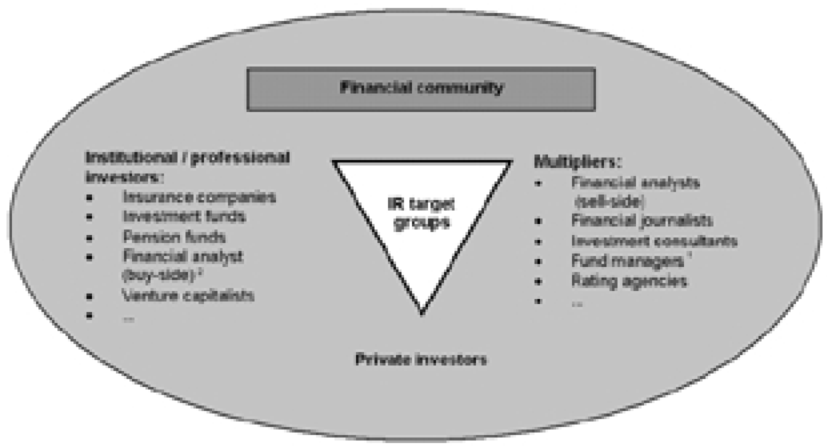


Illustration 3 – IR target groups

1) A fund manager has dual functions: a) As a decision maker in institutions his function is that of an institutional investor and b) as an agent for funds his function is that of an external fund manager (Kirchhoff, 2001)
2) According to Deter (2002) and Düsterlho (2000), buy-side analysts belong to institutional investors as their analysis of companies aim at optimising the portfolios of the institutional investors the analysts work for. Whereas sell-side analysts work for banks and broker houses selling the research reports to investors. Thus these reports reach a wider audience.

Due to their different expectations and needs different IR approaches are required. For this reason it is important to be aware of the characteristics and expectations of each group which will be outlined in the following section.

Institutional investors

Institutional investors can be characterised by the following criteria:

- They use rational criteria (Nix, 2000) and professional decision techniques (Behrenwaldt, 2001) for their investment decisions which are normally made in a team (Deter, 2002; Nix, 2000).
- Investment decisions are restricted by investment guidelines and laws (Deter, 2002; Nix, 2000; Behrenwaldt, 2001).
- Institutional investors are well informed (DIRK, 2000) and
- are exposed to high pressure for good performance (Nix, 2000).
- They form the smallest group in numbers but represent the highest investment volume per decision maker (Kirchhoff, 2001).
- Institutional investors are legal entities (Behrenwaldt, 2001) and function as a collecting point of private capital for professionally managed investments. Thus they are intermediaries between investors and the capital market (Beherenwaldt, 2001) or a company, respectively (Humbert, 2001).

Due to their professionalism and performance pressure they expect detailed and continuos information (Kirchhoff, 2001; Schmidt, 2000) on all important factors for the evaluation of the company, its position within the market and its earning potential (Behrenwaldt, 2001). They are interested in relevant future chances of the company and the market as well as the company's strategic planning rather than past data (Deter, 2002; Kirchhoff, 2001). Furthermore, information should be given timely and in an efficient amount (Humbert, 2001,). As trust is very important for them direct contact to the management is essential (Deter, 2002; Nix, 2000).

Private investors

Private investors can be characterised by the following:

- Private investors are less professional in their investment decision process (Nix, 2000).
- They often follow long-term strategies (Nix, 2000) and are less exposed to performance pressure (Kirchhoff, 2001; Nix, 2000). Thus they are more loyal in time of crisis than institutional investors which reduces the risk of share price volatility for a company (Hocker, 2001b).
- Private investors are a heterogeneous but numerous target group (Kirchhoff, 2001; Nix, 2000) with a low investment volume per person (Kirchhoff, 2001).
- Individual investors are difficult to identify due to bearer shares in Germany (Kirchhoff, 2001) which causes much time, effort and costs to address private investors (Nix, 2000).

Generally it can be said that private investors are interested in the same information about the company as institutional investors, such as future development of the company and timely disclosure of relevant information (Hocker, 2001b). However, information usually need to be processed differently as the average private investor is less informed than are institutional investors. Nevertheless, it is important that private investors have access to the same kind and amount of information as professional investors (Deter, 2002; Hocker, 2001b).

Multipliers

It is most characteristic for multipliers that they can influence investors in their investment decisions by giving evaluations on company publications (Deter, 2002; Kirchhoff, 2001). Thus, they can influence the share price by recommendations and they act as opinion leaders (Nix, 2000). As their statements have amplifying effects their informational needs should be met carefully (Kirchhoff, 2001).
Similar to institutional and private investors multipliers expect competence and communication of only financially relevant information (Egerer, 2001). Furthermore they require open and regular communication with a competent contact of the company (Egerer, 2001; Gowers, 2001). Within the group of multipliers, financial

analysts are most similar in their needs to institutional investors. Thus, they require a permanent exchange of thoughts between IR and themselves to get a feeling for the company and the market opinion (Nix, 2000).

Importance of target groups

Opposing views of the importance of each target group can be found in IR literature.

As has become evident by the historical development, in the beginning, IR activities were concentrated on professional investors. Only they were perceived to be interested in information and therefore worthwhile from a cost-profit point of view (Hocker, 2001b). Thus, professionals were the one and only acknowledged target group. Today, institutional investors are still widely regarded as a main target group (Nix, 2000) because of their intense needs for information (Kirchhoff, 2001) and due to their growing importance as competition about international investment capital increases (Behrenwaldt, 2001). According to Deter (2002) about 75% of trading on German stock exchanges is done by institutional investors today. Behrenwaldt (2001) even expects increasing importance of institutional investors in Germany as private pension systems will develop and increase.

However, several authors recognise the growing importance of private investors and with it, the need for detailed information given by IR (Nix, 2000). Furthermore, Kirchhoff (2001) points out that numerous private investors will have a cash inheritance at their disposal which needs to be reinvested, thus making them an interesting target group. Moreover, due to a lower performance pressure and their long-term orientation private investors are more loyal in times of crisis and also reduce price volatility (Kirchhoff, 2001). Hocker (2001a) emphasises loyalty and long-term orientation which are in contrast to institutional investors' behaviour, making private investors a target group whose importance should not be underestimated.

Multipliers are acknowledged as opinion leaders being able to influence investment decisions and thus share price fluctuations. Out of the whole group, mainly financial analysts are regarded as a prior target group (Behrenwaldt, 2001; Diel, 2001). However, as multipliers are intermediaries of the companies their ability to reach potential (private) customers more efficiently than the companies themselves is acknowledged.

Due to contrary opinions and a shift in the perception of the importance of each group within the last years, the concept of key account management shall be used in order to identify the "key customers" of IR.

3.5 IR-Key Accounts

The idea of key accounts and key account management has evolved in the context of relationship marketing (Ojasalo, 2001). Relationship marketing focuses on identifying individual customers of a company, creating relationships between the customers and the company which last for more than one transaction and manage these relationships for the mutual benefits of both, the company and the customers (Stone et al., 2000). This marketing approach underlines the importance of binding (existing) customers to one's company (Stone et al., 2000). Since the creation and cultivation of customer relationships require time and effort of the company, key account management recognises the need for focusing on a few customers only as a company's available time is limited (Wong, 1998).

Marketing literature suggests several criteria to identify key account customers such as sales-volume, revenue, and profit, generated by an individual customer (Cahill, 1998; McDonald and Rogers, 1998; Payne et al., 1998; Wilmshurst, 1995; Winer, 2000; Wong, 1998). Additionally, Pels (1991; cited by Wong, 1998) distinguishes important relationship variables such as power balance, information exchange, commitment, conflict, and co-operation. The importance of information exchange between a company and its key accounts is also stressed by Ojasalo (2001). However, Millman and Wilson (1995) point out that the most critical criteria for discerning a key customer is that the customer is "considered by the seller to be of strategic importance" (Millman and

Wilson, 1995:10). This view is supported by Wong (1998), McDonald and Rogers (1998), and Ojasalo (2001).
Traditionally, key account management has focused on large accounts in the business-to-business market rather than on individual consumers (Ojasalo, 2001). Thus, given the above criteria, key accounts can be defined as "those customers in a business-to-business market identified by the selling companies as of strategic importance" (McDonald and Rogers, 1998). Therefore, the identification of a company's key accounts depends on the goals of the company (Ojasalo, 2001) and what constitutes 'strategic importance' (McDonald and Rogers, 1998).
The concept of key account management can be transferred to IR, since IR as any other part of a company, is subject to constraints in time and manpower and is required to work efficiently. For this reason, IR managers need to set priorities how to allocate their effort to the different IR "customers", i.e. IR target groups as mentioned previously (chapter 3.4).
Transforming the above given criteria to the financial context of IR, the following criteria could be applied to identify IR key accounts:

- Investment volume per person,
- Expected outcome (increased demand, positive image, ...) in relation to effort (time, effort and cost to address target group)
- Influence on share price,
- Required information intensity,
- Direct investment,
- Loyalty,
- Strategic importance,
- Professionalism.

Table 1 gives an overview of the criteria for key accounts used by marketing literature, the transformation to IR and the value taken on for an individual of each target group as well as the group as a whole (according to information given in chapter 3.4). "High" and "yes" indicate importance, "low" and "no" less importance as "customer".
On first sight, the bottom line of the table seems to clearly indicate that institutional investors are the most important target group of

Criteria by marketing / key account management	Criteria transferred to IR	Institutional Investors		Private Investors		Multipliers	
		Individual	Group	Individual	Group	Individual	Group
Figures per person							
Sales volume	Investment volume	High	High	Low	Relatively High	None	None
Revenue							
Profit	Expected outcome / effort	High	High	Low	Low	Indirectly high	Indirectly high
Relationship variables							
Power balance	Influence on share price	High	High	Low	High	Low	Indirectly high
Information exchange	Required information intensity	High	High	Low	Low	High	High
Commitment	Direct investment	Yes	Yes	Yes	Yes	No	No
Conflict & co-operation	Loyalty	Low	Low	High	High	Low	Low
Strategic importance	Strategic importance	Yes, possible	Yes, possible	Yes, possible	Yes, possible	Yes, possible	Yes, possible
"B2B"	Professionalism	Yes	Yes	No	No	Yes	Yes
Number of "high" and "yes"		7	7	3	5	3-4	3-6

Table 1 – Criteria for key accounts applied to IR target groups

IR since they present the highest sums as individuals and as a group. However, as the criterion "strategic importance" is regarded to be most important it is necessary to give it special thought. Depending on the prioritised company goals the case could be positively argued for, in all three groups, e.g.:

- Low share price volatility due to long-term investment → private investors.
- Increase share price by additional demand → institutional investors (due to higher investment volume).
- Increase demand and thus share price by creation of a positive image → multipliers.

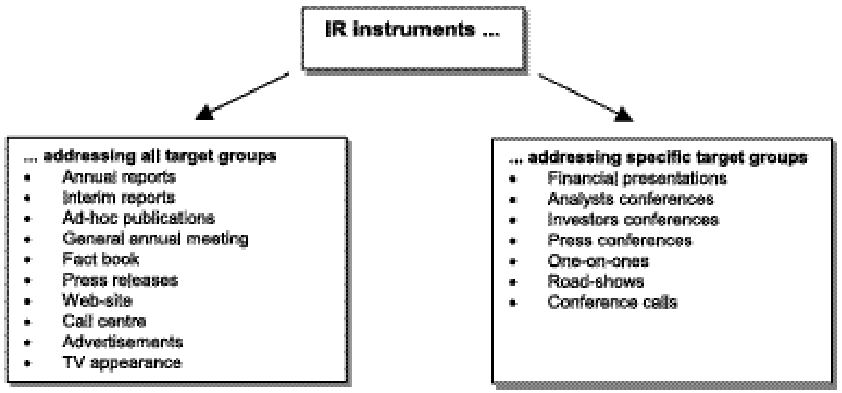
However, since prioritising goals is company specific no generally applicable decision can be made here. Thus the outcome of table 1 shall be used in the following and institutional investors shall be defined as IR key accounts due to

- their high investment volume per decision maker which can influence the share price.

- their high outcome-effort relation combined with demand for detailed information.
- their direct investment and professionalism.

3.6 IR-Instruments

Until the beginning of the 1990s IR activities in German companies mainly aimed at fulfilling legal obligations. Nowadays, IR actively communicates obligatory as well as additional information for various reasons (Deter, 2002) as outlined in chapter 3.3. In order to meet the different needs and expectations of each target group best, different IR-instruments are used which are limited however by the company's financial and personal means (Kirchhoff, 2001; Peters, 2000). These IR instruments can be divided into the ones addressing all target groups and the ones addressing only certain target groups as is shown in illustration 4.



In the following section, IR instruments which can be regularly used are outlined.

IR instruments addressing all target groups
Annual reports usually contain legally indispensable information

(balance sheet, profit and loss account, cash flow statement and management letter) as well as additional information such as foreword by the directors, information on the company's products and diagrams to illustrate figures (Schmidt, 2000). It is the only IR instrument whose content is testified by an auditor. However, its main disadvantage is that it contains basically 'old' information. Thus it functions as a confirmation of the information which was released throughout the past financial year and as a 'reference book' for back ground information (Hütten and Küting, 2001).

In order to minimise the 'old information' problem of annual reports public limited companies are required to publish **interim reports** with interim figures in order to make their progress throughout the year transparent. Depending on the bourse and bourse segment the company is listed at, semi-annual or quarterly reports are required (Baetge and Rolvering, 2001; Schmidt, 2000).

Furthermore, companies which are listed at a German stock exchange are obliged to publish important information on the company via **ad-hoc publications** if its content could influence the share price considerably (Schmidt, 2000)

After the annual report has been published the **annual general meeting** takes place which is equally required by law. All shareholders are invited and decide on company issues such as the dividend, capital increase, exoneration of the board of directors and the supervisory board (Schmidt, 2000). However, as mainly private investors participate they should be focused on, e. g. by adequately adjusting the financial presentation (Orlik and Graf, 2001).

Fact books can be used to compile basic information and frequently asked questions about the company and present it in a clear and structured way. Thus, any interested person can get a first impression about the company, its products, markets, strategy and key figures (Schmidt, 2000). There are contrary views on whether fact books aim at institutional investors only (Schmidt, 2000, p.57f,), mainly (Deter, 2002) or whether there is no prior target group at all (Peters, 2000).

