Junior Management Science

The Effect of Perceived CEO Overconfidence on Consumers' Product and Brand Evaluations

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Abstract

This research examines the impact of CEO overconfidence as a mediator of consumer attitudes towards products and brands as well as its influence on perceived brand personality. The results of the study show that revealed verbally communicated overconfidence leads to lower ratings of the product, a lower general attitude towards the brand, lower trust in the brand and lower ratings of descriptiveness regarding the brand personality trait competence. The negative impact of CEO overconfidence is most influential on the participants' trust in the brand. The study additionally observed participants' evaluations of perceived CEO overconfidence and their brand attitudes regarding well-known brands. The results show that participants' general attitude towards a brand and trust in a brand were lower when they perceived the CEO as more overconfident. The insights gained through this study have important implications for the literature on the impact of overconfidence on an individual's status and the literature on CEO endorsement. Additionally, this research can act as a guidance for CEOs and executives on how his or her trait of overconfidence affects consumers' and how the company's performance may be affected by this relationship.

Keywords: Overconfidence; leadership; consumer; perception; brand.

1. Introduction

In the literature, the various negative and positive consequences that CEO overconfidence may have for companies have been extensively studied. For example, research has found that overconfident CEOs destroy value as they overestimate the returns their investments can generate (Heaton, 2002). On the other hand, overconfident CEOs create greater employee and supplier commitment (Phua et al., 2018). However, an aspect that has not been thoroughly examined is the relationship between CEO overconfidence and consumer attitudes. This gap in the literature was a significant motivating factor for the current research.

1.1. Background

Elon Musk is an example of a CEO which some may classify as overconfident. He is the co-founder and CEO of Tesla and SpaceX and is known for setting, and in part reaching, radical goals. One example which reflects his extreme level of confidence is his compensation plan at Tesla (Edmans, 2018). It equals other executives' compensation plans in that the payout is linked to the achievement of specific performance targets. However, the targets of Musk's compensation plan

are set at very high levels. For Musk to receive his payout the market value of Tesla must reach $100 billion. Further targets are set at $150 billion, continuing up to $650 billion. This may seem very ambitious if not even overconfident as the current market valuation is at around $45 billion (Bloomberg, 2019). hus, the high targets in Musk's compensation plan implicitly underline his high level of confidence in his personal and his company's ability to succeed.

Elon Musk's overconfidence can be observed even more explicitly in his public statements and the publications of the company's performance goals. For example, in 2018 Musk admitted that one cause for issues in the production process of Tesla's cars was that they had become too confident in their ability to produce batteries (Thompson, 2018). Also, SpaceX had announced the goal to make the first trial flight with an in-cabin crew using one of their spacecrafts this summer (Dunn, 2019). However, a recent accident which occurred during a crew-less test flight has delayed this milestone to an unknown time in the future.

Will it affect consumer attitudes towards Tesla's cars if Elon Musk is overly confident about the timeframe in which he will make private spaceflight possible? My research is con-

cerned with how CEO overconfidence impacts consumer attitudes towards products and the brand of a company. I have thoroughly explored this topic using the existing literature on overconfidence and consumer attitudes as a starting point and extending the previous findings in literature with an empirical study concerning the impact of CEO overconfidence on consumer attitudes.

1.2. Outline

First, I will give a general overview of the different types and categories of overconfidence and I will elaborate on the different possible causes of overconfidence that are discussed in the literature. Then I will frame this information specifically in a management context to show why the overconfidence bias especially affects managers and how managerial overconfidence has been shown to impact businesses financial results as well as relationships with stakeholders. In section four I will review literature that explores the psychological processes by which CEO personality traits such as overconfidence influence consumer attitudes. Lastly, I will discuss the concept of consumer attitudes, specifically brand trust, and how these affect consumer's decisions and behavior towards brands.

Following the review of relevant literature, I will introduce the study which I conducted to explore the impact of CEO overconfidence on consumer attitudes empirically. The research was designed to explore the central hypothesis that verbally communicated CEO overconfidence would negatively affect consumer's attitudes towards products and the brand of a company. As the study consisted of two main parts, I will present the method, results, and discussion of the results separately. For both parts, I will discuss the essential findings and frame them in the context of the relevant literature. I will explore what meanings the two parts of the study have for each other and how their findings are related. To conclude my research, I will examine the implications the findings have for the previous and future literature related to the relationship of CEO overconfidence and consumer attitudes. Finally, I will discuss the implications the study holds for CEOs and executives today.

2. Overconfidence

In 1995, De Bondt and Thaler said that "Perhaps the most robust finding in the psychology of judgment is that people are overconfident" (De Bondt and Thaler, 1995, p. 389). The overconfidence bias has been thoroughly explored in literature, and the scope of application and the consequences of overconfidence are far-reaching. As I aim to observe the impact of CEO overconfidence on consumer attitudes, I will narrow my view to a specific type of overconfidence.

2.1. Concept of Overconfidence

In literature, it is common to differentiate between three types of overconfidence (Moore and Healy, 2008) and more recently the distinction between verbally and non-verbally

communicated overconfidence has been introduced (Tenney et al., 2019). A specific context in which overconfidence finds a critical application is the field of managerial overconfidence. In the following, I will give a general overview of the different definitions of overconfidence and explore the specific field of managerial overconfidence. These distinctions play an essential role in the design of the current study which explores the impact of exposed CEO overconfidence on consumers.

2.1.1. Overestimation, Overplacement, Overprecision

Overconfidence is described as an incorrect, overly positive estimation regarding personal ability and knowledge (Moore and Healy, 2008). This broad description applies to a variety of cognitive processes. According to Moore and Healy (2008) it is useful to distinguish between three types of overconfidence: overestimation of one's actual performance, overplacement of one's performance relative to others, and excessive certainty regarding the precision of one's beliefs. Moore and Healy (2008) define overestimation as an "overestimation of one's actual ability, performance, level of control, or chance of success" (p. 502). Most studies are concerned with this type of overconfidence. One Example of such a study showed that college students overestimated the starting salary that they were going to earn after graduation and their performance on exams (Shepperd et al., 1996). Overplacement occurs when people believe that they are more skilled than others. It is related to the "better-than-average" effect which describes people's belief that they perform above average on different social or intellectual tasks (Burson et al., 2006). One example of overplacement is a study by Klein and Kunda (1993) in which they gave one group of participants the information of how often people on average engage in specific health-threatening behavior and the second group did not receive this information. Then, they asked participants how often they engaged in these types of behaviors. The participants from the group which had received the information about the peer's average frequency of specific behavior indicated that they engaged less frequently in these types of behaviors. The other group that had no averages to compare their evaluation to, indicated a higher engagement in those behaviors. Lastly, Moore and Healy (2008) define overprecision as excessive certainty regarding the accuracy of one's beliefs. When examining overprecision participant are usually asked to complete questions with quantifiable answers and to give confidence intervals around their statement.

Differentiating between these different types of overconfidence is important for several reasons. Firstly, there may be inconsistencies between the different types of overconfidence which can lead to inconsistencies in interpretation (Moore and Healy, 2008). For example, participants may show a high level of underestimation, but at the same time a high level of overplacement when asked to estimate performance on easy tasks. This phenomenon occurs as when tasks are easy, people will underestimate their performance, but underestimate others performance even more, and therefore believe

that they are better than others (Moore and Small, 2007). Secondly, different types of overestimation apply in different situations (Moore and Healy, 2008). As a consequence, in certain situations, it may be more appropriate to observe one type of overconfidence over another. In my study, I choose to focus on the overconfidence type of overestimation.

2.1.2. Verbally and Non-Verbally Expressed Overconfidence

A study by Tenney et al. (2019) differentiates between verbally and non-verbally expressed overconfidence. According to this research people's perception of the overconfident person depends on the channel by which overconfidence is expressed. The study finds that non-verbally expressed overconfidence yields reputational benefits over verbally expressed confidence. The results showed that if one member of a group either verbally stated their confidence about their ability to succeed at a task or just acted very confident about their ability to succeed they were awarded a higher status in the group. However, when it was revealed that the person's actual performance was worse than their previous level of confidence suggested the ones who had made the verbal statement received a lower social status while those who had non-verbally communicated their overconfidence did not receive a social punishment in the form of lower status. Thus, the differentiation between verbal and non-verbal expression of overconfidence has important implications for the research on the consequences of managerial overconfidence. It suggests that the channel by which a CEO or executive communicates overconfident statements will impact how stakeholders evaluate the manager's level of competence if their overconfidence is revealed.

Most research on CEO overconfidence uses an overconfidence measure which was first introduced by Malmendier and Tate (2005) that is based on the observation of the CEOs behavior regarding the holding and exercising of his or her company stock options. This portfolio-based measure of overconfidence considers the amount of in the money stock options the CEO holds. As the compensation of CEOs often includes a large number of stocks and option grants, CEOs are naturally in a situation where their personal portfolio is under-diversified, and they are exposed to a large amount of company-specific risk. Therefore, it would be rational to increase diversification by exercising these stock options. However, an overconfident CEO will overestimate the future performance and valuation of the company and thus will irrationally choose a higher risk exposure by holding options for longer. Following this logic, an overconfident CEO is identified if he or she exercises the options within one year of expiration and if the options were in the money to a certain degree one year before the expiration date. This measure does not take the CEO's channel of expression into account by which they communicate overconfidence to others. Therefore, to gain full insights into the reputational and social effects of CEO overconfidence the measure by Malmendier and Tate is not appropriate. Here a method that takes the difference between verbally and non-verbally communicated overconfidence into account should be used.

2.2. Reasons for the Persistence of Overconfidence

Individuals who are overconfident struggle to make correct self-evaluations and cannot correctly assess the outcomes of certain actions as they misperceive their abilities or how their abilities compare to those of others (Anderson et al., 2012b). Thus, they may make decisions that are suboptimal or even harmful. Still, the bias has persisted in the behavior of humans. Research explains that possible reasons for the persistence of overconfidence are psychological and social advantages which result from overconfidence.

