Reputation Management in the Automotive Industry:

The Impact of Scandals on Customer Perceptions and Adequate Corporate Response Strategies by Consideration of Cultural and National Differences

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Abstract

Due to a current series of reputation-damaging incidents within the automotive industry, questions arise how corporate crisis affect customer perceptions and brand reputation, as well as how affected organizations should respond to such an event. Previous research already investigated the theoretical construct of corporate reputation and possible corporate crisis response strategies intensively. However, cultural and national influencing factors on customers' brand evaluation and preferences for organizational behavior in a corporate crisis context were so far little considered and thus represent a research gap. Besides that, little theoretical and practical advice exists for companies on how and why to adapt their crisis response strategies to cultural and national environments. Therefore, the purpose of this paper is to close the existing research gap by investigating cultural differences in the reactions of customers' corporate scandals and adequate corporate responses.

To do so, a detailed look from a theoretical angle is taken at automotive industry specific singularities, as well as customer perception theory, determinants of reputation formation, and crisis management theory. In order to contribute to existing reputational theory, the reviewed literature is further linked to popular cultural theories.

In order to tackle the research question methodologically, a survey with a total of 170 respondents from Germany, Asia and the USA was conducted with the aim to measure the effect of the Toyota and Volkswagen corporate scandals and related cultural differences. As a measurement instrument, Schwaiger's reputational model was used to approach the latent construct of corporate reputation through more observable reputational subdimensions.

Overall, in the present study, several culture-specific and brand-specific differences in customer perceptions and brand evaluation were identified. Furthermore, both socio-cultural and organizational culture were found to be important cornerstones for determining corporate response behavior and thus also crisis outcomes. It is thus recommended that crisis-hit companies act in a culturally and contextually adaptive way to reputation-damaging events in order to minimize corporate crisis impacts.

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List of Abbreviations

AMAC – America's Most Admired Companies

AVE – average variance extracted

CSR – corporate social responsibility

GMAC – Global Most Admired Companies

LISREL – linear structural relationships

ML – maximum likelihood

NHTSA – National Highway and Traffic Safety Administration

ORS – overall reputation score

PLS – partial least squares

RQ – Reputation Quotient

SCCT – Situational Crisis Communication Theory

SEM – structural equation modeling

VIF – variance inflation factor

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1. Introduction

1.1 Background and Problem Statement

In today's business environment, concurring trends make perceptions of customers more important (Fombrun et al., 2000). These perceptions can be defined as the customer dimension, which are a part of the external stakeholder group, of the concept of corporate reputation. A good corporate reputation is positively related to customer trust, loyalty and satisfaction (Bartikowski & Walsh, 2011). Therefore, it can be considered as an important intangible asset of a company. The main challenge associated with corporate reputation is that it takes a long time to establish, but a very short time is sufficient to demolish it (Bartikowski & Walsh, 2011).

Gatzert (2015) cites the vehicle recall of Toyota as an example of how severely a good corporate reputation can be damaged by disruptive events. For this reason reputational risk needs to be accounted for by companies. Further, news about crisis events, like for instance the recall of vehicles, nowadays spread wider and faster due to social media and Internet.

A further challenge is, that in order to maintain or restore corporate reputation after a crisis, a company has to know how to measure it. In such a case, reputation indexes can be an appropriate approach to measure the extent to which a crisis has impacted customers and therefore sales.

In this paper, both the emissions scandal of the Volkswagen (VW) Group and the quality scandal of Toyota will be outlined, investigated and compared. Against the background of those two recent corporate scandals, the different dimensions of corporate reputation will be analyzed in terms of which one has the biggest impact on corporate reputation. Further, the customer behavior concerning corporate scandals in general as well as appropriate crisis response strategies will be investigated. In this regard, special focus will be given on one hand to the cultural background of the customers and on the other hand to the corporate culture of the company. So far, research has not yet thoroughly examined the importance of the cultural aspect in companies' crisis response strategies (Bowen et al., 2017). This, however, is an essential aspect considering that most automotive companies operate internationally. The choice and importance of the automotive industry will be justified in the following by conducting a Porter's five forces analysis. It serves as a framework for analyzing the

competitive environment, structure, and specific industry characteristics, which in turns contributes to a better overall understanding of the research setting.

Porter's Five Forces Automotive Industry

A closer look at the five dimensions *Threat of New Entrants, Bargaining Power of Suppliers, Bargaining Power of Buyers, Threat of Substitute Products and Services, and Rivalry among Existing Competitors* helps to understand the dynamics of the automotive business environment and resulting threats and opportunities. (Porter, 1979). Furthermore, it is often used a framework for developing business strategies, and can thus also be relevant in crisis situations.

The threat of new entrants is, among other factors, determined by entry barriers such as economies of scale, capital requirements, access to distribution channels, and government policies (Porter, 1979). Due to the fact that high capital is required and that large, already existing producers have scale economy advantages and already established reputation, the threat of new entrants can be considered as low. Nevertheless, new entrants face little barriers from part of government regulations and can also easily access distribution channels (Nkomo, 2013).

Bargaining power of suppliers can be seen as weak, due to the fact there is a large number of easily accessible suppliers and a wide range of product qualities to choose from in the automotive industry (Nkomo, 2013).

Bargaining power of buyers, in turn, is high: customers have a large variety of products and brands to choose from, and are often price-sensitive (Nkomo, 2013). Also, they can easily and without costs switch to competitive brands or alternative means of transport (Porter, 2008¸ Nkomo, 2013).

The threat of substitute products is moderate: Customers dispose of several, partly cheaper public transport options, which on the other hand do not offer the same level of convenience than a car does (Nkomo, 2013).

Rivalry among existing competitors is very high, as there is a high number of competitors in the field, markets already mature, and price competition strong (Porter, 1979; Nkomo, 2013).

To sum up, based on Porter's Five Forces, it can be concluded that the main threats and challenges within the automotive industry result from high rivalry and high bargaining power of buyers, which especially in crisis situation pose a risk to lose customers. In addition, car purchases are usually high-involvement buying decisions, due to their infrequency and significant financial burden, but also due to the safety aspect, where product failures can represent a danger to life. This leads customers to inform themselves intensively about the product and brand, and well as comparing them to other offers available on the market (Kirstein, 2009).

Nevertheless, despite of a wide range of alternatives available, many car customers have a tendency to stick to previously tried and trusted car brands in order to reduce their perceived risk (Kirstein, 2009). This tendency of loyal customers within the car branch, however, might come under strain when the trusted brand does not perform as expected, which in turn has a high potential to change perceptual patterns and cause adverse reactions from part of the customers.

Besides that, the automotive industry is a globally well represented and comparable sector, which is needed for national and cultural considerations within the research context. In combination, these characteristics make the automotive industry an interesting study object when investigating the impact of a corporate crisis on customer perceptions and brand reputation.

1.2 Goal and Research Question

A lot of literature and research exists about perception theory and crisis response strategies. Especially, three research gaps have been identified: First, customer reactions in the light of a crisis situation. Second, the influence of cultural factors on customer perceptions in crisis situations (Bowen et al., 2017). Third, the choice of adequate response strategy by consideration of cultural and organizational factors.

However, cultural factors such as socio-cultural customer background and corporate culture are assumed to significantly influence the choice of corporate response and trust restoration after an occurring crisis (Zhu et al., 2017). This raises the first research question:

- Which cultural and national differences exist in customer perception of the occurrence of corporate scandals?

This first research question, in turn, lays the foundation for the second research questions:

- How do these cultural and national differences in regard to customer perceptions, as well as intraorganizational influence a corporation's choice of a crisis response strategy?

Both of these questions will be analyzed in detail in the course of the paper. The chosen theoretical and empirical design in order to approach these research questions will be further explained in the following section.

1.3 Course of the Investigation

The present paper consists of a theoretical and an empirical part. Based on that, limitations of research, managerial implications and a conclusion will be deduced.

In the theoretical part, relevant concepts, theories and frameworks will be introduced in order to provide a foundation for the subsequent methodological and analytical parts of the thesis. Thereafter, the examination of customer-specific, reputational, organizational and interorganizational determinants will help to understand how customers form perceptions on events. Subsequently, crisis management literature, especially the image restoration theory of Benoit, is used to describe possible corporate response strategies to scandals. This includes the three phases pre-crisis preparation, post-crisis containment and post crisis evaluation. Lastly, theoretical findings about the cultural implications for the choice of a crisis response strategy will be presented. Thereby, a closer look is taken at social, political/legal and economic systems. This consideration will also help to answer the question whether corporate crisis response strategies should be globally standardized or locally adaptive in nature.

In the methodological part, an approach by Schwaiger (2004) was applied to depict customer perceptions and measure corporate reputation. This model consists of six reputational dimensions which together cover both cognitive components (competence) and affective components (sympathy) of corporate reputation. To generate data needed for calculating the reputation indexes, a survey with participants from different cultural backgrounds (USA, Germany, and Asia) was carried out. The aim was to analyze cultural differences in customer reactions to corporate scandals and the thereby

affected reputational dimensions. In the survey, participants were - among other things - asked to evaluate the three brands Ford, Volkswagen in regard to their performance in the different reputational dimension from Schwaiger's model. Of these three brands, Volkswagen is a recently scandal-plagued car manufacturer Volkswagen, Toyota's scandal is already a couple of years behind, and Ford did not suffer from any severe scandal in recent years. Furthermore, the brands were chosen in order to reflect the geographic origin of the participant groups, thus testing for national bias

The resulting insights from the methodological part will then be used to examine analyze the determinants and impact of corporate scandals on customer perceptions. Based on that, it will be discussed which response strategies should be used by affected organizations, considering both socio-cultural customer background and the corporate culture/business environment.

2. Theoretical Framework

To begin with, two theoretical conceptions will be regarded more in detail based on previous research: (1) Customer perception theory in the light of a crisis situation, and (2) crisis response strategies. These conceptions are used as a foundation for the underlying problem statement. Besides that, the dimension of culture will be integrated into both of these theoretical foundations, as culture was recently found to be a significant determinant of both customer perception and crisis response strategy (Zhu et al., 2017). This paper thus tries to create a link between socio-cultural and organizational aspects to be considered and popular crisis response theories such as Benoit's image restoration strategies or Coombs' Situational Crisis Communication Theory.

2.1 Customer Perception Theory in the Light of a Crisis Situation

In the following, focus will be set on key determinants of the customer perception formation process and possible damages in crisis situations. First of all, some clarifications will be needed. Based on findings from Dean (2004), Seeger et al. (1998), and Barton (1993); Dardis & Haigh (2009, p.101) define corporate crises as "*unexpected events that both create uncertainty and threaten a company's priority goals while simultaneously jeopardizing the overall reputation of the company or organization*".

Crises can further be divided into victim crises, accidental crises, and preventable (intentional) crises (Choi & Chung, 2013), with the latter also being referred to as scandal (Rhee and Valdez, 2009). They differ in their level of responsibility from part of the involved organization, with responsibility being weak for a victim crisis, certain but low for an accidental crisis; and full responsibility for a preventable crisis/scandal (Choi & Chung, 2013). Building on research from Coombs (2006, 2007), Choi and Chung (2013) find that these crisis types have an effect on the degree of reputational damage. The impact is more negative, the higher the responsibility of the firm causing the crisis (Choi & Chung, 2013). In the automotive industry context, crises of any kind frequently imply product recalls. One might discuss, depending on the specific case, whether recalls are an accidental or preventable crisis.

The potential of recalls for causing reputational damages depends on three factors: (1) Frequency of recalls, (2) Severity of recalls, and (3) Type of recalls (Rhee & Valdez, 2009). Usually, national

government institutions are responsible for the release of information and evaluation of recalls. For example, in the US, the National Highway and Traffic Safety Administration (NHTSA) reports on the number of recalls and classifies them into severe and non-severe recalls based on a four-step scale (Rhee & Haunschild, 2006). Also, two types of recalls can be distinguished: Voluntary (initiated by the car manufacturer after identifying defects through internal control systems) and involuntary recalls (initiated by the responsible automotive control institution) (Haunschild & Rhee, 2004).

From a customer perspective, frequent, severe and involuntary recalls have a higher reputation-damaging potential. Frequent and severe recalls question the quality and safety of the car, which is of particular importance in a context where flaws potentially pose a risk of accidents and danger to human life. Involuntary recalls, on the other hand, might imply that the car manufacturer was not able or not willing to detect a defect on its product by himself, which in turn can reduce the level of trust in both the product and the producer (Haunschild & Rhee, 2004).

After having clarified some terminology and contextual conditions of crisis, the impact of crisis situations on customer perceptions will now be analyzed more in detail by consideration of four subcategories: (1) customer-specific, (2) reputational, (3) organizational and (4) interorganizational influence factors (building upon Rhee & Valdez, 2009).

2.1.1 Customer-specific Determinants

The customers' individual characteristics and their heterogeneous nature of interests significantly determine the way in which crisis are perceived and reacted to (Rhee & Valdez, 2009). Therefore, diversity of market segments – "*the extent to which a firm serves different market segments, where the segments can be differentiated from each other based on distinct product attributes or specific customer demand*." (Rhee & Valdez, 2009, p. 152) – is recognized by previous research as a relevant dimension underlying customer perceptions and reactions to crisis.

For example, it was found that market segments react differently to a violation of expectations (Rhee & Haunschild, 2006; based on Heath and Chatterjee, 1995). Customers of high-reputation/high-quality firms were more sensitive to product defects, and more likely to penalize such occurrences by switching to competitive carmakers than customers of low-reputation/ low quality producers (Rhee & Haunschild, 2006). The higher market penalization for high reputation firms/products can be partly

explained by using a Bayesian learning model of beliefs: Customers initially begin with buying decisions based on beliefs on the product quality, and later update their beliefs based on whether the observed performance fulfills the expectations (Rhee & Haunschild, 2006). According to Rhee & Haunschild (2006, p. 103), "*when consumers believe that a producer has a high-quality product (e.g., Lexus), they are more likely to modify their beliefs after observing a defect in that producer's products than they are with a defect in a relatively poor-quality product (e.g., Kia.)*." This stronger reaction to actions which violate previous expectations is also known as "expectancy violation effect" (Rhee & Haunschild, 2006; based on Burgoon & LePoire, 1993).

The strength of customer reaction is further expected to be determined by the violated aspect itself and its importance in purchase decisions or opinion formation processes. If a specific aspect considered highly important by the individual customer, e.g. qualify, is violated, this can cause strongly negative customer reactions, for example lower customer involvement, a detachment from the company, as well as difficulties in maintaining current customers and obtaining new ones (Rhee & Valdez, 2009; based on Wilson & Grimlund, 1990).

However, customers differ in their relational commitment towards a firm (Huang, 2008) and in their outcome-involvement with discreditable actions (Reuber & Fischer, 2010). When relational commitment and outcome-involvement are low, customers are not very active in information-processing and belief updating during a reputation-damaging event, and consequently customer perceptions little affected (Reuber & Fischer, 2010).

In contrast, a significant loss of reputation and trust, combined with strong emotional reactions, can occur when the customers' social norms, moral and ethical values or legal codes are violated, as it happens in cases where organizations are involved in fraud, bribery or environmental damages (Reuber & Fischer, 2010). Norms and values are usually closely tied to an individual's cultural background. In general, culture was found to have a large effect on the perception process (Kastanakis & Voyer, 2014). Adopting the definition from Shavitt et al. (2008), Kastanakis and Voyer (2014, p. 5) illustrate that culture includes "*shared elements that provide standards for perceiving, believing, evaluating, communicating, and acting among those who share a language, a historical period, and a geographical location.*"

In research, a main distinction between Western (North America, Europe) and Eastern cultures (Asia) is made (Kastanakis & Voyer, 2014). For example, Westerners are said to be analytical information processors who focus on a specific object when processing information (Kastanakis & Voyer, 2014). Eastern Asians, in turn, process information holistically, thus seeing objects and actions in context and according to relationships (Kastanakis & Voyer, 2014; based on Ji et al., 2004).

It was found that cultural differences also account for variations in customer reactions (Kastanakis & Voyer, 2014). Building on Hofstede's popular cultural dimensions, members of a certain culture vary in their level of uncertainty avoidance – "*the extent to which the members of a culture feel threatened by ambiguous or unknown situations*", e.g. a crisis/recall situation (Wertz & Ki, 2010, p. 85; based on Hofstede, 1991). While people from Germany and Japan score high on uncertainty avoidance, people from the USA or Singapore score relatively low, thus having a greater acceptance for ambiguous situations (Hofstede, n.d.). This results, however, show that a distinction between Eastern and Western countries is not always congruent. For this reason, this dimension will not be further investigated within this research setting.

Furthermore, Western cultures are considered individualistic (Hofstede, 1991). They are said to focus on ego-related goals and needs, and are thus likely to detach from anything that does not serve their purposes (e.g. an expectation-violating brand) (Kastanakis & Voyer, 2014). Also, Westerners were found to more often express ego-focused emotions such as anger, frustration and pride (Kastanakis & Voyer, 2014; based on Markus & Kitayama, 1991).

Contrary to that, Eastern cultures are typically classified as being of collectivistic nature, meaning that they have as strong sense of group belonging (Kastanakis & Voyer, 2014; based on Hofstede, 1991). Instead of ego-related, emotions are rather others-related, expressing sympathy and belongingness (Kastanakis & Voyer, 2014; based on Markus & Kitayama, 1991). Due to this high level of collectivism and others-relation, people of Eastern descent are said to have a social desirability bias, so that the opinion of others affect their perceptions strongly (Kastanakis & Voyer, 2014). This bias can thus have a fortifying effect – positively or negatively – on corporate reputation during a crisis.

Another factor that might affect customer perceptions based on cultural background is a domestic bias, also related to consumer ethnocentrism: Customers may have a higher level of trust and affection towards domestic brands and products and further perceive them as superior (Bowen et al., 2017). In a crisis scenario involving a domestic producer or brand, such a domestic bias can serve as a protective shield, in which negative aspects are absorbed and overlooked, also to protect the local economy (Bowen et al., 2017). Contrary to that, misconduct of foreign companies may be perceived as more severe, calling for hard punishment, as this possibly strengthens the national industry (Bowen et al., 2017). Nevertheless, due to the existence of stereotypes, foreign brands can also be seen as superior to domestic brands. For example, many people automatically assume that Japanese and German cars are of exceptional quality, due to the countries longstanding car manufacturing tradition and expertise (Rhee & Haunschild, 2006). Therefore, it can be concluded that culture and national bias are customer perception influencing factors worth to be analyzed more in detail in the course of this paper.

2.1.2 Reputational Determinants

Besides customer-specific factors, reputational determinants are closely related with customer perceptions. Compatible with this, Rhee & Haunschild (2006, p. 102) define reputation as "*the consumer's subjective evaluation of the perceived quality of the producer*".

The given definition was chosen due to its focus on quality and customers, which is especially suitable in the underlying research context. Not only is the focus of this research project put on the automotive industry, where quality and safety are given a high value, but also customers selected as the stakeholder group to be investigated. However, reputation is a very multidimensional construct: It also entails financial (e.g. dividend yield) and non-financial elements (e.g. media visibility, CSR practices); and besides customers, reputation also relates to the company's employees, investors, suppliers, governmental relations and further stakeholder groups (Rhee & Valdez, 2009).