Press releases which are used by financial journalists as basis for their articles or which are adopted completely are a cheap means to reach a wider audience indirectly (Schmidt, 2000). However, as equal treatment of all interested persons has to be ensured press releases are usually not solely send to journalists but to all those, who are interested, i.e. who are listed in a distribution list for this purpose (Deter, 2002; Peters, 2000). The main problem of press releases is that journalists usually shorten the content of the information which might change the meaning of it (Schmidt, 2000).

A **company web-site** can be used as an IR instrument for quick publication of information available for all target groups at the same time. Furthermore, it can offer broader information and additionally – due to technical possibilities – set links between information which then can support the understanding of a certain topic. This creates added value particularly for private investors. However, all information published on the internet need to be available via other instruments as well as not all investors have access to the internet (von Rosen, 2001).

A **call centre** can be used to answer frequently asked questions of people interested in the company, particularly private investors. Furthermore, it can be an efficient instrument when unusual or unexpected information need to be published which causes numerous inquiries by telephone. Thus, IR managers can be relieved of work (Peters, 2000).

Advertisements in newspapers or journals can be used to inform a wide range of actual and potential (private) investors on special occasions such as going-public or capital increases (Schmidt, 2000). Furthermore, **media appearance** has become a relatively new IR instrument (Deter, 2002). Different forms of media – TV, radio,

print – have become increasingly interested in interviews with company representatives. Thus, short and precise messages about a company can reach a wide audience (Schmidt, 2000)

IR instruments addressing specific target groups

Financial presentations are presentations held by the top management and IR manager with certain target groups as audience (Peters, 2000). In all conferences the same information are given, however they are presented in different ways according to the background knowledge and need of the audience (Peters, 2000). There are conferences for analysts, investors and journalists.

Analyst conferences are meetings of the IR manager, usually at least part of the board of directors and financial analysts in which the current situation of the company and its future prospects are discussed. Thus, analysts can directly contact the management and ask detailed questions about the company's strategy and its implementation. Analyst conferences should take place at least once a year (Schmidt, 2000)

Investors conferences can be held for institutional or private investors and are usually organised by banks, broker houses or other service providers. Conferences for institutional investors are usually related to a certain industry or market segment. A conference allows the company to present itself in front of a big audience of institutional investors with a relatively small cost and time involvement (Peters, 2000). Likewise, conferences for private investors are held. They can be either organised by banks or broker houses as presentations of one or more companies in front of wealthy private investors (Peters, 2000), or they are organised as investor's fairs. Analogous to other conferences or road-shows investor's fairs offer direct contact and detailed information to private investors. However, as such fairs often last for several days this is a rather expensive IR instrument as cost for personnel and stall are rather high (Schmidt, 2000).

Similarly, **press conferences** are held by the top management in front of economic journalists. There is usually at least one per year after the financial statements have been published (Peters, 2000).

One-on-ones are meetings between the director(s) and IR manger of a company and analysts or institutional investors of one institution only (Deter, 2002). Thus individual and very specific questions can be put forward (Schmidt, 2000). Furthermore, investors and analysts are in direct contact with the top management of the company which allows for the creation and cultivation of trusting relationships. One-one-one meetings belong to the most important IR instruments as these meetings have an open atmosphere and offer the possibility to answer individual questions in detail (Deter, 2002).

Road-shows are combinations of conferences and one-on-one meetings taking place at different centres for finance (Peters, 2000). First, the company presents itself in front of investors and analysts and answers more general questions. Additionally, one-on-one meetings are held afterwards offering investors and analysts the chance to inquire very specific information and to get in contact with the top management. Road shows can be used for communicating unusual events such as going-public, mergers and acquisitions or any modification of the company's strategy (Schmidt, 2000). Furthermore, road shows can be used as a regular instrument to cultivate relationships with investors and analysts.

Conference calls are telephone conferences to which usually institutional investors and analysts are invited. Thus the company can communicate important information -even at short notice- and directly answer any questions. Additionally, presentations can be held via an internet chat-room (Schmidt, 2000). The main advantage of a conference call is the possibility of a direct dialog between investors or analysts and the top management without the necessity for a physical meeting (Deter, 2002; Peters, 2000)

3.7 Instruments for communication with institutional investors

Above, the different needs and expectations of the IR target groups have been identified (chapter 3.4). In summary this is:

- Institutional investors expect detailed and continuous information on the future and present rather than the past presented in a timely and sufficient manner. Moreover, direct contact is essential.
- For private investors the same information are relevant as professionals, which should be timely and should be presented in an easy understandable way.
- Multipliers require detailed and regular information presented timely as well as efficiently as well. Additionally analysts expect much communication to be done via personal contact.

Furthermore, an overview of the IR instruments which can be used regularly has been given (chapter 3.6). In the following section the importance of these instruments shall be assigned to each target group according to the information given above. The degree of importance shall be determined by three grades:

- "2" stands for "very important",
- "1" stands for "important" and
- "0" stands for "only indirectly important".

The characteristic "variable use possible" distinguishes instruments which can be used on short notice from instruments whose use is legally regulated or longer-term intended.
As can be seen in the table, the instruments which are characterised by "yes" and "2" are the ones which are very important for 'daily' communication with institutional investors since they are highly valued by investors and are flexible in use for IR. Namely, these instruments are press releases, web-sites, financial presentations, one-on-ones, road-shows and conference calls.

It should not remain unmentioned that private investors as well as multipliers are heterogeneous groups which require further dis-

Target groups / Instruments	"Variable" use possible?	Institutional investors	Private investors	Multipliers: Analysts	Multipliers: "Rest"
Addressing all target groups:					
Annual reports	No	1	1	1	1
Interim reports	No	2	2	2	2
Ad-hoc publications	No	2	2	2	2
General annual meetings	No	1	2	1	1
Fact book	No	2	2	2	2
Press releases	Yes	2	2	2	2
Web-site	Yes	2	2	2	2
Call centre	Yes	1	2	1	1
Advertisements	Yes	1	2	1	1
TV appearance	Yes	1	2	1	1
Addressing specific target groups:					
Financial presentations:	Yes	2	2	2	2
- Analyst conference	Yes	2	0	2	0
- Investors conference	Yes	2	2	0	0
- Press conference	Yes	0	0	0	2
One-on-ones	Yes	2	0	2	0
Road-shows	Yes	2	0	2	0
Conference calls	Yes	2	0	2	0

Table 2 – Importance of IR-instruments for target groups

tinction for an adequate judgement on the importance of instruments. However, as institutional investors have been identified as the IR key accounts they are focused on here. Therefore both remaining groups shall not be further differentiated.

4. Behavioural finance

Before suggesting any links between IR and BF, the idea of BF and its implications for the process of decision making need to outlined first which is done below.

4.1 Definition

BF is a behaviour orientated finance theory and aims at describing and predicting the behaviour of decision makers considering rational as well as irrational behaviour (Goldberg and von Nitzsch, 1999). Shefrin (2000: 3) defines BF as "the application of psychology to financial behavior – the behavior of practitioners".

4.2 Short history & situation today

There are two trends which have led to the emergence of behavioural finance, one is related to the development of the efficient market hypothesis the other one is related to findings in psychology (Naugthon, 2002).

For the last almost 30 years the efficient market hypothesis (EMH) has been the dominant proposition of finance (Shleifer, 2000). It was evolved at the University of Chicago and assumes that investors act rationally and that prices reflect fundamental values, i.e. that prices reflect the evaluation of all relevant available information (Brealey and Myers, 2003; Shleifer, 2000). Consequently, prices should only move in accordance with new information. The EMH allows for some irrational investors to the extend that their trades cancel each other out or are met by rational investors for the purpose of arbitrage. Thus, irrational evaluation of information does not influence market prices (Shleifer, 2000). Even though in the beginning fin-

dings were very supportive, in the 1980s empirical results were found which were not consistent with the EMH (Shefrin, 2000). Opponents point out that “real-world arbitrage is risky” (Shleifer, 2000: 13) and arbitrage opportunities are limited (Naughton, 2002). However, proponents of EMH argue that these findings are anomalies and do not challenge the basics of the model (Shefrin, 2000).
Additional to the development of the EMH economists paid attention to new psychological findings as described in Kahneman, Slovic and Tversky’s volume (1982) ‘Judgement under uncertainty: heuristics and biases’ which could be related to the field of finance (Shefrin, 2000). These findings are mainly based on prospect theory which deals with decision making under uncertainty (Goldberg and von Nitzsch, 1999). In contrast to traditional finance, behavioural finance assumes that investors do not always act rationally but are prone to biases and sentiments which cause systematic distortions and fallacies (Goldberg and von Nitzsch, 1999). Thus market prices are influenced by irrational behaviour of market participants.
There is still an on-going argument how to interpret the obviously irrational behaviour of investors. Miller (1986; cited by Shiller, 2000), a proponent of the EMH, argues that the primary task of economists is to identify the fundamental forces that drive markets rather than focusing on and getting abstracted by BF phenomena. Furthermore, the question is raised whether BF is a criticism of the EMH only or whether it constitutes an own economical model (Fama, 1998; cited by Shefrin, 2000). However, advocates of the BF view emphasise that the impact of so-called anomalies on markets is so big and consequences can be so expensive that these irrationalities should not be underestimated (Shefrin, 2000), irrespectively of the question whether BF can be regarded as a new economic model.

4.3 BF phenomena

As there are numerous phenomena it may be helpful to arrange them in groups of similar characteristics. Shefrin (2000) suggests

to arrange them around three themes:

- Heuristic-driven biases,
- Frame dependence of problem solving and
- Inefficient markets, i.e. how errors and frames affect market prices.

Other authors list the phenomena roughly according to their importance, e.g. Hilton (2001: 38) names “seven deadly sins in financial decision-making”.
However, in the following the structure suggested by Goldberg and von Nitzsch (1999) shall be basically applied and the phenomena shall be arranged according to their ‘purpose’:

- Reduction of complexity,
- Simplification of decision making process,
- Evaluation of gains and losses,
- Satisfaction of psychological needs and further aspects.

Illustration 5 gives an overview of this classification of phenomena.
As several BF phenomena include heuristics which are based on biases both terms are defined first.

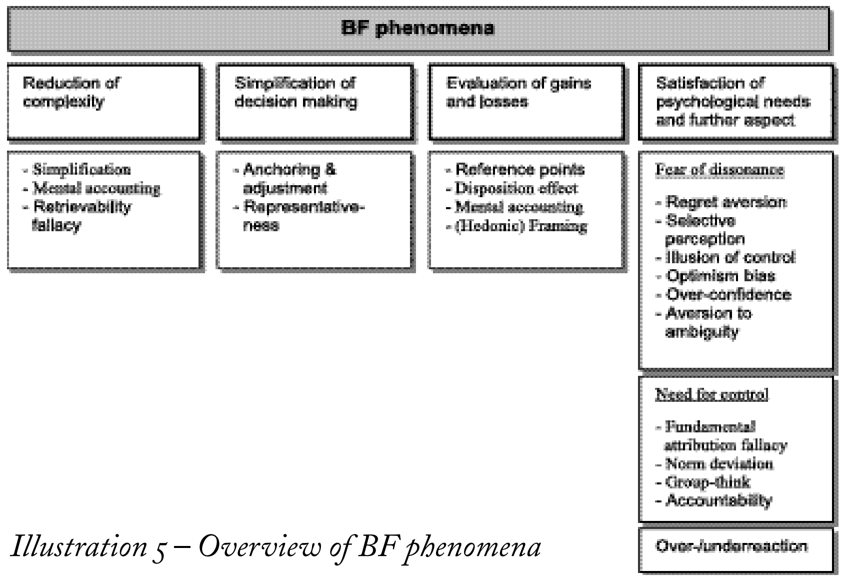


Illustration 5 – Overview of BF phenomena

The Pons dictionary of the English language (1998: 726) defines heuristic as “a method or set of rules for solving a problem other than by algorithm”. According to Shefrin (2000) heuristics are processes of developing rules of thumb by finding things out for oneself by trial and error; the rules of thumb themselves are also called heuristics. However, these heuristics often lead to further errors (Shefrin, 2000).
Heuristics may involve biases which means “they may tend to be off target in a particular direction” (Shefrin, 2000: 14). Or put in other words, a bias is a “mental tendency or inclination, esp. an irrational preference or prejudice” (Pons dictionary of the English language, 1998: 159).

Reduction of complexity
Decision makers are exposed to a stream of information and are confronted with complex situations and problems when facing a decision. As virtually no human being is able to appropriately take all factors into account heuristics are used to reduce complexity and to cope with information overload (Goldberg and von Nitzsch, 1999).
An obvious method is to **simplify facts** by neglecting small differences, e.g. by rounding numbers up or down (Goldberg and von Nitzsch, 1999).
Furthermore, interdependencies between factors can be neglected by **mental accounting** (Tversky and Kahneman, 1981; cited by Goldberg and von Nitzsch, 1999). Mental accounting is the tendency to hold imaginary accounts for different projects, e.g. one for each investment, and to value each project individually. However, as decisions are made separately from each other they may be sub-optimal as risk is not correctly evaluated (Goldberg and von Nitzsch, 1999). Mental accounting can enforce the disposition effect (von Nitzsch et al., 2001) and may be due to loss aversion (Hilton, 2001), which will be outlined below.
Moreover, the **retrievability** or **availability** of past incidents or information may be used to judge on the frequency or probability of such incidents (Tversky and Kahneman, 1982). Incidents which have occurred recently can be recalled more easily and thus are given more attention than ones which were longer ago (Oehler, 2000). Factors such as subjective frequency, topicality, conspicuousness, clarity and affective congruence influence the ease to recall past information (Goldberg and von Nitzsch, 1999; Tversky and Kahneman, 1982).