2.2.1. Psychological Benefits

In literature, many examples of psychological benefits from confidence have been explored. As a consequence of overconfidence, people have a biased-self view which occurs in the form of a self-serving bias (Anderson et al., 2012b). This bias causes people to have altering perceptions of causality so that they attribute the cause of their success to their abilities while they blame failures on external factors (Miller and Ross, 1975). The bias is universal and affects most age groups (Mezulis et al., 2004). The self-serving bias has proven to yield psychological benefits in the form of improved mental health, for example, lower levels of depression (Kuiper, 1978). Another example of consequences of the bias is found in an experiment by Alicke (1985) in which he asked students to rate how various traits characterized themselves and to which degree they applied to the average college student. He found that the students rated themselves above average regarding traits which they considered highly desirable. The opposite was true for traits of low desirability. Alike explained that the high degree of confidence enables the maintenance of a positive self-concept and leads to high self-esteem.

Another manifestation of overconfidence is the illusion of control bias which describes the phenomenon that people tend to overestimate their personal ability to influence future events while they underestimate the impact of chance on a situation's outcome (Langer, 1975). When exploring this phenomenon, Langer found that even in situations where the outcome depended on chance, such as a lottery, people behaved as if they had personal control in determining the outcome. Taylor and Brown (1988) summarize findings from literature which show that people with strong positive illusions of control have a stronger motivation to succeed and longer persistence when working on tasks.

2.2.2. Social Benefits

Besides personal psychological benefits, overconfidence can also yield social benefits. Anderson et al. (2012b) conducted a study concerning the status-enhancing effect of overconfidence and explored the hypothesis that overconfidence could increase a person's social status. The authors based their theory on the observation that overconfident individuals are perceived as more competent by their peers even if they lack the ability to justify their level of confidence. This bias is the consequence of competence not being a visible trait

or behavior which people can easily assess. Therefore, individuals rely on observing specific patterns of behavior, also known as competence cues, to judge a person's competence (Anderson and Kidluff, 2009). One example of such a cue is speaking in a fluent and assertive manner (Reynolds and Gifford, 2001). Research suggests that individuals who think highly of themselves, such as an overconfident person, show these types of behavior more often and thus are evaluated by peers as more competent (Baumeister, 1982). During the study by Anderson et al. (2012b), participants had to give a self-evaluation regarding how they expected to perform on a particular task. Afterwards, they had to complete the task on their own, so that it became apparent whether they had accurately estimated their ability or whether they had been overconfident. Participants were then placed in groups in which they had to complete the same task jointly. Following the task, the participants were asked to rate their peer's competence and social status in the group. The results showed that those participants who had overestimated their ability when completing the task alone were perceived as more competent and were assigned higher social status by their peers. The results confirmed the author's hypothesis that peers perceived overconfident individuals to be more competent and that as a result they were granted a higher social status in groups.

A weakness of the experimental design of the study was that peers were unlikely to discover that his or her level of ability did not justify the individual's level of confidence. Kennedy et al. (2013) argued that in reality, it is likely that peers will be able to assess the actual ability of colleagues and peers. Therefore, they conducted a study in which they explored whether peers would punish overconfident individuals using status demotions if the overconfidence was revealed. Kennedy et al. used the experiment of Anderson et al. (2012b), which was designed to observe the status-enhancing effect of overconfidence, as a starting point. This experiment was modified so that the status of individuals in a group was assessed before and after it became clear who in the group had been overconfident. The results showed that even after it was revealed which of the individuals had been overconfident, they were still awarded the higher status in the group. These findings supported the status-enhancement theory in that they provided evidence that even after overconfidence was exposed being overconfident still led to an overall enhanced social status for an individual.

In contrast, a study by Tenney et al. (2019) came to a different conclusion when examining the social effects of exposed overconfidence. In this study, they differentiated between verbally and non-verbally expressed overconfidence. They examined whether peers would punish overconfidence, once it was revealed not to be justified by ability and the degree to which such punishment depended on the channel by which overconfidence had been expressed. They used actors to model non-verbal overconfidence. The actors were either instructed to show expansive body language and a confident tone of voice or the exact opposite. The verbal overconfidence condition was imitated by using written state-ments which included confident statements about the belief regarding personal performance. The results showed that non-verbally expressed overconfidence yielded reputational benefits over verbally expressed confidence. The authors explained this outcome with the concept of plausible deniability. According to this concept, people who verbally express overconfidence are held accountable to their claims when it is exposed that they had overestimated their ability or knowledge. However, non-verbally expressed overconfidence is harder to unveil and thus the denial of the overconfidence is more plausible.

3. Managerial Overconfidence

3.1. The Concept of Managerial Overconfidence

Overestimation is greatest when dealing with challenging tasks, when making forecasts in areas where the outcome is characterized by low predictability, and during actions where feedback is not immediate or clear (Barber and Odean, 2001). These conditions usually apply in the environments in which managers and CEOs have to make decisions. Thus, they are particularly exposed to situations where overestimation is likely. Bertrand and Schoar (2003) found that individual characteristics of CEOs and top executives are significantly related to corporate decisions. While they only examined the specific characteristic of having an MBA and the birth year their research implies that other individual characteristics such as the level of overconfidence possibly also impact corporate practices and performance. Thus, managerial overconfidence is critical as managers are often in situations in which they are prone to overconfidence. Additionally, when they are overconfident, this trait may have consequences for the company as a whole.

Malmendier and Tate (2015, p. 46) define overconfidence in a managerial context as "the overestimation of the value a manager believes he or she can create". This thought pattern affects managers and CEOs in two major ways. Firstly, the overconfident manager will believe that the market undervalues the company. Secondly, the overconfident manager will overestimate the value he or she can create through future investment decisions. Investments may be internal such as capital expenditures and research and development investments or external such as mergers and acquisitions.

Overconfidence will also affect the communication of managers. Overconfident managers will overestimate their abilities and their company's chances of success (Banerjee et al., 2018). As a result, they may be overly optimistic when publicly communicating their views about the company or fail to disclose negative information as they are convinced to be able to reverse the poor performance.

3.2. Consequences of Managerial Overconfidence for Businesses

The behavioral bias of overconfidence can influence corporate performance and stakeholder relations due to its effect on the CEO's decision-making process and the impact

of overconfidence on the perception of others. There are a variety of consequences attributed to managerial overconfidence. However, there is no universal consensus whether the overall impact of CEO overconfidence is positive or negative for a company.

3.2.1. Financial Impact

Studies have shown that CEO overconfidence can impact various business areas. Many studies argue that overconfident CEOs destroy value. For example, Heaton (2002) proposed that managerial overconfidence is a cause for corporate misinvestment decisions as overconfident managers overestimate the returns their investments will generate. Malmendier and Tate (2008) examined the role CEO overconfidence plays in mergers and acquisition. They explained that as overconfident CEOs believe their companies are undervalued, they are reluctant to use external sources of financing. However, they found that overconfident CEOs were still more likely to conduct mergers and even more so when internal financing was available. They also found that investors reacted more negatively to merger announcements from companies led by overconfident CEOs which indicates that these mergers may be more likely to destroy value.

On the other hand, there are also defendants of the positive financial impact that CEO overconfidence can have. Alberto and Timothy (2011) explored the effect of managerial overconfidence on corporate innovation. They base their hypothesis that CEO overconfidence is associated with a higher propensity to innovate on a career concern model. According to the model, overconfident CEOs are more likely to innovate as they are rewarded for successful innovation and they underestimate the risk of failure. Galasso and Simcoe measured the level of innovation using U.S. patent data and measured CEO overconfidence using Malmendier and Tate's portfolio-based measure. Their results suggested that not only is CEO overconfidence positively related to the number of patents but also to the probability that these technological developments will lead the company in a new direction.

3.2.2. Stakeholder Relations

Literature has shown how CEO overconfidence affects market participants and stakeholders of a company. Phua et al. (2018) focused on how the leadership of an overconfident CEO affects the relationship with suppliers and employees. Specifically, they were interested in observing whether companies led by overconfident CEOs benefited from higher stakeholder commitment. They based their assumption in part on the findings of the previously discussed research which found that peers grant overconfident individuals status-enhancing benefits, as they are evaluated as being more competent (Anderson et al., 2012b).

The results suggest that CEO overconfidence supports the development of relationships with suppliers as they showed that CEO overconfidence was related to higher rates of initiation and expansion of the company's network of dependent suppliers (Phua et al., 2018). To assess whether CEO overconfidence has an impact on employee commitment, Phua

et al. observed the variables of employee turnover and the amount of the employer's stock held in the retirement benefit plans of employees. They found that employee turnover was lower for companies with overconfident CEOs. They also found a positive relationship between CEO overconfidence and the amount of employee stock holdings in the company. Therefore, both measures indicated that overconfident CEOs increased employee commitment. Kramer and Liao (2016) examined how the CEOs individual characteristic of overconfidence affected the reporting of analysts. The relationship between CEO overconfidence and the likelihood of optimistic analyst reports has significant implications as analyst reports are often used by other market participants, such as investors, to make critical financial decisions. Kramer and Liao found that analyst forecasts of firms led by overconfident CEOs were more likely to be optimistic, meaning that these reports overestimated earnings more often than they underestimated them than those for companies that were not led by overconfident CEOs.

This research proves that the CEO's trait of overconfidence effects certain stakeholders in a way that alters their behavior regarding the company. The research of Phua et al. (2018) shows how the status-enhancement theory can set the foundation for the assumption that CEO overconfidence influences stakeholders. It thus also has relevancy for the exploration of the impact of CEO overconfidence on the stakeholder group of consumers which has not yet been explored similarly.

4. From CEOs to Consumers

While no research has examined the impact of the CEO's trait of overconfidence on consumer attitudes before, there is literature which provides models that have been designed to explain the general connection between the traits of brand representatives and consumer attitudes towards products and brands (McCracken, 1989). In the following, I will focus on the endorsement theory by McCracken as the theory is widely accepted in the celebrity endorsement literature (e.g., Scheidt et al., 2018; Tripp et al., 1994). It can help explain why CEO personality traits such as overconfidence impact consumer attitudes.