Reputation is sometimes even considered an organization's most valuable asset, as it is positively related to business success (Gibson et al., 2006). A good reputation is reflected by high levels of stakeholder confidence, trust and brand loyalty, as well as a positive public image (Gibson et al., 2006). Furthermore, it helps to differentiate from competitors (Weißensteiner, 2014). In good times,

reputation thus fosters economic expansion while in crisis, it may serve as a buffer (Gibson et al., 2006).

In an automotive context, there are three common methods to measure corporate reputation: Third party ratings (e.g. from auto experts or independent test institutions) (Rhee & Haunschild, 2006), depreciation rates (how the price of a carmaker's product develops over time) (Rhee & Haunschild, 2006), and the reputation quotient (Rhee & Valdez, 2006).

The reputation quotient, especially the version established by Harris-Fombrun, is one of the most well-known scientific methods to measure corporate reputation empirically, although it does not explain the underlying cause of reputational changes (Schwaiger, 2004, based on Fombrun, 2001). The Harris-Fombrun reputation quotient is calculated based on six dimensions which are central to corporate reputation and also reflect the construct's multidimensional character: (1) Emotional appeal, (2) products and services, (3) financial performance, (4) vision and leadership, (5) workplace environment, and (6) social responsibility (Schwaiger, 2004). Previous research found that companies which perform positively in several of these dimensions are better off in crisis situations than companies with little positive or even negative performance in these dimensions (Rhee & Valdez, 2006).

Companies with several positive dimensions benefit from a buffer, as reputational damages in one dimension are partly relativized by the other positive dimensions (Rhee & Valdez, 2006). This, in turn, can prevent customers' perceptions from declining too much. Nevertheless, the customer's relative weights for the dimension should also be considered because due to customer-specific factors, some dimensions are perceived as more fundamental (Rhee & Valdez, 2006).

However, there is an academic debate on the mentioned buffer effect of good reputation. As already mentioned when talking about customer-specific determinants, a company's good reputation can also be a liability: "*The better a firm's reputation, the greater the extent to which its product defects will be perceived as a breach of this implicit promise*" (Rhee & Haunschild, 2006, p.103), and the higher the resulting market penalization. Two factors were found to be moderating variables for the effect of good reputation on customer perceptions in the case of a damaging event: (1) Substitutability; and (2) Generalism vs Specialism) (Rhee & Haunschild, 2006).

Ad (1): If customers have few alternatives (substitutes) to the high-reputation brand, they may not withdraw their attachment to the brand, even in the case of product defects and crisis (Rhee & Haunschild, 2006).

Ad (2): Carmakers occupying a small product/customer niche (e.g. Ferrari), so-called "Specialists", are more likely to buffer damages resulting from product damages than "Generalists" – those carmakers serving larger audience groups (e.g Volkswagen and Toyota) (Rhee & Valdez, 2009; based on Rhee & Hauschild, 2006). A probable explanation is that customers perceive specialists to be also more specialized in damage repair (Rhee & Valdez, 2009).

Lastly, Reuber and Fischer (2010) developed a model to explain reputational loss in a crisis situation with the help of four determinants:
(1) Perceived control, (2) Perceived certainty, (3) Perceived threat, and (4) Perceived deviance.

Ad (1): If customers perceive organizational misconduct as controllable (which implies that the firm could have avoided the incident, but chose not to do so), reputation is threatened to a larger extent (Reuber & Fischer, 2010)

Ad (2): If customers perceive the occurrence of dishonorable actions as certain (even if the company denies it), reputation damages are greater (Reuber & Fischer, 2010).

Ad (3): When an organization's action is perceived as threatening, reputation is more affected (Reuber & Fischer, 2010)

Ad (4): The more the misconduct deviates from industry standards, the more it leads to a loss of reputation (Reuber & Fischer, 2010) However, if an action is dishonorable, but a common procedure within the industry, the reputational loss is mitigated (Reuber & Fischer, 2010).

However, these four factors will not be pursued further in the course of the paper, as this would exceed the scope of this research.

2.1.3 Organizational Determinants

According to Rhee and Valdez (2009, p. 155), "*two firms may experience the same negative event, but the damage done to their reputation may be different because of the different contextual factors surrounding the firms.*" This contextual factors could be organizational age, corporate culture, organizational size/structure, and management behavior (Rhee and Valdez, 2009).

In line with previous findings, older organizations' reputation benefits from their status of reliability gained over time, but with growing age, this can become a burden, as the expectancy violation effect penalizes inconsistencies with expected behavior, leading to strong customer reactions (Rhee and Valdez, 2009).

Corporate culture, according to Schwartz and Davis (1981, p.33) can be defined as "*a pattern of beliefs and expectations shared by the organization's members. These beliefs and expectations produce norms that powerfully shape the behavior of individuals and groups in the organization.*"

It was found to co-determine how involved the organization's members are, how effectively the organization adapts to new circumstances (e.g. a reputational crisis) without losing its core characteristics, how consistent and defined the course of action is, and whether a clear mission provides guidance and direction (Denison, 1990). Consequently, corporate culture is a crucial concept when analyzing organizations' behavior in crisis situations, which in turn influences customer perceptions.

In recapitulation of these contextual factors, a large and complex organizational structure, an inconsistent corporate culture, as well as late, vague and repulsing responses when perceived certainty of the crisis is high are likely to influence customer perceptions in a negative direction.

However, customers can also be forgiving: When the company collaborates well with governmental authorities during crisis investigations or recall processes, or when structural/policy changes in order to avoid further incidents are implemented, customers may perceive this as positive (Rhee & Valdez, 2009).

Furthermore, it was found that recalls result in organizational learning effects and stimulate change, which in turn decreases the likelihood of subsequent recalls. Such an organizational improvement can in the long term affect customer perceptions positively (Haunschild & Rhee, 2004).

2.1.4 Interorganizational Determinants

An essential part of influencing customer perceptions takes place interorganizationally. Particularly, three relevant parties can be distinguished: (1) Watchdog agencies, (2) Mass media, and (3) Endorsers (Rhee & Valdez, 2009). Each of these third parties releases information which might affect the perception of the public in regard to a specific event (Rhee & Valdez, 2009).

Watchdog agencies, for example the governmental institution NHTSA, control the compliance of products with determined standards, and have the power to order involuntary recalls and punish failures to fulfill obligations (Rhee & Valdez, 2009). As watchdog agencies are neutral and independent organizations, their decisions and judgement have a high potential to influence customer perceptions (Rhee & Valdez, 2009).

Whenever firms suffer from severe reputation-damaging events, news are usually diffused by the media, which are said to have a significant share in influencing stakeholder judgement and perceptions (Rhee & Valdez, 2009). First of all, the media has a high reach and visibility. Besides that, the high influence of media mainly stems from its power to decide upon which topics to be covered, to which extent, and in which manner (e.g. subjective versus objective reporting, positive versus negative wording etc.). Indeed, previous research found media coverage to be rather unequal and selective: For example, product defects from part of good-reputation firms usually receive more media attention (Rhee & Haunschild, 2006). Also, media coverage was especially high in cases of high expectancy violations (Rhee & Valdez, 2009).

Nevertheless, the media does not necessarily have the power to change perceptions. Audience groups differ in seeking and processing information, and attention levels also vary (Reuber & Fischer, 2010). In order to affect perceptions negatively, it was found that media coverage must be frequent and consistently negative (Reuber & Fischer, 2010).

The last interorganizational influence group, – endorsers – comprises alliance partners and rating agencies of the affected company. (Rhee & Valdez, 2009). In the case of a crisis, potential alliance breakups and rating downgrades usually receive high attention from part of the public, as they indicate the severity of the damaging event (Rhee & Valdez, 2009). However, endorsers were found to rarely and slowly change their standpoint, which is due to a fear of damaging their self-image (Rhee & Valdez, 2009). A detachment from the company is more likely for scandals than for accidents (Rhee & Valdez, 2009). Consequently, endorser reactions – if they occur – send signals to the customers that the incident is severe.

Nevertheless, due to a limited research scope, the impact on interoganizational influence groups on customer perceptions will not be a focal research area of this paper.

2.2 Crisis Management Theory

Adopting a definition from Dardis and Haigh (2009, p. 101; based on Fearn-Banks, 1994; Kim, 2002; Massey and Larsen, 2006), "*Crisis management entails all aspects of crises for organizations, including everything from pre-crisis prevention and preparation strategies to post-crisis containment and evaluation strategies.*" Due to the fact that the strongest customer reactions can be expected immediately after the crisis, the theoretical focus of this research will be on post-crisis containment and response strategies. Nevertheless, pre-crisis prevention and post-crisis evaluation are also targeted briefly. Last, but not least, the implications of culture for the choice of a crisis response strategy will be considered.

2.2.1 Pre-crisis Prevention and Preparation

High moral and quality standards, combined with strong corporate control mechanisms, can help to prevent crisis and scandals. However this is not always possible. Coming back to the crisis type definitions from Choi & Chung (2013), companies find it difficult to prevent victim crisis for which they hardly hold responsibility. For accidental crisis (for which they hold a low and certain responsibility, but the occurrence is hard to avoid) and for preventable, intentional crisis (also classified as scandals), companies should at least prepare action plans for the case that a specific incident occurs (Choi & Chung, 2013; Dardis & Haigh, 2009). For example, airlines – be it due to unfavorable external conditions or internal negligence – should prepare for the likely event of a plane crash (Benoit, 1997).

In the same vein, carmakers should prepare action plans for recalls, which are a quite likely event: US carmakers experience an average 2.5 recalls per year, 80% of it being voluntary recalls (Haunschild & Rhee, 2004). Action plans, which come into play when pre-crisis prevention strategies failed and a crisis occurs, might entail information about managerial responsibilities, communication channels and information release, as well as image restoration and crisis response strategies. Thus, organizations can reduce response time and missteps in reaction to crisis (Benoit, 1997).

2.2.2 Post-crisis Containment and Response Strategies

Immediately after the occurring corporate crisis, uncertainty for customer – and sometimes also for the company – is high, and the company's future reputation and financial well-being at balance (Dardis & Haigh, 2009; based on Coombs and Holladay, 1996). A main challenge for companies is therefore to maintain customers' trust, affection and continuance commitment (Huang, 2008).

Real-life business cases show that organizations frequently survive reputation-damaging events and illegal activities (Reuber & Fischer, 2009). Their ability to buffer negative outcomes is mainly attributed to effective crisis response strategies (Reuber & Fischer, 2009).

One of the most important and popular works on crisis response strategies is the image restoration theory from Benoit (1997). Therein, he proposes five communication strategies, which can be used to repair reputation in corporate crisis situations. Whether in speeches to the public, statements on the corporate website or social media, or for communication with the press, companies' crisis response messages usually follow one of Benoit's identified communication strategies.

An important premise of the theory is that organizations beforehand determine which audience to target (Benoit, 1997). Due to differing interests and levels of involvement from part of the stakeholder groups, a communication strategy that is effective for one group might be worthless for another group (Benoit, 1997). However, there is a danger of issuing contradictory messages when applying different strategies for different stakeholder groups (Benoit, 1997). Therefore, it is recommended to choose the strategy that best suits the most important target group – which in this specific research setting would be the customers – and follow this strategy consistently (Benoit, 1997).

The five identified image restoration strategies identified by Benoit (1997) are: (1) Denial, (2) evasion of responsibility, (3) reducing the offensiveness of the event, (4) corrective action, and (5) mortification, as illustrated in Figure 1.

Image Restoration Strategies

Strategy	*Key Characteristic*	*Illustration*
Denial		
Simple Denial	Did Not Perform Act	Coke Does Not Charge McDonald's Less
Shift the Blame	Act Performed by Another	Exxon: Alaska and Caused Delay
Evasion of Responsibility		
Provocation	Responded to Act of Another	Firm Moved Because of New State Laws
Defeasibility	Lack of Information or Ability	Executive Not Told Meeting Changed
Accident	Act Was a Mishap	Sears' Unneeded Repairs Inadvertent
Good Intentions	Meant Well in Act	Sears: No Willful Over-Charges
Reducing Offensiveness of Event		
Bolstering	Stress Good Traits	Exxon's Swift and Competent Action
Minimization	Act Not Serious	Exxon: Few Animals Killed
Differentiation	Act Less Offensive	Sears: Preventative Maintenance
Transcendence	More Important Considerations	Helping Humans Justifies Tests
Attack Accuser	Reduce Credibility of Accuser	Pepsi: Coke Charges McDonald's Less
Compensation	Reimburse Victim	Disabled Movie-Goers Given Free Passes
Corrective Action	Plan to Solve or Prevent Problem	AT&T Promised to Improve Service
Mortification	Apologize for Act	AT&T Apologized

Fig. 1 Image restoration strategies according to Benoit (1997)

Ad (1): There are two types of denial. First, with a *simple denial*, the affected company states that is did not perform the damaging act (Benoit, 1997). Secondly, the company can *shift the blame* and accuse another party of having performed the act. (Benoit, 1997).

Ad (2): The evasion of responsibility can occur in four ways. First, *provocation* means to assert that an act was provoked by another party's action (Benoit, 1997). Secondly, *defeasibility* means justifying an act with a lack of information or ability (Benoit, 1997). Thirdly, the act can be portrayed as an *accident.* Lastly, a company can emphasize its *good intentions*, claiming that the act was meant well (Benoit, 1997).

Ad (3): There are six variants to reduce the offensiveness of an event: *Bolstering*, which means stressing one's own good traits; *minimization* of the act by not seeing it as a serious one;

differentiation, by which an act is represented as less offensive when compared to another damaging act; *Transcendence*, claiming that there are more important considerations behind the act, which outweigh the damages; *Attacking the accuser* in order to reduce his credibility; and lastly *compensation*, which reimburses the victims (Benoit, 1997). None of these six variants denies the organization's responsibility for the act, but tries to reduce negative reputational effects through different ways (Dardis & Haigh, 2009).

Ad (4): Corrective actions contain plans to solve or prevent the problem, but do not directly admit guilt or responsibility for the act (Benoit, 1997; Dardis & Haigh, 2009).

Ad (5): With a mortification strategy, the accused party apologizes for the act, thus recognizing its guilt (Benoit, 1997; Dardis & Haigh, 2009).

Current research findings prove that these five image restoration strategies developed by Benoit have a significant impact on customer's perceptions of an organization in a crisis (Dardis & Haigh, 2009).

2.2.3 Post-crisis Evaluation

As part of the post-crisis evaluation, companies evaluate how effectively the chosen crisis response strategy has been in containing reputational damages and how customer perceptions have been affected. A lot of research has been carried out on Benoit's image restoration strategies, trying to give practical advice on when and how to use them, and evaluating their outcomes. In the following, major findings will be presented.

First of all, it was found that more important than the chosen crisis response strategy itself is the form in which the company responds (Huang, 2008). Literature on this matter mentions three elements of an effective form of crisis response: Timeliness, consistency and activity (Huang, 2008). A timely response helps to fill stakeholders' information gaps quickly and reduces insecurity (Huang, 2008). A consistent messages delivery reinforces credibility, which is an integral part of trust (Huang, 2008). An active response means actively providing information and giving instructions, so that stakeholders know what happened and what to do (Huang, 2008). Organizations thus show that they have control over the crisis and are not indifferent to it (Huang, 2008). In sum, timely, consistent and active responses were found to foster trust and relational commitment among stakeholders (Huang, 2008).

Nevertheless, besides the form of crisis response, the chosen crisis response strategy itself also plays a fundamental role in restoring corporate reputation. Based on findings from Coombs (1998), Dardis and Haigh (2009) state that the previously mentioned five image restoration strategies and substrategies as identified by Benoit (1997) can be categorized along a continuum, arranged from most defensive (attack the accuser and deny claims) to most accommodative (take corrective actions and apologize).

In regard to the most defensive strategy, the denial strategy, Benoit (1997) recommends that companies should avoid making false statements as this might backfire, and that guilt should be admitted when it is clear and indisputable. Falsely denying can create substantial damage in credibility and trust when the truth comes out (Benoit, 1997).

The other extreme however, the accommodative mortification strategy, stands in a conflict with a company's aim to avoid lawsuits, which may result when the company fully admits its guilt (Dardis & Haigh, 2009). Thus, mortification, which was found to be the most frequently used strategy in a crisis situation (Dardis & Haigh, 2009; based on Stephens et al., 2005), can imply an unnecessary litigation risk (Benoit 1997).

There are indications that organizations are more expected to show an accommodative rather than a defensive behavior when the event is a scandal, as compared to an accident (Rhee & Valdez, 2009; based on Marcus & Goodman's, 1991 and Coombs, 1998). This can be explained by the fact that the level of responsibility and guilt is clearly higher for a scandal, making a defensive strategy implausible and untrustworthy.

However, contrary to expectation, the two most accommodative (sub)strategies, compensation and mortification, did not perform better in image restoration than more defensive strategies (Dardis & Haigh, 2009). This finding implies that – at least for moderate crisis – it makes sense to stay in the center of continuum instead of employing extreme accommodative or defensive strategies (Dardis & Haigh, 2009). A center-oriented reducing offensiveness strategy might in sum be more effective, as it avoids the risks of false claims and lawsuits (Dardis & Haigh, 2009).

There are also further experiments, concluding that none of the five strategies consistently outperformed the others, and that the effectiveness of a certain strategy depends on the specific crisis context (Dardis & Haigh, 2009; based on Bradford & Garrett, 1995). This finding is also known as Situational Crisis Communication Theory (SCCT) by Coombs, recommending that a crisis response strategy should be chosen in consideration of the severity of the crisis, the level of responsibility from part of the company, as well as the former reputation level (Choi & Chung, 2013; based on Coombs, 2007).

For example, in a preventable crisis/scandal context such as a severe recall with high reputation-damaging potential, the use of a mortification strategy was found to be the best crisis response (Choi & Chung, 2013; based on Benoit, 1995 and Benoit & Drew, 1997). The apology linked to this strategy usually contains a statement in which the company admits its responsibility for the wrongful act, asks for forgiveness, and explains how re-occurrence will be prevented in the future (Dardis & Haigh, 2009; Reuber & Fischer, 2009).

If the apology is perceived as sincere, it can help to restore an organization's reputation and increase customers' intentions to purchase its products (Choi & Chung, 2013). In contract, companies that do not fully apologize for their faulty, self-inflicted actions may face reactions of disappointment from part of the public (Choi & Chung, 2013; based on Fearn-Banks, 2011).

Especially apologies "expressing compassion or concern for the victims of reputation-damaging events can help appease criticism from the public" (Rhee & Valdez, 2009, p. 165; based on Coombs, 1999). By showing that the company cares about people's feelings and the hardships of the victims, the apology is more likely perceived as sincere (Choi & Chung, 2013). For example, in an automotive product recall, there might be severe public safety and protection worries that need to be considered (Choi & Chung, 2013; based on Laufer & Jung, 2010).

In general, organizations (especially the large, multinational ones) face a huge challenge: Due to the fact that they consist of economically, culturally and politically diverse entities; operating within economically, culturally and politically diverse stakeholder environments, it is almost impossible to be perceived with only one single, identical image (Choi & Chung, 2013). Consequently, the chosen

crisis response strategy should also take corporate culture and socio-cultural customer background into account.