Simplification of decision making
As financial decisions often have to be made within time constraints some heuristics are used to simplify the decision making process.
Within a decision making process people often start from one certain point or value **(anchor)** and **adjust** their evaluation from this point. However, most people adjust too conservatively and thus inefficiently as the anchor is weighted too much in the evaluation. This can cause investors to underestimate possible deviations from their original estimates (Shefrin, 2000; Tversky and Kahneman, 1982). Thus, an investor could focus too much on a past target price and not adequately incorporate current news into his price estimate.
Representativeness is a form of schematic thinking (Goldberg and von Nitzsch, 2000) where judgement is based on stereotypes (Shefrin, 2000). Thus, investors often regard recent developments as being characteristic and an indicator for the future (Redhead, 2003; von Nitzsch et al. 2001). Representativeness is considered as one of the most important principals in financial decision making (Shefrin, 2000,) and was proposed by Kahneman and Tversky (1972; cited by Tversky and Kahneman, 1982). Representativeness can lead people to overestimate probabilities which causes further fallacies such as the **gambler’s fallacy**, the **conjunction fallacy** and **conditional probability fallacy** (Goldberg and von Nitzsch, 1999). However, these fallacies are not explained in further detail here.

Evaluation of gains and losses

The insight in the evaluation of gains and losses is strongly based on findings by Kahneman and Tversky who developed the so-called prospect theory by testing how people respond to the prospect of loss and gain under uncertainty. They discovered that decisions under risk are influenced by **individual reference points**, 'neutral' points to which gains and losses are measured against, by a **declining sensitivity** as the distance of a value to the relevant reference point grows and by **loss aversion** of people (Kahneman and Tversky, 1979; cited by Unser, 1999; and cited by Shefrin, 2000). The combination of these three factors helps to explain further fallacies.

The **disposition effect** is based on the findings that people become increasingly risk-avers when they are in a position of gain relative to their reference points and contrariwise become risk-loving when in a position of loss. This is due to the fact, that an additional gain is valued less than an additional loss of the same absolute amount caused by a s-shaped valuation function and the hope that unrealised losses will break even in future. Illustration 6 shows the perception of relative gains and losses. In course of the disposition effect, investors tend to sell 'winners', i.e. investments in a position of gain, too early and ride 'losers', i.e. investments in a loss position, too long. Thus, they limit their gain but leave losses unlimited. (Shefrin and Statman, cited by Thaler, 1993).

As mentioned above, **mental accounting** can enforce the disposition effect. If several projects or investments are segregated to different individual accounts, then each investment will be associated with an own reference point. Thus, not an overall portfolio is focused on but each single loss or gain (Shefrin and Statman; cited by Thaler, 1993) which in turn evoke disposition effects.

Additionally, **hedonic framing** influences the perception of gains and losses. Frames set the scene for a certain decision. Depending on how a situation or choice is presented people will make different decisions. Hedonic framing refers to the fact that people prefer some frames to others (Shefrin, 2000). In combination with the disposition effect and mental accounting people tend to organise their mental accounts in a way that they segregate gains and integrate losses (Goldberg and von Nitzsch, 1999). According to Thaler and Johnson (1991; cited by Shefrin, 2000) this is also called hedonic editing.

As stated earlier, the perception of the value of an additional gain and loss depends on an individual reference point. However, there may be **more than one reference** point depending on the situation. If there are two reference points sensitivity declines as the value moves away from the first point but increases as it moves towards the second reference point (Goldberg and von Nitzsch, 1999).

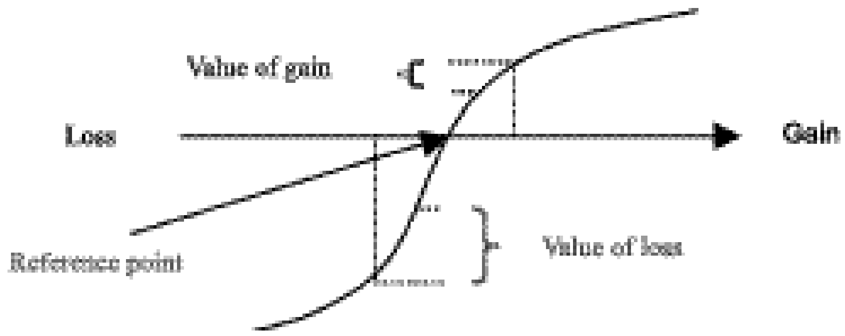


Illustration 6 – Value function (Source: Goldberg and von Nitzsch,

Satisfaction of psychological needs and further aspects

In contrast to the phenomena explained above which were often based on limited cognition of people, the following phenomena are mainly based on psychological needs. According to Goldberg and von Nitzsch (1999) there are two main motives: people seek to be in harmony with themselves and they want to be in control of their situations.

Harmony is achieved when all relevant opinions, believes, and knowledge on a decision correspond with each other. However, any contradictory information evokes **dissonance** which people try to avoid by manipulating cognition.

The feeling of dissonance strongly depends on the level of commitment (Brehm and Cohen, 1962; cited by Goldberg and von Nitzsch, 1999). The commitment in turn is influenced by several factors. First of all, commitment can only develop if the decision maker has a free choice between at least two alternatives so that the person can influence the course of events by his decision. Secondly, if consequences are foreseeable, the decision-maker feels responsible for his choice which increases commitment to his choice. Furthermore, sunk costs, i.e. money, time and effort already spent on a decision make people identify with their decisions (Goldberg and von Nitzsch, 1999).

Moreover, if the decision maker comes into public spotlight, commitment and the fear of having chosen the worse alternative is even increased by the **fundamental attribution fallacy**, i.e. other people perceive success as well as failure as being due to the persons abilities.

Additionally, if the chosen alternative does not correspond with what most people think is right or the norm, then **norm deviation** of the decision strengthens the feeling of responsibility and thus commitment. The definition of 'norm' is influenced by **groupthink**, whereby individuals as parts of one group reinforce each other to believe that their point of view is correct (Hilton, 2001).

The fundamental attribution fallacy and norm deviation enforce the **effects of accountability** on decision-making. If a decision-maker has to take the responsibility for his choices and has to answer third parties, it is most likely that he will chose that alternative which is easiest to defend, even though this might be sub-optimal (Hilton, 2001).

If the feeling of dissonance about a decision culminates in the assumption that the decision has been wrong, the decision maker feels **regret**. Due to the human need to reduce or avoid dissonance and regret people are prone to further fallacies (Goldberg and von Nitzsch, 1999).

In order to reduce dissonance after a decision has been made, the decision maker uses **selective perception** and only recognises information which is supportive to his decision. This is also known as **confirmation bias** (Hilton, 2001).

Furthermore **loss aversion** is based on the fear of dissonance. As stated above, losses are perceived stronger than gains. Since losses indicate wrong decisions they cause dissonance. Therefore, people are loss-averse (Goldberg and von Nitzsch, 1999).

In addition to avoiding dissonance people have a need for control, they feel more comfortable if they can influence the situation they are in. There are different forms of control. It is important to notice that only the subjectively perceived control is important which can differ from the real control a person has. If people overestimate the actual control they have over outcomes, they have an **illusion of control** (Hilton). This may lead them to underestimate risk (Redhead, 2003), e.g. of their portfolio if it is not well-enough diversified.

Optimism bias is closely related to the illusion of control and refers to the tendency of people to regard themselves to be better than average (Hilton, 2001).

Overconfidence may arise when people overestimate their abilities and skills in forecasting. Hilton (2001) argues that in today's markets available information should help to make precise predictions and appropriate decisions. However, there is more information than can effectively be handled. Therefore, luck is more likely to be the reason for good forecasting performance than skills (Hilton, 2001). Yet, due to the **self attribution bias** people tend to take responsibility for success but not for failure. Thus, successful predictions may cause investors to be overconfident.

Aversion to ambiguity also relates to the need of control. Generally, "people prefer the familiar to the unfamiliar" (Shefrin, 2000: 21). Thus, investors prefer to invest in companies whose products they understand. Similarly, domestic companies are preferred to foreign companies as the investor's influence is perceived to be higher. This preference is called **home bias** or **domestic bias** (Goldberg and von Nitzsch, 1999; Redhead, 2003).

People are susceptible to mental rigidity (Hilton, 2001). They are slow to adapt their views to new information, which is referred to as **conservatism** (Redhead, 2003). New information are not adequately analysed causing a delay in reaction. However, when information eventually add up and point towards a different trend, the sudden change of view often leads to an **overreaction** of market prices (Hilton, 2001).

5. Behavioural finance and investor relations

This chapter identifies links between BF and IR and demonstrates why BF can be a worthwhile topic for IR. Furthermore, possible IR activities are suggested in response to BF phenomena. Finally, research questions are derived from these considerations.

5.1 Links between BF and IR

As mentioned in chapter 3.3, IR aims at achieving a fair share price and low volatility. Traditional finance theory assumes that markets are efficient. Consequently, stock prices should be fair as they perfectly incorporate all relevant and available information. If this was the case, there would be no need for IR. However, it has become clear that stock prices are influenced by fundamental as well as psychological factors. This creates a discrepancy between the fair value of a share and its actual price. Therefore, IR is necessary to manage this discrepancy and to ensure an assessment of the company which is based on fundamental values (Drill and Hubmann, 2001; von Nitzsch et al., 2001). As BF deals with such before mentioned psychological factors and analyses the non-rational behaviour of individuals, it is a worthwhile topic for IR (von Nitzsch et al., 2001).
However, no explicit distinction has been made between the IR target groups. Thus, the question arises whether institutional investors who have been identified as IR's key accounts (chapter 3.5) are prone to irrational behaviour. As professionals they should be more experienced and therefore should be aware of possible fallacies in investment decisions. Nevertheless, different authors have

found evidence of irrational behaviour among professionals. Deter (2000) states that even though fund managers usually decide on rational criteria they are also subject to moods and emotions in the market. According to Dreman (2001) there is evidence that institutional investors do not make optimal investment decisions which means that they not act purely rationally. Furthermore, Shefrin (2000: 4) addresses all 'practitioners' and says that "they all share the same psychological traits". He explicitly mentions portfolio managers, investors, financial analysts and investment bankers among others to be covered by the term 'practitioners' (Shefrin, 2000). Additionally, Shleifer (2000) points out that professional money managers are themselves people and as such are liable to biases. Moreover, as institutional investors manage other people's money they are subject to even further distortions (Shleifer, 2000). Therefore, it can be concluded that institutional investors are liable to irrational behaviour.
Furthermore, Shefrin (2000: 6) points out, that the increase of institutional ownership and the concentration of equity "magnifies the possible market impact of mistakes made by a small group of people". He thus stresses the importance of paying attention to institutional investors' errors and fallacies.

In the previous chapter, several BF-phenomena have been introduced and consequences for the decision-making process of an individual have been outlined. These consequences may affect the IR goals – increasing share price and low volatility- positively or negatively. Therefore, it would be helpful for IR-managers to anticipate irrational behaviour of institutional investors, to discern possible positive from possible negative effects and to counteract the latter.

5.2 Possible IR activities in response to BF-phenomena

Literature mainly deals with BF as a theoretical issue or from the viewpoint of an individual investor to explore one's own irrational behaviour. However, not much thought has been given to the use of BF for IR yet.
In the following some exemplary suggestions are made as to how IR-managers could respond to anticipated biases and fallacies of institutional investors – provided that irrationalities are discernible for them.

Mental accounting can lead investors to focus on the performance of each investment separately instead of focusing on the performance of the whole portfolio. Thus they could overestimate the risk of an individual share. This could prevent them from buying shares of a company which appears to them to be risky. By bringing the aspect of diversification of a portfolio into the spotlight IR managers could help to create additional demand. Von Nitzsch et al. (2001) suggest that particularly companies whose businesses are anti-cyclical could stress that their shares can be used to partly offsets market risk.
Due to the **disposition effect** investors may close their winning positions early which could cause the share price to decrease – depending on the volume of shares sold. As the perception of gain is closely related to mental accounting and the setting of reference points, IR could stress target prices and thus distract from original buying prices. Again, IR could put forward the 'portfolio view' as well. Generally, investors who hold losing positions tend to hold on to these position in order to avoid the realisation of a loss. Von Nitzsch et al. (2001) suggest that there is nothing to do for IR in such a case as investors become liable to **selective perception** and therefore only perceive positive information for their investments. Thus, IR goals are positively affected. However, as institutional investors are restricted by investment guidelines they usually operate with stop-loss orders which should prevent them from holding on to 'losers' too long.
The **availability** or **retrievability heuristic** could cause investors to overrate current news about a company. Depending on the content of the news the company and its shares may be rated better

or worse compared to its fundamental value. However, the consequences of the availability heuristic combined with over-reaction may increase the volatility of the share price. IR could try to counteract **over-reaction** by setting news into wider context, thus reminding investors of past information which is still valid for the future and explaining the impact of the current news. For example, IR could offer a 'time-table' on the company web-site which contains important past information linked to current information showing the 'development' of the contents.

Being accountable to third parties, e.g. to individual investors, may tempt institutional investors to opt for that investment opportunity which is easiest to defend. This effect of accountability combined with **norm deviation** could prevent investors from investing in a company whose field of business and future prospects are difficult to explain and evaluate. In order to stimulate demand for its shares IR could offer clear background information on these issues and precise arguments in favour of an investment decision.

The **need for control** could have two consequences. As investors are **averse to ambiguity**, they may refrain from an investment if they do not understand the company's business and communication strategies. By giving 'tailor-made' information, IR could reduce investors' ambiguity and support new demand. Von Nitzsch et al. (2001) even advise companies to 'train' their investors to foster the understanding of the company's business, the influencing factors and problems which may arise in the market. As mentioned before, the **illusion of control** depends also on the information received. If investors believe that they know all influencing factors and therefore can assess the company's future position correctly, they could create additional demand. If their investment proves to be successful, they may become **overconfident** and increase demand even further.

However, it is important that all communications have to be within legal limits (von Nitzsch, 2001). Thus any information needs to be available for the whole financial community at the same time.

5.3 Research questions

The above mentioned IR activities are theoretical applications of BF knowledge only. Furthermore, they depend on the ability of IR managers to discern and anticipate institutional investors' biases and heuristics. Therefore, it would be interesting to investigate whether such BF considerations can be relevant for daily IR activities. This can be broken down into three main questions:

- Can IR managers identify characteristics of irrational behaviour of institutional investors as suggested by BF?
- Has the knowledge of BF been taken into consideration for daily IR activities yet – consciously or unconsciously?
- Which IR approaches are applied by IR managers and do they see scope for considering BF knowledge in their activities?