4.1. Endorsement Theory

McCracken (1989) approach to endorsement is based on the idea that the endorsement process itself depends on the "symbolic properties of the (...) endorser". Consequently, he designed a meaning transfer model which explains the process by which brand endorsement influences consumer attitudes. The model suggests that the meanings people associate with a person, who represents the brand, influence consumer attitudes towards products and brands. While McCracken created his endorsement theory in the context of brand endorsement by celebrities, a CEO may also be understood as the endorser of a company. Thus, this theory can set the foundation for the research on CEO endorsement. Scheidt et al. (2018) connected McCracken's meaning

transfer model and CEO endorsement to show that specific attributes of CEOs will transfer meaning to a brand. They found a connection between CEO attributes and consumer attitudes which can explain the impact of CEO overconfidence on the product and brand attitudes of consumers.

4.1.1. Meaning Transfer Model

Brand endorsement has been shown to alter people's brand attitudes and their behavior towards a brand (Amos et al., 2008). This phenomenon can be explained by the meaning transfer model which describes the process by which meaning is transferred from a person to a product and then from the product to the consumer (McCracken, 1989). In the first step of the process, advertisers find a person that carries a cultural meaning which they want their product to represent. This meaning is then transferred from the person to the product by means of advertising. The consumer then transfers the meaning from the product to his or her personal life by finding a personal interpretation of the meanings which reside in the product. A mechanism which consumers may use to do so is by assigning personality traits to brands (Aaker, 1997). The brand personality that they identify then serves as a symbol or in a self-expressive way (Keller, 1993). This model shows that there is a direct link between consumer associations with a brand endorser and their attitudes towards a product or brand.

4.1.2. Celebrity Endorsement

McCracken specifically focusses on celebrity endorsement, and examines how the representation of brands through celebrities affects consumers McCracken (1989). Celebrities form a strong set of meanings around their personality due to the role they have in society and the way they are portrayed through different media outlets. McCracken argues that endorsement through celebrities instead of anonymous models can improve the meaning transfer process, as they deliver precise demographic information and other meanings that, for example, may be related to their lifestyle due to their publicity. People will associate information such as age, gender, and cultural background and more vague meanings, for example, a humble personality, with celebrities. Characteristics such as trustworthiness, expertise, and attractiveness have shown the strongest positive impact on the effectiveness of celebrity endorsement measured in purchase intention and brand attitudes of customers (Amos et al., 2008).

The meaning transfer model by McCracken (1989) is characterized by a high degree of complexity as the various meanings which are associated with celebrities are taken into account. However, a limitation of the model is its restriction of defining conventional advertising as the only channel of meaning transfer. O'Reilly criticizes that this is not the only mean by which meanings are projected onto products (O'Reilly, 2005). Today, celebrities can adopt strategies of personal media management as they have access to a variety of new channels of communication to promote themselves.

4.1.3. CEO Endorsement

Celebrity status is no longer only held by famous actors and musicians (Moulard et al., 2015). Today also other groups of people have reached celebrity status including influential business personalities such as CEOs. Thus, the meaning transfer model can also find application in the context of CEO endorsement. According to the meaning transfer theory by McCracken (1989), the endorser's personal traits and the meanings consumers attach to the endorser's personal brand may influence consumer brand and product perception.

The study by Scheidt et al. (2018) observed which CEO attributes provided meaning transfer to brands. They found that one of the CEO traits that predicted CEO endorsement was the trait of credibility. This finding supports the prevailing consensus in the literature that source credibility plays an essential role in the effectiveness of celebrity endorsement (Ohanian, 1990). Through the meaning transfer process, the perceived CEO credibility will influence the perceived brand credibility. In the context of brand credibility, Erdem and Swait (2004, p. 192) defined credibility as the "believability of the product information contained in a brand, which requires that consumers perceive that the brand ha[s] the ability (...) and willingness (...) to continuously deliver what has been promised". A study by them showed that brand credibility affects consumers' brand consideration and brand choice. Additionally, they explored the impact of the two subdimensions, trustworthiness and expertise, of credibility. They found that trustworthiness, in general, has a stronger effect on consideration and choice than expertise. This finding stresses the importance of brand trustworthiness which will be discussed in more detail later on.

4.2. Brand Personality

McCracken (1989) explains that there are different ways by which consumers can transfer the meaning from a brand or product to their personal life. One concept which can explain this phenomenon is brand personality. The literature shows that consumers humanize and personalize brands which facilitates the formation of a bond between them (Fournier, 1998). Consumers do so by assigning personality qualities to them (Aaker, 1997). Aaker defines brand personality as "the human characteristics that consumers attribute to brands" (p. 347). It helps consumers to express their perception of the brand and is measured along five dimensions: sincerity, excitement, competence, sophistication, and ruggedness. In the context of CEO overconfidence and the status-enhancement theory, the brand personality trait of competence has a key position. The trait measures how well people believe characteristics such as reliability, intelligence, and success describe the brand.

Consumer's association of personality traits with a brand is directly influenced by the people who are associated with the company (McCracken, 1989). Fournier (1998, p. 345) discussed the idea that "Brands are possessed by the spirit of a past or present other". These people that consumers associate with the brand may be models which are part of the user

imagery portrayed in the brand's advertising (Keller, 1993), celebrities that act as brand endorsers (McCracken, 1989), the employees and the CEO of a company (Aaker, 1997). Therefore, it is possible that people project personality traits that they associate with the CEO of a company onto the brand itself.

As previously discussed, the opinions in literature diverge on the question of whether exposed overconfidence leads to an overall higher or lower evaluation of an individual's level of competence. Therefore, it is unclear, whether exposed CEO overconfidence will lead to a higher or lower perception of CEO competence by consumers. The endorsement theory by McCracken (1989) suggests that the lower or higher evaluation of the CEO's competence will influence consumers propensity to mentally attach personality traits related to competence with the brand.

5. Consumer Attitudes

The attitude theory by Fischbein and Ajzen (1975) suggests that a person's beliefs are the only mediators of attitudes. Therefore, the core proposition of the model is that beliefs cause attitudes. Fishbein and Ajzen define a belief as an association between two separate concepts. It may be formed based on direct observations or information received by outside sources. For example, according to the theory of Fishbein, a belief may be formed based on a report in a digital news outlet which suggests an association between a CEO and the trait overconfidence. The meanings a consumer associates with a particular CEO will depend on his or her beliefs about the CEO.

The endorsement theory explains the process by which consumer attitudes towards a product or brand are affected by the associations that consumers have with individuals who represent the company. As a consequence of this connection, consumer attitudes will alter depending on the associations a consumer has with an overconfident CEO compared to a CEO which he does not evaluate as overconfident. Consumer attitudes will impact a variety of consumer decisions and behaviors (Cacioppo et al., 1997). For this reason, consumer attitudes have played a central role in the consumer and social psychology research. In the context of brands, consumer attitudes are understood as the degree of positivity or negativity towards a brand (Whan Park et al., 2010).

The combination of the attitude theory (Fischbein and Ajzen, 1975) and the endorsement theory (McCracken, 1989) can help explain the connection between consumers beliefs about a CEO and their attitudes concerning the company's products and brand. As exposed CEO overconfidence will alter the consumer's beliefs about the CEO, this will alter the meanings he or she attaches to the CEO. Consequently, the consumer's attitude towards the products and brand will be affected. In the following, I will explore why especially a consumer's trust in a brand may be affected by exposed overconfidence. A positive or negative impact on consumer trust has important implications as literature has found that

higher brand trust and brand affect will increase brand loyalty which in turn improves the performance of a company.

5.1. Brand Trust

Moorman et al. (1992, p. 315) defined trust as "a willingness to rely on an exchange partner in whom one has confidence". They believe that for trust to be present two conditions must be fulfilled. Firstly, a person must have the belief of trust, meaning they believe the other person to be trustworthy due to their characteristics such as reliability. Secondly, they have a behavioral intent to trust the other person in situations of uncertainty in which they rely on the trustee. Literature shows that trust can influence the quality of a relationship as it, for example, improves the communication between parties (Mohr and Nevin, 1990).

Based on the definition by Moorman et al. (1992), Chaudhuri and Holbrook (2001) defined brand trust as the willingness of a person to trust in the brand's ability to deliver what it promises. The critical role that customer trust, which is similar to brand trust, plays in building strong consumer-firm relationships is widely recognized in literature (Sirdeshmuck et al., 2002). Sirdeshmukh, Singh, and Sabol explored the causes of customer trust and created a model of trustworthy behaviors and practices in the context of businesses which operate in experience services, such as retail companies. Specifically, they tested their model using firms from the clothing retail industry and airline travel industry. They defined three dimensions of trustworthy behavior which increase customer trust regarding management policies and practices: operational competence, operational benevolence, and problem-solving orientation.

Operational competence
The authors summarize the findings of different streams of research which suggest that a consumer develops trust when his or her expectation of a partner's "consistently competent performance" is fulfilled (Sirdeshmuck et al., 2002, p. 17). Based on this research, as well as empirical support for the influence of different dimensions of competence on trust, the authors include the dimension of operational competence in their model of trustworthiness. They define operational competence as the observable behavior that indicates the competence of a person. They focus on observable behavior and not on true competence that resides within a person, as a customer will only judge competence based on indicators that are visible to him or her.

Operational benevolence
The second dimension is characterized by behavior that indicates the manager's motivation to place the customer-interests ahead of their interests. Here again, the authors stress that the intention has to be observable to customers. Morgan and Hunt (1994) suggest that opportunistic behavior will decrease the other party's trust. Consequently, benevolent behavior, which entails that a person refrains from opportunistically self-serving actions, promotes trust in a relationship (Sirdeshmuck et al., 2002).

Problem-solving orientation

The final dimension, problem-solving orientation, is defined as the consumer's perception of the management's motivation to identify and solve problems that occur during a service exchange (Sirdeshmuck et al., 2002). The authors were able to show that the problem-solving behavior is distinct from benevolence and competence as it requires different cognitive judgements. This dimension is specific to service providers.