2.2.4 Cultural and National Implications for the Choice of a Crisis Response Strategy

The most popular academic work on crisis response strategies – Benoit's Image Restoration Theory and Coombs' Situational Crisis Communication Theory (SCCT) – are both very organization-centric theories, disregardful of the socio-economic environment, and thus lacking a holistic view (Dhanesh & Sriramesh, 2017). To say it with the words of Bowen et al. (2017, p. 2), *"as of now, research has not yet focused sufficiently on investigating the effects of an organization's crisis response in an international context."*

This is surprising when taking into account that due to globalization, crisis nowadays spread quickly and do not make halt at national borders (Dhanesh & Sriramesh, 2017). In addition, especially communication processes were found to be highly culturally sensitive (Bowen et al., 2017; based on Schwarz, 2015). Consequently, research interest is currently shifting to the role of culture in crisis communication and response strategies (Bowen et al., 2017).

First, culture influences the choice of response strategy from part of the company (Zhu et al., 2017). Secondly, culture influences how the chosen response strategy is perceived by the audience (Zhu et al., 2017). In the following, the power of culture in crisis response and reputation management will be emphasized by taking a closer look at social, political/legal and economic systems.

2.2.4.1 Social Systems

In regard to the first point, social systems, some interesting differences can be pointed out. According to Hofstede's individualism dimension, a high level of individualism as it is typical for Western cultures is said to often come along with a high level of self-esteem and strong needs to view oneself in a positive light (Kastanakis & Voyer, 2014; based on Baumeister et al., 1989).

Eastern cultures, however, were found to more frequently engage in self-criticism, thus trying to avoid being perceived badly in the future (Kastanakis & Voyer, 2014; based on Kitayama et al., 1997). In addition to that, the cultural concepts of "Saving face" and Confucian principles are highly

relevant for Asian contexts (Huang et al., 2016). Due to a saving face tradition, Asian cultures try to avoid direct confrontation and attacking their counterpart, which saves face for both the accuser and the accused, thus maintaining reputation, honor and good relationships (Huang et al., 2016). Originating from a Confucian influence, people of Asian descent usually put high importance on harmony and "golden means" (Zhong Yong) strategies, which can be interpreted as "half way between two extremes" (Huang et al., 2016, p. 209; based on Ma, 1998, p. 203). Western cultures, however, do not fear direct confrontation that strongly, as it does not cause them a "losing face" sensation.

Consequently, building on socio-cultural findings and Coombs' SCCT of arranging response strategies along a continuum from most defensive to most accommodative, the following conclusion can be drawn: Western organizations are more likely to take a defensive during a crisis, while their Asian counterparts opt for more center-based, golden mean strategies (e.g. reduce offensiveness) (Huang et al., 2016). The strive for saving face thus prevents companies with an Asian background from employing a strategy of denial by attacking the accuser, or an apology strategy, in which guilt is fully admitted (Huang et al., 2016). Nevertheless, due to the rareness of an apology strategy in Eastern contexts, the employment of such a strategy might exceed customers' expectations and thus be perceived positively (Huang et al., 2016).

Interestingly, Asian companies were found to particularly frequently chose none of the presented response strategies, but rather stay silent on a crisis and do not comment on it (Huang et al., 2016). This behavior might be traced back to the Confucian philosophy, which is reflected by the Chinese saying "T*rouble is born out of the words you speak*" (Yu & When, 2013, p. 54). By remaining silent, unnecessary risk for the company can be avoided, especially in uncertain situations such as corporate crisis (Yu & When, 2013).

Socio-cultural factors not only influence intraorganizational decisions on which crisis response strategy to choose, but also how the strategy is perceived by the public. For example, Hofstede's dimension of power distance – "*how society deals with the fact that people are unequal*" (Hofstede, 1983, p. 81), can play a role during crisis communication. Customers from high power distance cultures, predominantly Asians, had higher level of brand trust and future purchase intentions when the company used its CEO as a spokesman during a product-harm crisis (Laufer et al., 2017). It is

argued that the figure of the CEO – whether well-known or not – shows management involvement and visibility, which in turn can reduce negative reactions in cultures where leadership and authority are highly accepted (Laufer et al., 2017; based on Seeger et al., 2003).

However, other findings rather indicate that employees are the most believable ambassadors for a company in crisis (Ravazzani, 2016; based on Fearn-Banks, 2007, Johansen et al., 2012). Especially in multinational environments, culturally diverse employees within a company can serve as gatekeepers and communication facilitators during a crisis, both in communication with the diverse firm-internal and external audiences (Ravazzani, 2016; based on Marschan et al., 1997, Feely & Harzing, 2003). As stated by Ravazzani (2016, p. 75; based on Grunig et al., 2002), "*in order to adapt communication effectively to multicultural audiences, it is beneficial to have as much diversity within the company as outside*".

In contrast, the use of a standardized crisis communication strategy, as it is often used by big multinational companies with English as a corporate lingua franca, might not be effective, as it ignores the existence of cultural and linguistic filters (Ravazzani, 2016).

In order to prevent language and cultural barriers, crisis communication requires adaptations from country to country in message content, communication channels, rhetoric and argumentation strategies, as well as organizational spokespersons, who are optimally local communicators from the foreign branches (Ravazzani, 2016).

For example, building on theory from Hall (1976), communication styles differ in whether they are indirect of direct (Kastanakis & Voyer, 2014). In high-context Asian cultures, people are more sensitive to non-verbal messages, and communication occurs in an indirect, implicit way, being decoded by the message receiver (Jandt, 2015). On the contrary, Western low-context cultures communicate in a highly specific way and prefer explicit, detailed verbal or written messages, in which the meaning is clearly stated (Jandt, 2015).

Consequently, corporate communication culture – either allowing for local adaptation or following a globally standardized approach – has a substantial impact on the success of crisis management (Yu & Wen, 2003; based on Marra, 1998).

2.2.4.2 Political/Legal Systems

The choice of crisis response strategy also depends on the political and legal background. For example, authoritarian political systems were found to affect the transparency and uniformity of crisis communication, probably due to high state intervention power and state-controlled media (Huang et al., 2016).

Furthermore, the existence and functioning of control institutions can either discourage or encourage wrongdoing from part of companies (Huang et al., 2016). In addition, the legal system is usually shaped by culture. For instance, cultures with high levels of uncertainty avoidance tend to have precise laws (Wertz & Kim, 2010). Some countries such as the US are highly litigious societies, with a Common Law system aimed at quick and just punishment (Bowen et al., 2017; Dhanesh & Sriramesh, 2017). Also, the US is known for its frequent use of claims for compensation (Bowen et al., 2017). In other countries, however, the Civil Law system is used, and proving misbehavior can take some time. (Bowen et al., 2017). Furthermore, in emerging countries, legal systems are often characterized by notorious delays (Dhanesh & Sriramesh, 2017).

Consequently, the legal system influences how actively customers seek justice after corporate scandals (Bowen et al., 2017). US companies are thus more likely to avoid an apology strategy (in which they admit guilt and risk litigation), and rather go for an offensiveness reducing victim compensation strategy, as it is typical in their underlying socio-cultural environment (Wertz & Kim, 2010).

2.2.4.3 Economic Systems

Lastly, most Western developed countries are characterized by free markets and capitalist ideologies, which try to keep government intervention low (Dhanesh & Sriramesh, 2017). This might be traced back to an individualist thinking, with high value put on taking care for oneself and being independent in decision-making.

Consequently, as already concluded from Porter's Five Forces Analysis on the automotive industry, customers rarely face monopolies on consumer markets, but rather have multiple choices. This ease of switching to competitors might probably also affect companies' choice of crisis response strategies. The more competitive the market, the higher the probability to lose customers after a crisis. This, in

turn, might give companies an incentive to opt for generous and accommodative strategies instead of defensive methods, in order to satisfy customers and keep them as customers.

To sum up, based on popular and recent research in the field of crisis response management, culture was found to be a key component. Not only does it affect the choice of response strategy from part of the company, but also significantly determines how the chosen strategy is perceived from part of the customers. In the following, the impact of culture on corporate reputation will be analyzed methodologically.

3. Research Methodology / Research Design

3.1 Different Methodologies for Reputation Measurement

As mentioned earlier in this paper, corporate reputation can be defined as an assessment of a company conducted by its stakeholders and therefore influences their behavior towards the company (Chun, 2005; Schwaiger, 2004). In a nutshell, it can be defined as "*the customer's overall evaluation of a firm based on his or her reactions to the firm's goods, services, communication activities, interactions with the firm (...) and/or known corporate activities*" (Walsh & Beatty, 2007, p. 129). Important variables affected by corporate reputation are customer loyalty and satisfaction. In turn, a good reputation supports customers' trust in a companies' advertisements. Schwaiger (2004) concludes that a good reputation therefore also has a positive impact on profits. According to Gatzert (2015) reputation in general is mainly associated with the quality of a company's products and services. Accordingly, product and service quality might be one of the most important influencing variables of corporate reputation.

Reputation is constructed of the views from different stakeholders and thus can be considered as a latent or objectively unobservable variable; for this reason, there are some challenges attached to measuring it (Weißensteiner, 2014).

In order to measure corporate reputation, there are qualitative as well as quantitative approaches (Dell' Atti & Iannuzzi, 2016). Due to the inability to directly measure reputation, it is commonly measured and depicted as index (Weißensteiner, 2014). There are, however, also more sophisticated and complex ways to measure reputation. For this reason, in the following the most common measurement tools will be introduced.

3.1.1 America's/Global Most Admired Companies (AMAC/GMAC) Ranking

This ranking of companies has been developed by the *Fortune* in 1984 and was based on a survey conducted amongst approximately 8.000 persons, especially senior executives as well as sell- and buy analysts within a certain industry. Those are requested to name the top ten companies of their branch and then to evaluate them regarding certain attributes. As depicted in Figure 2, there are eight attributes that influence the evaluation of a company (Weißensteiner, 2014). Afterwards the

arithmetic mean of these eight attributes, also referred to as "*overall reputation score (ORS)*", will be determined (Kirstein, 2009).

Major drawbacks of the AMAC ranking concern its restriction to US companies as well as its publication of aggregated data only. Further, its strong focus on senior executives might lead to biased results since they are not considered as a relevant stakeholder group (Schwaiger, 2004). Respondents could be influenced by the past financial success of the company, which is commonly referred to as financial halo effect and might also be the source of a bias; the financial halo effect occurs when respondents conclude that a company is doing well just based on past financial success (Eberl, 2006).

Item	
1	Innovativeness
2	Management Quality
3	Long-term investment value
4	Community and environmental responsibility
5	Ability to attract, develop, and keep talented people
6	Quality of products and services
7	Financial soundness
8	Use of corporate assets

Fig. 2 Items included in the *Fortune* AMAC ranking, edited from Weißensteiner (2014)

The GMAC ranking represents an extension of the AMAC by including an attribute that relates to global business operations thereby overcoming AMAC's restriction to US companies only (Weißensteiner, 2014).

Even though the AMAC/GMAC is heavily criticized for its simplicity and conceptual difficulties, its data collection is cited regularly. Also for this paper both AMAC and GMAC are considered highly questionable concerning concept and measurement purposes (Eberl, 2006).

The heavy focus on certain executives and business analysts as respondents is not in accordance with the research goal of this paper. Further, the concept of reputation is not examined thoroughly with regard to its different dimensions, which would lead to an unspecific content validity.

3.1.2 Manager Magazin Index

The *Manager Magazin* index can basically be considered as the German version of the AMAC/GMAC ranking. Even though it applies slightly different items, it uses the same calculation

for the index. It has been developed in 1987 and since then publishes an index of the overall reputation of the 100 most important companies in Germany (Eberl, 2006; Kirstein, 2009).

The data collection provides that the respondents evaluate the companies in terms of 13 items, which include "*Customer Orientation, Product Quality, Management Quality, Innovational Power, Price-Performance Ratio, Communicational Performance, Employee Orientation, Profitability, Internationalization, Attractiveness for Managers, Growth Dynamics, Environmental Orientation and Independence"* (Kirstein, 2009, p. 66).

Due to its similarity to the AMAC/GMAC ranking, it entails the same drawbacks and is therefore not appropriate for this paper.

3.1.3 The Reputation Quotient (RQ)

As mentioned already in the previous section of this paper, the Reputation Quotient (RQ) has been developed by Harris and Fombrun Interactive and differs from the previously mentioned indexes in that it is slightly more scientifically sound (Eberl, 2006; Gardberg & Fombrun, 2002). Even though it neither considers the concept of reputation in a profound way, it at least views the reputation as a multidimensional construct (Eberl, 2006; Kirstein, 2009).

In the course of the data collection, the respondents are asked to answer a questionnaire containing 20 aspects split into six pillars, which are used to operationalize the reputational construct. The six pillars involve the items *Emotional Appeal, Products & Services, Vision & Leadership, Workplace Environment, Financial Performance* and *Social Responsibility* (Kirstein, 2009).

The data collection process is conducted in two phases; in the first, which is also referred to as nominating phase, the companies to be included in the study are determined. For this purpose the general public, usually around 8000 respondents, is asked for its opinion concerning the best as well as the worst companies. Based on their opinion, the 60 most frequently mentioned companies along with the best companies of the previous year enter the second phase, which is referred to as assessment phase (Kirstein, 2009; Eberl, 2006).

In the course of the assessment phase, around 22500 respondents are chosen randomly to each evaluate one or two of the companies through an online survey on a seven-point scale (Eberl, 2006; Kirstein, 2009).

According to Kirstein (2009), the major difficulty of this approach concerns the nominating phase as it can be assumed that the respondents are biased by current affairs when nominating well-known companies. From a scientific point of view, the arbitrary choice of included companies also poses a source of error.

All in all, the idea of the RQ can be viewed as already quite profound; however, both the method of data collection and the missing statistical accuracy, like for instance the fact that no weights are assigned to the individual items, would lead to relatively biased and imprecise results.

3.1.4 Reputation Model According to *Schwaiger*

Schwaiger (2004) developed a reputation measurement model, which takes the complexity of corporate reputation as well as its multidimensionality into account. The population basically may include all kind of stakeholders of a company and is not restricted to only a certain stakeholder group, which as well represents an advantage over the other measurement methodologies.

The basis for measuring corporate reputation poses a linear structural equation model, which is applied due to the inability to directly observe reputation (Kirstein, 2009). A linear structural equation model, which is a multivariate technique, can make a latent construct measurable using observable items. In this regard, latent constructs can be either exogenous (independent) or endogenous (dependent).

The measurement methodology according to Schwaiger (2004) has been chosen for this paper mainly due to its profound scientific transparency and accuracy. Concrete details concerning the methodology will be elaborated at a later stage of this paper.

3.2 Introduction Into the Methodology

All the reputation models introduced beforehand do not sufficiently consider the complex structure of corporate reputation. In order to be able to thoroughly measure it, Schwaiger (2004) developed a

structural equation model. It involves the identification of attributes, which influence the corporate reputation and therefore enables the definition of concrete items that have a negative or positive impact on the reputation of a company (Eberl, 2006).

Contemporary literature indicates that there are several different variables, partly observable and partly unobservable, which determine corporate reputation. The four that most authors agree on include *quality, past financial performance, corporate social responsibility* and *attractiveness*. As illustrated by the explanatory model in Figure 3 corporate reputation itself can be separated into an emotional and cognitive dimension, *sympathy* and *competence* (Eberl, 2006).

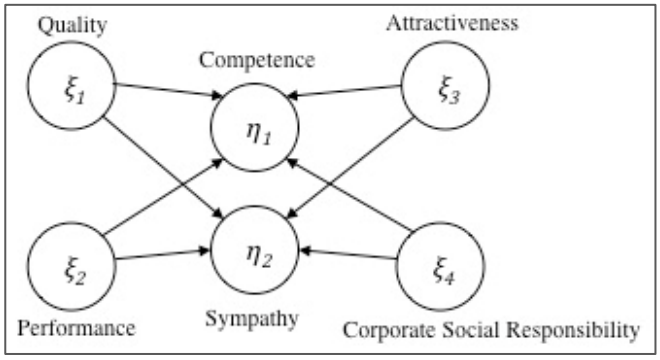

Fig. 3 Explanatory model, edited from Eberl (2006)

Quality

According to Weißensteiner (2014), the quality of products and services can be considered as one of the most important determining factors of corporate reputation. It is very important that the promise of quality corresponds with the actual quality delivered since otherwise the promise would be considered as unreliable in the public. The *promised service* represents the most important aspect closely followed by *honesty* from a customer's standpoint. The costs associated with bad quality include direct costs from a product recall and indirect, long-term costs due to reputational losses. Reputational losses might further lead to market share and revenue losses. This is exemplified by the quality problem faced by Toyota in 2009 as described in the beginning of this paper. The consequences involved an extensive car recall, which cost around three billion US-dollar as well as reputational losses amounting to another two billion US-dollar. It is also important, however, to make a distinction between actual and perceived quality (Gatti et al., 2012). Gatti et al. (2012) have the same point of view as Weißensteiner (2014) and argued that the perceived product and service quality in fact has a positive impact on corporate reputation. Consequently, companies with a higher perceived quality have a better reputation.

Financial Performance

Roberts and Dowling (2002) separated the corporate reputation construct in two parts; one influenced by a companies' financial performance and the other one influenced by the "left over" factors (p. 1078). They demonstrated that the financial performance of a company is another factor that determines the corporate reputation. In fact, there is a two-way relationship; companies with a good economic performance have a higher probability of maintaining it when they also have a good corporate reputation. In this regard, however, it is important to note that it concerns the companies' economic performance perceived by its stakeholders. The challenge is that the standards applied to measure financial figures usually vary by region and company (Eberl, 2006; Weißensteiner, 2014).

Attractiveness

Originally, a companies' visibility from a customer's point of view has been assumed to be decisive for corporate reputation. However, in this regard it is more crucial to assess *how* a company is perceived by a customer rather than *if* a company is perceivable by a customer. Attractiveness refers to how attractive customers perceive a company based on perceived satisfaction of employees. Especially dismissal of employees has a negative impact on corporate reputation (Eberl, 2006; Weißensteiner, 2014). Weißensteiner (2014) reasoned the importance of attractiveness with the fact that it becomes increasingly difficult for companies to hire qualified employees. For this reason, they have to develop strategies to be perceived as an attractive employer and to retain a good reputation.

Corporate Social Responsibility

Corporate social responsibility particularly encompasses social, environmental, ethical and consumer issues (Eberle et al., 2013). Especially recurring international scandals led to the claim that companies should act and operate more socially responsible. Further, a study mentioned by Weißensteiner (2014) found out that about 40% of the respondents prefer to purchase from companies that demonstrate social and ecological commitment. In this regard also attention from the media is important since commitment towards environmentalism and society is usually further communicated through the media, which raises the sympathy perceived by customers (Eberl, 2006). For this reason, Eberle et al. (2013) state that a higher public communication of CSR has a positive impact on customers' loyalty and attitude. As a consequence, Saeednia and Sohani (2013) concluded that the increased customer satisfaction is supposed to help a company create and retain a good reputation.