6. Survey

In order to find possible answers to the questions raised in chapter 5.3, a survey among IR managers was conducted. In the following chapters, the adopted method for primary research is explained firstly. Secondly, the posed questions are elaborated and put in context. Thirdly, the results of the survey are presented and finally, a critical review of the survey is performed.

6.1 Methodology

Preparation of survey
As the survey should be carried out among IR managers, an online questionnaire was regarded as the appropriate research instrument for three reasons:

- It is very convenient for IR-managers as it does not require any printing, copying, and postal mailing and its use is not bound to any specific time.
- It allows for a completely anonymous response as the mails containing the answers can not be ascribed to the sender.
- It does not impose restrictions to the sample size due to constraints in time or money.

Therefore, a reasonable response quote as well as a sufficient number of responses could be expected.
It was decided to directly address 200 companies. The focus was put on companies which were or had been listed in one of the top-indices of the Deutsche Börse (the German stock exchange): the DAX, the former M-DAX[3] and the former NEMAX50[4]. As these compa-

3) The composition and the size of the M-DAX has changed since the data was collected.

4) The NEMAX50 has been dissolved since the data was collected. It has been replaced by a new index, the Tec-DAX.

nies are in the spot-light of public attention, they seemed to be likely to commit more resources to IR issues than other companies. There were no restrictions to the sector or the size of the companies.
Relevant companies were identified by the index-list of the Deutsche Börse whereupon email-addresses of IR-managers were collected from the companies'web-sites. Furthermore, the Deutsche Investor Relations Kreis (the German investor relations association) offered to put a short notice into its monthly newsletter.
The questionnaire was formulated, programmed and repeatedly tested. It was embedded in a web-site which gave additional information on the issue of BF and the person conducting the survey. The questions covered the possible identification of BF phenomena, how IR managers use their instruments, a more general interpretation of IR and characteristics of the companies. The questions are outlined in chapter 6.2 in more detail.

Realisation of the survey
At the beginning of February 2003, 200 emails were sent out containing an introductory section and a link to the on-line questionnaire. As an incentive, companies were promised a report showing the results of the survey. 52 companies responded until the end of February. As the survey was conducted anonymously and responses could not be ascribed to the addressees of the first emails, no second emails were sent. At the end of February 2003, the Deutscher Investor Relations Kreis sent out its newsletter. Five more responses were received until the beginning of March 2003. This number of respondents is regarded as the number of addressees[5].
Overall, 57 companies responded to the questionnaire, a 28% response rate. 148 companies declined to answer. Five companies provided reasons for not answering the questions; these were time constraints, not being able to appropriately answer the posed questions and regarding the questions as to sensitive to be answered. Six companies indicated problems with accessing the questionnaire whereby the obstacles could be removed three times, three times the outcome remains unclear.

5) As respondents can not be identified and as the number of addressees of the newsletter is not precisely known to the author, no exact numbers can be given.

6.2 Questions of the Questionnaire

The main goal of the questionnaire was to get an overall view of whether BF knowledge can be used for IR activities in practise. Therefore, the questions are explorative and ask for qualitative data covering a rather wide range of phenomena. However, as most IR managers can not afford to spent much time on issues which are not primarily related to their tasks, the questionnaire was adjusted to require a maximum of 15 minutes. This imposed a limit to the number of questions which could be posed. For this reason, those phenomena were chosen which seemed to be most likely among institutional investors and at the same time cover all four 'areas' depicted in illustration 5 (chapter 4.3).
In the following section, the structure of the questionnaire is outlined and information is given referring to what each question aimed at (for the complete questionnaire, see Appendix I and II).

The questionnaire was divided into five parts. The first part contained nine questions covering the possible identification of BF phenomena. Questions about certain phenomena were linked to suggested incidents in order to make the answering easier. The questions were as follows:

1. In your estimation, how do institutional investors look at the performance and risks of their investments in your company?
   This question should indicate whether institutional investors use mental accounting to reduce complexity. The answer "focus on the individual share" was seen as an indicator for mental accounting as investors seemed to consider each investment separately. "Focus on the portfolio" or "both" were interpreted as signs that mental accounting could not be discerned.

2. Have you experienced a situation in which institutional investors focussed so much on a current release of news, so that the investors lost sight of past company news which were still relevant?

If respondents answered in the affirmative, this was regarded as a hint towards the retrievability (or availability) fallacy as this heuristic overvalues current information.

3. Have you been in a situation in which institutional investors have formed such a solid opinion about your company, so that they have not appropriately considered a new release of information? This question tackled the issue of anchoring and adjustment. Given answers were “yes” and “no”. “Yes” suggested that investors did not adjust their past estimates and assessments about a company to current information, thus, overrating their past opinions.

4. To what extent can you present your company to investors independently of any expectations for your company’s sector? The range of “easily possible” to “not possible” was used to hint at the validity of representativeness in the decision making process. The answers “not possible” or “hardly possible” pointed towards schematic thinking as the company sector’s prospects were transferred to the company without thorough adjustments.

5. Please think of a situation in which the share price of your company deteriorated strongly. How many institutional investors approached you? For how many institutional investors could you discern whether they thought of selling their shares? How many institutional investors sold their shares abruptly? These questions aimed at the existence of the disposition effect and investigated whether IR managers could anticipate their investors’ behaviour. A scale of rather wide percentages was given as answers could be only rough estimates. If investors seemed to sell their shares abruptly after a fall in prices, e.g. due to stop-loss orders, their behaviour was regarded as ‘rational’. If, however, investors seemed to hold onto their investments, this was interpreted as an inclination towards the disposition effect.

6. Please think of a conversation with institutional investors, which were right in the process of deciding whether to buy (or to sell) the shares of your company. A) How did reference points such as buying price, target price from analysts, maximum price of your share influence your investors’ decisions? B) To what extend do institutional investors base their decisions on own forecasts? Question A) investigated whether reference points such as buying price have any influence on the evaluation process of institutional investors. Question B) aimed at the overconfidence phenomenon which may arise when people overestimate their forecasting skills. Answers indicating that investors focused on their own forecasts suggested that investors were prone to overconfidence.

7. Do you think that it is more likely that investors buy shares of your company when you increase your time effort for investor relations activities? If responding companies answered in the affirmative, this suggested that investors were influenced by the amount of information they receive. Thus, they would be prone to the illusion of control.

8. Please think of conversations with different institutional investors that have taken place within a short time frame (e.g. at conferences) and think of analysts’ ratings. Do you have the impression that there is a tendency among institutional investor to adjust to each other’s opinion? This question should indicate whether institutional investors could be liable to group-think. A tendency that investors adjust their opinions suggests that they could be prone to it.

9. Please think of conversations with institutional investors in which questions were concerned such as “buy – not buy” or “sell – not sell” . If you compare these conversations with the investors’ decisions afterwards: Do you think that your institutional inves-

tors have been influenced by the fact that they have to answer for their decisions to third persons (boss, other investors)?
The answers "yes" or "no" should show whether the fact of being accountable to third parties could affect investors in their decisions.

Part one was ended by asking for any remarks or questions.

The second part of the questionnaire referred to the communication with institutional investors and tried to identify whether characteristics of BF phenomena have been considered already – directly or indirectly. Two questions were asked:

1. Is your choice of an appropriate IR-instrument for communicating news dependent on whether the context of the news is positive, neutral or negative?
   If the answer was "yes", the addressee was asked to assign those instruments which have been identified as important in chapter 3.7 to the content of the news they were used for. It was intended to investigate whether certain instruments were preferably used for a specific content of the news and whether any links could be found to characteristics of BF phenomena.

2. Please think of negative company news, which you needed to announce. In this case, did you intensify activities to be in touch with your institutional investors?
   For both answers, "yes" and "no", reasons for the decision were given and the addresses asked to mark the appropriate ones. It was aimed at investigating whether IR managers focus on rather 'traditional' IR goals only, such as exploring market opinion and creating transparency, or whether their form of communication was such that it was able to counteract consequences of 'irrational' behaviour, e.g. of framing, over-reaction, retrievability, the illusion of control, or ambiguity.

Part three of the questionnaire asked for the perception of the "IR

philosophy" and which IR approaches were regarded to be useful. Again, two questions were asked:

1. Which of these approaches (shareholder value, corporate governance, behavioural finance, blank space) do you use for your investor relations activities?

2. Do you think these approaches are sufficient for managing investor relations activities? If not, which aspects are not covered sufficiently yet?
   Both questions aimed at identifying whether IR managers see the need or scope to apply BF knowledge to their activities. Furthermore, probable weaknesses of today's applied IR approaches should be detected.

Part four asked for some company facts & figures to allow for looking into possible correlation between characteristics of companies and the perception of BF phenomena. The final part asked for further comments and offered to send the results of this survey.

6.3 Results of the survey

In the following sections, the results of the survey obtained from the questionnaire and supplemented by information obtained from emails and telephone conversations are presented. As the data is qualitative, no statistical tests are applied. The results are presented according to the following structure:

- Identification of BF phenomena by IR managers
- Consideration of BF with regard to IR activities
- Consideration of BF with regard to IR approaches
- Consideration of BF with regard to characteristics of the sample group
- Further comments

6.3.1 Identification of BF phenomena by IR managers

Retrievability (availability) fallacy
In answer to the question whether investors focused that much on current news that they lost sight of past information, 69% of the companies were affirmative and 32% were negative. Thus about two thirds of the quested companies recognised characteristics of the retrievability fallacy. As is shown in illustration 7, 33% companies noticed such a loss of sight less than five times within their last financial year, 18% marked a range from five to twelve times and 9% even noticed it more than twelve times. However, 9% of these companies did not specify their experiences numerically. These frequencies show that even though a substantial number of companies has experienced a negligence of past but valid information, it does not seem to happen very often.

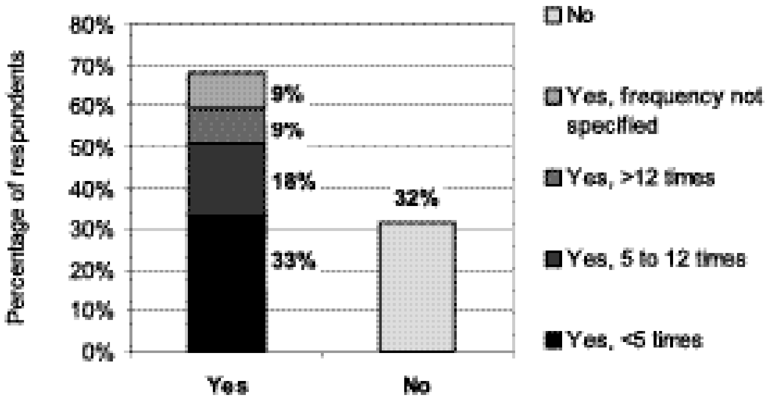


Illustration 7 – Ignorance of past news

Anchoring and adjustment
Respondents were quested whether they had experienced investors who had solid opinions to such an extend that they did not adequately consider current news of the companies. 68% of the respondents answered in the affirmative, 28% in the negative and

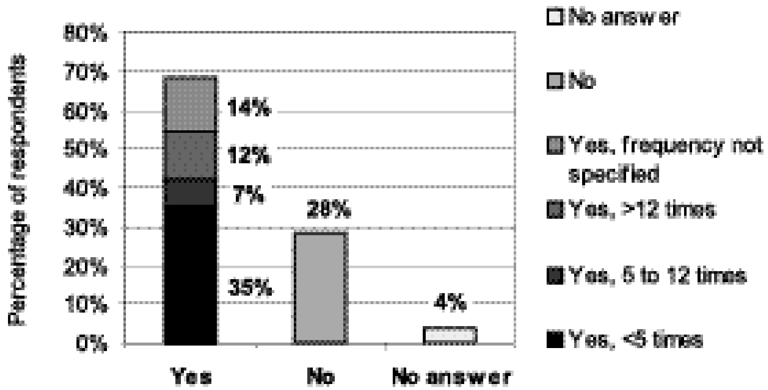


Illustration 8 – Ignorance of current news

4% declined to answer, as is shown in illustration 8. 51% of companies noticed such a insufficient adoption to new information less than five times within the last financial year, 10% noticed it five to twelve times and 18% even more than twelve times. 21% declined to specify the frequency. Again, this outcome indicates that clear hints of anchoring and adjustment can be seen in the decision making process of institutional investors. However, the frequency of these hints is not high, given that index-listed companies usually have several institutional investors.

Representativeness heuristic
IR managers were asked to what extend they could present their companies independently from the expectations for the companies' sectors. Illustration 9 shows the results of this question.
Of the respondents, 17% said it was easily possible, 43% found it possible, 32% rated it to be hardly possible and 3% answered it was not possible. 5% of companies declined to answer. 60% of the respondents did not see characteristics of the representativeness heuristic. However, 35% of companies found it difficult or impossible to overcome the expectations for the companies' sector. This indicates that institutional investors may not predominately be liable to the representativeness heuristic. However, the number of

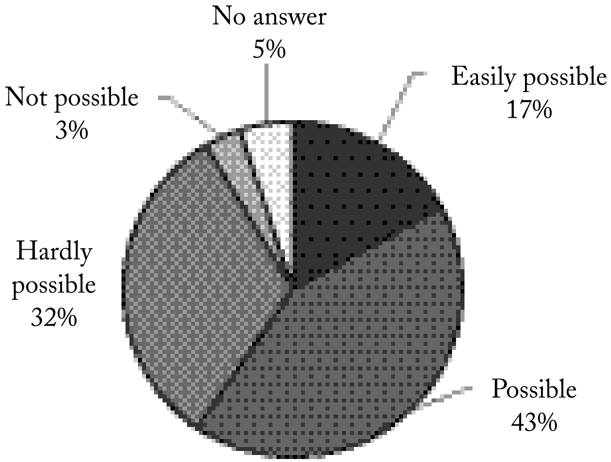


Illustration 9 – Dependency of company from industry sector

investors who may be prone to this heuristic should not be underestimated.