Even though Sirdeshmuck et al. (2002) designed their model in the context of consumer-service provider exchanges I believe that especially the first dimension can also be transferred to other fields of consumer trust. The dimension of competence orientation can explain the increase or deterioration of consumer trust as a consequence of exposed CEO overconfidence. It also creates an essential link between credibility and competence. As previously described trustworthiness is defined as a dimension of credibility (Erdem and Swait, 2004) while operational competence is one of the dimensions of trustworthy behavior (Sirdeshmuck et al., 2002). It is thus likely that if perceived competence is affected by exposed overconfidence, perceived credibility will be affected in the same way. Figure 1 visualizes the relationship of the two concepts.

5.2. Brand Affect

Chaudhuri and Holbrook (2001, p. 82) define brand affect as the ability of a brand to trigger "a positive emotional response in the average consumer as a result of its use". They believe that while the process of brand trust development is more calculated and carefully considered, the development of brand affect is more spontaneous and less controlled. Dick and Basu (1994) discuss four types of affect that they believe can precede and cause loyalty. They differentiate between emotions, moods, primary affect, and satisfaction. These factors influence decision making and may be better predictors of an individual's behavior than cognitive evaluations.

5.3. Brand Loyalty

Chaudhuri and Holbrook (2001) propose that a consumer's brand trust and positive brand affect are the critical determinants of his brand loyalty. They introduce the concepts of purchase loyalty and attitudinal loyalty which are two separate types of brand loyalty. Chaudhuri and Holbrook define purchase loyalty as the willingness of consumers to repurchase products from a brand and attitudinal loyalty as the commitment of consumers to a brand. They found that both brand trust and brand affect independently influence both types of brand loyalty. Brand trust is related to brand loyalty as it fosters an exchange relationship which is sustained by the loyalty of customers (Morgan and Hunt, 1994). Dick and Basu (1994) suggest that brand affect in the form of positive emotions, mood and affect is linked to higher levels of brand loyalty. Both purchase and attitudinal loyalty influence a company's performance (Chaudhuri and Holbrook, 2001).

Purchase loyalty will lead to a higher market share as a result of the increased number of repurchases by loyal consumers (Chaudhuri and Holbrook, 2001). However, this may not be the case for every product category and thus may also depend on the segment in which the company operates. Chaudhuri and Holbrook suggest that attitudinal loyalty increases the price consumers are willing to pay for a product compared to the price for products of competitors. This assumption draws from the theory of brand equity which Aaker (1991, p. 15) defines as "a set of brand assets and liabilities linked to a brand, its name, and symbol, that add or detract from the value provided by a product or service to a firm". He defined brand loyalty as one of five classes of brand assets that determine brand equity. Keller suggests that consumers will have a higher willingness to pay a premium price for products if they have a positive attitude towards the brand (Keller, 1993).

A higher market share and the ability to charge a higher relative price will have a positive effect on the profitability of the company. Therefore, brand loyalty is a connector that links positive brand trust and affect to improved brand performance outcomes. Literature has also linked brand loyalty to marketing advantages such as positive word of mouth effects, decreasing behavior of information searching for alternative brands and stronger resistance to counter-persuasion strategies by competitors (Dick and Basu, 1994).

6. Study

In the following, I will describe the study I conducted to observe the impact of CEO overconfidence on consumer attitudes. The study consists of two parts which I will analyze separately. The first part consists of an experiment with an overconfidence manipulation and the second part considers participants' perceptions of CEO overconfidence and their attitudes towards the brands of well-known companies. Both parts are designed to test my main hypothesis that exposed CEO overconfidence will negatively affect consumer attitudes towards products and brands.

6.1. Part One – CEO Overconfidence Manipulation

The first part of the study addresses whether participants' evaluation of a product and brand are affected by the information that the CEO has been overconfident. Considering the different types of overconfidence found in the literature (Moore and Healy, 2008; Tenney et al., 2019), the experiment specifically examines the impact of verbally communicated overestimation. The participants were divided into two groups of which one received a report which revealed that the CEO had made a verbal statement in which he overestimated the performance of his company. As I want to observe how this type of exposed CEO overconfidence affects consumers, I focus on the impact it has on a few specific consumer attitudes. I observed the impact on the participant's general attitude towards the product, general attitude towards the brand and his or her trust in a brand (see Figure 2). I chose
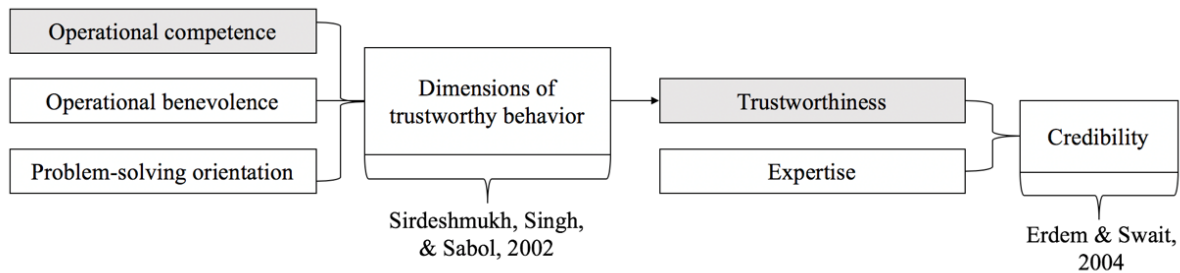
Figure 1: Connecting the Concepts of Competence and Credibility. Concept of the dimensions of trustworthy behavior from "Consumer Trust, Value, and Loyalty in Relational Exchanges," by D. Sirdeshmukh, J. Singh, and B. Sabol, Journal of Marketing, 66. Concept of credibility from "Brand Credibility, Brand Consideration, and Choice," by T. Erdem and J. Swait, Journal of Consumer Research, 31. Source: Own figure

these attitudes based on their influence on business performance or their connection to CEO overconfidence.

My first hypothesis is based on the endorsement theory (McCracken, 1989) and the study by Tenney et al. (2019) which provided evidence of the status deteriorating effect of verbally communicated overconfidence. I believe that the group which receives the revealed CEO overconfidence condition (G1) will evaluate the CEO as less competent. Thus, they will project this negative image onto the product and brand. I expect that participants from G1 will on average give a lower evaluation of the product, lower brand attitude scores and have lower trust in the brand.

> H1: Participants from G1 will on average give a lower product evaluation, lower brand attitude scores and have lower trust in the brand. As I expect that participants of G1 will evaluate the CEO as less competent, my second hypothesis is that exposed CEO overconfidence will impact the perception of brand personality traits (see Figure 2). Specifically, I observe the impact on the brand personality trait competence from the five-factor model by Aaker (1997). I expect that the participants of G1 will rate the personality trait competence to be less descriptive of the brand.

> H2: Participants from G1 will evaluate the personality trait of competence to be less descriptive of the brand. My third hypothesis is that certain personality traits and demographic factors of the individual who is judging the product and brand will influence the degree to which overconfidence affects his or her attitudes regarding the product and brand (see Figure 2). Specifically, I am interested in the mediating effect of ambition on the impact of exposed overconfidence on consumer attitudes. Additionally, I observe whether factors such as gender and educational or professional background are related to the perception of overconfidence.

> H3: The personality traits of extraversion and

ambition as well as demographic factors as gender and educational or professional background in business will influence the impact exposed overconfidence has on an individual's attitudes towards a product and brand.

6.1.1. Method

Participants

My sample consisted of 120 participants aged 18 to 65 with an average age of 29 years old. 42% of participants were female and 58% male. Sixty percent of participants had completed or were pursuing a bachelor's degree while 5% had only completed their high school diploma and the rest had either completed or were pursuing a postgraduate degree. Eighty-three percent of participants had an educational or professional background in business. The participants of the survey were randomly assigned to one out of two groups by the survey software. All participants took part in the first and second part of the study. I divided the participants into two experimental groups. Group one which was exposed to the overconfidence condition and consisted of 55 participants (23 women, 32 men, Mage=27.9, age range: 18-59) and the second group which was the control group consisted of 65 participants (27 women, 38 men, Mage=28.9, age range: 18-65).

Procedure

To test the hypothesis that revealed CEO overconfidence would lead to a more negative product and brand evaluations, I gave the two groups the same information about a fictional phone and the producing company but differed the information regarding the CEO of the company (see Appendix A). Both groups received all of the information in text form, to imitate a verbally communicated overconfident statement. The information about the product outlined a premium segment phone with modern features similar to the current models from market-leading companies such as Apple and Samsung. The more general information about
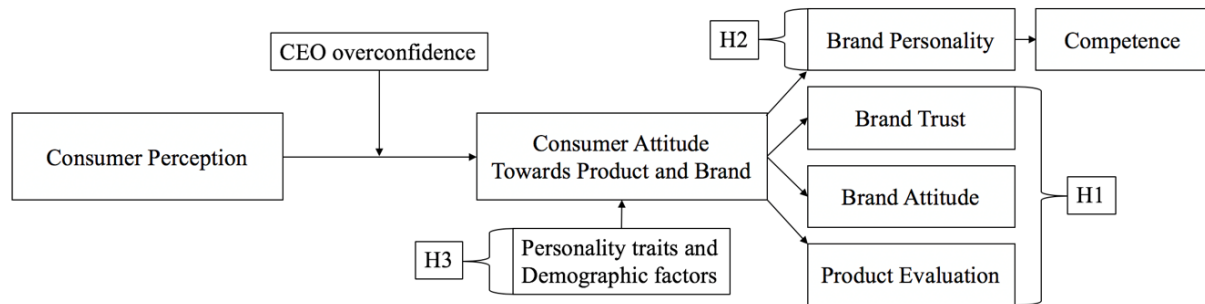
Figure 2: Summary and Visual Presentation of the Main Hypotheses. Source: Own figure

the company revealed that it supports ethical and sustainable practices and that it is a desired employer. Both groups received confident statements from the CEO regarding the company's future profitability margins, a product launch unrelated to the phone, and a sales target. The two groups received different information concerning how accurate these statements by the CEO had been (see Appendix B). One group received the information that the announcements had been overconfident, and that the company did not perform in the way the CEO had proclaimed (G1). The statements were formulated in ways that indicated the CEO had overestimated his company's ability to succeed, and that the cause of the discrepancies was not merely regular fluctuations that occur in business forecasts. The other group received the information that the company's performance was in line with the CEO's announcements (G2). Following this information, the participants answered several questions regarding their attitude towards the phone and the brand of the company (see Appendix C). The questions were selected to address the three hypotheses about how exposed verbally communicated CEO overconfidence influences consumers' product evaluation, brand attitude, brand trust and the perception of the brand personality trait competence.