3.3 Procedure of the Schwaiger Reputation Model

3.3.1 Specification of the Latent Constructs

In general, the methodology of structural equation modeling (SEM) is applied in order to make latent variables measurable using observable indicators. As Backhaus (2015) stated, SEM helps investigate an assumed causal relationship between variables that are not directly observable. It is essential to differentiate between exogenous (independent) and endogenous (dependent) variables.

Therefore, in order to show a causal relationship in this regard, in a first step, the latent variables need to be operationalized using a suitable specification, which can be either formative or reflective (Diamantopoulos, 1999; Fuchs, 2009). A correct specification is important for two reasons; first, the relation between the items plays a significant role for a latent variable and second a false specification might lead to false data (Fuchs, 2009).

3.3.1.1 Reflective

In a reflective measurement model the characteristics of the measurable items are caused by the latent variable. According to Fuchs (2009), the items can therefore be considered as exemplary manifestations of the latent construct. In other words, changes of the latent construct lead to changes of the measurable items.

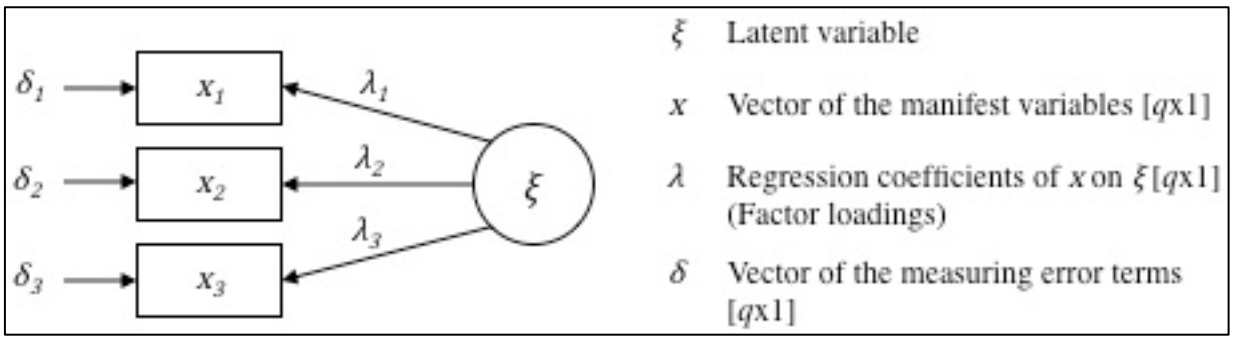

Fig. 4 Reflective measurement model, edited from Eberl (2006)

The concept of Domain Sampling states that in order to completely capture a latent construct, all its items have to be identified. The difficulty in this regard is that in reality there might be an infinite number of items for a latent construct. However, it is supposed that, since the items "belong to" the

very same latent variable, there must be some kind of mutual core, which leads to a correlation between them (Albers & Hildebrandt, 2006; Eberl, 2006).

Without measuring errors there would be a perfect correlation between the items. In turn, uncorrelated items are not considered as influencing items of the latent variable and thus not helpful for the operationalization of the construct. This perception is based on the assumption that any item variation is composed of a variation of the latent variable plus measuring errors. The reflective specification is based on a factor analysis, in which the latent variable determines the characteristics of the items (Kirstein, 2008). As depicted by Eberl (2006), the mathematical formula of the reflective measuring model shows that each item x_i represents a weighted reflection of the latent variable ξ, where λ_i is the loading factor.

$$x_i = \lambda_i \xi + \delta_i \quad (i = 1, \dots, n)$$

Any occurring measuring errors of the item are expressed by a measuring error term δ_i. Therefore, considering the factor loading, every item represents a distorted measurement of the latent variable (Fuchs, 2009).

3.3.1.2 Formative

In a formative specification, the individual observable items constitute the not directly measurable variable, which means the observable items cause the latent variable. Therefore, each (influencing) item depicts a part of the latent construct (Albers & Hildebrandt, 2006). Any variation of only one of the items might already lead to a substantial change of the latent variable. Additionally, removing one of the items would lead to a change of the latent variable. That, however, will not necessarily influence the manifestation of the other items because unlike in a reflective specification the items do not have to correlate (Eberl, 2006; Kirstein, 2008).

Following this, changes of the latent construct do not necessarily involve a change of all of the items. However, since it could happen that individual items do change as a result of a change of the latent variable, they can be considered as "components" of it (Eberl, 2006; Kirstein, 2008).

In line with the fact that the items do not have to correlate, their correlation coefficients are not significant for their suitability to explain the latent variable. Hence, unlike in a reflective specification, even if the items are correlated, they determine the latent construct independently. This means that the concept of Domain Sampling is not appropriate in this case and that the items are not interchangeable at will. Also, selecting items according to their correlation coefficient would have an impact on the content validity of the construct (Eberl, 2006; Kirstein, 2008).

Since the "classical" multivariate methods to assess the validity and reliability of a model assume correlation between the items of a construct, they cannot be applied for a formative measurement model (Eberl, 2006). Alternative means to estimating a formative model will be elaborated more detailed at a later stage of this paper.

In this context, the dimensions of the corporate reputation construct will be assigned several items, which are assumed to explain them. Due to the regression-based approach, the value of the latent construct represents a linear combination of the manifestations of the items (Eberl, 2006).
It can be considered as a weighted index of the items, where each individually contributes to the formation of the latent construct (Fuchs, 2009).

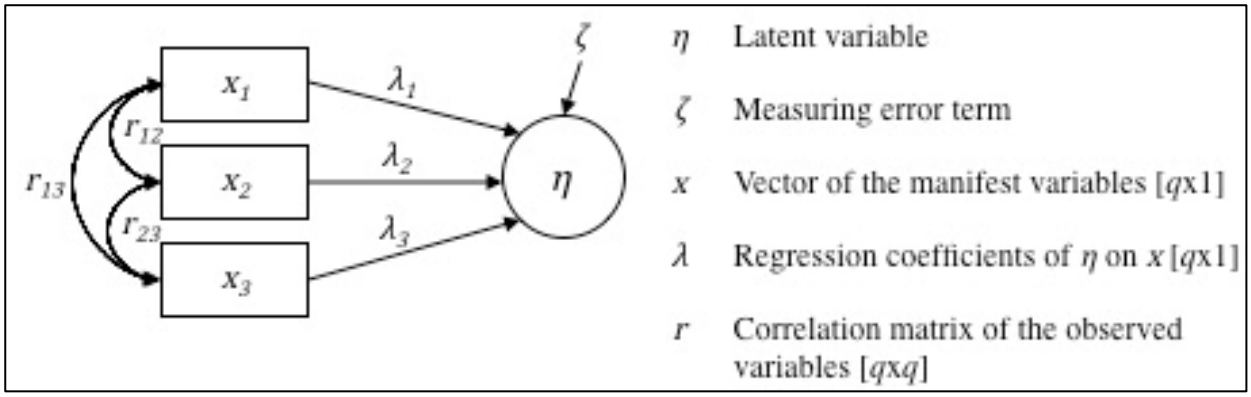

Fig. 5 Formative measurement model, edited from Eberl (2006)

For this reason, as depicted in Figure 5, unlike in a reflective model, the items cannot have error terms since they represent the "components" of the latent construct; thus, any arising measuring errors are offset by the latent variable and assumed to be uncorrelated with the items (Eberl, 2006).

$$\eta = \lambda_1 x_1 + \lambda_2 x_2 + \cdots + \lambda_n x_n + \zeta$$

Accordingly, the mathematical definition of Eberl (2006) represents the latent construct η as a "*linear combination*" of the weighted items x and indicates that it basically is a "*classical*" multivariate regression model (p. 79).

3.3.2 Operationalization of the Latent Constructs

Basically, the operationalization of a latent variable encompasses the development of scales with multiple items (Fuchs, 2009). Due to the different characteristics of formative and reflective models, there is a different focus in both (Fuchs, 2009).

In general, the process of operationalization includes four main steps; first, the content of the latent construct needs to be defined, second, the items have to be created, third, multicollinearity needs to be dealt with and fourth, the external validity has to be assessed (Eberl, 2006). The first step involves the investigation of those items that are contributing essentially to the formation of the latent construct (Eberl, 2006). It is especially important for formative items because unlike in reflective cases, all items contributing to the construct need to be identified in order to fully capture the construct (Eberl, 2006). For this reason, it is also not useful to assess the reliability in terms of item-total correlation, but to assess the external validity (Eberl, 2006). In turn, the concept of external validity requires a precise definition of the construct. The third step constitutes a problem because unlike in a reflective model, in a formative model correlation between the items is not desired. It exacerbates identifying the regression coefficients and therefore assessing the item validity (Eberl, 2006).

In order to better consider the characteristics of formative items, there is a more general operationalization procedure originally proposed by Rossiter (2002), which is commonly referred to as *C-OAR-SE* approach. According to Eberl (2006) and Kirstein (2009), its first step is as well the definition of the latent construct itself, which, as mentioned previously, is particularly important for formative indicators. In the next step, the object that the construct refers to has to be classified. In the third stage, the items have to be identified and classified (Eberl, 2006; Kirstein, 2009). Also it has to be specified whether the latent variable requires a formative or a reflective measurement model. Afterwards the people in charge of the evaluation have to be identified and the scale has to be reassessed and developed. The last step involves the calculation of an aggregated value for the construct (Eberl, 2006; Kirstein, 2009).helpf

3.3.3 Estimation of Linear Structural Equation Models

A structural equation analysis generally involves seven steps (Fuchs, 2011). In the beginning, hypotheses are developed based on the theoretical relationships, which are to be investigated. Also the specification type of the latent constructs is derived based on the theoretical background. The next step involves the choice of an appropriate procedure to estimate the structural equation model, which will be elaborated more detailed in the following section. After the procedure has been chosen, the theoretical coherences are illustrated more clearly in the form of a model structure. In order to proceed with the linear structural equation model, the next step comprises the collection of empirical data with a pretest preceding the actual data collection process (Fuchs, 2011). The subsequent parametric rating depends on the procedure that has been chosen to estimate the structural equation model. Thereafter, the model fit is evaluated, which means the adjustment of the model structure to the empirical data is assessed (Fuchs, 2011).

Basically the specification type of a construct indirectly already suggests a suitable procedure for estimation of the structural equation model. The biggest advantage associated with structural equation models is that they connect econometric methods with the concept of a latent variable (Eberl, 2006).

In general, there are two distinct procedures in order to estimate linear structural equation models; the linear structural relationships (LISREL) approach, also referred to as covariance structure analysis, and the variance-based partial least squares (PLS) method (Eberl, 2006). As mentioned previously, the type of specification indirectly determines the choice of the estimation method.

3.3.3.1 Covariance Structure Analysis (LISREL)

In a covariance-based approach, the structure model entails covariance relationships between the items according to its underlying theories. The resulting covariance matrix Σ will be compared with the one of the empirical data $\hat{\Sigma}$. Through minimization of a discrepancy function $f(\hat{\Sigma} - \Sigma)$ it can be assessed how close the structural model approaches the empirical data, which gives some indication of the validity of the model. Basically, larger values of the discrepancy function indicate a poor fit of the model to the data. For the estimation, in most cases the maximum likelihood (ML) method will be applied (Eberl, 2006; Fuchs, 2009).

Eberl (2006) states that usually it is rather an estimation than a concrete calculation because normally the structural model is not able to exactly reflect the empirical data, which is also referred to as *underidentification*. In the opposite case, there is the problem of *overidentification*, where the structural model arrives at more than one value for a parameter. This can be solved through minimization of the discrepancy function (Eberl, 2006).

However, there are several drawbacks associated with the LISREL approach; first, reflective relationships can be depicted more efficiently than formative ones. This is due to the fact that in case of reflective items, there are *n* equations per latent construct, whereas in formative specifications only one equation is entailed for each latent construct (Eberl, 2006).

Also, it distinguishes itself concerning its required sample size. While in variance-based methods a sample size between 30 and 100 is considered sufficient, covariance-based methods necessitate one at least as big as 200. This difference originates from the fact that for covariance structure analyses a higher sample size leads to a higher quality of the estimation while in variance-based approaches a higher sample size alone does not bring a better result (Kirstein, 2009).

Further, the LISREL approach separates the indicator variances into independent factor and measurement error variances. This separation might be problematic in case of a formative specification. Since it assumes "complete correctness" of the measurement, the estimates of the latent variable might encompass any measurement errors of the items, which might result to inconsistency of the estimates as well as to incorrect interpretation of the model (Kirstein, 2009).

Moreover, LISREL requires specific assumptions concerning the distribution of the variables. A covariance structure analysis assumes independence of the observations and an identical distribution of the variables. Therefore efficient and consistent estimates can only be achieved under the assumption of multinomial distribution of the items, which is not always compliable in reality (Eberl, 2006; Fuchs, 2009; Kirstein, 2009).

The aspects regarding distribution assumptions and sample size also impact the evaluation of the model fit (Kirstein, 2009). In order to identify both global and local model fit measures, inferential statistics can be applied in case of the LISREL approach, which, according to Eberl (2006), is its

biggest advantage. Global model fit measures indicate generally if a structure model can be accepted or if it needs to be modified. Local model fit measures provide more detailed information about the measurement model as well as about certain path coefficients (Eberl, 2006).

Kirstein (2009) states further that the LISREL approach is more appropriate for studies that aim at assessing existing theories, whereas PLS makes predictions. Consequently, for a study that aims to assess an assumed relationship not yet thoroughly investigated, the PLS approach is more suitable.

3.3.3.2 Partial Least Squares (PLS)

The main idea of PLS is that some parts of the parameters are considered as known and kept constant in the calculations, while the others will be estimated. An iterative process interrelates the endogenous manifest, endogenous latent, exogenous manifest and exogenous latent variables (Fuchs, 2009; Kirstein, 2009).

Concerning the PLS path models, this is also referred to as soft modeling since there are no assumptions underlying the variables (Albers & Hildebrandt, 2006). However, this in turn impedes applying inferential statistical tests. For this reason, the PLS approach does not provide any global measures in order to evaluate the model fit and only non-parametric tests can be applied in order to evaluate both the variance explained through the model, t-statistics and the effect size. Furthermore, there is the possibility to estimate the predictive validity as well as the stability of the model through a blindfolding technique. It assesses the ability of the model to predict the empirical data (Fuchs, 2009).

There is no covariance matrix between the constructs, but the path models encompass an outer and inner model. In this regard, it assigns weighting factors between formative latent constructs and corresponding items as well as loading factors between reflective latent constructs and corresponding items. The outer model depicts the connection between the measured items and the latent variables, while the inner model represents the structure model of the latent constructs (Eberl, 2006).

Compared to LISREL, PLS is advantageous for several reasons; first, it is able to describe both reflective and formative models without restrictions (Fuchs, 2009; Kirstein, 2009); second, it is easier to apply since it does not require any assumptions concerning the distribution of the variables (Fuchs,

2009; Kirstein, 2009); third, as mentioned previously, it requires a much smaller sample size than LISREL (Fuchs, 2009; Kirstein, 2009). Additionally, Helm et al. (2010) emphasize that LISREL might lead to misunderstanding results in case of formative specifications. Ultimately, the advantages of PLS compared to LISREL have been the decisive factor to select PLS for the structural equation model in this paper.

3.3.4 Calculation of Linear Structural Equation Models Applying PLS

In general, a PLS model is represented by a path model and involves a structural and a measurement model. The concept of structural equation modeling therefore consists of a combination of structural and measurement models (Fuchs, 2011).

The structural model, the *inner relation*, specifies the cause-effect relationship between the independent and the dependent latent constructs (Backhaus et al., 2015; Duarte & Raposo, 2010; Eberl, 2006; Kirstein, 2009). It specifies the predictor, which means that each latent construct represents the linear function of its corresponding predictor. Further, it is assumed that the covariance between the predictors and the residuals is equal to zero (Kirstein, 2009). According to Kirstein (2009) and Eberl (2006), the structural model mathematically can be defined as

$$\eta = B\eta + \Gamma\xi + \zeta$$

where η is defined as the dependent latent construct and ξ as the independent latent construct. B and Γ are the path coefficients, where B defines the relationships between the dependent latent constructs and Γ the impact of the independent on the dependent latent constructs (p. 165; p. 89).

The measurement model serves as a complement since it depicts the relationships between a latent construct and its corresponding measurable items (Kirstein, 2009; Duarte & Raposo, 2010). According to Eberl (2006) this part of the PLS model is also referred to as *outer relation*. Since the PLS approach is capable of modeling both reflective and formative relationships between constructs and items, accordingly there are two different forms to illustrate the measurement models.

For reflective items it is crucial to investigate the factor loadings, which are similar to the loadings in a principal component analysis. The mathematical representation for both dependent and independent latent constructs is specified below.

dependent construct $y = \Lambda_y \eta + \varepsilon_y$

independent construct $x = \Lambda_x \xi + \varepsilon_x$

Here, y and x entail the items of the dependent and independent latent constructs η and ξ. The corresponding factor loadings λ_y and λ_x are contained in the coefficients Λ_y and Λ_x respectively. Errors, which might occur when measuring a latent construct through an item, are taken into account through the error terms ε_y and ε_x.

In case of formative items, it is important to analyze the weights of the items in order to figure out the contribution of each item to the structure of the latent construct (Duarte & Raposo, 2010). As mentioned previously, there are no correlations assumed among formative items, which is why "traditional reliability and validity assessments" cannot be conducted (p. 462). Also for the formative case, Eberl (2006) defined a mathematical representation for both dependent and independent latent constructs.

dependent construct $\eta = \Pi_\eta y + \nu_\eta$

independent construct $\xi = \Pi_\xi x + \nu_\xi$

In this case, the coefficients Π_η and Π_ξ encompass the corresponding weights π_η and π_ξ. The error terms ν_η and ν_ξ entail the errors that might arise due to the fact that the items do not cover the latent construct completely (Kirstein, 2009).

Another part of a PLS model is the *weight relations*, which are defined as the following (Eberl, 2006, p. 89):

dependent construct $\hat{\eta} = \omega_\eta y$

independent construct $\hat{\xi} = \omega_\xi x$

In case of a reflective specification the weight relations evolve from the factor loadings λ_y and λ_x, while in a formative specification they arise from the weight coefficients π_η and π_ξ (Kirstein, 2009).

According to Fuchs (2011), PLS proceeds in three steps; the estimation of the latent construct values $\hat{\xi}$, in turn, follows a multistage iteration process. First, based on the empirical information, values for all latent constructs are estimated. These iterations are conducted until the estimated values do not

differ substantially from the estimates of the previous iteration (Eberl, 2006). The reflective one encompasses a linear function of the latent variable as well as a measurement error term.

3.3.5 Evaluation of the PLS Model

As mentioned in a previous section, PLS does not require any distribution assumptions and therefore only non-parametric tests can be applied. According to Weißensteiner (2014), first of all both the reflective and the formative measurement models should be assessed. Afterwards the results of the structural model and in the end the entire model are to be evaluated.

With regards to the commonly applied quality criteria for validation of latent constructs, different criteria have to be applied for reflective and formative specifications (Kirstein, 2009; Weißensteiner, 2014). Since reflective models are relatively prevalent, many correlated quality criteria have been developed in order to account for the presumed correlation among the items (Eberl, 2006).