Reference points

IR-managers were asked to indicate the influence of reference points on investors' decisions to buy or sell shares. The outcomes are presented in table 3:

	Strong influence	Low influence	No influence	No answer
Buying price	58%	31%	2%	9%
Target price	16%	63%	11%	10%
Maximum price	11%	49%	28%	12%

Table 3 – Influence of reference points on decisions

The table shows, that the buying price of a share presents a reference point for most investors. 58% of IR-managers ascribed strong influence to the buying price, further 31% recognised at least low influence on investors' decisions. However, target price and maximum price seem to be reference points of minor influence, whereby by

28% of respondents could see no influence of the maximum price at all. Overall, 67% of respondents identified at least one of the three suggested reference points to have a strong influence on an investor's decision. This outcome indicates that institutional investors use reference points but the impact of the suggested alternatives – buying price, target price, maximum price – them differs remarkably.

Mental accounting

The respondents were asked to estimate whether institutional investors focus on the performance and risk of an individual share, a portfolio or both. As is shown in illustration 10, 58% of respondents observed a focus on the individual share, 14% noticed a focus on the whole portfolio and 26% saw a focus on both in about equal shares. 2% of participants declined to answer. These answers suggest a tendency of investors towards mental accounting as they seem to consider each investment separately.
Overall, 40% of IR managers identified characteristics of reference points and mental accounting. 61% of IR managers who recognised the use of reference points by investors also noticed characteristics of mental accounting. According to literature, mental accounting

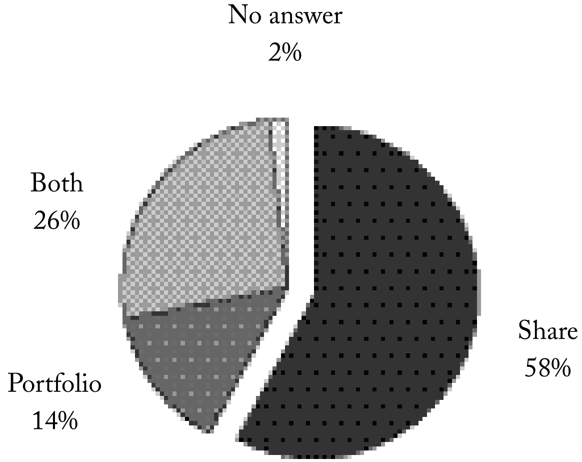


Illustration 10 – Investors focus on performance of share or portfolio is closely linked to the existence of reference points. Even though the survey shows that both are connected, the link is not as strong as could have been expected from literature.

Disposition effect
The sample group was quested, whether institutional investors, who were known to the IR managers, sold their shares abruptly after the share price of the company deteriorated strongly. The answers can be seen in illustration 11. 67% of the participants said that less than 10% of the institutional investors sold abruptly. 14% of the companies said, that 10% to 49% of investors sold abruptly, 5% of respondents identified 50% to 90% and 2% knew that more than 90% of its investors sold their shares abruptly. 14% of the participants declined to answer. Thus, a majority of participants recognised that more than 90% of their investors held on to their investments despite a steep fall in prices. These findings suggest that the disposition effect is common among institutional investors.
However, being asked whether they could discern that investors considered selling shares, 65% of the IR managers said that they could anticipate such considerations only for less than 10% of their investors. A further 23% of the companies could discern selling ambitions for less than 50% of their investors. These answers suggest that it is difficult for companies to assess their investors' intentions.

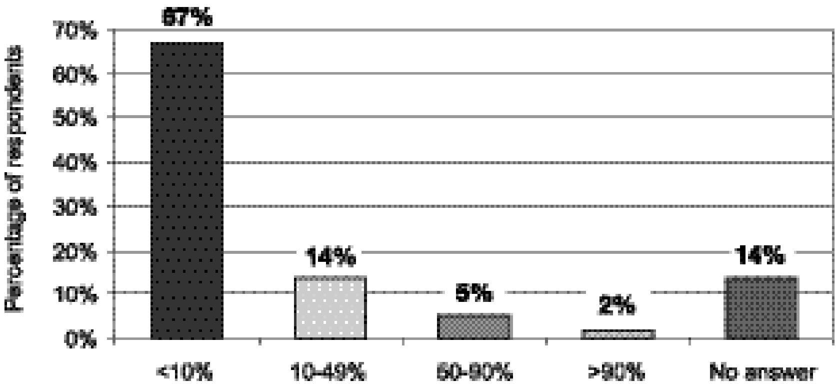


Illustration 11 – Selling of shares after strong price deterioration

According to literature the disposition effect is closely linked to mental accounting. Overall, 39% of the respondents identified characteristics of mental accounting and the disposition effect. 67% of those who recognised the use of mental accounting by investors also noticed characteristics of the disposition effect. Only 26% of the sample group saw characteristics of reference points, mental accounting and the disposition effect. Again, the outcome shows that the link between these phenomena can be identified but is not as strong as literature suggests.

Overconfidence
Respondents were asked whether institutional investors based their decisions mainly on own forecasts, forecasts of other persons or on both. Of the sample group, 30% noticed a focus on own forecasts, 4% saw a focus on other person's forecasts and 57% said focus was put on both. 9% of the companies declined to answer. This result suggests that only a few investors are prone to overconfidence as the majority of companies perceive investors to rely on own forecasts as well as others'.

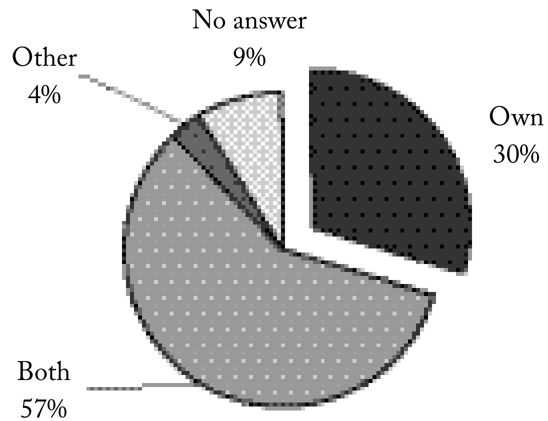


Illustration 12 – Investors focus on own or other persons' forecasts

Illusion of control

In answer to the question whether IR managers think that an increase in IR activities increases the likelihood that investors buy shares, 91% answered in the affirmative and 9% in the negative, as is shown in table 4. This outcome strongly suggests that institutional investors are influenced by the amount of information received and, thus, are liable to the illusion of control.

According to literature, overconfidence as well as the illusion of control are based on the need for control. 94% of those who were affirmative about overconfidence also saw signs of the illusion of control. However, overall only 28% of the respondents identified characteristics for both. Again, this finding is supportive but far weaker than expected from literature.

Increased likelihood of buying share due to more IR activities?	
Yes	91%
No	9%

Table 4 – Buying shares dependent on IR activities?

Group-think

Being asked whether investors tended to adjust their opinions to each other, 56% of the companies had the impression that investors tend to adjust their opinions to each other. 39% of the respondents did not see such a tendency and 5% declined to answer, as can be seen in table 5. According to these answers a majority of institutional investors seems to be liable to group-think.

Tendency of investors to adjust their opinions to each other	
Yes	56%
No	39%
No answer	5%

Table 5 – Tendency to adjust opinions?

Accountability fallacy

The companies were asked whether they had the impression that investors were influenced by the fact that they were accountable to third persons. The answers are shown in table 6. Of the respondents, 57% thought that investors were influenced by their accountability, 18% did not think so and 25% declined to answer. However, 7% of the companies said explicitly that they were not able to answer this question. Even though a rather high number of IR managers did not answer this question, most answers were affirmative. This finding suggests that the decisions of institutional investors are influenced by their accountability.

Influence of being accountable	
Yes	57%
No	18%
No answer	25%

Table 6 – Influence of being accountable

Additional comments of the respondents

Respondents were asked for any comments to the above covered questions.

Five IR managers pointed out that they found it very difficult to estimate their investors' behaviour as investors neither communicate their intentions nor act transparently. Therefore, these IR managers could not verify their judgements.

Three respondents mentioned that they could not or hardly retrace the selling and buying of shares since they were not involved in the decision making process of investors. Additionally, due to widely hold bearer shares, investors could not be clearly identified. One company said that it did not know its institutional investors. For this reason several questions could not be answered.

Two participants considered the set of given answers to be too narrow which restricted their answers.

One IR manager remarked that the criteria applied within the questionnaire still was very 'rational'. This manager had noticed some completely irrational and emotional decisions of investors.
Another respondent mentioned that the pressure on fund managers to justify their decisions has increased tremendously within the last year.

Overview of findings
Overall, IR managers recognised characteristics of eight out of ten phenomena.
The phenomena whose characteristics were noticed by a majority of respondents were: retrievability fallacy, anchoring and adjustment, reference points, mental accounting, disposition effect, illusion of control, group-think, and the accountability fallacy. However, the frequency of the retrievability fallacy and anchoring and adjustment seemed not to be high. Furthermore, links between mental accounting, reference points and the disposition effect were not as strong as literature suggested. The same was true for the illusion of control and overconfidence.
However, no clear signs were found for representativeness and for overconfidence.

6.3.2 Consideration of BF with regard to IR activities

The use of IR instruments
Participants were quested whether their choice of IR instruments for communicating news depended on whether the content of the news was positive, neutral or negative. Of the respondents, 31% answered in the affirmative, 67% in the negative and 2% declined to answer. Thus, about two thirds of IR managers do not seem to make any difference in the use of instruments.
Subsequently, those IR managers who were affirmative were asked to name the instruments which they preferably used for positive,

Choice of instrument dependent on content of news (positive / negative / neutral)?	
Yes	30%
No	68%
No answer	2%

Table 7 – Instruments dependent on news-content?

neutral, or negative news. The answers are presented in tables 8 and 9 and refer to a sample size of 18 companies.

[Sample size: 18]	For positive news	For neutral news	For negative news
Conference calls	67%	33%	83%
Financial presentations	72%	44%	67%
Web-site / homepage	78%	100%	78%
One-on-ones	89%	39%	72%
Press releases	83%	89%	78%
Road shows	89%	50%	67%
Other: Newsletter	6%	6%	6%
Other: Ad-hoc	6%	–	6%

Table 8 – Percentages of preferred instruments

For positive news	For neutral news	For negative news
1. One-on-ones (89%)	1. Web-site / homepage (100%)	1. Conference calls (83%)
1. Road shows (89%)	2. Press releases (89%)	2. Web-site / homepage (78%)
3. Press releases (83%)	3. Road shows (50%)	2. Press releases (78%)
4. Web-site / homepage (78%)	4. Financial presentations (44%)	4. One-on-ones (72%)
5. Financial presentations (72%)	5. One-on-ones (39%)	5. Financial presentations (67%)
6. Conference calls (67%)	6. Conference calls (33%)	5. Road shows (67%)
7. Other: Newsletter (6%)	7. Other: Newsletter (6%)	7. Other: Newsletter (6%)
7. Other: Ad-hoc (6%)	–	7. Other: Ad-hoc (6%)

Table 9 – Ranking of preferred instruments

The answers show that personal instruments are preferred for communicating positive news to institutional investors, i.e. one-on-ones and road-shows. Neutral news are mostly distributed via nonpersonal instruments which are cheap in use, i.e. company web-sites and press releases. Negative news is preferably communicated via instruments which can be used at short notice, i.e. conference calls, web-sites, and press-releases. Independently of the content of the news, the use of press releases and web-sites seems to be common.

These findings of how IR managers use IR instruments to communicate information could be due to the characteristics of the news, e.g. possible impact on share price or the risk of misinterpretations. Furthermore, legal obligations may explain the findings since IR has to inform the whole financial community at the same time, making instruments such as press releases very convenient. However, no strong links could be found to any of the behavioural finance phenomena mentioned above.

Communicating negative information
Companies were asked whether they intensified IR activities after releasing negative information. 82% of the respondents said they intensified activities, 14% answered not to do so and 4% declined to answer.

Intensify IR activities after negative news release?	
Yes	**82%**
No	14%
No answer	4%

Table 10 – Intensify IR activities after negative news release?

Subsequently the sample group was asked to give reasons for either of their answers. Illustration 13 shows the answers given by 47 IR managers who intensified their activities.

Asking for market opinion, for personal opinion and being available for questions related to the released news were named 51%, 57%,

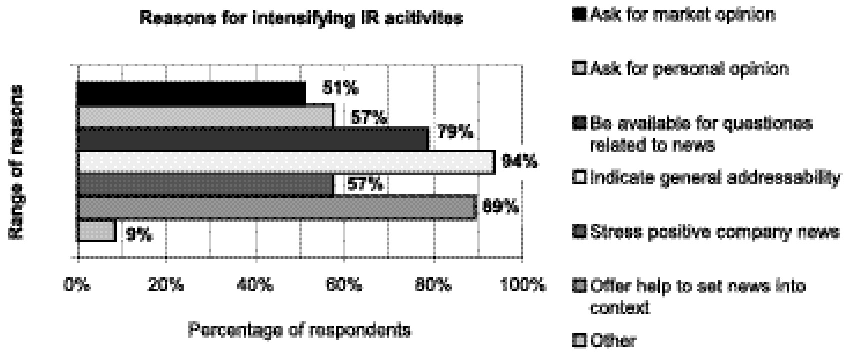


Illustration 13 – Reasons for intensifying IR activities after negative news

and 79%, respectively. These answers correspond with the 'traditional' IR goals as described in chapter 3.3. 94% of the respondents said they increased IR activities to indicate general addressability independently of the context of the news. This answer suggests that the majority of IR managers helps investors to reduce ambiguity and supports the possibility of the illusion of control. Stressing positive company news after releasing negative ones and offering help to set the news into the context of the company's situation were reasons for increasing IR activities for 57% and 89% of the sample group, respectively. These findings suggest that more than two thirds of the companies try to give investors appropriate frames to interpret the news which could reduce chances for retrievability. Furthermore, nearly half of the respondents seem to aim at reducing overreaction by creating a counterweight to the negative news.

Four IR managers (9%) gave further reason, these were:

- Meeting the demand for further information.
- Consequences for the company's future, transparency, candour.
- Get a feeling for the decisions of the investors.
- Addressability always improves the mood (of the market).

In the following illustration, reasons for not intensifying activities are presented. They refer to a sample size of 8 persons.