Product evaluation
To assess the impact of overconfidence on a participant's product evaluation he or she had to indicate their overall evaluation of the product. The participants had to rate their product attitude on a five-item, seven-point semantic differential measure of aspects related to the quality of the product. The items used were based on a scale developed for the product evaluation of high-tech goods (Roehm and Sternthal, 2001). As the items correlated with each other (α .85), I combined them in a measure of the general evaluation of the products (M = 5.5, SD = .95). The purchase intention was measured using a three-item, seven-point Likert-type scale to assess the degree to which participants intended to buy the product in the future (Baker and Churchill Jr, 1977). The items were again correlated (α.87) and were thus aggregated to a general measure of purchase intention (M = 4.4, SD = 1.4). The participants were also asked to indicate their willingness to pay for the phone. This is a single item measure that may be influenced by factors (age, in-

come) independently from the consumers attitudes towards the product and brand. Thus, the explanatory power of this measure may be limited. Still, it can be an indicator for the participant's overall evaluation of the product.

Brand attitude
Participants were then asked about their general attitude towards the brand using a five-item, seven-point semantic differential measure (Ahluwalia et al., 2000). These items showed a strong correlation with each other (α.91) and were combined as a measure of the general attitude towards the brand (M = 5.4, SD = .96). Participants gave their assessment of the trustworthiness of the brand by answering a four-item, seven-point Likert-type scale based on a measurement model introduced by Erdem and Swait (2004). These were again aggregated to a measure of brand trust (M = 4.5, SD = 1.2) as they showed high correlation (α .91). Lastly, participants indicated to which degree they believed the brand could be described using different personality-like characteristics related to competence. The items used in this step were based on the scale for the brand personality trait of competence developed by Aaker (1997). Participants rated to which extent they believed the specific characteristics were descriptive of the brand on a scale of one (Not at all descriptive) to seven (Extremely descriptive). As these were strongly correlated (α .88), they were combined to form a measure of the brand personality trait competence (M = 4.9, SD = 1.1).

Participant personality traits
In addition to demographic information such as age, gender and whether they came from an educational or professional business background, participants were also asked to evaluate themselves concerning the character trait of ambition. They had to indicate the degree to which they believed certain statements suited their personality on seven-point Likert-type scales. The statements which measured the level of ambition were based on the ambition scale by Duckworth and her colleagues (Duckworth et al., 2007). Here again, I aggregated the statements in a single measurement of ambition (M = 5.4, SD = .84) as they showed correlation (α .74).

6.1.2. Results

The results from the analysis of the first part of the survey support the hypothesis that verbally communicated overconfidence influences consumer's product and brand perception. All five areas of consumer attitudes: overall product evaluation, purchase intention, brand attitude, brand trust and willingness to pay, showed a significant negative relationship with CEO overconfidence (see Appendix D). Participants were also less likely to rate characteristics related to the personality trait competence as descriptive for the brand.

Product evaluation
As expected, exposed CEO overconfidence predicted lower product evaluation (beta = -.52, t(118) = -3.1, p <.01), lower intention to purchase (beta = -.67, t(118) = -2.65, p <.01), and lower willingness to pay (beta = -91.41, t(118) = -2.59, p <.05). As shown by Table 1, participants of G1 gave on average a lower evaluation of the product compared to participants of G2. Table 1 also shows that they indicated a lower purchasing intention and an overall lower willingness to pay for the phone.

Brand attitude. The results showed that exposed CEO overconfidence led to a more negative attitude towards the brand (beta = -.84, t(118) = -5.27, p <.001). As a consequence, the average attitude towards the brand of participants of G1 was lower than that of G2 participants (see Table 1). The negative effect of exposed CEO overconfidence on brand trust was even stronger (beta = -1.11, t(118) = -5.69, p <.001). This result indicated that CEO overconfidence affects the perception of specific attributes of the brand. This finding is further supported by the result that exposed CEO overconfidence predicts lower scores on the perceived brand personality trait competence (beta = -.73, t(118) = -3.81, p <.001). Table 1 shows that participants of G1 on average indicated that they believed characteristics related to competence to be less descriptive of the brand than G2.

Personality traits and demographics
The general personality trait measures for ambition showed no significant impact on the different variables which measured participants' product evaluation and attitude towards the brand. However, the rating on the specific item "I am ambitious" from the ambition scale showed significant interaction effects on all four measures of product and brand evaluation (product evaluation: beta = .29, t(116) = 1.72, p <.1; brand trust: beta = .46, t(116) = 2.34, p <.05; brand attitude: beta = .27, t(116) = 1.7, p <.1; brand personality: beta = .4, t(116) = 2.08, p <.05). In all cases the interaction effect was positive, meaning that if the CEO was verbally overconfident about the company's performance a higher evaluation of personal ambition decreased the negative effect that the overconfidence condition generally had on the attitudes towards the product and brand. This finding suggests that people who consider themselves to be ambitious are less sensitive to the negative impact that exposed CEO overconfidence has on product and brand evaluation.

When considering the interaction effect of the independent variable of especially high ambition (one standard deviation higher than the mean) the main effect of the overconfidence condition on the evaluation of the product and the perception of the brand personality trait competence is no longer significant for brand personality and product evaluation (see Table 2).

The results showed that a difference in gender did not impact the evaluation of any of the aspects measuring product evaluation and attitude towards the brand. Whether participants had an academic or professional background in business was also irrelevant for the evaluation along the previously mentioned brand attitude dimensions. The only area in which it showed a significant impact was the general product evaluation (beta = -1.15, t(116) = -2.33, p <.05). As the interaction term is negative, this indicates that if the CEO is verbally overconfident about performance a professional or educational background in business will increase the negative effect that the overconfidence condition has on product evaluations.

6.1.3. Discussion

In the following, I will discuss the implications of the results regarding the hypotheses about the influence of revealed CEO overconfidence on consumer attitudes towards products and brands. I will examine how exposed CEO overconfidence influences consumer attitudes and what the resulting implications for managers are. I will also examine how the results are linked to the existing research on overconfidence and consumer research. I base my analysis on the results of the experiment as well as the literature previously discussed.

The connection between CEO overconfidence and consumers. The results show that exposed CEO overconfidence will influence the attitudes a consumer forms about a product and brand. This finding supports the meaning transfer theory by McCracken (1989). The treatment of the two experimental groups only differed with regard to the information the participants received about the accuracy of the CEO's predictions regarding the company's performance. G1 received the information that the CEO had been overconfident about the company's performance, while G2 was informed that his predictions had been accurate. The areas of performance which the CEO commented on were unrelated to the quality of the product. Thus, the participant's evaluation of the product should not have been affected by the CEO's overconfident statements if his or her attitudes were formed only based on his or her beliefs about the product. However, the results showed that participants from the two groups gave significantly different product and brand evaluations which proves that CEO overconfidence influenced their evaluation. This finding confirms the meaning transfer model as it suggests that the meanings a consumer associates with the CEO influence his or her attitudes towards the products and brand. The difference in product and brand evaluations indicates that the meanings associated with the CEO altered between the two groups.

Table 1: Summary of the Ratings Regarding the Variables of Consumer Attitudes and a Comparison Between the Experimental Groups

		Group 1 Overconfidence	Group 2 No Overconfidence	Difference MG2 – MG1
Product Evaluation	M	5.19	5.71	0.52
	SD	1.04	.79	
Purchase Intention	M	4.04	4.71	0.67
	SD	1.4	1.37	
Willingness to Pay	M	468.55	559.95	91.4
	SD	195.76	190.22	
Brand Attitude	M	4.96	5.79	0.83
	SD	.94	.8	
Brand Trust	M	3.94	5.05	1.11
	SD	1.02	1.12	
Brand Personality Trait Competence	M	4.47	5.2	0.73
	SD	1.03	1.05	

Note. M = mean, SD = standard deviation. All scales were seven-point Likert-type scale except for willingness to pay which was asked for in an integer.
Source: Own table

Table 2: Interaction Effects of Ambition Regarding the Relationship of CEO Overconfidence and Consumer Attitudes

	Ambition	At the mean		One SD above mean	
		β	t	β	t
	Product evaluation	-.52	-3.11**	-.23	-.95(n.s.)
CEO Overconfidence on	Brand Attitude	-.84	-5.28***	-.56	2.49*
	Brand Trust	-1.11	-5.76***	-.65	2.37*
	Brand Personality Trait Competence	-.72	-3.84***	-.32	-1.2(n.s.)

Note. SD = standard deviation. n=116; n.s.=not significant; (.) p = 0.1, * p = 0.05, ** p = 0.01, *** p = 0.001

Status-enhancement theory of overconfidence. In addition to participants of the two groups showing significantly different ratings of the product and brand, the results also revealed that ratings from participants of G1 were on average lower on all variables of product and brand evaluation than those of G2 (see Table 1). These results confirm my first hypothesis that participants from G1 will on average give a lower product evaluation, brand attitude scores and have lower trust in the brand. The finding that participants of G1 gave worse product and brand evaluations offers support to the study by Tenney et al. (2019). The results also extend this study by providing proof of this theory in the specific field of CEO overconfidence.