3.3.5.1 Reflective

The content validity analysis serves as a method for estimating the extent to which the items of the measurement model cover the substantial range of the respective latent variable. In a first step, within a pretest, it needs to be ensured that the measurable items are assigned to the "correct" construct. In a pretest, respondents could be asked to allocate the randomly arranged items to the corresponding latent construct (Kirstein, 2009; Weißensteiner, 2014).

The concept of item reliability helps determine which portion of variance of the measurable item is explicable through the underlying latent construct. According to Duarte and Raposo (2010) the item reliability is determined by evaluating the loading factors. Kirstein (2009) suggests removing items, which fall below a factor loading of 0.4, from the model. In order to evaluate the reliability of the factor loadings estimates, t-statistics and its p-values can be applied (Weißensteiner, 2014).

For construct reliability an important quality criterion is *Cronbachs Alpha*, which usually confirms reliability for coefficient values equal to or greater than 0.7. However, especially in case of only two or three items per construct, a value of at least 0.4 is also acceptable for reliability. In general, the closer it is to the value of 1, the better a latent variable is measured through its corresponding items. In turn, a higher value also means that there is a high degree of correlation between the items. A major

drawback of *Cronbachs Alpha* is on the one hand that the coefficient increases with a bigger amount of included items and on the other hand that all the items are equally weighted for the analysis (Duarte & Raposo, 2010; Kirstein, 2009). Another measurement for the construct reliability is known as *internal consistency*. It is pretty similar to *Cronbachs Alpha* since it also suggests coefficient values equal to or greater than 0.7 for reliability (Duarte & Raposo, 2010). However, its advantage is that it accounts for the different weights associated with the items and therefore can be seen as more realistic.

Additionally, Duarte and Raposo (2010) as well as Weißensteiner (2014) propose to assess the discriminant validity, which analyzes how far one latent construct differs from the others and is represented by the average variance extracted (AVE). According to this measure, an AVE of at least 0.5 is acceptable.

3.3.5.2 Formative

On the contrary, in case of a formative model, statistical figures are not appropriate to assess reliability since they do not have to be correlated (Duarte & Raposo, 2010; Kirstein, 2009).

Concerning content validity, similar to the reflective model, a pretest can be conducted in order to identify and remove items, which are not helpful for specifying the substance of the latent variable (Kirstein, 2009).

In the course of assessing the relevance of the items, Kirstein (2009) proposes to examine how exactly each item contributes to specifying the latent construct. In order to determine which ones essentially contribute, the weights of the individual items need to be compared. An item can be considered as irrelevant when its weight falls below the value of 0.1. However, contemporary research does not provide a concrete suggestion about how to handle those items. Generally, items, which do not essentially contribute to forming the latent construct, should be eliminated from the model. According to Duarte and Raposo (2010) "the bootstrap procedure" can be applied in order to determine the significance levels of the weights. Besides the size of the weights, those are also relevant in determining the importance of the individual items (Duarte & Raposo, 2010).

In case of multicollinearity the items are linearly dependent on one another, which prevents a consideration of the impact of the individual items. Therefore the items concerned need to be excluded from the model. A potential multicollinearity can be determined through the variance inflation factor (VIF) or, in a very first step, by analyzing the correlation matrix of the items, where values close to 1 indicate a strong multicollinearity (Eberl, 2006; Kirstein, 2009; Duarte & Raposo, 2010). Duarte and Raposo (2010) additionally suggest the condition index in order to be able to definitely foreclose multicollinearity. It ensures the absence of multicollinearity for values lower than or equal to 30 (Duarte & Raposo, 2010).

Unlike in reflective models, in formative models the construct reliability cannot be assessed applying the concept of internal consistency. Against this background, formative models should be evaluated applying the concept of external validity. This basically means to perform a reflective operationalization in addition to the formative one in order to identify potential error terms (Kirstein, 2009).

In order to assess the measurement results of the structural model, certain important criteria should be applied and again only non-parametric tests can be applied (Eberl, 2006; Weißensteiner, 2014). The evaluation of the goodness of the model mainly takes the explained variance as well as its predictive relevance into account (Kirstein, 2009).

The coefficient of determination R^2 is calculated by dividing the explained variance by the total variance. For this reason, it provides the portion of the explained variance and measures the goodness of fit of a regression function to the empirical data (Eberl, 2006; Weißensteiner, 2014). Its possible values range from 0 to 1, where 1 implies a perfect model fit, which means that the model is capable of explaining the total variance. The value itself depends on the number of independent variables included in the model since that determines the explanatory proportion. A model with a R^2 equal to 0.67 is assumed to explain a *substantial* portion of the variance, 0.33 *average*, 0.19 *weak* and a model with a value smaller than 0.19 can be considered as *irrelevant* (Kirstein, 2009; Weißensteiner, 2014, p. 111).

The effect size *Cohen's* f^2 can be applied in order to investigate the influence of the exogenous latent constructs, which affect the endogenous latent constructs. For this reason, f^2 helps demonstrate if the

structure model contains exogenous constructs that essentially influence the endogenous constructs. According to Weißensteiner (2014) and Kirstein (2009) the effect size f^2 mathematically is defined as follows

$$f^2 = \frac{R^2_{included} - R^2_{excluded}}{1 - R^2_{included}}$$

where $R^2_{included}$ represents the coefficient of determination of the endogenous latent construct that results from including a related exogenous latent construct. Consequently, $R^2_{excluded}$ is the coefficient of determination of the endogenous latent construct that results from excluding the related exogenous latent construct (p. 125). Since it basically is determined by the change of the endogenous latent construct, the structural model will be estimated both including and excluding the corresponding exogenous latent construct (Weißensteiner, 2014). In order to interpret to what extent the endogenous construct is impacted by its related exogenous construct, Kirstein (2009) proposes that a value of 0.02 represents a weak, 0.15 a moderate and 0.35 an essential impact.

Prior to assessing the significance of the path coefficients in the structural model, the path coefficients themselves are to be evaluated. Weißensteiner (2014) suggests that paths with coefficients around 0.1 and 0.2 can be considered as acceptable. In order to further check the significance of the path coefficients, the t-test approach can be applied (Weißensteiner, 2014).

In order to assess the predictive relevance, the *Stone/Geisser* cross-validation measurement Q^2 can be applied. Based on a blindfolding technique, this measurement estimates how well the structural model represents the empirical data. Mathematically it is calculated as follows

$$Q_j^2 = 1 - \frac{\sum_k E_{jk}}{\sum_k O_{jk}} > 0$$

A Q^2 greater than 0 is considered as relevant for forecasting (Weißensteiner, 2014; Kirstein, 2009). However, Kirstein (2009) proposes to apply a Bootstrapping procedure as it can be considered as more meaningful than the measurement Q^2.

In this regard, another important step is to evaluate the previously developed hypotheses. Those paths, which according to the Bootstrapping procedure are statistically significant and important to assess the hypothesis, will be confirmed. In turn, paths, which are either statistically or contentually not significant, will be refuted (Kirstein, 2009; Weißensteiner, 2014).

3.3.6 Determining the Form of Specification

Depending on the context, many constructs can receive a reflective or formative specification, where formative items do not necessarily have to be correlated, as mentioned previously (Eberl, 2006). According to Eberl (2006) prior to the reassessment of the scale, the specification has to be hypothesized. This hypothesis is then evaluated based on the correlation structure of the empirical data generated from a pretest (Eberl, 2006; Kirstein, 2009).

As elaborated earlier in this paper, in order to make the two dimensions of the reputation construct, *sympathy* (η_1) and *competence* (η_2), measurable, this paper employs six reflective, endogenous (dependent) items ($y_{1,2,3,4,5,6}$). The four latent variables that influence the reputation construct, *quality* (ξ_1), *past financial performance* (ξ_2), *attractiveness* (ξ_3) and *corporate social responsibility* (ξ_4) have been allocated 21 formative, exogenous (independent) items ($x_{1,\dots,21}$). In the next stage of this work, the respondents of the survey will evaluate these items; therefore they reflect their perceived reputation (Weißensteiner, 2014).

3.3.7 Potential Mistakes

The commonest potential mistakes with structural equation modeling concern the specification of the latent constructs (Eberl, 2006). The content of the construct in case of reflective models means something different than in case of formative models. As defined previously, in a reflective model the items are considered as manifestations of the latent construct while in a formative model the items together shape the latent construct (Giere et al., 2006). In case of mistakes concerning the specification of the construct, a couple of difficulties might arise. Among others, a faulty construct specification might also cause other constructs to be misspecified (Giere et al., 2006).

In a model, which by mistake is specified as reflective, according to the concept of internal consistency, items with low correlations would be eliminated. However, for formative constructs there is no correlation required; therefore, eliminating reliable items would lead to negligence of

certain important dimensions of the construct and thus diminish the validity of the measurement (Eberl, 2006; Giere et al. 2006). In addition, due to elimination of items with low correlations there might be multicollinearity, which entails the difficulty to determine the individual contribution of the items (Eberl, 2006).

As opposed to this, in a model, which by mistake is specified as formative, a high internal consistency could not be reached because unimportant items with low correlations would not be eliminated from the model. The reason behind it is that the item reliability would not be measured applying the item-to-total correlation concept (Eberl, 2006). Additionally, Giere et al. (2006) stated that wrong conclusions regarding the relationship between the latent construct in question and other latent constructs would be drawn.

4. Empirical Analysis

Based on the theoretical background and the previously defined methodological approach, at this point the empirical framework for the study and the subsequent discussion will be elaborated.

4.1 Designing the Survey

In the course of developing the questionnaire for the survey, it was necessary to phrase the included questions such that the corresponding variables would be operationalized successfully. In the case of the latent corporate reputation construct, its two components as well as its different dimensions as defined in the previous section had to be accounted for (Weißensteiner, 2004). Therefore, in order to measure those dimensions as accurately as possible, each of them requires several similar questions. Within the scope of this paper, the operationalization elaborated by Schwaiger (2004) has been adopted due to its already existing scientific recognition.

4.1.1 Questionnaire

The introduction of the survey contains information concerning the concrete topic and goal of the study. In order to increase the motivation of the participants, an Amazon voucher is raffled. Also the required time to complete the survey, estimated through a pretest, will be mentioned here.

The first section *(question 1-6)* mainly addresses aspects of the theoretical background as well as the degree of involvement of the respondents, e.g. if they own a car. Since the goal of this study is to investigate the likely impact of automotive scandals on (perceived) corporate reputation among three different cultures, the first section basically aims to assess whether there might be a domestic bias, what the most important criteria are when buying a car and for what reason car owners would want to switch to another car brand. Since the emissions scandal of Volkswagen and the acceleration scandal of Toyota have been chosen as exemplary crises, the possibility of a domestic bias, especially among Germans and Asians, has to be accounted for.

The second section *(question 7-33)* encompasses the assessment of 27 items, which later help identify the most essential influencing variables of the two variables defining corporate reputation. In this process the items are referred to a combination of the three automotive companies, namely Toyota,

Volkswagen and Ford. The concept assumes that the respondents evaluate the companies spontaneously based on their perception when reading the company name.

The last section aims to gather demographic information about the survey participants, like for example gender, country of origin and educational achievement. Since the underlying research question focuses on cultural aspects of the USA, Germany and Asia, this section also helps to filter the respondents according to their geographic region. Further, this section served to ask a question directly related to the research questions. It inquires if the respondents are aware of either the diesel emissions scandal initiated by Volkswagen or the Toyota acceleration scandal. Respondents that heard of neither of them can be considered as unbiased since they conducted the evaluations without a negative mind.

Prior to conducting the survey, a pretest with three respondents has been realized in order to be able to exclude any potential difficulties or misunderstandings with the questions included.

4.1.2 Sample Size

Based on the assumption that for a PLS approach a sample size between 30 and 100 respondents is considered as sufficient, the aim was to gather at least 30 respondents per region of origin. At the end of the survey period the total sample size amounted to 170 respondents, among them 37 US Americans, 83 Germans and 50 Asians. The most essential sociodemographic characteristics of the sample are listed in Table 1 as well as the data concerning scandal awareness in Table 2. The age distribution of the sample shows that the majority of the respondents is between 18 and 29 years old. This is not surprising because the survey has been distributed mainly in social media networks.

Table 1: Sociodemographic characteristics of the sample

Characteristics	Characteristic Attributes	Frequencies
Geographical origin	USA	37
	Germany	83
	Asia	50
Gender	Female	74
	Male	96
Age	Under 18 years old	0
	18-29 years old	115
	30-49 years old	38
	50-64 years old	17
	65 years old and over	0

Education	No schooling completed	0
	Completed primary education	1
	Completed middle school education	3
	Completed high school education	35
	Technical training with prof. degree	14
	Bachelor's degree or equivalent	69
	Master's degree or equivalent	44
	Doctorate degree	4

Source: authors' own representation; based on survey data

Concerning car ownership, it is apparent that overall very few respondents own a VW, Toyota or Ford. On the one hand, this can be considered as beneficial because uninvolved persons are more unbiased in their replies than involved persons, on the other side uninvolved persons are weaker in their reactions because they do not have a personal relation to the brand.

It is noticeable that Germans are very well informed compared to Asians or US Americans. Around 54% of the German respondents know about the Volkswagen emissions scandal, 43% about both the Volkswagen emission and the Toyota acceleration scandal and only 2% do not know about neither of them. Considering the respondents from the USA, about 24% are not aware of neither of the scandals, while 41% have heard about both and 21% only about the Volkswagen emissions scandal.

Table 2: Scandal awareness

		Scandal Awareness							
Geographical origin	**Total Nr. Respondents**	**Volkswagen**		**Toyota**		**Both**		**None**	
USA	37	8	21%	5	14%	15	41%	9	24%
Germany	83	45	54%	0	0%	36	43%	2	2%
Asia	50	12	24%	5	10%	26	52%	7	14%

Source: authors' own representation; based on survey data

Since the USA has been the second most affected region by the Volkswagen emissions scandal, a much greater awareness than only 20% was expected. Also, because of the much higher presence in the media in the USA, the US American respondent group was expected to be better informed than the Germans and Asians.

4.1.3 Data Collection

As mentioned earlier, the data has been collected through an online survey, which could be accessed via a link for SoGoSurvey. The survey period amounted to three weeks, from February 18th to March 11th, 2018. In order to recruit as many respondents as possible, an *active* recruiting has been applied as suggested by Weißensteiner (2014). In this regard the link for the survey has been distributed in several social media channels, e.g. *facebook*.

4.2 Operationalization

As elaborated previously, Schwaiger (2004) already had conducted the operationalization of the variables applying the C-OAR-SE procedure. In order to find out if there was any general misunderstanding with the items, the participants of the pretest were asked for their opinion. Since they did not bring up any issues, the items as specified by Schwaiger (2004) were considered as appropriate for this study and therefore eventually were accepted for this study. In 4.2.1 and 4.2.2 the reflective and formative items as defined by Schwaiger (2004) will be presented.

4.2.1 Reflective

Table 3: Reflective constructs and corresponding items

Constructs	Items	Represented as
Sympathy	*I identify myself with [company]*	symp_1
	To me, [company] seems likeable	symp_2
	I would regret if [company] disappeared from the market	symp_3
Competence	*[Company] is an internationally renowned organization*	comp_1
	I see [company] as a top player in the market	comp_2
	[Company] provides outstanding performance	comp_3

Source: authors' own representation; based on Schwaiger (2004)

4.2.2 Formative

Table 4: Formative constructs and corresponding items

Constructs	Items	Represented as
Quality	*[Company] is trustworthy*	qual_1
	The products from [company] are of good quality	qual_2
	I believe the value-for-money ratio of [company] is appropriate	qual_3

	[Company] has a good service to offer	qual_4
	One could say that for [company], the customer is at the center of attention	qual_5
	I believe [company] and its products are reliable	qual_6
	I have great respect for the achievements of [company]	qual_7
	I see [company] as an innovator in automotive engineering	qual_8
Attractiveness	*I think [company] has qualified employees*	attr_1
	I would consider [company] as a potential employer	attr_2
	I like the image of [company]	attr_3
Corporate Social Responsibility	*I believe [company] is behaving fairly*	csr_1
	I think [company] is not only focused on generating profits	csr_2
	[Company] acts socially responsible	csr_3
	[Company] is committed to protect the environment	csr_4
	I believe that [company] provides accurate and trustful information	csr_5
Performance	*I believe [company] is well-managed*	perf_1
	[Company] seems financially stable	perf_2
	I believe [company] has potential for future growth	perf_3
	It seems like [company] has a clear vision	perf_4
	When buying a product from [company], I am exposed to low risk	perf_5

Source: authors' own representation; based on Schwaiger (2004)

4.3 Model Estimation

The evaluation of the model is based on the different steps and quality criteria discussed previously in the methodological section of this paper. Since the aim is to work out cultural differences regarding the reactions, the survey results are evaluated separated into Germans, Asians and Americans.

4.3.1 Evaluation of the Measurement Models

4.3.1.1 Reflective Constructs

As already elaborated in the methodological section, reflective measurement models can be evaluated applying traditional statistical indexes as proposed by the approach of factor analysis (Eberl, 2006; Fuchs, 2011).

Table 5: Evaluation of the reflective measurement model – German respondents

Con-struct	Items	Factor Loadings >0.7			t-values >1.96			Internal Consistency >0.5			AVE >0.5		
		VW	T	F	VW	T	F	VW	T	F	VW	T	F
Sym-pathy	symp_1	0.87	0.85	0.73	32.36	9.98	11.88	0.87	0.79	0.86	0.68	0.58	0.68
	symp_2	0.88	0.88	0.90	36.83	40.99	45.36						
	symp_3	0.72	0.48	0.84	8.78	23.24	22.18						
Com-petence	comp_1	0.80	0.59	0.62	13.14	14.94	3.87	0.80	0.78	0.72	0.57	0.55	0.46
	comp_2	0.71	0.77	0.63	8.06	6.94	3.43						
	comp_3	0.74	0.83	0.77	9.57	15.21	11.36						

Source: authors' own representation; based on survey data

Table 6: Evaluation of the reflective measurement model – Asian respondents

Con-struct	Items	Factor Loadings >0.7			t-values >1.96			Internal Consistency >0.5			AVE >0.5		
		V	T	F	V	T	F	V	T	F	V	T	F
Sym-pathy	symp_1	0.85	0.90	0.79	19.12	36.52	13.11	0.79	0.87	0.81	0.58	0.70	0.59
	symp_2	0.88	0.88	0.85	22.30	22.56	16.07						
	symp_3	0.47	0.70	0.65	2.66	7.20	5.25						
Com-petence	comp_1	0.57	0.62	0.75	2.27	4.16	8.73	0.77	0.84	0.84	0.54	0.65	0.63
	comp_2	0.74	0.86	0.81	4.50	18.76	12.69						
	comp_3	0.86	0.90	0.82	17.24	33.48	14.38						

Source: authors' own representation; based on survey data

Table 7: Evaluation of the reflective measurement model – US American respondents

Con-struct	Items	Factor Loadings >0.7			t-values >1.96			Internal Consistency >0.5			AVE >0.5		
		V	T	F	V	T	F	V	T	F	V	T	F
Sym-pathy	symp_1	0.58	0.71	0.72	2.46	5.24	5.70	0.78	0.71	0.62	0.54	0.71	0.62
	symp_2	0.88	0.92	0.82	28.99	40.85	11.46						
	symp_3	0.72	0.88	0.82	4.14	24.94	9.350						
Com-petence	comp_1	0.65	0.83	0.62	3.61	7.60	2.87	0.82	0.76	0.59	0.61	0.76	0.59
	comp_2	0.82	0.88	0.85	8.97	17.20	7.76						
	comp_3	0.85	0.90	0.81	25.45	36.60	13.55						

Source: authors' own representation; based on survey data

Content Validity

In a first step, as mentioned previously, a pretest has been conducted in order to estimate the content validity of the items. Since the respondents did not bring up any issues, it can be assumed that the items listed in 4.2.1 are valid and assigned to their most appropriate latent constructs.