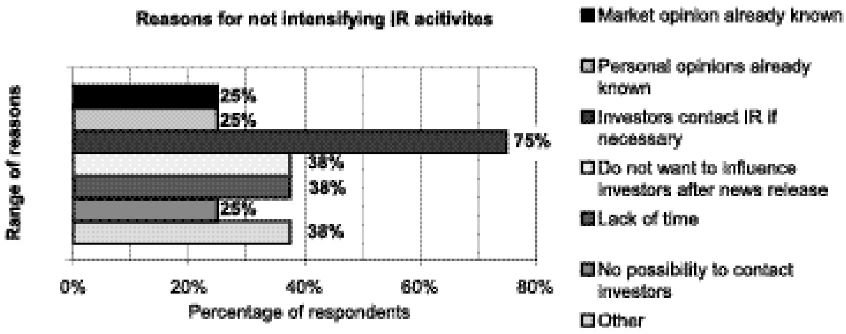


Illustration 14 – Reasons for not intensifying IR activities after negative news

25% of the companies already were aware of the market opinion and personal opinions and thus, did not intensify activities. Of the respondents, 75% said that investors contacted IR if they required additional information. Additionally, 38% of the IR managers did not want to influence investors. Furthermore, companies were hindered to intensify activities due to a lack of time (38%) or no possibility to contact investors (25%).
Three companies (38%) gave further reasons for not intensifying activities:

- CEO, CFO, and IR are always addressable after a publication has been made. There is no preferential treatment of any person.
- Contacts to investors are intense when necessary.
- What impression do investors get, if activities are increased after the release of negative news?

These figures suggest that most of the companies which do not intensify activities after the release of negative news did not actively counteract consequences of heuristics and biases.
However, only 14% of respondents, i.e. 8 companies out of 57, said not

to intensify activities. As they present only a small part of the sample group and their reasons are spread over seven different arguments, no numerically useful conclusions can be drawn from these answers.

Further findings
The findings that 82% of the respondents increased activities after negative news were announced is complementary to findings in context of the disposition effect. 79% of the companies were approached by less than 50% of their investors in the course of strong price deterioration. Of those companies, which were not approached by most of their investors after a steep fall in prices, 82% said to increase activities to contact investors after negative company news were announced. This outcome suggests that most IR managers seek contact to their investors after negative incidents, whereby about 70% emphasize activities which could counteract negative consequences of investors' heuristics and biases.
Furthermore, findings in the context of the illusion of control show that IR managers, who believe that investors are influenced by the time effort used for IR activities, contact their investors more frequently when they notice that these investors intend to buy or sell shares. Of 52 IR managers who recognised an influence of the amount of activities on investors' decisions, 44 managers contacted their investors more often if they noticed that investors intended to buy or sell shares. This outcome suggests that 77% percent of respondents notice characteristics of the illusion of control and respond to it by offering further information.

6.3.3 Consideration of BF with regard to IR approaches

Approaches used for IR activities
Companies were asked which approaches they applied for their activities. A choice of three catchwords was given: shareholder value (SV), corporate governance (GV), and behavioural finance (BF). Additionally, participants were asked for any further approaches. Of the

respondents, 91% apply the shareholder value approach, 63% take corporate governance into consideration, 18% take BF into account and 16% include other approaches in their activities. 4% of participants declined to answer. An overview is given in illustration 15.

Other IR approaches named by IR managers were:

- A pragmatic mixture of all aspects, no approach in particular.
- Transparency, fair disclosure.
- Sustainable value enhancement.
- Principles of the German investor relations association (Deutscher Investor Relations Kreis).
- Marketing (in the sense of market observation and market segmentation, not as public relations).
- Candour, clarity, transparency, quick reaction, equal treatment.
- Public opinion.
- Transparency, continuity, future potential, extension of shareholder base, candour, low volatility among others.
- Personal contact.
- Stakeholder value.

These findings correspond with literature suggesting shareholder value, value enhancement and low volatility as a primary IR goal and transparency, extension of shareholder base and (positive) public opinion as subordinate goals for IR. However, even though

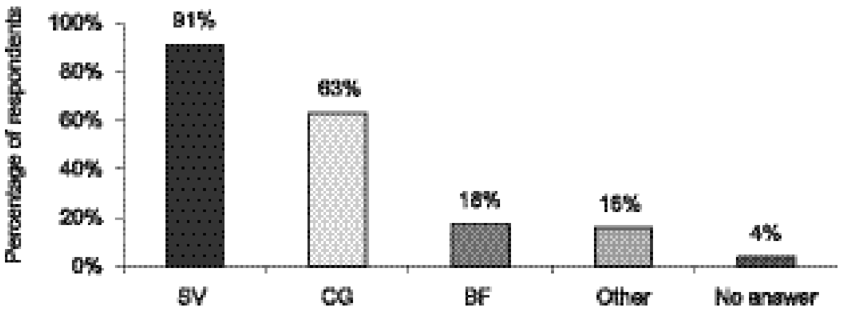


Illustration 15 – Applied IR approaches

Are IR approaches sufficient?	
Yes	68%
No	30%
No answer	2%

Table 11 – Efficiency of IR approaches

characteristics of BF phenomena seem to be recognised by IR managers as outlined above, this outcome suggests that BF is hardly incorporated in IR policy as an IR approach.

Sufficiency of IR approaches

IR managers were quested whether they regarded the above mentioned approaches (shareholder value, corporate governance, behavioural finance) as sufficient. Of the respondents, 68% answered in the affirmative, 30%in the negative, and 2% declined to answer which is shown in illustration 11.

These answers indicate that most companies are satisfied with available IR approaches. As the previous question has shown, most of the aspects named by respondents correspond with IR goals suggested by literature.

Subsequently, those companies which were not satisfied with the named IR approaches, were asked which aspects have not been sufficiently covered yet. The answers are presented in table 12 and refer to a sample size of 17 companies.

These answers show that those target groups which are widely suggested by literature –shareholders, analysts, multipliers– seem to be rather well covered by IR approaches, even though there is scope for improvement. However, there still seems to be a need for addressing other stakeholders more intensely, such as suppliers, customers, and staff.

Furthermore, alternative investment options seem to be neglected whereas companies which operate in the same sector and thus are competing for the same investors, are better covered.

Additionally, respondents still see some necessity to consider further

Insufficiently covered aspects	
Target groups	
82%	Suppliers
82%	Customers
76%	Staff
41%	Multipliers
35%	Analysts
24%	Shareholders
Interdependencies of information and behaviour	
59%	Group-dynamic processes
53%	Individual-orientated psychological aspects
'Competitors'	
71%	Alternative options for investments in all companies
47%	IR activities of companies in the same sector

Table 12 – Insufficiently covered aspects of IR approaches

aspects of psychology and behavioural science which influence individuals and groups. Of these respondents, 92% have not already considered BF as an approach for their IR activities. Thus, overall 39% of all participants either apply BF knowledge already or think that it is not sufficiently incorporated in daily IR activities yet. This outcome suggests that BF is recognised to be of some importance for IR activities.

6.3.4 Consideration of BF with regard to characteristics of the sample group

Characteristics of the sample group
In order to characterise the sample group, respondents were asked for their companies' current market capitalisation, the number of

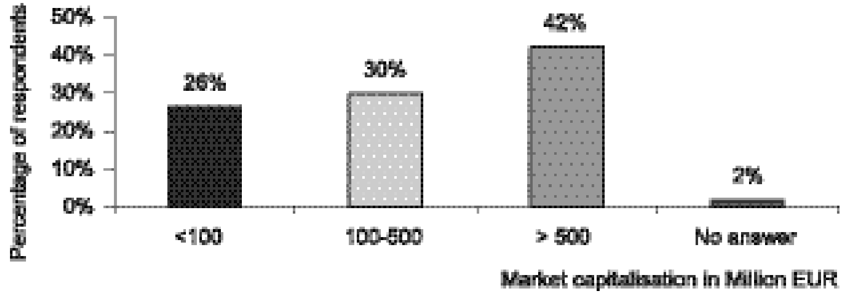


Illustration 16 – Market capitalisation of responding companies

employees in the IR department, and whether the companies belonged to the so-called 'old' or 'new' economy.

With regard to market capitalisation, companies were classified into three groups, as can be seen in illustration 16. Responding companies were spread rather evenly over the three classes, even though most companies had a market capitalisation of more than 500 million EUR.

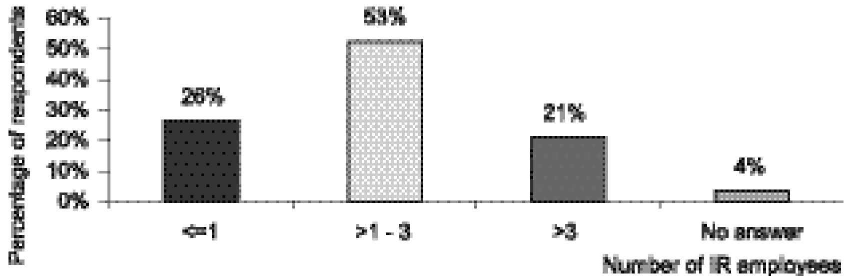


Illustration 17 – Number of IR employees

Furthermore, the sample group could be classified according to the number of employees working for IR. The majority of companies employ more than one, but a maximum of three persons in the IR department. The remaining companies are split almost evenly between 'one employee or less' and 'more than three employees', as is illustrated below.

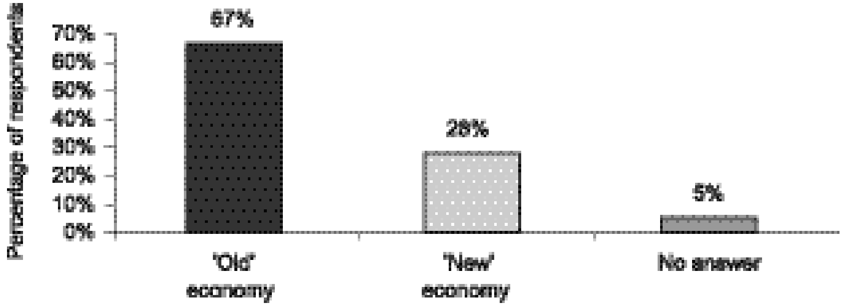


Illustration 18 – Classification 'old' or 'new' economy

Being asked whether their companies belonged to the so-called 'old' or 'new' economy, 67% of the IR managers assigned their companies' to the 'old' and 28% to the 'new economy, as is illustrated below. Thus, most responding companies have a market capitalisation above 500 million EUR, employ more than one and a maximum of three persons in IR and belong to the 'old' economy.
In the following, these classes are focused on separately with regard to findings of the survey.

Company characteristics and identification of BF phenomena
Overall, 68% of the participants recognised 60% or more of the characteristics of BF phenomena asked for in the questionnaire. 42% of the respondents identified 70% or more of these characteristics and 12% of the sample group noticed at least 80% of the characteristics, as shown in table 13. However, these 12% represent only 7 out of 57 companies. Thus, this figure could only be used as a very vague indicator for tendencies and is therefore left out in the following.

Percentage of BF characteristics which were recognised	60% or more	70% or more	80% or more
Percentage of companies which recognised characteristics	68%	42%	12%
Absolute number of companies	39	24	7

Table 13 – Percentage of BF characteristics recognised by companies

Table 14 shows the percentage of companies within each class of IR employees which noticed BF characteristics. However, no significant differences between the classes can be identified. This outcome suggests that the identification of BF characteristics shown by institutional investors are not correlated with the number of persons working for IR.

Percentage of BF characteristics which were recognised	60% or more	70% or more
... by companies with 1 or less IR employees	67%	40%
... by companies with more than 1 but maximally 3 IR empl.	70%	43%
... by companies with more than 3 IR employees	67%	42%

Table 14 – BF characteristics related to IR employee classes

Table 15 shows the percentage of companies within each economy class which noticed BF characteristics. The data suggests that companies of the 'new' economy recognise more characteristics of BF phenomena than companies of the 'old' economy. This finding could indicate that 'new' economy companies are either more sensitive to irrational behaviour of investors or are more often confronted with 'irrational' investors.

Percentage of BF characteristics which were recognised	60% or more	70% or more
... by 'new' economy companies	75%	75%
... by 'old' economy companies	71%	40%

Table 15 – BF characteristics related to the 'type' of economy

Regarding market capitalisation, data points towards companies with a market capitalisation of more than 500 million EUR as being the ones which recognise most BF characteristics. This finding could be due to the fact that these companies are more likely to meet with numerous different investors, who could be liable to biases and heuristics, than companies with a lower market capitalisation.

Percentage of BF characteristics which were recognised	80% or more	70% or more
... by companies with < 100 mil. EUR market capitalisation	67%	33%
... by companies with 100-500 mil. EUR market capitalisation	65%	41%
... by companies with > 500 mil. EUR market capitalisation	75%	50%

Table 16 – BF characteristics related to the market capitalisation

The data related to links between company characteristics and the identification of hints for 'irrational' behaviour suggest that companies operating in the 'old' economy, or having a market capitalisation of more than 500 million EUR, are more likely to recognise characteristics of BF than other companies. Furthermore, there seems to be no link between the number of IR employees and the identification of BF phenomena.

Company characteristics and consideration of BF for communication

The following data is related to findings that most IR managers intensify activities after negative company use was released. Table 17 shows the percentage of companies whose communication could counteract consequences of biases and heuristics in relation to the classes of the company characteristics.

Consideration of BF for communication	Percentage
By number of IR employees	
... companies with 1 or less IR employees	73%
... companies with more than 1 but maximally 3 IR employees	87%
... companies with more than 3 IR employees	92%
By 'type' of economy	
... 'new' economy	100%
... 'old' economy	79%
By market capitalisation	
... companies with < 100 mil. EUR market capitalisation	87%
... companies with 100-500 mil. EUR market capitalisation	82%
... companies with > 500 mil. EUR market capitalisation	86%

Table 17 – Consideration of BF for communication

The data suggests that companies with more than one IR employee more often communicate in a way which could counteract negative effects of investors' 'irrational' behaviour. This could be due to the fact that intense communication requires more personnel. Apparently, one IR manager cannot commit as much time to intense communication activities after a negative news release as two or more persons.
Regarding the 'type' of economy, it is remarkable that 100% of respondents whose companies were assigned to the 'new' economy used the form of communication outlined above. This outcome is complementary to the previous finding that these companies recognise BF characteristics more often than 'old' economy ones. Thus, this result suggests that 'new' economy companies not only recognise these characteristics but also take them into account for their IR activities.
In respect of market capitalisation, no significant differences between classes can be identified.
The data regarding links between company characteristics and the communication strategies suggests that companies with more than IR manager are likely to intensify communication counteracting negative effects of 'irrationalities'. Furthermore, it seems to confirm previous findings that companies of the 'new' economy are more sensitive to effects of BF than other companies.