The results implicitly support the findings of Tenney et al. (2019) who showed that exposed verbally communicated overconfidence diminishes social status. This finding is not directly replicated as participants were not asked to rate the CEO's competence or status. Still, based on the endorsement theory, it is possible to draw a conclusion about the impact of exposed verbally communicated overconfidence on the participant's attitude toward the CEO from the more negative attitudes participants had towards the product and brand. The meaning-transfer model shows how consumers transfer meanings that they associate with a person, who represents a company, to the products and brand of that company (McCracken, 1989). Based on this model, participants in the experiment will transfer meanings they associate with a CEO to the product and brand. Tenney et al. (2019) show that when peers discover the overconfidence they will evaluate the individual as less competent and thus, award them a lower social status. According to this theory participants of G1, who are given the information that the CEO had been overconfident,

will evaluate the CEO as less competent and less deserving of social status. The meanings they associate with the CEO will be more negative than those of participants from G2. This process is illustrated in Figure 3. According to the meaning transfer model, they will transfer the more negative meanings to the product and brand. The current study replicates this process as the results show lower ratings and thus more negative attitudes towards the product and brand from the participants of G1. Thus, the results of the current study support the theory of the social status diminishing effect of exposed verbally communicated overconfidence. The lower evaluation of the product and brand can be explained by a lower evaluation of the CEO's competence.

The study also offers a new point of view on the social consequences of overconfidence as it examines the impact of exposed verbally communicated overconfidence in the context of CEO and customer relationships. Previous studies which dealt with social consequences of overconfidence have mainly examined this effect in the context of teamwork dynamics among peers (Erdem and Swait, 2004; Tenney et al., 2019). As the findings implicitly support the theory that exposed verbally communicated overconfidence has a status diminishing effect, the study proves that this theory can be generalized to other areas of overconfidence. It also extends previous research on CEO overconfidence. It offers an extension to the research on the effects of CEO overconfidence on stakeholder relations.

Brand trust
The results of the experiment show that exposed CEO overconfidence has the strongest negative impact on the variable of brand trust out of the different product and brand attitude measures (see Table 1, see Appendix D). The customer trust model by Sirdeshmuck et al. (2002) can help to explain the cause of the lower levels of brand trust of participants of G1. When considering the model's three dimensions of trustworthy behavior it becomes apparent that overconfidence may influence the first dimension, operational competence. This dimension encompasses behavior that indicates the company representative's competence. The authors stress that this behavior has to be observable to the public. The accuracy of verbal statements a CEO makes regarding his expectations of the company's performance can be understood as a behavior by which consumers can judge competence. As previously discussed in the context of the status-enhancement theory, this verbally communicated exposed overconfidence leads others to have a lower perception of the individual's level of competence. This finding is supported by the results of the current study. As the CEO who is revealed to be overconfident receives a lower evaluation concerning their operational competence, they also receive a lower level of customer trust then the CEO who accurately predicts the company's performance.

This finding has important managerial implications as consumers trust in a brand will indirectly influence the company's profitability. As described by Erdem and Swait (2004), trustworthiness is one of the dimensions of credibility which is linked to the consumer's brand consideration and brand choice. Additionally, Chaudhuri and Holbrook (2001) find a direct link between customer trust and brand loyalty which in turn influences the number of repurchases by customers and a higher willingness to pay a premium price for the products of the brand. Thus, brand loyalty does not only determine whether a consumer initiates the relationship with a brand but also how prosperous the relationship is afterwards.

Brand personality
Participants who were part of G1 indicated that they evaluated the personality trait competence to be less descriptive of the brand than participants from the other group. This finding additionally supports the hypothesis that consumers evaluate the overconfident CEO to be less competent. The literature discusses the phenomenon that brand personality attribution is linked to the people who represent the brand (Keller, 1993). This process suggests that if participants rate the trait competence as less descriptive of the brand, this reflects their perception of the competence of the individual they associate with the brand. As the brand in the experiment was fictional and the only representative of the company that participants were introduced to the CEO, this implies that the perception of the CEO's personality is the basis for participants' evaluation of brand personality. Aaker (1997) already suggested that consumer's associations with a company's CEO directly influences their perception of the brand's personality. The current findings extend this suggestion as the study examined the effect of the specific CEO personality trait of overconfidence on brand personality. It offers deeper insights concerning the connection between specific human personality traits and brand personality.

Impact of participants' level of ambition. Another interesting result was the impact the individual's level of ambition had on his or her attitudes towards the product and brand when exposed to the overconfidence condition. The finding that a higher level of ambition reduces the negative effect that CEO overconfidence has on consumer attitudes suggests that individual characteristics play a role in the perception of overconfidence and the formation of attitudes. The results indicate that someone who is highly ambitious is less likely to punish a CEO's overconfidence by evaluating him or her as less competent. A possible theory to explain this observation may be based on the assumption that highly ambitious people set high goals for themselves similar to overconfident CEOs. As a result, they may relate to the CEO and sympathize when he or she fails to reach overly high goals. If ambitious people are able to form a stronger personal connection with an overconfident CEO, this may positively influence their attitude towards the person. Thus, they also transfer more positive meanings to the product and brand. Further research on the influence of ambition on the perception of overconfidence is necessary to confirm whether this theory can explain the results.

Measure of overconfidence
The results of the current study raise criticism towards the portfolio-based measure of overconfidence which currently
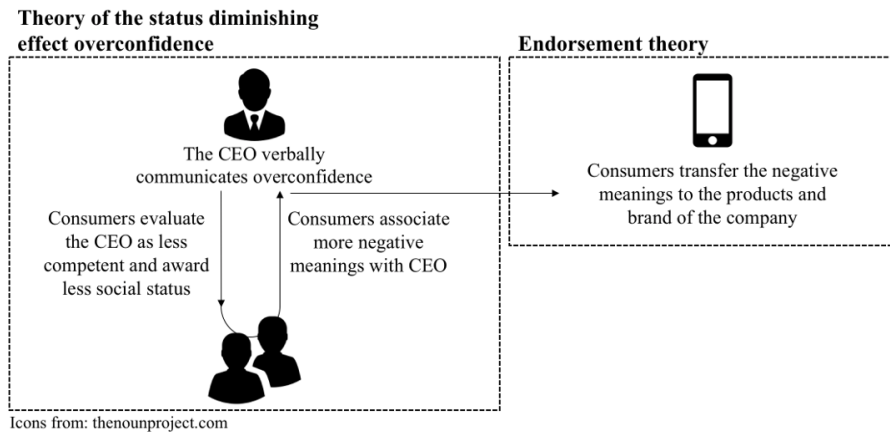
Figure 3: Chain of Effects from CEO Overconfidence to Consumer Attitudes. Connecting the concepts of the status diminishing effect of overconfidence and the endorsement theory. The model refers to the theory of the status diminishing effect of overconfidence from "Is overconfidence a social liability? The effect of verbal versus nonverbal expressions of confidence," by E. R. Tenney et al., 2019, Journal of Personality and Social Psychology, 116. As well as the endorsement theory from "Who Is the Celebrity Endorser? Cultural Foundations of the Endorsement Process," by G. McCracken, 1989, Journal of Consumer Research, 16. Source: Own figure

dominates in the research on CEO overconfidence. Most studies which are concerned with the consequences of CEO overconfidence use the popular portfolio-based measure of managerial overconfidence by Malmendier and Tate (2005). This measure of overconfidence does not distinguish between the channels by which overconfidence is communicated. Therefore, it is not possible to differentiate between CEOs who express overconfidence verbally and those who express it non-verbally. The previously mentioned studies which have examined the influence of CEO overconfidence on the company's stakeholder relationships also used the portfolio-based measure, and all found that CEO overconfidence increased stakeholder commitment (Phua et al., 2018). These results may indicate that CEO overconfidence positively influences stakeholder's attitudes. However, another possibility is that these results are biased by the measure of overconfidence used. Especially when assessing the social consequences of CEO overconfidence, the measure by Malmendier and Tate may not be suitable as stakeholders will judge manager's confidence and whether it is justified by their ability based on a CEO's public appearances and announcements, and not the CEO's personal portfolio in company stocks and options. The study did not observe the impact of non-verbally communicated overconfidence, still, the results of Tenney et al. (2019) suggest that the distinction between the channels of communication may be necessary when evaluating the impact of CEO overconfidence on other stakeholders. Thus, a different measure to the one of Malmendier and Tate (2005) is needed.

Limitations

While the experimental design allowed me to accurately observe the impact of exposed CEO overconfidence on consumer attitudes regarding the product and brand it also held

some limitations. One major limitation was the laboratory like design of the experiment with an unfamiliar CEO, brand, and product. Due to this setup and the limited time and space to provide information about the company the way participants formed attitudes about the brand and the CEO did not perfectly replicate how this process takes place in reality. There may be significant structural discrepancies between the results of the current study and those that would be found in reality (Laurent, 2013). Laurent argues that this is the case as the experiment observes participant's "short-run answers to short-run stimuli" (p. 323), in contrast, consumers typically develop decision-making strategies over a longer timeframe and based on multiple, repeated interactions with a stimulus.

A second limitation of the experiment is its focus on a single company in a specific industry. The survey only examined the effect of CEO overconfidence on consumer attitudes in the context of smartphone products. Therefore, the survey has limited generalizability to other companies that operate in different product segments such as commodities or textiles.

Further research

This study has brought together the theory of the social consequences of overconfidence and the endorsement theory in the context of CEO overconfidence. It has provided a new perspective on the process of consumer attitude formation. The results may be a starting point for further research in the area of CEO confidence and its impact on consumers.

An important area of further research is the impact of revealed non-verbally communicated CEO overconfidence on consumer attitudes. This study would be able to draw further conclusions about the generalizability of the findings of Tenney et al. (2019), and add to the general discussion in

the literature regarding the consequences of overconfidence for social status. The study would also have important managerial implications and CEOs and executives may use the results as a guide whether they should overall avoid all expression of overconfidence or whether they may benefit from non-verbally expressed overconfidence.