Item Reliability

In the next step, the item reliability of the reflective measurement model needs to be tested. For this purpose, the factor loadings as well as the corresponding t-values are to be analyzed. Factor loadings give an indication of the items' association with the latent variable.

Overall, it can be observed that for all three samples almost all factor loadings reach the required minimum level of 0.7 and no factor loading falls below 0.4 (Hulland, 1999). Therefore, all of the items can be retained in the model. Subsequently, the bootstrapping approach is applied in order to calculate the corresponding t-values. The results show that for all factor loadings the t-values are above 1.96 and therefore significant at a 0.05 significance level. This means that the factor loadings both of the sympathy and competence items for Germans, Asians and US Americans are significant at a significance level of 0.05.

It is noticeable that for Germans, all items have a strong association to the underlying constructs in case of Volkswagen. In case of Toyota, the items *symp_3* and *comp_1* seem not as important for explaining the sympathy and the competence construct, respectively. Also in case of Ford, the items *comp_1* and *comp_2* have the weakest association to the competence variable.

For Asians, in case of Volkswagen, *symp_3* and *comp_1* are only marginally important for the sympathy and competence variable, respectively. On the other hand, in case of Toyota and Ford only *comp_1* and *symp_3* have a rather weak association to the underlying construct.

For the US American sample it is noticeable that three out of 18 items stayed below 0.7 within the formative construct. However, according to Kirstein (2009), for constructs with only three items, as it is the case for both the sympathy and competence dimension, a minimum value of 0.4 for factor loadings is also acceptable. Consequently, it can thus be said that the items correlate significantly with their reference latent variable. In regard with the t-statistics especially the *symp_2* and the

comp_3 item show high t-values, as well as high factor loadings on their respective dimension. Therefore, these items seem to be highly significant model components.

Construct Reliability

For evaluation of the model concerning construct reliability, there are two measurements available as discussed in the methodological section. Due to the higher validity of the *internal consistency* measure developed by Fornell and Larcker, it was decided to focus more on this measure and to present the *Cronbach's Alpha* values in Appendix 1. The *internal consistency* measure is calculated by the use of the item loadings obtained within the causal model (Hulland, 1999).

It is apparent that for the German, Asian as well as US American sample the internal consistency is higher than the required minimum value of 0.5 in case of all three car manufacturers. Both the sympathy and the competence construct are therefore measured to a high degree through their corresponding items. This basically means that both the sympathy and competence construct for all three samples and in case of all three car brands pass the test for *internal consistency* and that the model provides great construct reliability.

Consequently, based on the findings up to this point, it can be said that in the case of all three samples, not only the individual items are reliable, but also "their" associated construct since both the sympathy and competence construct pass the minimum value of 0.5.

Discriminant Validity

As pointed out already by the methodological section, in order to complement the previously tested indicator and construct reliability, as a last step the reflective models are tested for discriminant validity. According to Hulland (1999), discriminant validity depicts "*the extent to which measures of a given construct differ from measures of other constructs in the same model* (p. 199)."

In a first step, in order to test for discriminant validity, the cross loadings between the items and "their" corresponding latent constructs are to be examined. In a second step, as a more formal measure, the average variance extracted (AVE) is to be calculated (Duarte & Raposo, 2010; Hulland, 1999). Technically, the average variance shared between a construct and its items should be greater

than the variance between this construct and other constructs. The average variance extracted should thus not be smaller than 0.5 (Kirstein, 2009).

Considering the cross loadings tables (see Appendix 2) for the German, Asian and US American sample, it becomes clear that the reflective items put their strongest loadings on their corresponding latent constructs. For this reason, at a first glance the constructs can be considered as sufficiently distinct from one another. In order to additionally confirm this observation, the *Fornell/Larcker* criterion is to be determined for every sample.

Table 8: Fornell/Larcker – German respondents

	$\sqrt{AVE}$			**Sympathy**			**Competence**		
	VW	T	F	VW	T	F	VW	T	F
Sympathy	0.83	0.76	0.83				0.62	0.68	0.59
Competence	0.75	0.74	0.68	0.62	0.68	0.59			

Source: authors' own representation; based on survey data

Despite the satisfying cross loadings, it is noticeable that for Germans in case of Ford, the Average Variance Extracted (AVE) of the competence construct falls below the required value of 0.5. In order to further test this case, the compliance with the *Fornell/Larcker* Criterion is to be reviewed. Table 8 reveals that the square root of its AVE, 0.68, is greater than the correlation with the sympathy construct, 0.59. Therefore, it can be deduced that discriminant validity for the reflective measurement model of the Germans is given according to the *Fornell/Larcker* Criterion.

Table 9: Fornell/Larcker – Asian respondents

	$\sqrt{AVE}$			**Sympathy**			**Competence**		
	VW	T	F	VW	T	F	VW	T	F
Sympathy	0.76	0.83	0.77				0.69	0.71	0.75
Competence	0.73	0.81	0.79	0.69	0.71	0.75			

Source: authors' own representation; based on survey data

For the Asians, the AVE of both the sympathy and the competence construct in case of all three car manufacturers confirms discriminant validity of the measurement model. The *Fornell/Larcker* Criterion additionally approves this.

Table 10: Fornell/Larcker – US American respondents

	$\sqrt{AVE}$			Sympathy			Competence		
	VW	T	F	VW	T	F	VW	T	F
Sympathy	0.74	0.84	0.79				0.65	0.72	0.69
Competence	0.78	0.87	0.77	0.65	0.72	0.69			

Source: authors' own representation; based on survey data

Just like for the Asian sample, also for the US American sample, the AVE of both the sympathy and the competence construct in case of all three car manufacturers are above the required minimum value of 0.5 and therefore confirm discriminant validity of the measurement model. In addition, Table 10 demonstrates that the *Fornell/Larcker* criterion is also fulfilled.

It can be concluded that for all three samples as well as in case of all three car brands, the reflective items measure only "their" associated latent construct. Therefore, a high degree of discriminant validity can be confirmed for all samples.

Altogether, based on the overall very good goodness-of-fit estimates, it can be concluded that the reflective measurement models are of high quality and therefore should not be modified.

4.3.1.2 Formative Constructs

As already elaborated in the methodological section, the "usual" statistical figures as applied in case of reflective models are not appropriate for formative models. This is due to the fact that in the case of formative constructs – contrary to reflective constructs, the grouped items do not necessarily have to be correlated, the possibilities of indicator reliability evaluation are limited (Kirstein, 2009). For the underlying calculations a 95% confidence level was chosen, meaning that 95% of the estimated parameters lie within the deduced confidence interval. In large samples, the parameter distributions are likely to approach the standard normal distribution. On the contrary, for small samples, the shapes and spreads vary significantly, which in turn affects the confidence intervals bandwidth (Hesterberg, 2015). Consequently, the resulting t-statistics are poor for small samples (Hesterberg, 2015). In the course of the different calculations for the formative measurement models, it becomes quite obvious that the German sample shows much better t-values than the US American or Asian sample. This is

clearly the result of a relatively small sample size. Therefore, poor t-values only cannot be used to declare whether the respective items are relevant for "their" dimension or not.

In order to investigate the model concerning content validity, analogous to the reflective case, also in formative models the content validity is analyzed based on the earlier conducted pretest. Again, the participants of the pretest did not bring up any big concerns with the items. The only issue mentioned by one participant is the fact that some of the items seem to be suitable to more than one construct. Regarding this, however, it was again important that on the one hand there were no misunderstandings with the items and on the other hand no ambiguous allocations of the items. Consequently, the content validity can be confirmed for the formative constructs as well.

In the second step, as proposed by the methodological section, the relevance of the individual items is to be investigated. For this reason, in order to assess which items contribute most to the formation of "their" related latent construct, their weights are to be examined. All items with weight values above 0.1 are usually considered significant for explaining the latent variable (Kirstein, 2009).

In case there are negative or insignificant weights, the subsequent step aims at investigating whether there is multicollinearity among the items. As elaborated in the methodological section, multicollinearity might result when the items linearly depend on one another. In this case the individual impact of the items on "their" corresponding latent construct cannot be assessed properly and they might seem irrelevant for their assigned dimension (Fuchs, 2011; Kirstein, 2009).

Firstly, the correlation matrices (see Appendix 3) are to be investigated in order to gather a first insight into correlations among the items. In a second step the Variance Inflation Factors (VIF), which represent a typical measure for multicollinearity, are to be examined to confirm the conclusions derived from the correlation matrices. As a rule of thumb, VIF values greater than 10 indicate the existence of severe multicollinearity (Kirstein, 2009; O'brien, 2007).

Table 11: Evaluation of the formative measurement model – German respondents

Construct	Items	Weights >0.1			T-values >1.96			VIF <10		
		V	T	F	V	T	F	V	T	F
Quality	qual_1	0.24	0.15	0.15	2.40	2.23	1.42	1.67	2.43	1.82
	qual_2	0.17	0.15	0.09	1.50	2.25	1.16	2.63	3.00	2.06
	qual_3	0.04	0.20	0.01	0.46	1.54	0.21	1.97	2.63	1.52
	qual_4	0.04	0.11	0.13	0.42	2.54	1.30	1.92	2.39	2.14
	qual_5	-0.06	-0.16	-0.02	0.74	0.23	0.14	1.45	2.16	1.80
	qual_6	0.49	0.26	0.35	4.33	0.17	2.82	2.17	2.98	2.36
	qual_7	0.29	0.15	0.44	2.95	4.31	4.32	1.73	3.09	1.97
	qual_8	0.01	0.04	0.10	0.04	1.01	1.16	1.75	2.81	1.52
Attractiveness	attr_1	0.19	0.33	0.21	1.95	3.61	2.26	1.15	1.29	1.13
	attr_2	0.42	0.50	0.21	4.02	1.02	2.09	1.52	1.33	1.19
	attr_3	0.65	0.43	0.80	7.36	6.88	9.09	1.37	1.47	1.30
Corporate Social Responsibility	csr_1	0.55	0.45	0.18	2.96	3.54	1.06	1.59	1.85	1.52
	csr_2	0.13	0.33	-0.10	0.82	1.15	0.61	1.20	1.72	1.10
	csr_3	0.38	0.49	0.19	1.83	0.80	0.86	1.49	1.84	1.90
	csr_4	0.29	-0.08	0.26	1.55	2.51	1.46	1.32	2.30	1.11
	csr_5	-0.01	0.04	0.71	0.03	2.47	4.21	1.47	1.92	1.72
Performance	perf_1	0.09	0.10	0.22	0.88	2.39	1.36	1.91	1.88	1.61
	perf_2	0.22	0.16	0.12	1.87	1.20	0.78	1.22	1.43	1.49
	perf_3	0.42	0.36	0.40	5.06	2.29	3.00	1.17	2.53	1.21
	perf_4	0.24	0.45	0.18	1.79	3.98	1.08	1.97	2.25	1.57
	perf_5	0.42	0.16	0.45	3.54	2.10	3.72	1.99	1.40	1.48

Source: authors' own representation; based on survey data

Considering Table 11, it is noticeable that for Germans in case of Volkswagen and Ford, relatively many quality items are below the marginal value of 0.1. By definition, this means that those items are not relevant for specifying the content of the quality variable. However, in this regard it is also pretty obvious that those weights (irrelevant items) cannot be considered as significant according to their t-values.

Considering the correlation matrices of the German sample, there is basically no indication of multicollinearity visible. This observation is further confirmed by the VIF values in case of all items for all car manufacturers. Apparently, all VIF values are far below 10, where 3.09 of *qual_7* in the case of Toyota is the highest VIF.

Table 12: Evaluation of the formative measurement model – Asian respondents

Construct	Items	Weights >0.1			T-values >1.96			VIF <10		
		V	T	F	V	T	F	V	T	F
Quality	qual_1	0.16	0.22	0.34	1.20	1.47	2.68	2.43	1.80	1.88
	qual_2	0.15	0.12	0.08	1.00	0.72	0.41	3.00	2.11	2.93
	qual_3	0.20	0.31	0.38	1.39	2.59	2.20	2.63	1.38	2.53
	qual_4	0.11	0.17	0.01	0.89	1.42	0.03	2.39	2.30	2.83
	qual_5	-0.16	0.002	0.05	1.28	0.01	0.28	2.16	2.61	3.08
	qual_6	0.28	0.15	0.25	1.99	0.84	1.27	2.98	3.02	3.33
	qual_7	0.15	0.20	0.02	1.09	1.20	0.07	3.09	2.43	2.83
	qual_8	0.34	0.19	0.12	2.69	1.07	0.81	2.81	2.72	1.96
Attractiveness	attr_1	0.32	0.15	0.31	2.56	0.91	2.23	1.29	1.45	1.27
	attr_2	0.50	0.32	0.45	3.02	1.50	2.92	1.33	1.27	1.31
	attr_3	0.44	0.72	0.51	3.13	3.42	3.35	1.47	1.75	1.53
Corporate Social Responsibility	csr_1	0.45	0.42	0.42	2.92	3.88	2.65	1.85	1.35	1.39
	csr_2	0.33	0.28	0.29	1.66	2.39	1.54	1.72	1.43	1.45
	csr_3	0.48	0.41	0.28	2.59	3.66	1.30	1.84	2.64	1.96
	csr_4	-0.09	0.10	0.24	0.48	0.79	1.43	2.30	1.95	1.46
	csr_5	0.05	0.11	0.18	0.25	1.20	0.98	1.92	1.73	1.59
Performance	perf_1	0.11	0.27	-0.04	1.02	2.26	0.31	1.88	1.38	1.94
	perf_2	0.15	0.04	-0.12	1.15	0.28	0.75	1.43	1.49	1.30
	perf_3	0.37	0.28	0.52	2.80	1.99	2.87	2.53	1.82	1.83
	perf_4	0.44	0.42	0.29	3.17	2.42	1.90	2.25	1.96	2.60
	perf_5	0.17	0.32	0.50	1.51	2.00	3.27	1.40	1.42	1.37

Source: authors' own representation; based on survey data

Also, in the Asian sample, there are six quality items in total that do not seem relevant for explaining the quality variable. Again, according to their t-values, those items can be considered as insignificant. According to Kirstein (2009), they are considered "trivial" as they explain less than 1% of the variance of the latent variable. However, it was decided to keep them in the model as they are relevant from a theory-based point of view. Further, eliminating statistically irrelevant items might lead to a biased content of the latent construct and therefore to measurement errors (Fuchs, 2011; Stolle, 2008).

The correlation matrices as well do not give any indication of multicollinearity. Again, the VIF values, which are all far below 10, confirm this conclusion. The highest VIF value in this case is 3.33 for the *qual_6* item of Ford. Therefore, there is no problem with multicollinearity in this model and it can be concluded that also the formative measurement models are of high quality and need not be modified.

Table 13: Evaluation of the formative measurement model – US American respondents

Construct	Items	Weights >0.1			t-values >1.96			VIF <10		
		V	T	F	V	T	F	V	T	F
Quality	qual_1	0.23	-0.14	0.29	1.26	2.68	1.19	3.37	2.89	2.94
	qual_2	0.16	0.35	-0.11	0.96	1.40	0.30	2.83	3.88	4.83
	qual_3	-0.11	0.04	0.32	1.06	0.13	0.95	1.76	3.47	3.93
	qual_4	-0.09	0.41	-0.17	0.52	1.76	0.54	2,.54	3.86	2.99
	qual_5	0.11	0.19	0.07	0.99	0.88	0.34	1.44	2.26	2.14
	qual_6	0.35	-0.08	0.36	2.63	0.28	1.97	1.76	4.85	1.96
	qual_7	0.31	0.28	0.34	2.3	1.50	1.70	1.74	2.57	2.47
	qual_8	0.32	0.17	0.21	1.67	0.69	1.12	3.66	2.46	2.17
Attractiveness	attr_1	0.30	0.67	0.34	1.43	3.51	2.02	1.46	1.33	1.16
	attr_2	0.31	0.02	0.37	1.53	0.09	2.16	1.04	2.42	1.16
	attr_3	0.70	0.56	0.65	4.65	3.02	5.59	1.42	2.28	1.12
Corporate Social Responsibility	csr_1	0.20	0.46	0.39	1.25	3.41	1.82	1.64	1.60	1.32
	csr_2	-0.37	-0.24	-0.49	2.01	1.92	2.53	1.25	1.24	1.23
	csr_3	0.10	0.36	0.27	0.50	2.14	1.43	1.75	1.88	1.13
	csr_4	0.26	0.49	0.13	1.24	3.20	0.56	1.87	1.36	1.62
	csr_5	0.70	0.04	0.52	3.70	0.20	2.04	2.89	2.18	2.05
Performance	perf_1	0.18	0.10	0.35	1.57	0.96	1.57	1.45	1.31	1.61
	perf_2	0.07	0.17	-0.03	0.65	1.00	0.19	1.32	1.52	1.77
	perf_3	0.27	0.39	0.25	2.31	2.32	0.87	1.92	1.34	2.63
	perf_4	0.57	0.39	0.32	4.34	2.00	1.48	1.95	2.65	2.10
	perf_5	0.20	0.25	0.38	1.65	1.24	1.53	1.32	3.15	1.81

Source: authors' own representation; based on survey data

For the US Americans, in case of Volkswagen, 5 out of 21 items do not pass the weight threshold of 0.1. Among those, three items have a negative weight. In case of Toyota, 6 out of 21 items show values below 0.1, of which 3 have a negative sign. Lastly, in case of Ford, 5 out of 21 items are below the threshold, with 4 items being negative. It is especially noticeable that the item *qual_6* is insignificant and weakly negative in case of Toyota. Nonetheless, it contributes significantly with a rather high weight and a positive sign to the Quality dimension in case of Volkswagen and Ford. From these findings it can be deduced that *qual_6* in general serves as valuable item for explaining the Quality dimension.

As mentioned previously, in order to explain these negative and insignificant weight values, the existence of multicollinearity is to be investigated. In case of the three car brands, however, the correlation matrices do not indicate multicollinearity. Further, the VIFs confirm this observation as the majority shows very low values. On these grounds, a multicollinearity problem can be excluded. Additionally, almost all weights below 0.1 or with negative signs are at the same time insignificant;

therefore, neither should one jump to conclusions in this regard nor imply a negative correlation with the associated dimension.