Further comments of the respondents

In addition to the explicit questions, IR managers commented on the topicality of BF and on reasons for price movements.
One respondent mentioned that according to a survey, companies which were listed at the DAX or at the former Neuer Markt[6] were rather valued by their future prospects, whereas companies listed at the M-DAX were rather valued by their fundamental data. Thus, there was less scope for interpretations of BF with regard to companies listed in the M-DAX.
Another manager remarked that a big proportion of price movements seems to be due to the growing importance of hedge funds

6) The Neuer Markt (New Market) is a former segment of the German stock exchange

following short-term strategies. Thus, price movements were mainly not caused by a change in fundamental company values but rather by short-term views of hedge funds.
This view is partly supported by a further respondent who pointed out that BF became a topical issue within the last 18 months because people tried to understand what happened in the market, e.g. why hedge funds were successful. One reason why market prices often were not efficient was that hedge funds had only limited time for holding open positions. Even though this made BF an interesting topic, the question arose as to how BF knowledge can be applied in practise.

6.4 Critical review of the survey

This section gives an overview of the processing of the survey and points out possible limitations to the validity of the results.
The applied research method turned out to be appropriate to find satisfying answers to the raised research questions. A rather high response quote of 28% could be achieved. Respondents positively mentioned the manageability of the questionnaire and indicated interest in the topic. (56% of the participants asked for the results.) Furthermore, anonymity proved to be an important characteristic of the questionnaire. Several participants decided not to give a contact name or even declined to fill in company details. One company regarded the whole questionnaire as too sensitive to be answered. Overall, respondents were very supportive and 82% of the them answered within one week after the emails were sent.
However, as the survey was conducted via a questionnaire and covered a broad topic, the main problem was to develop standardised questions and predetermined answers which provided sufficient answers to the research questions. Additionally, most questions had to be asked indirectly for two reasons. First of all, it could not be assumed that all participants were familiar with – sometimes inconsistent – BF terminology. Secondly, some topics were very sensi-

tive and therefore were unlikely to be answered directly, such as a company's intention when using certain forms of communication tools. Thus, most questions were paraphrised and linked to past incidents. This, however, restricted people in their answers and might distort the findings.
Furthermore, the questionnaire had to be of a manageable size, as outlined in chapter 6.2. Hence, it was not possible to investigate the existence of BF phenomena among institutional investors in detail. Moreover, some two-stage questions evoked the problem that the sample size for the second questions was too small to draw conclusions from their answers, e.g. only 8 out of 57 companies did not intensify communicational effort after negative news were announced and their reasons were spread over seven different arguments. These limitations of the survey impose restrictions on the validity of the results.
Even though the findings of the survey are certainly not universally valid, the survey has provided interesting insight into how IR mangers perceive the behaviour of institutional investors. The results suggest, that institutional investors are prone to biases and heuristics and that companies are able to recognise characteristics of their investors' biases and heuristics. This seems to be a worthwhile topic for further in-depth research.

7. Summary and conclusion

This chapter summarises the findings of the secondary literature review and the primary research. Furthermore, conclusions are drawn from these findings and areas of further research are pointed out.

7.1 Findings from secondary literature review

The research objectives as given in chapter 2.1 have been examined by reviewing secondary literature. Characteristics of IR have been pointed out and it has been elucidated that aiming at a fair share price need not be contradictory to aiming at an increasing share price. Furthermore, IR target groups have been named and aspects indicating their importance for IR have been derived from literature. However, these findings have been non-uniform. Therefore, the concept of key account management has been applied and marketing criteria have been transferred to the financial context. Thus, institutional investors have been identified as the most important target group for IR. Subsequently, relevant instruments for regular communication with institutional investors have been identified and have been taken up by the questionnaire later on. Due to the fact that their use is not determined by legal requirements and that they are highly valued by institutional investors, the following instruments have been detected: financial presentations, one-on-ones, road-shows, conference calls, press releases, and company web-sites.

The basic ideas of BF have been introduced and consequences of human fallacies and sentiments on an investor's decision making process as well as on market prices have been outlined. It has been pointed out, that despite an on-going dispute between advocates of opposing finance theories evidence of irrational behaviour of investors has been found. The findings obtained from literature on IR and BF have provided the basis for identifying links between both topics. It has become clear that the necessity of IR is due to investors' irrationalities. Furthermore, literature has suggested that IR's key accounts, institutional investors, are liable to these irrationalities, despite their professionalism. It has been pointed out that consequences of such fallacies interfere with IR objectives. Subsequently, suggestions have been made as to how IR managers could respond to some of the effects of BF phenomena. However, these considerations have been of theoretical nature only. On this basis, the research questions have been formulated whose results are outlined below.

7.2 Findings from primary research

The results of the survey have shown that a majority of IR managers is able to identify characteristics of BF phenomena concerning their investors' behaviour. Overall, 68% of the respondents have recognised at least 60% of the characteristics asked for in the questionnaire. Even though some companies have pointed out that the assessment of their investors' behaviour is difficult, findings within the primary research have been relatively consistent. Furthermore, the outcome of the survey suggests that some of the aspects of BF are considered already by IR activities, such as illusion of control, ambiguity aversion, framing, retrievability and overreaction. In this context it is striking, that 77% of respondents have noticed signs of illusion of control and as a result increased their efforts to provide information when an investor indicated to buy or sell shares. However, BF knowledge seems to be considered mainly subconsciously as only 18% of the respondents have indicated that they actively incorporate BF in their IR approaches. Generally, the findings have shown that companies apply a mixture of IR approaches which correspond with IR goals as suggested by literature, such as shareholder value, sustainable value enhancement, low volatility, and transparency among others. Nevertheless, 30% of respondents have still seen the need to cover some aspects more extensively, e.g. other stakeholders, alternative investment options and further aspects of psychology and behavioural science. The latter suggests that IR managers who have not regarded BF for their activities so far, see scope for behavioural finance to be taken into account in the future.

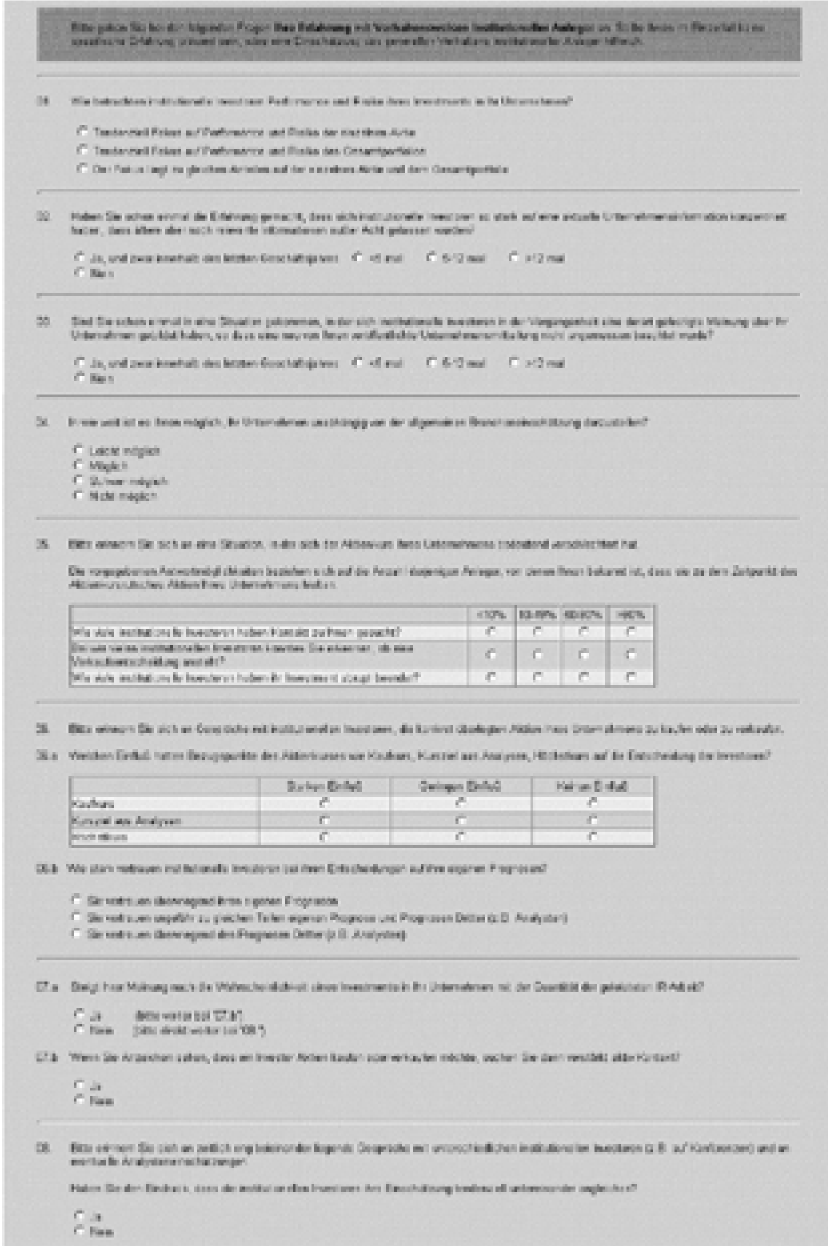
Generally, it has been an interesting outcome that companies of the so-called 'new' economy have recognised characteristics of irrational behaviour and furthermore responded accordingly more often than other companies. This may indicate that 'new economy companies' are either more sensitive to irrational behaviour of investors or are more often confronted with such. This outcome might be a worthwhile starting point for further research.

Furthermore, it is remarkable that a rather wide range of phenomena have been noticed but links between them, as suggested by literature, were less intense than expected.

Overall the primary research has shown that a majority of IR managers is able to identify characteristics of BF. However, discerning them in advance seems to be difficult and most companies do not explicitly incorporate BF knowledge in their IR approaches.

The conclusion is drawn that the knowledge of BF can provide additional value to companies as they gain a general understanding of their investors' fallacies. However, a 'guidance' of how to particularly apply this knowledge in detail cannot be provided by this research due to its broader based approach. Therefore, it might be interesting for further research to develop a scheme of behavioural characteristics which indicates specific fallacies.

Appendix I – Questionnaire



09. Wenn Sie an Gespräche mit institutionellen Anlegern zurückdenken, in denen es konkret um die Fragen „Kaufen – oder nicht" bzw. „Verkaufen – oder halten" ging und diese Gespräche mit den anschließenden Entscheidungen vergleichen: Haben Sie den Eindruck, dass die institutionellen Anleger dadurch beeinflusst wurden, dass sie ihre Entscheidung vor Dritten (Vorgesetzte oder Kapitalgeber) verantworten mussten?

- Ja, ihre Entscheidung wurde durch Verantwortung Dritten gegenüber beeinflusst
- Nein, ihre Entscheidung wurde nicht durch die Verantwortung Dritten gegenüber beeinflusst

10. Haben Sie Anmerkungen zu den vorangegangenen Fragen?

Die folgenden 2 Fragen beziehen sich auf **Ihre Kommunikation mit institutionellen Investoren**

11.a Machen Sie die Auswahl der IR-Instrumente davon abhängig, ob der Inhalt der Nachricht positiv, neutral oder negativ ist?

- Ja (bitte weiter bei "11.b")
- Nein (bitte direkt weiter bei "12.a")

11.b Welche IR-Instrumente setzen Sie bevorzugt bei institutionellen Investoren ein, wenn Sie

- Positive Nachrichten (z.B. Ergebnisverbesserung),
- Neutrale Nachrichten (z.B. Einladungen, Terminbekanntgaben) bzw.
- Negative Nachrichten (z.B. Ergebnisverschlechterung)

bekannt geben? (Mehrfachnennungen möglich)

	Für positive Nachrichten	Für neutrale Nachrichten	Für negative Nachrichten
Conference Calls	☐	☐	☐
Finanzpräsentationen	☐	☐	☐
Homepage	☐	☐	☐
One-on-ones	☐	☐	☐
Pressemitteilungen	☐	☐	☐
Roadshows	☐	☐	☐
Sonstige:	☐	☐	☐
Sonstige:	☐	☐	☐

Sonstige Anmerkungen:

12.a Bitte erinnern Sie sich an eine negative Unternehmensmeldung, die Sie bekannt geben mussten. Haben Sie daraufhin den Kontakt zu Ihren institutionellen Investoren verstärkt?

- Ja (bitte weiter bei "12.b")
- Nein (bitte weiter bei "12.c")

12.b Was haben Sie mit dem intensiveren Kontakt bezweckt? (Mehrfachnennungen möglich)

- ☐ Marktmeinung erfragen
- ☐ Persönliche Meinung der Investoren erfragen
- ☐ Für reine Sachfragen zur Unternehmensmeldung zur Verfügung stehen
- ☐ Präsenz und Ansprechbarkeit zeigen, unabhängig vom Sachverhalt der Unternehmensmeldung
- ☐ Augenmerk der Investoren (auch) auf positive Unternehmensmerkmale lenken (z.B. erfolgversprechend langfristige Strategie)
- ☐ Hilfestellung geben zur Einordnung der Meldung in die Gesamtsituation des Unternehmens
- ☐ Sonstiges, nämlich

12.c Warum haben Sie den Kontakt nicht intensiviert? (Mehrfachnennungen möglich)

- ☐ Marktmeinung war bereits aus anderen Quellen bekannt
- ☐ Persönliche Meinung war bereits aus früheren Gesprächen bekannt
- ☐ Institutionelle Investoren suchen von sich aus den Kontakt, wenn Gesprächsbedarf besteht
- ☐ Investoren sollen nach Bekanntgabe einer Unternehmensmeldung in keiner Weise von uns beeinflusst werden
- ☐ Zeitmangel
- ☐ Keine Kontaktmöglichkeit
- ☐ Sonstige, nämlich

Die folgenden 2 Fragen beziehen sich auf Ihre Einschätzung der **„Philosophie" von Investor Relations**

13. An welchen Ansätzen orientieren Sie sich bei Ihrer IR-Arbeit?

- ☐ Shareholder Value
- ☐ Corporate Governance
- ☐ Behavioral Finance
- ☐ Sonstige, und zwar

14.a Glauben Sie, dass diese Ansätze ausreichen, um die Aufgaben der IR zu bewältigen?