Another interesting area of further research may be the effects of CEO underconfidence on consumer product and brand attitudes. Many instances of underconfidence have been noted in literature where again a separation in underestimation, underplacement and underprecision is possible (Moore and Healy, 2008). The concept of managerial underconfidence is mostly unexplored, therefore, it should first be observed whether underconfident CEOs are found in reality. The measure by Malmendier and Tate (2005) could be used in making this assessment. While it is not well suited as a measure of confidence in assessing the relationship between CEO confidence and consumer attitudes it can be used as a general measure to indicate the level of confidence a CEO has in his company. In contrast to when it is used to determine overconfident CEOs, when looking for underconfident CEOs, it should be used to determine those executives who hold an under proportional amount of company options in their personal portfolio. If it is found that underconfidence affects some CEOs, one possible area of additional studies is the impact of underconfidence on social status, similar to the research concerning the status-enhancing effect of overconfidence (e.g., Anderson et al., 2012b; Kennedy et al., 2013; Tenney et al., 2019). The current study could be used as a starting point and adjusted so that it explores how CEO underconfidence impacts consumers' product and brand attitudes.

As the study has been able to show that CEO traits influence consumer attitudes, it would be interesting to observe whether and in what way other CEO personality traits influence consumer attitudes. It is possible that in contrast to the impact of CEO overconfidence other traits may improve consumer attitudes towards products and the brand. If this was the case, the finding would have important implications for CEOs and executives as they could use the results as a guide for their public communication strategy. It may indicate what personal traits a CEO should highlight in his or her communication and which, such as overconfidence, he or she should avoid.

To determine the generalizability of the results, the experiment should be replicated with different product categories. Using other products than premium segment smartphones may support or contradict the finding that CEO overconfidence leads to lower product and brand evaluations of customers. For example, further research could observe the impact of CEO overconfidence in the context of commodity products or impulse buys.

6.2. Part Two - Perceived CEO Overconfidence and Brand Attitudes

One major limitation of the first part of the survey is its partly unrealistic setup. This limitation is caused by the experimental design being based on a fictional company and conducted in the form of an online survey. To support the findings of the first part of the survey I want to observe the relationship between consumer perceived CEO overconfidence and consumer attitudes towards the brand in a more realistic way. To do so, I used real companies and CEOs in the second part of the survey. I asked participants about their perception of five well-known CEO's level of overconfidence. Specifically, I chose to measure perceived overestimation of the personal and the company's ability to succeed. Then participants were asked about their general attitude and trust towards the companies those CEOs currently lead. In line with my hypotheses concerning the first part of the survey, I expect that participants who give higher ratings of perceived CEO overconfidence will give lower ratings of brand attitude and brand trust.

H4: Participants who perceive a CEO to be more overconfident will have a lower attitude towards the brand and lower trust in the brand.

6.2.1. Method

Procedure
I selected the five CEOs, Mark Zuckerberg, Elon Musk, Jeff Bezos, Satya Nadella, and Tim Cook, based on the level of public awareness, their strong profile, and the expected divergence in the perceived overconfidence by consumers. First participants were asked with which of the CEOs they were familiar so that in the following they only received questions about the CEOs they had claimed to know. The participants had to assess whether and to what degree they believed them to be overconfident and then had to indicate their general attitude towards the brand and their trust in the brand (see Appendix E). In the analysis of the results, I only included the answers from participants of G2, the group which had not been exposed to the CEO overconfidence manipulation in the first part of the study. As the participants of the two groups had previously shown substantial differences in decisions, separating them in the analysis of the results collected in the second part increases the validity of the data. I chose G2 as these participants had not been exposed to overconfidence before. Consequently, I assume them to be less biased than the other group. While I will only refer to the analysis of the data collected from participants of G2 in the following, the results from G1 and the whole sample size show similar patterns that support the findings (see Appendix F).

The participants indicated to which degree they believed the CEO to be overconfident on a four-item, seven-point Likert type scale. The items were selected to specifically observe to what extent participants believed the CEOs overestimated their own and their company's performance. They were formulated based on the definition of overestimation given by Moore and Healy (2008). I chose to observe perceived overestimation as this was the type of overconfidence observed in the first part of the study. For example, one of the items was: "The CEO overestimates his company's success". Participants

had to indicate to which degree they agreed with this statement. As they could give an answer in the range from one (Highly disagree) to seven (Highly agree) any score above the median of four would indicate that the participant perceives the CEO to be overconfident. As the items showed significant correlation (α_B .85, α_Z .71, α_M .88, α_C .91, α_N .91) I aggregated them into a measure of perceived CEO overconfidence ($M_B = 2.9$, $SD_B = 1.2$, $M_Z = 4$, $SD_Z = 1$, $M_M = 5.4$, $SD_M = 1.3$, $M_C = 3.3$, $SD_C = 1.3$, $M_N = 3$, $SD_N = 1.2$). Afterwards, participants had to indicate their attitude towards the brands on the same five-item, seven-point semantic differential scales previously used in the first part of the survey (Ahluwalia et al., 2000). This measure was aggregated in a single measure of the general attitude towards the brand. Additionally, they gave their level of trust in the brand. The four items used for this assessment were again based on the model by Erdem and Swait (2004). The items were aggregated into a single measure of brand trust.

6.2.2. Results

CEO overconfidence
The range of the average perceived CEO overconfidence lay between 2.9 and 5.4 (see Table 3). The results show that only one of the CEOs was on average evaluated as overconfident by the participants (Elon Musk perceived overconfidence: M=5.4 > 4). The means of brand attitudes lay between 3.59 (Facebook) and 5.69 (Apple). The means of brand trust lay between 3.38 (Facebook) and 5.77 (Amazon). For the three companies of which the CEOs were perceived as most overconfident, the brand attitude was higher than the brand trust. The opposite was the case for the two brands of which the CEOs were perceived to be the least overconfident (see Table 3)

Brand attitude
here is no absolute relationship between perceived CEO overconfidence and brand attitude or brand trust (see Table 3). However, the results show that for individual companies the participant's attitude toward a brand is lower when they perceive the CEO to be more overconfident (see Appendix G). However, this relationship is only significant in the case of two out of the five observed brands (Facebook: beta = -.65, t(62) = -4.47, p <.001; Tesla: beta = -.27, t(60) = -2.21, p <.05). These two brands were also the two in which participants perceived the CEOs as the most overconfident out of the group of five (see Table 3).

Brand trust. The results show that higher perceived CEO overconfidence is associated with lower ratings of brand trust (see Appendix H). This effect was significant for three out of the five brands (Facebook: beta = -.6, t(62) = -4.6, p <.001; Tesla: beta = -.57, t(60) = -5.29, p <.001; Apple: beta = -.31, t(59) = -3.32, p <.01). This result indicates that the impact of higher perceived CEO overconfidence was stronger on brand trust than on the general attitude towards the brand. Again, the three companies for which this effect could be observed, where the three companies of which the CEOs were

perceived as the most overconfident out of the five.

CEO familiarity
The results indicated a slight trend of higher familiarity with the CEOs who are perceived to be more overconfident. However, the results do not show a linear relationship (see Appendix I). For example, more than twice as many people were familiar with Jeff Bezos, the CEO of Amazon, than with Satya Nadella, the CEO of Microsoft, who participants rated as more overconfident than Bezos.

6.2.3. Discussion

Measurement of perceived overconfidence
I believe that the measurement of perceived overconfidence offers a new perspective to the literature on overconfidence. This measure does not aim to observe the CEO's actual level of overconfidence as previous measures have tried to do (e.g., Malmendier and Tate, 2005). Instead, it focusses on the consumer's view of overconfidence. This measure has two significant advantages. First, it is a straightforward measure that does not require any in-depth analysis or difficult to access information such as the portfolio-based measure by Malmendier and Tate (2005). Secondly, individual perception plays a central role in the formation of attitudes and thus this measure is more suitable for the cause of investigating the relationship between CEO overconfidence and consumer attitudes. Fischbein and Ajzen (1975) suggests that people form attitudes based on the beliefs they hold about a person. They explain that beliefs are frequently formed based on information provided by an outside source, for example, newspapers, television, and radio. Today, other critical outside sources of information are online news outlets and social media. Thus, a consumer will form his or her beliefs about the CEO based on reporting of his or her statements, performance, and behavior in the media. Based on the study by Tenney et al. (2019) I assume that if people come to believe that an individual is overconfident, no matter whether this is true or not, they will evaluate him or her as less competent. This evaluation will negatively influence the meanings they associate with the CEO which according to the endorsement theory will then negatively affect their attitudes towards the products or brand. As the perception of overconfidence and actual overconfidence may diverge, the measure of perceived overconfidence is, therefore, more relevant in the study of consumer attitudes.

Brand attitude and brand trust
The findings of the first part of the study suggest that exposed overconfidence predicts lower ratings of the general attitude towards a brand. I assume that ratings of perceived CEO overconfidence yield similar results to those indicated by participants of the overconfidence condition group in the first part of the study. The results from the second part of the study confirm my fourth hypothesis. The results show that in two out of five cases higher perceived overconfidence is found to be connected with lower ratings of attitude towards

Table 3: Summary of Means and Standard Deviations for the Variables Perceived CEO Overconfidence, Brand Attitudes, and Brand Trust

		Perceived CEO Overconfidence			Participant Brand Attitude		Participant Brand Trust	
	n	Mean	SD		Mean	SD	Mean	SD
Elon Musk	62	5.4	1.3	Tesla	5.41	1.27	4.08	1.29
Mark Zuckerberg	64	4	1	Facebook	3.59	1.31	3.38	1.18
Tim Cook	61	3.3	1.3	Apple	5.69	1.27	5.64	0.99
Satya Nadella	21	3	1.2	Microsoft	5.32	0.67	5.65	0.91
Jeff Bezos	57	2.9	1.2	Amazon	5.32	1.24	5.77	1.24