However, again another apparent problem is the low t-statistics. While in the reflective construct, all t-values belonging to the three brands exceed the threshold of 1.96, the t-statistics for the formative construct are rather poor. Only 7 out of 21 items in the Volkswagen dataset, 9 items in the Toyota dataset, and 6 items from the Ford dataset can be considered significant based on their t-values.

Based on the low t-statistics, also for the US American sample, apparently insignificant, "trivial" items could be eliminated from the model. Again, however, some arguments speak against such a procedure. Besides the already discussed issue of bias of the model, the bad t-statistics to a large extent can be explained by the Bootstrapping method used to generate t-statistics. Bootstrapping works perfectly for large sample sizes, but often gives poor results for small sample sizes (Hesterberg, 2015). This is due to the functioning of Bootstrapping: It draws various (in the underlying calculation 1000) subsamples from the original sample, and then estimates the desired parameters, in this case weights, for each subsample. Out of these subsample parameter distributions, confidence intervals can be deduced. (Hesterberg, 2015). However, as previously mentioned, the bandwidth of those confidence intervals is affected by significantly varying parameter distributions caused by small a sample size (Hesterberg, 2015).

As elaborated earlier in the methodological section, the formative measurement models cannot be tested for construct reliability through internal consistency measures (Kirstein, 2009). This is due to the assumption underlying the PLS approach that the formative construct is free from errors, which is not very realistic (Kirstein, 2009). Against this background, the focus of evaluating formative models is more on item validity, especially weights and VIFs. The latter also give a small indication for construct reliability in case multicollinearity can be excluded.

To conclude the evaluation of the formative constructs, it can be said that, despite of poor t-statistics, which are mainly due to the Bootstrapping technique, the formative constructs still have a satisfying item relevance and overall model fit. The majority of items pass the weight threshold of 0.1. Also, weights with negative values are mostly insignificant in regard to their t-values, and have importance for other samples with different brands. Besides that, the VIF values are low, indicating that the model does encompass severe multicollinearity. Lastly, based on the prevailing scientific opinion, also items

with small weights are said to have informative value and should thus be kept inside the model (Kirstein, 2009).

4.3.2 Evaluation of the Structural Models

After the measurement models have been evaluated, the structural models are to be assessed as well. As mentioned in the methodological section, again only non-parametric tests can be applied (Eberl, 2006; Weißensteiner, 2014).

In a first step, the coefficient of determination R^2 is to be analyzed in order to determine the proportion of variance explained by the model used to depict the latent variables through their predictors (Lohmöller, 2013). Against this background, it assesses the goodness of fit of the model to the empirical data (Eberl, 2006).

While the coefficient of determination represents a rather general measurement, the effect size *Cohen's* f^2 is a more specific one. As defined in the methodological section, it is applied in order to examine the concrete impact of the exogenous latent constructs on the endogenous latent constructs.

Table 14: Coefficients of determination and effect sizes – Germans by brand

Constructs	R^2			f^2 referred to					
				Sympathy			Competence		
	VW	T	F	VW	T	F	VW	T	F
Corporate Social Responsibility				0.02	0.04	0.06	0.01	0.00	0.04
Quality				0.20	0.19	0.08	0.11	0.03	0.42
Attractiveness				0.14	0.09	0.23	0.00	0.01	0.02
Performance				0.01	0.00	0.01	0.23	0.23	0.04
Sympathy	0.73	0.75	0.70						
Competence	0.62	0.71	0.65						

Source: authors' own representation; based on survey data

Table 14 demonstrates that the R^2 of the sympathy construct for the German sample are above 0.67 in case of all car manufacturers and therefore explain a *substantial* portion of the variance. The R^2 of the competence construct is below 0.67 in case of Volkswagen and Ford. For this reason, those cases explain an *average* amount of the variance.

For the German sample, it is noticeable that in case of Volkswagen only quality moderately influences both sympathy and competence. The other exogenous latent constructs as well encompass weak and

moderate influences and three f^2 values, which are below 0.02. In case of Toyota there are three f^2 values below 0.02, three variables with a weak and two with a moderate impact. It is noticeable that in case of Ford, there is only one f^2 value below 0.02, five with a weak, one with a moderate and one with an essential influence.

Table 15: Coefficients of determination and effect sizes – Asians by brand

Constructs	R^2			f^2 referred to					
				Sympathy			Competence		
	VW	T	F	VW	T	F	VW	T	F
Corporate Social Responsibility				0.04	0.25	0.03	0.00	0.30	0.01
Quality				0.19	0.11	0.14	0.04	0.01	0.03
Attractiveness				0.09	0.03	0.09	0.01	0.00	0.02
Performance				0.00	0.01	0.02	0.21	0.04	0.16
Sympathy	0.75	0.74	0.69						
Competence	0.72	0.75	0.68						

Source: authors' own representation; based on survey data

For the Asian sample, Table 15 reveals that the R^2 of both the sympathy and the competence construct in case of all three car manufacturers are above 0.67. Therefore, all three models are assumed to explain a *substantial* portion of the variance. In other words, it can be concluded that both sympathy and competence can be explained through the reputation of Volkswagen, Toyota and Ford.

The overall pattern concerning the effect sizes looks similar to that of the German sample. In case of Volkswagen there are three f^2 values below 0.02, one with a weak and four with a moderate influence. In case of Toyota, there are also three f^2 values below 0.02, three with weak and two with moderate impact. In case of Ford, there is only one f^2 value less than 0.02, five with a weak and two with moderate impact.

Table 16: Coefficients of determination and effect sizes – US Americans by brand

Constructs	R^2			f^2 referred to					
				Sympathy			Competence		
	VW	T	F	VW	T	F	VW	T	F
Corporate Social Responsibility				0.04	0.04	0.00	0.00	0.03	0.10
Quality				0.14	0.07	0.18	0.14	0.15	0.14
Attractiveness				0.00	0.09	0.17	0.00	0.05	0.15
Performance				0.02	0.04	0.00	0.11	0.14	0.00
Sympathy	0.72	0.77	0.65						
Competence	0.76	0.73	0.72						

Source: authors' own representation; based on survey data

In the underlying US American dataset with the three brand sets, the R^2 of the sympathy and competence construct surpasses the value of 0.67 in case of Volkswagen and Toyota. Therefore, according to the methodological part, a *substantial* proportion of the variance is explained by the models. The R^2 of the sympathy construct in case of Ford is very close to the threshold value of 0.67. In this regard, an *average* proportion of the variance of explained by the model.

Concerning the effect sizes, it is noticeable that quality is the only variable, which has a moderate impact on both sympathy and competence in case of all car brands. For the remaining values, the overall pattern again looks similar to the German and Asian sample.

In order to be able to draw conclusions from these findings, the predictive relevance of the structure model has to be examined as well. For this reason, the following section analyzes the total effects as well as the corresponding t-values.

4.3.3 Path Coefficients

For the structural equation modeling and the PLS analysis, the tool SmartPLS has been applied, which finally determined the path coefficients for the reputational model. These show the causal relationships between the four exogenous, independent variables and the two endogenous, dependent variables (Kirstein, 2009).

Considering the total effects of the variable relationships, exogenous variables have to pass the 0.1 threshold in order to be considered significantly related with the endogenous variables (Lohmöller, 2013). Once again, due to the Bootstrapping problem, which can be traced back to small sample size, t-values are pretty poor. Accordingly, very few pass the threshold for significance of 1.96. For the German sample, there are 12, for the Asian sample seven and for the US American sample only two significant path coefficients.

Table 17: Path coefficients – Germans by brand

	Volkswagen		Toyota		Ford	
Relationship	**Total effects >0.1**	**t-value >1.96**	**Total effects >0.1**	**t-value >1.96**	**Total effects >0.1**	**t-value >1.96**
Attractiveness → Competence	-0.01	0.09	-0.08	0.67	0.12	0.98
Attractiveness → Sympathy	0.34	3.34	0.26	4.86	0.40	3.98
CSR →Competence	-0.08	0.82	0.05	1.95	-0.15	1.29
CSR → Sympathy	0.09	1.02	0.16	1.67	0.19	2.09
Performance → Competence	0.52	3.92	0.65	4.15	0.17	1.07
Performance → Sympathy	0.08	0.70	-0.03	0.10	0.09	0.99
Quality → Competence	0.38	2.56	0.24	2.82	0.68	6.03
Quality → Sympathy	0.43	3.95	0.55	2.14	0.28	2.55

Source: authors' own representation; based on survey data

In the German sample, it is noticeable that the quality variable is strongly related to both the competence and sympathy constructs in case of all three car brands. These findings are also significant at the 0.05 significance level. Further it can be observed that attractiveness is related to sympathy and performance to competence in case of all three car brands.

Table 18: Path coefficients – Asians by brand

	Volkswagen		Toyota		Ford	
Relationship	**Total effects >0.1**	**t-value >1.96**	**Total effects >0.1**	**t-value >1.96**	**Total effects >0.1**	**t-value >1.96**
Attractiveness → Competence	-0.07	0.51	0.02	0.11	0.13	0.71
Attractiveness → Sympathy	0.26	2.08	0.14	1.08	0.31	1.82
CSR →Competence	0.05	0.35	0.56	2.84	0.11	0.72
CSR → Sympathy	0.16	1.10	0.52	3.75	0.17	1.33
Performance → Competence	0.60	2.51	0.21	1.20	0.42	2.35
Performance → Sympathy	-0.03	0.17	-0.11	0.57	-0.14	0.84
Quality → Competence	0.28	1.26	0.12	0.63	0.24	1.11
Quality → Sympathy	0.55	2.51	0.36	1.85	0.52	2.80

Source: authors' own representation; based on survey data

For the Asians, again it is observable that the quality variable plays an important role for competence as well as for sympathy. It is also noticeable here that in case of Ford, practically all the endogenous variables are positively related to the competence and sympathy constructs.

Table 19: Path coefficients – US Americans by brand

	Volkswagen		Toyota		Ford	
Relationship	**Total effects >0.1**	**t-value >1.96**	**Total effects >0.1**	**t-value >1.96**	**Total effects >0.1**	**t-value >1.96**
Attractiveness → Competence	0.01	0.08	-0.19	1.18	0.32	2.08
Attractiveness → Sympathy	0.03	0.29	0.25	1.49	0.39	1.93
CSR →Competence	0.05	0.22	0.18	0.72	0.26	1.42
CSR → Sympathy	0.18	1.02	0.20	1.11	0.04	0.26
Performance → Competence	0.41	1.76	0,44	1.80	0.02	0.34
Performance → Sympathy	0.20	0.71	0.23	1.07	0.01	0.07
Quality → Competence	0.43	1.77	0.43	1.53	0.35	1.84
Quality → Sympathy	0.48	1.67	0.28	1.18	0.44	2.00

Source: authors' own representation; based on survey data

As compared to the German and Asian sample, the US American sample has the fewest significant path coefficients since it is the smallest sample. However, a few are very close to the threshold value of 1.96, which is still a satisfying result for a sample of only 27 US American respondents.

For the US Americans, it can be seen that for all three brand-specific samples, the dimension of quality seems to be strongly related to both the competence and sympathy latent variables, and thus important for reputation, as it shows a high total effect in the PLS calculations. This is congruent with the findings (which will be presented in the subsequent section) that quality is considered one of the most important buying criteria for customers in regard to cars, and therefore most likely also an important determinant factor for reputation of automotive brands. Apart from quality, however, the other variable relationships seem to be rather brand specific and will thus also be discussed more in detail in the following section.

5. Discussion of the Empirical Results

In the course of the empirical discussion, the results from the conducted survey about customer perceptions on scandal-affected automotive companies will be analyzed and discussed. The focus of discussion lies on national and cultural differences in regard to customer perceptions, on the basis of which recommendations for corporate response strategies in crisis situations will be deduced. First and foremost, however, for a better understanding, it is necessary to introduce the aforementioned underlying scandal cases of Toyota and Volkswagen. This will be done by outlining the company backgrounds and the occurrence of the scandals, as well as the customer reactions and corporate responses. Thereafter, the company cases will be analyzed by use of the theoretical framework, which gives predictions for expected reputational outcomes based on previous findings.

To prove these theoretical findings, they will then be compared to findings on reputational outcomes resulting from the responses of survey participants. This, however, requires a detailed discussion of national and cultural influence factors, the composition of the investigated companies' reputational dimensions, as well as the preferences for response strategies.

5.1 Analysis of Recent Crisis Incidents

5.1.1 Toyota Recall Scandal 2009

Company Background and Inception of the Acceleration Scandal

One of the main driver of the Toyota's success have been and still are its unique lean production and management principles, known as the "Toyota way" (Camuffo and Wilhelm, 2016). With the help of this system, Toyota made it to the top of the world's major car manufacturers (Nkomo, 2013). The Toyota way strongly emphasizes lean and holistic production methods, which result in high performance and outstanding quality outcomes (Camuffo and Wilhelm, 2016). As compared to traditional mass production, low inventories and high interchangeability of parts and systems are prioritized, which have a high positive impact on efficiency (Andrews et al., 2011).

Toyota's organizational setup had been intensively studied by academia, and was also tried to be replicated by competitors (Camuffo and Wilhelm, 2016). However, the latter turned out to be difficult, due to the fact that the system is a highly integrated, trans-organizational framework, and also strongly interlinked with Japanese management culture (Camuffo and Wilhelm, 2016). Central

to the Toyota way are choices in manufacturing, human resources management and supplier management (Camuffo and Wilhelm, 2016)

For manufacturing, a basic principle are continuous quality controls combined with immediate production line stop systems, the so-called “Andon” (Camuffo and Wilhelm, 2016). In case that abnormalities are detected, the employee pulls the Andon cord, and the problem then has to get fixed immediately or production will stop entirely (Camuffo and Wilhelm, 2016). This also helps to avoid more a costly repair when errors are detected after the final assembly (Camuffo and Wilhelm, 2016).

In regard to human resources management, as it is typical for the Japanese work culture, Toyota also believes in long-term employment commitment and internal career paths (Camuffo and Wilhelm, 2016).

Like with employees, Toyota also bets long-term supplier relationships and close assistance in lean production methods and quality management (Camuffo and Wilhelm, 2016).
Initially, Toyota relied on domestic plants and suppliers to be able to follow its principles (Camuffo and Wilhelm, 2016). However, its continuous global growth required plant openings abroad to react faster to demand. In 2008, Toyota finally reached its goal of becoming the world’s largest car manufacturer, which – besides an extreme, 30 % cost reduction initiative – was one of the aggressive future growth strategies set up (Camuffo and Wilhelm, 2016). These extreme growth ambitions combined with drastic saving measures, however, mark the beginning of a phase of organizational misfits and abandonment of principles (Camuffo and Wilhelm, 2016).

For example, in order to fill demand, Toyota almost had to double its workforce within a decade (Camuffo and Wilhelm, 2016). Internally, various problems arose: First of all, the newly hired workers were mostly temporary workers and not familiar with Toyota’s corporate culture and principles (Camuffo and Wilhelm, 2016). Secondly, along with overtime production, the level of stress for production levels rose tremendously, resulting in high turnover rates especially among the experienced workforce such as managers and technicians (Camuffo and Wilhelm, 2016). Due to high productivity targets, workers were also more hesitant to pull the Andon cord and make production lines stop, which in turn affected quality (Camuffo and Wilhelm, 2016).

Toyota's suppliers were exposed to similar cost, stress and competency problems. Components and modules became more and more outsourced to emerging market suppliers, which raised competition and lowered quality standards (Camuffo and Wilhelm, 2016). To sum up, ambitious organizational growth strategies initiated by Toyota top management thus lead to a distortion of the company's traditional distinctive success factors.

The triggering event of Toyota's recall crisis, which resulted in various deaths, more than 9 million recalled vehicles in the US and elsewhere within several safety recall rounds, as well as a total of $48.8 million in fines imposed to the company, occurred on August 29, 2009 (Bowen & Zheng, 2015). A Californian Highway Patrol officer, experienced in handling cars at high speed, died with his family in a fatal accident involving a Toyota Lexus (Gokhale et al., 2014). The preceding emergency call of one of the passengers went public, revealing that the car accelerated uncontrollably, and finally crashed and caught fire. (Andrews et al., 2011). Due to the profession of the car driver, doubts were raised about mechanical defaults in the built-up of Toyota's car pedals (Gokhale et al., 2014).

Indeed, this was not the first incident of this kind. Already between 1999 and 2001, a yearly average of 26 abrupt accelerations of Toyota vehicles had been reported, which increased by 300% between 2002 and 2004 towards 132 annual accelerations on average (Andrews et al., 2011). Furthermore, as stated by CBS News, 52 deaths are attributable to the occurring incidents (Choi & Chung, 2013). In 2007, the US institution for vehicle safety – the National Highway Traffic Safety Administration (NHTSA) – began investigations (Gokhale et al., 2014). From these investigations, Toyota concluded that shifting floor mats trapping the acceleration pedal must have been the cause of the problem, which in the following led the company to initiate a minor recall floor mats (Gokhale et al., 2014).

Floor mats were also once again suspected to be the cause of the Highway Patrol officer accident in 2009, and Toyota issued a warning to customers recommending to remove floor mats, followed by a massive recall of 4.2 million vehicles – the biggest of its history (Andrews et al., 2011; Allen & Sturcke, 2010). However, reports on incidents with stuck gas pedals continued, even in cars where foot mats had been removed, causing Toyota to recall another 2.3 million cars (Andrews et al., 2011). Recalls were also extended to Europe and China (Allen & Sturcke, 2010).

Lastly, mechanical defaults in the build-up of pedal were found responsible for the acceleration problems. A minor 30-minutes fix at a nylon friction device, which under some conditions had prevented the gas pedal from returning to its initial position, finally solved the issue (Gokhale et al., 2014). Due to ongoing concerns, NHTSA followed its investigations over 10 months (Gokhale et al., 2014). In the end, the study revealed three significant points: (1) evidence for electronic errors could not be found, (2) the majority of accidents was caused by driver errors, and (3) for the accidents not caused by a driver error, Toyota's repair method was effective (Gokhale et al., 2014). Although the results of the report partly restored Toyota's reputation, the negative financial and reputational impacts of the recall crisis were still huge (Gokhale et al., 2014).

Customer and Market Reactions

Despite the negative news coverage, the level of severity and global reach of the scandal, Toyota's outstanding reputation as a quality leader in the beginning of the crisis served as a buffer (Hammond, 2013). Therefore, based on research from Gokhale et al. (2014), neither the initial recall of floor mats, nor the prominent Highway accident, had a significant negative impact on stock prices. The following massive recalls and acknowledgement of design flaws, however, led to a 19% drop in Toyota stock returns (Gokhale et al., 2014). In contrast, the publication of the NHTSA investigations report, which partly relieves Toyota and assures successful error correction, positively impacted returns by a 9% (Gokhale et al., 2014). Also, on the used-vehicle market, the Toyota scandal affected the resale price of affected cars only marginally (Hammond, 2013).

Nevertheless, consumer reports were showing that customer loyalty towards Toyota had dropped sharply, especially among buyers under age 44 (Andrews et al., 2011). However, Toyota's customer incentives programs successfully raised sales after the recall breakdown (Andrews et al., 2011). In addition, the new motto "Moving forward" was used to communicate to customers that the company is trying hard to leave behind the crisis and make a new start (Kelly, 2012). Indeed, customers seemed to be forgiving and trusting: Already in May 2010, customer perceptions of Toyota began to recover, although there is still a long way to go to reach pre-recall results (Kelly, 2012).