- Ja (bitte direkt weiter bei "15.")
- Nein (bitte weiter bei "14.b")

14.b Welche Bereiche / Aspekte werden nicht oder nur ungenügend erfasst? (Mehrfachnennungen möglich)

Zielgruppen:
- ☐ Aktionäre
- ☐ Analysten
- ☐ Multiplikatoren
- ☐ Mitarbeiter
- ☐ Kunden
- ☐ Lieferanten

Wechselwirkungen von Informationen / Verhalten:
- ☐ Individualpsychologische Aspekte
- ☐ Gruppendynamische Prozesse

„Wettbewerber":
- ☐ IR-Arbeit anderer Unternehmen der gleichen Branche
- ☐ Alternative Investitionsmöglichkeiten in allen anderen Unternehmen (außerhalb der Branche)

Sonstige:
- ☐
- ☐

Anmerkungen:

Bitte beantworten Sie abschließend noch 4 Fragen zu **Ihrem Unternehmen**.

15. Welche Marktkapitalisierung haben Sie zur Zeit?

- < 100 Mio. EUR
- 100 - 500 Mio. EUR
- >500 Mio. EUR

16. Welche Aktionärsstruktur (%-Angaben) haben Sie zur Zeit ungefähr?

Vorstand / Gründer	%
Mitarbeiter	%
Staat	%
Free float	%
• davon institutionelle Investoren	%
• davon private Investoren	%

17. Ist Ihr Unternehmen in der sogenannten "old" oder "new" economy angesiedelt?

- "Old economy"
- "New economy"

18. Wie viele Mitarbeiter sind bei Ihnen im Bereich IR beschäftigt?
Bitte geben Sie Teilzeitmitarbeiter in der Nachkommastelle mit z.B. 0,25 / 0,5 / 0,75 an.

, Mitarbeiter

Haben Sie weitere Anmerkungen oder Anregungen zum Thema Behavioral Finance und Investor Relations oder zum Fragebogen?

Wenn Sie an dem Ergebnis der Auswertung dieser Umfrage interessiert sind oder ich bei weitergehenden Fragen noch mal auf Sie zukommen darf, tragen Sie bitte Ihre Daten in die Felder ein und klicken die entsprechende Box an:

Email-Adresse

Name

- ☐ Bitte schicken Sie mir das Ergebnis der Auswertung zu
- ☐ Ja, ich stehe Ihnen gerne für weitere Fragen zur Verfügung

Absenden

Appendix II – Questionnaire, translated version

For answering the following questions please refer to *your experiences with institutional investors* and their decision making processes. If you can not revert to some particular experience of your own, please give an estimation to the question.

1. *In your estimation, how do institutional investors look at the performance and risks of their investments in your company?*

❑ They tend to focus on the performance and risk of an individual share
❑ They tend to focus on the performance and risk of their portfolio as a whole
❑ The focus in equal measure on the individual share and on their portfolio

---

2. *Have you experienced a situation in which institutional investors focussed so much on a current release of news, so that the investors lost sight of past company news which were still relevant?*

❑ yes
❑ no

If yes:
How often have you noticed such a "loss of sight" within the last financial year?

❑ <= 4 times
❑ 5-12 times
❑ > 12 times

---

3. *Have you been in a situation in which institutional investors have formed such a solid opinion about your company, so that they have not appropriately considered a new release of information?*

❑ yes
❑ no

If yes:
How often have you noticed such a "disproportionately solid opinion" within the last financial year?

❑ <= 4 times
❑ 5-12 times
❑ > 12 times

4. *To what extent can you present your company to investors independently of any expectations for your company's sector?*

❑ Easily possible ❑ possible ❑ hardly possible ❑ not possible

5. *Please think of a situation in which the share price of your company deteriorated strongly.*

The answers refer to the number of institutional investors which you know have invested in your company at that time.

How many institutional investors approached you?	<10%	10-49%	50-90%	>90%
For how many institutional investors could you discern whether they thought of selling their shares?				
How many institutional investors sold their shares abruptly?				

6. *Please think of a conversation with institutional investors, which were right in the process of deciding whether to buy (or to sell) the shares of your company.*

a) *How did reference points such as buying price, target price from analysts, maximum price of your share influence your investors' decisions?*

Buying price	Strong influence	Low influence	No influence
Target price from analysts Maximum price			

b) *To what extend do institutional investors base their decisions on own forecasts?*

❑ They trust mainly own forecasts
❑ They trust own forecasts and forecasts of other persons (e.g. analysts) to approximately the same extend
❑ The trust mainly forecasts of other persons (e.g. analysts)

---

7. *Do you think that it is more likely that investors buy shares of your company when you increase your time effort for investor relations activities?*
❑ yes ❑ no

If yes:
If you notice that an investor intends to buy or sell shares, do you contact him more often than usually?
❑ yes ❑ no

8. *Please think of conversations with different institutional investors that have taken place within a short time frame (e.g. at conferences) and think of analysts' ratings.*
Do you have the impression that there is a tendency among institutional investor to adjust to each other's opinion?
❑ yes ❑ no

---

9. *Please think of conversations with institutional investors in which questions were concerned such as "buy – not buy" or "sell – not sell". If you compare these conversations with the investors' decisions afterwards: Do you think that your institutional investors have been influenced by the fact that they have to answer for their decisions to third persons (boss, other investors)?*
❑ Yes, their decision have been influenced by the fact that they have to answer for their decision to third persons
❑ No, their decision have not been influenced by the fact that they have to answer for their decision to third persons

---

10. Remarks: [Text]

....

The following questions refer to your communication with institutional investors.

11. *Is your choice of an appropriate IR-instrument for communicating news dependent on whether the content of the news is positive, neutral or negative?*
❑ yes ❑ no

If yes:
Which IR-instruments do you preferably use if you communicate
- *Positive news (e.g. increased profit),*
- *Neutral news (e.g. invitations, IR calendar) or*
- *Negative news (e.g. decreased profit)*

to institutional investors? [multiple choice]

Conference calls	For positive news	For neutral news	For negative news
Financial presentations			
Homepage			
One-on-ones			
Press releases			
Road shows			
Other:			
Other:			
Other:			

Further remarks: [Text]

12. *Please think of a* ***negative*** *company news, which you needed to announce. In this case, did you intensify activities to be in touch with your institutional investors?*

❑ yes (→ continue with a))
❑ no (→ continue with b))

a) **If yes:**
What did you aim at by intensifying your activities?

❑ Ask for the opinion of the market
❑ Ask for the personal opinion of the investors
❑ Be available for any questions concerning the released news
❑ Indicate your addressability, independently of the context of the released news
❑ Stress **positive** company news (e.g. promising long-term strategy)
❑ Offer help to set the latest company news into the context of the current situation of the company
❑ Other, namely [Text]

b) **If no:**
Why did you not intensify your activities?

❑ The opinion of the market was already known
❑ The personal opinions of the investors were already known due to earlier conversations
❑ Institutional investors contact us themselves if they require further information
❑ We do not want to influence investors in any way after releasing company news
❑ Lack of time
❑ No possibility to contact investors
❑ Other, namely [Text]

The following questions refer to your perception of the *"philosophy" of investor relations*.

13. *Which of these approaches do you use for your investor relations activities?*

❑ Shareholder Value
❑ Corporate Governance
❑ Behavioural Finance
❑ Other, namely [Text]

14. *Do you think these approaches are sufficient for managing investor relations activities?*

❑ yes ❑ no

If no:
Which aspects are not covered sufficiently yet?

Target groups:

❑ Shareholders
❑ Analysts
❑ Multipliers (e.g. journalists)
❑ Staff
❑ Customers
❑ Suppliers

Interdependencies of information / behaviour

❑ Individual-orientated psychological aspects
❑ Group-dynamic processes

"Competitors"

❑ Investor relations activities of companies within the same sector
❑ Alternative options for investments in all other companies (outside your sector)

Others

❑ Others, namely [Text]
❑ Others, namely [Text]
❑ Others, namely [Text]

Further remarks [Text]

Please, answer a few question with regard to *your company*.

15. *What is your company's current market capitalisation?*

❑ < 100 Mio EUR
❑ 100-500 Mio EUR
❑ > 500 Mio EUR

16. *What is your current shareholder structure (in per cent?)*

❑ Board of directors / founders
❑ Employees
❑ Government
❑ Free float: ❑ Institutional Investors
❑ Private Investors

17. *Does your company belong to the so-called ‚old' or ‚new' economy?*
❏ old economy
❏ new economy

18. *How many employees work for Investor Relations at your company?*
Please indicate part-time employees through the position after decimal point (e.g. 0.25 / 0.5 / 0.75) [Text]

....

Do you have any further remarks or tips concerning the topic of Behavioural Finance and Investor Relations or concerning this questionnaire? [Text]

....

If you would like to receive the result of this questionnaire or if you are willing to answer further questions, please leave your name and email address and click the appropriate box.

Email address: [Text] ....
Name: [Text] ....

❏ Please, send me the result of this questionnaire
❏ Yes, you can contact me for further questions

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Stichwortverzeichnis

Über den Autor

SONJA LEISE, Jahrgang 1975, verbrachte nach dem Abitur ein Jahr in Kanada bevor sie eine zweijährige Ausbildung zu Bankkauffrau erfolgreich absolvierte. Von 1999 bis 2003 studierte sie Betriebswirtschaftslehre und Business Studies an der Fachhochschule Aachen und der Coventry University, Großbritannien. Während ihres Hauptstudiums arbeitete sie 14 Monate als Mitarbeiterin Investor Relations bei der Parsytec AG, Aachen. Seit November 2003 ist sie im Bereich Financial Services bei PricewaterhouseCoopers tätig.

Das vorliegende Buch entstand im Rahmen ihrer Abschlussprüfungen zur Diplomkauffrau (FH) und zum Bachelor of Arts in Business Studies und wurde mit „sehr gut" (1,0) bewertet. Darüber hinaus erhielt Frau Leise für ihre Studienleistungen die Ehrenplakette der Fachhochschule Aachen.

Deutscher Investor Relations Kreis

DIRK-Profil

Wer wir sind

Der Deutscher Investor Relations Kreis (DIRK) wurde Ende 1994 als Verein gegründet nachdem sich Anfang der 90er Jahre bereits eine informelle Gesprächsrunde von Investor-Relations-Beauftragten einiger deutscher Großunternehmen gebildet hatte, die sich einem rapide steigenden Informationsbedarf vor allem internationaler Analysten und institutioneller Investoren gegenübersahen. Mittlerweile zählen mehr als 200 Unternehmen zu unseren Mitgliedern, darunter sämtliche im DAX vertretenen Aktiengesellschaften sowie fast alle im MDAX gelistete Unternehmen.

Was wir wollen

Als unabhängige Organisation steht für den DIRK neben der kontinuierlichen Weiterentwicklung der Investor Relations in Deutschland vor allem das Interesse seiner Mitgliedsunternehmen an funktionsfähigen Kapitalmärkten, an ihrer Effizienz und Transparenz im Mittelpunkt der Vereinsaktivitäten.

Was wir tun

Als Sprachrohr der Investor-Relations-Beauftragten vertreten wir die Interessen unserer Mitglieder aktiv im Dialog mit allen Vereinigungen und Institutionen des Kapitalmarkts, der Politik und der Öffentlichkeit. Unseren Mitgliedern bieten wir aktive fachliche Unterstützung und fördern den regelmäßigen Austausch untereinander sowie mit Investor-Relations-Fachleuten aus aller Welt. Darüber hinaus setzen wir uns für die professionelle Aus- und Weiterbildung des Investor-Relations-Nachwuchses in Deutschland ein.

Wie wir zu erreichen sind

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Was wir bieten

- Jährliche DIRK-Konferenz mit Top Keynote Sprechern, Panels, Workshops, Ausstellung, IR-Preisverleihung und Gala Dinner
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- CIRO – Certified Investor Relations Officer: Erster und einziger funktionsspezifischer Studiengang für IR-Mitarbeiter
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C·I·R·O

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CIRO-Profil

Vor dem Hintergrund der ständig steigenden Anforderungen seitens des Kapitalmarktes wird eine alle Aspekte der IR-Arbeit umfassende Weiterbildung bereits seit längerer Zeit gefordert. Der DIRK hat sich dieser Aufgabe angenommen und bietet mit dem CIRO (Certified Investor Relations Officer) ein umfassendes **funktionsspezifisches Weiterbildungsprogramm** an.

Das Studium ist **modular** aufgebaut und deckt in fünf aufeinander abgestimmten Teilen vor allem die Breite und Vielschichtigkeit der Aufgaben eines IR-Managers ab. Unter der Devise „**IR von A bis Z**“ werden Zusammenhänge zwischen den einzelnen Themengebieten vermittelt.

Die Wissens- und Stoffvermittlung erfolgt in Form von drei sich ergänzenden Lehrmethoden. Das Selbststudium mittels **Studienbriefen** wird unterstützt durch **Online-Tutoring**. Abgerundet wird jedes Modul durch eine zweitägige **Präsenzveranstaltung**, wobei diese nicht lediglich dem Wiederholen der Studienbriefinhalte, sondern insbesondere auch der Vertiefung und interaktiven Erarbeitung von besonders wichtigen Themengebieten dient.

Der vollständige CIRO-Studiengang dauert **6 Monate** und kann **berufsbegleitend** absolviert werden, wobei die Kombination von „learning on the job“ und praxisbezogenem theoretischen Lernstoff in idealer Weise geeignet ist, die Breite des für erfolgreiche IR-Arbeit notwendigen Wissens direkt umsetzbar zu vermitteln.

Erfolgreich beendet wird der Studiengang seitens der Teilnehmer mit dem Bestehen einer anspruchsvollen schriftlichen und mündlichen **Prüfung** und darauf folgender **CIRO-Zertifizierung**.

Ziel des Deutscher Investor Relations Kreis ist, mit dieser Zertifizierung einen Standard im Bereich der IR-Weiterbildung zu setzen.

Weitere Informationen unter **www.DIRK.org/sw1659.asp.**