Note. SD = standard deviation. Results from G2 participants. Source: Own table
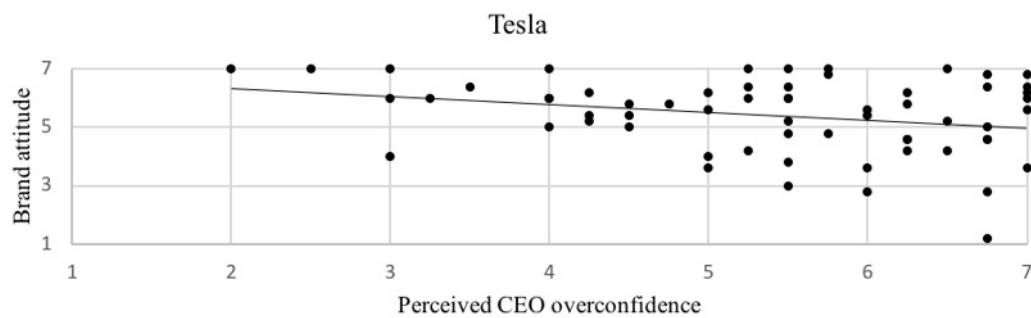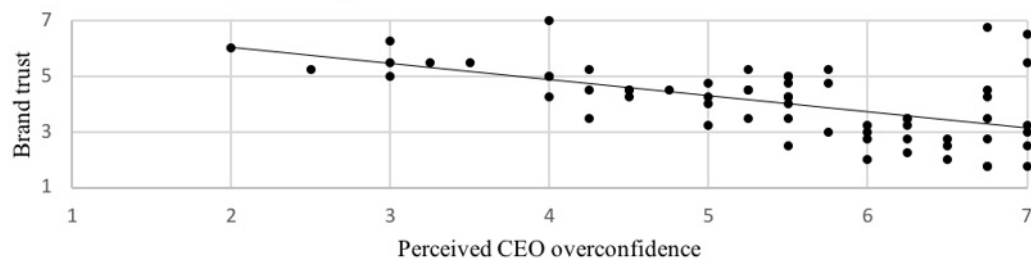
Figure 4: Linear Regression Analyses for the Brand Tesla. Source: Own figure

the brand. Similar to the results of the first part of the study, the results of the second part show that higher levels of perceived overconfidence are related to lower ratings of brand trust. This relationship is stronger than that between perceived CEO overconfidence and brand attitude. These findings are especially strong for the company Tesla (see Figure 4).

The companies which showed a significantly negative relationship between perceived overconfidence and general attitude towards a brand as well as brand trust were the companies in which the average ratings of perceived CEO overconfidence were the highest out of the group of CEOs. In reality, it can be challenging to assess whether a person has been overconfident or merely confident. Thus, whether or not a CEO is overconfident may be a controversial question. The results indicate that in a situation where this is the case, those consumers who feel like the CEO is overconfident will have a lower attitude towards the brand than those who per-

ceive the CEO as merely confident.

Familiarity with a CEO
When observing the impact of CEO overconfidence on consumer attitudes in reality, familiarity with the CEO plays an important role. For CEO overconfidence to impact consumer attitudes in any way, consumers must associate the CEO with a company for meaning transfer to occur. Thus, if consumers are not familiar with a CEO or do not associate him or her with the company, there will be no impact of CEO overconfidence on consumer attitudes. There may be a relationship between CEO familiarity and CEO overconfidence. The results of the study show a slight trend which indicates a higher rate of familiarity with CEOs who are perceived as more overconfident and lower rates of familiarity with CEOs who are perceived as less overconfident (see Appendix H). However, this relationship is not linear. Banerjee et al. (2018) suggest that CEO overconfidence will affect the CEOs communica-

tion with the public as they will make more overly optimistic predictions. Additionally, I assume that it is likely that overconfident CEOs make a larger quantity of public statements which increases their publicity and thus familiarity among the public. This assumption could explain the higher rate of familiarity with CEOs who are perceived as more overconfident, however, further research is necessary to confirm this relationship.

Limitations

A severe limitation to the explanatory power of the data collected during the second part of the study is the lack of control for other mediating factors and the missing causality between perceived CEO overconfidence and brand attitude. The participants' attitudes towards the company and their trust in the brand may be affected by a variety of other factors next to their perception of the CEO's level of overconfidence. For example, the study by Mitchell and Olson (1981) suggests that a consumer's beliefs about a product are an important mediator of their attitude towards the brand. However, the current study did not control for individual beliefs participants held about the company's products.

A higher rating of perceived CEO overconfidence may also be the consequence of a more negative view of the brand. This effect is the opposite of what the endorsement theory describes. However, the phenomenon could be explained by the Halo effect which is a bias that causes an individual's overall impression of an object to influence his or her evaluation of specific attributes concerning that object (Thorndike, 1920). Research has found that rationally formed consumer attitudes may be distorted by affective overtones which occur as a consequence of the Halo effect (Holbrook, 1983). Whether the individual has a systematically positive or negative view about the attributes of an object thus depends on the general attitude towards it. Following the Halo effect theory, it is possible that the general impression a participant has of the brand influences his or her specific evaluation of the company's CEO. If the participant has an overall negative impression of the brand, it is likely that he or she will view the CEO in a more negative light and ascribe negative traits such as overconfidence to them.

Further research

While there are severe limitations to the explanatory power of the survey, it holds the advantage of observing realistic impressions of perceived CEO overconfidence and consumer attitudes towards brands. Further studies should thus focus on observing the relationship between perceived CEO overconfidence and consumer brand attitudes in realistic settings. However, they need to ensure a causal relationship between perceived CEO overconfidence and the attitudes observed. Further research could also measure other consumer attitudes next to brand attitude and trust.

A further area of research may be the exploration of the question of whether there is a link between the CEO's personality characteristic of overconfidence and the rate of CEO familiarity among the public. As previously suggested a foundation for the exploration of this relationship may be the assumption that overconfident CEOs make more overly positive public statements which increases their publicity and thus familiarity among the public.

7. Conclusion

The results of the second part of the study support the results of the first part of the study which show that exposed verbally communicated CEO overconfidence leads to lower evaluations of the product, the attitude towards the brand, trust in the brand and the brand personality trait of competence. Overall the study indicates that exposed or perceived CEO overconfidence negatively affects consumer attitudes. The study builds on the connection of research concerning the social impact of overconfidence and the endorsement theory. In this section, I will summarize the implications the study carries for previous and future research. Finally, I will conclude what CEOs and executives can learn from the study and how they can benefit from the findings.

7.1. Implications for Academic Research

The current study has offered a new angle to the previous literature regarding the impact of overconfidence on status and the endorsement theory. As a consequence, different areas of further research are recommended to extend the findings of the study. In the following I will summarize the implications the current research has regarding previous and future literature.

Firstly, the study has significant implications for the literature regarding the impact of overconfidence on status. The discussion of the results has shown how the findings of the survey implicitly support the findings of Tenney et al. (2019). Thus, this study offers further support to the theory of the status diminishing effect of overconfidence and finds no evidence for the status-enhancement theory of overconfidence (Anderson et al., 2012b). Further research is needed to explore whether non-verbally communicated overconfidence yields status-enhancing benefits for CEOs. Some studies have already explored the impact that CEO overconfidence has on the relationship with stakeholders. Similar to the current study, this research also used the status-enhancement theory of overconfidence as a foundation to explain the impact that CEO overconfidence has on stakeholders such as employees and suppliers (Phua et al., 2018). The current study adds to this research in two ways. Firstly, it offers a new angle of view as it focusses on consumers, which has not been done before. Secondly, contrary to the previous literature, the current study finds a negative relationship between CEO overconfidence and consumer attitudes.

Secondly, the research has important implications for the literature in the field of the endorsement theory. The current study has confirmed the validity of the meaning transfer process in the context of CEO endorsement. This finding is an extension to previous literature where the attention has mostly been on brand endorsement through the use of celebrities in

advertising. As CEOs usually do not endorse specific products but represent the company as a whole, it is an interesting finding that through the meaning transfer process not only the general attitude towards the brand and brand trust are affected but also the attitude towards a specific product.

Lastly, the study suggests the necessity of future research concerning the debiasing of CEO overconfidence. The results of the current study indicate that revealed verbally communicated overconfidence by the CEO negatively influences consumers' attitudes towards products and brands and thus indirectly negatively influences the company's performance. As a consequence, methods for the debiasing of CEO overconfidence should be developed and tested so that CEOs can decrease the degree to which they are perceived as overconfident by consumers. For CEOs to be able to draw a complete conclusion regarding the optimal display and communication of confidence, further research concerning the impact of non-verbally communicated CEO overconfidence and CEO underconfidence is necessary.

7.2. Managerial Implications

The study has important implications for the communication strategies and general behavior of CEOs. The findings suggest that CEOs should avoid making statements that consumers may interpret as overconfident. CEOs should be aware of the process of meaning transfer by which consumers transfer meanings they associate with the CEO to the products and brand of the company. While the association of the trait overconfidence leads to more negative attitudes towards the products and brand, CEOs can also try and find ways to use this process to their advantage. In contrast to overconfidence, other CEO personality traits may transfer positive meanings to the products and brand of a company. This effect needs to be confirmed by further research.

When applying the findings of the study to the case of Elon Musk, the CEO of Tesla, it is suggested that he should reduce the amount of publicly communicated overconfident statements he makes, as this negatively affects consumers' attitudes towards the Tesla products and brand. However, for him to actively make these changes in his communication, it is required that he develops the ability to identify statements and behaviors that may be interpreted as overconfident. Jim Cantrell, co-founder of Space X, has said the following about Musk in 2014: "The one major important distinction that sets him apart is his inability to consider failure. It simply is not even in his thought process". If Musk is convinced that he will succeed in reaching the goals he has set himself, no matter how high they are, he will not be able to consider his statements and behavior as overconfident. As this mindset may be common among CEOs the greatest difficulty for them will be to develop the ability of a targeted self-reflection by which they can identify which of their statements could be considered as overconfident. In conclusion, the finding that CEO overconfidence negatively affects consumer attitudes sets the foundation for CEOs to understand how the communication of overconfident goals and forecasts takes an active part in the formation of consumer attitudes.

However, CEOs will only be able to make use of this finding if they can develop tools which help them identify how and when they are overconfident. Only then will they also be able to act accordingly and reduce their own verbally communicated overconfidence.

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