Corporate and Managerial Response Strategy

In the scope of the acceleration crisis, Toyota has been highly criticized for not reacting timely, although problems had already been known to the company long before (Andrews et al., 2011).

Nevertheless, they were mainly ignored, despite of their potential threat to human lives (Andrews et al., 2011). Also, internal and external communication on recall-related information went rather slow and fragmentary, which can partly be traced back to traditional Japanese top-down, highly hierarchical corporate structures with centralized decision-making (Andrews et al., 2011). It demonstrates that a pre-crisis preparation, for instance in form of action plans, as suggested by Choi and Chung (2013) had not been conducted properly.

Furthermore, both in the USA and Japan, this corporate response strategy was not seen as appropriate (Andrews et al., 2011): When the occurrence of incidents rose tremendously and could no longer be ignored, Toyota reacted with a denial strategy by blaming users and suppliers for the uncontrolled acceleration cases (Andrews et al., 2011). This behavior was quite contrary to Toyota's basic principles of a strong customer focus, high supplier quality standards, and sincere communication (Andrews et al., 2011).

Most notably, the company had abandoned its core principle "Kaizen" - continuous improvement – which becomes clear in a speech delivered by Toyota president Akio Toyoda in 2010, where he showed care and concern for the victims: ''*I am deeply sorry for any accidents that Toyota drivers have experienced*,'' […] ''*especially, I would like to extend my condolences to the members of the Saylor family, for the accident in San Diego''* (Choi & Chung, 2013, p. 11; based on Montopoli, 2010). After a crisis response strategy characterized by ignoring and blaming outer factors, Toyota management finally recognized its guilt, assumed full responsibility, and apologized publically (Choi & Chung, 2013). Toyota admitted that management was following a misguided strategy and overstrained the supply chain, stating that "we pursued growth over the speed at which we were able to develop our people and our organization" (Andrews et al., 2011; Choi & Chung, 2013, p. 9). This represents a mortification strategy as defined by Benoit (1997) (Choi & Chung, 2013).

Choi & Chung (2013) conducted a survey with the aim of analyzing how effective Toyota's use of an apology strategy has been in restoring its reputation. For this purpose, they compared participants' perception of Toyota's reputation before and after having been exposed to Akio Toyoda's apology speech (Choi & Chung, 2013). They found that, on average, the score on several reputation items inquired in the questionnaire remained the same (Choi & Chung, 2013). Furthermore, the speech did

not influence participants' purchase intentions (Choi & Chung, 2013). Consequently, they concluded that the apology strategy was not effective in restoring Toyota's reputation (Choi & Chung, 2013).

However, the study revealed that the use of apology was more effective for highly involved participants and participants who perceived the apology as highly sincere (Choi & Chung, 2013). Nevertheless, the apology did still not increase future purchase intentions for Toyota products (Choi & Chung, 2013). Choi & Chung (2013) conclude that in addition to apology, a compensation strategy could be very useful for highly involved people, who see the organization negatively (e.g. victims of scandals and their families). Corrective actions – plans to solve or prevent the problem without directly admitting guilt – might be a good choice when the company decides to primarily target the general public, potentially less involved people who hold either a positive or a negative image of the company, but could be potential customers (Benoit, 1997; Choi & Chung, 2013).

5.1.2 Volkswagen Emissions Scandal

Company Background and Inception of the Emissions Scandal

In 2010 the Volkswagen (VW) CEO Martin Winterkorn announced that VW would "*become the most successful automotive manufacturer in the world by the year 2018*" (p. 26). According to Jung and Park (2016), this ambitious goal was partly due to the authoritarian leadership style of Piech, who had high expectations on Winterkorn and therefore forced him in a way to strive for the leadership in the car manufacturer industry. As part of acquiring market leadership in the USA, Winterkorn put a very high focus on diesel cars rather than on electric-hybrid cars like for instance Toyota (Jung & Park, 2016). The former VW CEO Wolfgang Bernhard considered the focus on diesel engines as the best possibility to gain market leadership over Toyota in the USA. When VW launched its new diesel engine in 2007, it promoted it as *extremely efficient* and *clean* (Shah et al., 2017, p. 2). As a result of this launch, VW succeeded with increasing its market share in the USA, which also indicated that the U.S. customers highly regarded this technological improvement (Shah et al., 2017).

Prior to the time when the Diesel emissions scandal began to unfold, the Volkswagen Group was doing extremely well. In 2007, CEO Winterkorn announced that the main goal for the upcoming ten years would be to become the "world's most profitable and sustainable car manufacturer" (Rhodes, 2016, p. 1502). Besides that, it aimed to have the most satisfied customers in the whole automotive industry. In terms of sustainability, in 2012 VW accomplished this part of its goal and received an

"Ethics in Business Award" of the World Forum for Ethics and Business. The VW Group was considered as a pioneer in environmentalism and sustainability (Rhodes, 2016).

After VW had successfully launched its new diesel engine, it started an aggressive marketing campaign to further promote its innovative diesel technology. At the end of 2012 the first doubts about the actual cleanness of diesel vehicles were expressed and a German environmental organization proved that the test mode essentially differed from the driving mode. Ultimately, the cheat was unveiled when the International Council on Clean Transportation detected similar inconsistencies in the USA (Shah et al., 2017).

Considering VW's hitherto success story, the time after September 15, 2015 marked a big failure for the VW Group. On that day the United States Environmental Protection Agency revealed the fraud scandal, which has been an offense against the Clean Air Act (Swaminathan & Mah, 2016). It discovered that VW sold around 482.000 diesel vehicles in the USA with fraudulent programming concerning NO_x emissions. As already highlighted previously, the programming caused the diesel engines to control emissions only during emissions testing. Consequently, during emissions testing the vehicle met the US standards for emission limits, however, during actual driving the control mechanism did not work and emissions were extremely higher (Painter & Martins, 2017). It turned out that this programming has been installed in around eleven million cars worldwide, as depicted in Figure 6, most of them in Germany and the UK (Statista, 2015).

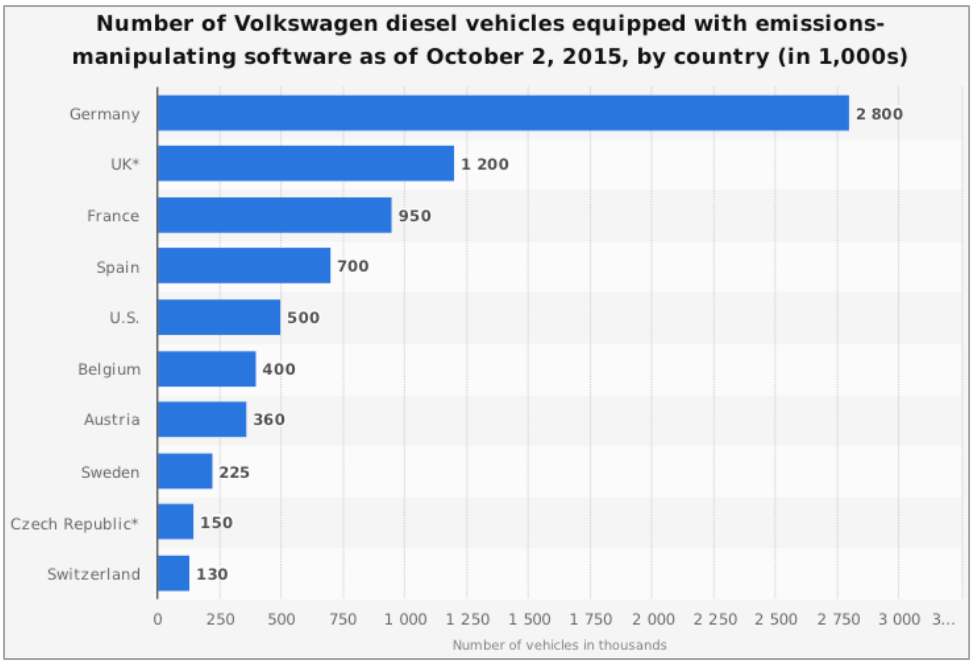

Fig. 6 Number of Volkswagen diesel vehicles equipped with emissions-manipulating software, from Statista (2015)

Customer and Market Reactions

The scandal had far-reaching consequences since not only VW experienced a loss of trust, also the reliability of the whole German manufacturing industry and of other automotive brands of the VW Group, like Audi or Porsche, was contested (Bachmann et al., 2017). Additionally, the diesel industry was widely discredited after revelation of the scandal (Shah et al., 2017).

Direct consequences from the scandal were that the CEO Martin Winterkorn resigned and that the VW stock value dropped by nearly a third within a couple of days. As a means of damage limitation and immediate response, VW started a recall campaign to fix the emissions problem and to rectify the affected cars (Clemente & Gabbioneta, 2017). Another consequence, which followed in June 2016, was the VW buyback program imposed by the United States Environmental Protection Agency.

It is important to note that the VW emissions scandal differed from other scandals in that it was not due to quality issues but due to fraudulent intentions. As an additional downside towards customers, VW has not immediately admitted that manipulated software was the cause for the deviating emissions. On the contrary, at first VW claimed that software problems were the cause for the confusing results and even offered a recall of the affected cars and a software update (Bowen et al., 2017). Regarding the impact on VW's customers, the worst anticipated consequences were a severe loss of customer loyalty as well as a decrease of rebuying behavior (Shah et al., 2017). The customer reactions to the scandal were influenced by their culture and also by their reason for preferring an environmentally friendly to a high efficiency car (Markowitz et al., 2017).

Many newspapers have addressed the VW emissions scandal as well as the correlated customer reactions. A week after the scandal has been made public, Massiah (2015) cited customers from the USA, UK and Canada. Most of these stated that they have chosen the more expensive, environmentally friendly VW car specifically due to the proclaimed lower emissions and now were disappointed. Others even accused VW of having criminal intentions (Massiah, 2015).

Further, Markowitz et al. (2017) conducted a study and found out that the majority of the survey participants, which is about 43.58%, wanted VW to buy back their car, another 38.52% wanted VW to at least fix the emissions problem and only about 5% wanted to do nothing, demonstrating again the customers' desire for making VW accountable in any form. Sharman (2015) investigated that in

November 2015 VW registrations decreased by around 20% in the UK, by 25% in the US and by only 2% in Germany. The relatively low decrease in Germany is supposed to be due to a regional bias as well as to higher uncertainty avoidance (Hofstede, 2001). According to Bowen et al. (2017), German customers are easier to convince and more trustful regarding explanations and excuses made by VW.

Since VW is a company that operates on a global scale, it is important to take into account customer reactions in different regions and cultures in order to develop appropriate responses (Bowen et al., 2017). As proposed by Bowen et al. (2017) different types of customer reactions, for example avoidance intentions, might be influenced by the origin and culture of the customer and also by the action plan of the company after a scandal has been made public.

VW's Crisis Strategy

As a first attempt to recover customer loyalty, VW started the "TDI Goodwill Program", in which it offered gift cards in the amount of $500 redeemable anywhere and additional $500 redeemable only at VW car dealers. The problem of this offering was that some U.S. senators declared it as inappropriate and too little considering the magnitude of the fraud (Shah et al., 2017). As already pointed out previously, unlike past car recalls in the automotive industry, the emissions scandal caused by VW was not due to manufacturing errors or problems. Rather it can be considered as a deliberate fraud of considerable magnitude. For this reason, not only a recall and redemption for the customers were necessary, but also a complete revision of VW's strategy was needed (Shah et al., 2017).

After the resignation of Winterkorn, Matthias Müller was nominated as the new CEO of VW. His first, very challenging task was to recover VW's reputation as well as to lead VW out of the most serious reputation crisis it had since 1937 (Shah et al., 2017).

First of all, this new leadership considered it necessary to disassociate VW from the strategic plan, *Strategy 2018*, proposed by Winterkorn, which should have made VW the biggest car manufacturer in the world. This step was considered important since *Strategy 2018* was mostly about increasing sales and revenues at the same time neglecting other aspects, like for example (environmental) responsibility. Instead, a new strategic plan, *Strategy 2025*, was drafted to review the current VW

portfolio and also to decentralize the VW regions more (Shah et al., 2017) The latter could be considered as a step to a higher orientation towards individual cultures as well as the intention of VW to review its corporate culture and policy. According to Müller, the crisis offered the opportunity for a reorganization of the company to increase efficiency and to decrease complexity. In his opinion VW's former corporate culture and policy have been one of the main reasons for the inception of the scandal and crisis. The new strategic direction of higher decentralization ultimately reduced complexity and enabled VW to make decisions faster, thereby enhancing its overall efficiency (Shah et al., 2017).

5.1.3 Discussion of Toyota and Volkswagen Based on Theoretical Framework

After providing the necessary background knowledge for the Volkswagen and Toyota scandals, it is now possible to analyze those with concepts from the theoretical section. It will also be indicated which of these concepts will be further analyzed within the underlying research setting of this paper.

Table 20: Toyota and Volkswagen cases based on theoretical framework

Theoretical concept	**Analysis of Toyota and Volkswagen cases and implications for reputation/ reputational damage**
Crisis type (victim, accidental or preventable crisis)	In the case of Volkswagen, it can clearly be stated that the deliberate installation of manipulative sensors was fraudulent, and therefore a preventable crisis/a scandal. In the case of Toyota, however, this classification is more difficult: The company did not intentionally manipulate technical parts as Volkswagen did. However, there have been clear signs of deteriorating quality standards within the organization due to ambitious growth goals and saving measures that finally provoked the accidents and could have been avoided. Due to the company's high responsibility in gas pedal design faults, the Toyota recall case will also be categorized as a preventable crisis/a scandal. As found by theory, the high level of responsibility of both companies for causing the crisis indicates also a higher level of reputational damage (Choi & Chung, 2013). **→ impact of crisis type will not be investigated in this study**

Recall frequency, type and severity and type of recall	Neither Toyota nor Volkswagen experience recalls overly frequently. However, the two discussed recall cases are quite severe. In both cases, recalls were voluntary, although this was probably done in order to anticipate likely mandatory recalls. Of all three factors, the level of severity is the one with the highest potential to damage reputation. **→ impact of recall frequency and type will not be investigated** **→ impact of level of severity will be investigated**
Reputation, Expectancy violation and belief system modification	Both companies can be considered high-reputation/high-quality producers and thus more likely to experience negative belief system updating in case of an expectancy violation as compared to low-reputation/producers. For customers who bought a Volkswagen car or perceived it as superior because of its claimed environmental friendliness, expectancy violation and belief modification due to the emissions scandal is probably high. The same is true for customers buying a Toyota based on the promises of the company's highly-praised quality control system, which are ought to satisfy customer-specific safety needs. **→ reputation, expectancy violation and belief system modification will be investigated**
Reputational buffer effects (Reputational dimensions, substitutability, Generalist vs Specialist)	Due to the "Toyota way", the company outperforms in regard to product quality, human resources management, and efficient (lean) resource usage (Rhee & Valdez, 2006). These aspects can be attributed to the reputational dimensions of products and services, workplace environment, and social responsibility, respectively. Volkswagen's reputation is said to be especially strong in regard to products and services, as well as social responsibility. Thus, both firms comprise various positive reputational dimensions, which was found to buffer overall negative effects of the affected dimension.

	Customers dispose of a wider variability of substitute products from others brands. Furthermore, both Toyota and Volkswagen can be classified as Generalists, as they both server large audience groups with their product range. In sum, these two factors are supposed to reduce the buffer effect of high-reputation firms in case of a damaging event. **→ reputational dimensions and substitutability will be investigated** **→ Generalist vs Specialist status will not be investigated**
Contextual factors: (organizational size/ structure, corporate culture, management behavior)	In the case of Toyota and Volkswagen, organizational size/structure, corporate culture and management behavior played a significant role during the crisis. For example, the traditional, hierarchical and complex organizational structures of both companies led to delayed, insufficient and incorrect information release. Both Volkswagen and Toyota also strongly abandoned their corporate cultures and related status as CSR and quality leaders, respectively. In addition, the companies initially struggled in realizing the severity of the scandals, and their resulting courses of action seemed unclear and haphazardly. Lastly, both companies' top management denied their responsibility as long as possible, and only admitted guilt when it was no longer avoidable. Therefore, contextual factors in these cases are likely to affect customer perceptions negatively **→ impact of organizational size/structure, corporate culture and management behavior already analyzed previously in cases**
Form of response (Timeliness, consistency and activity)	Neither Toyota nor Volkswagen acted in a timely, consistent and active way to the accusations from part of customers and public institutions. Thus, they reduce the effectiveness of the applied response strategy.

	→ impact of timeliness, consistency and activity already analyzed previously in cases
Choice and effectiveness of response strategy (Denial, evasion of responsibility, reducing the offensiveness of the event, corrective action, and mortification.)	After an initial denial phase (Toyota: shift the blame, Volkswagen: simple denial), both companies decided to apply a mortification strategy, as it is suggested by theory for high-responsibility, self-inflicted and preventable crisis. Due to the recentness of the Volkswagen scandal, Volkswagen's chosen crisis response strategy, as well as the respective outcomes and general customer perceptions are not yet clearly investigated. In this regard, the present research paper tries to make a contribution. The Toyota recall crisis, however, since its peak in 2009, has been intensively studied by academia. For example, the mortification strategy was found to be ineffective in restoring Toyota's reputation (Choi & Chung, 2013). **→ choice and effectiveness of response strategies will be analyzed in regard to cultural/ national/organizational factors**
Cultural and national implications (social, legal/political and economic systems)	Both in the case of Volkswagen and Toyota, the scandals mostly affected the United States and Europe, but with some spread to Asian countries (McHugh, 2015; Allen & Sturcke, 2010). This implies diverse socio-cultural, political and economic systems as an underlying environment for corporate crisis response behavior. **→ cultural and national implications will be analyzed**

Source: authors' own representation and discussion, based on secondary sources

In the following, the predicted effects on reputation as well as the implications for crisis response behavior resulting from the theoretical framework will be proved and discussed with the help of survey results.

5.2 Cultural and National Differences in Customer Perception of Corporate Scandals

Which cultural and national differences exist in customer perception of the occurrence of corporate scandals?

In order to investigate this first research question, the survey sought to identify national bias. Therefore, respondents were asked whether they prefer a brand from their own country or whether they had no preference. It resulted that the majority of US Americans had no specific preference for a brand from their home country, while more than half of the Germans prefer a car brand from Germany. Among the Asians, a slight majority had no preference for a domestic car brand.

Table 21: Car brand preferences by geographic origin

	Asians	Germans	US Americans
Preference for a car brand from the own country	44,00%	53.01%	24.32%
No preference for a car from the own country	56,00%	46.99%	75.68%

Source: authors' own representation; based on survey data

To further build on the national bias issue, survey participants were also asked in how far they identify with the three brands Toyota, Ford and Volkswagen on a scale from 1-5, with 5 meaning maximum identification. These results partly confirmed the previous findings. The German participants had the highest identification with Volkswagen, while the US Americans identified more or less equally with all of the three brands, with no stronger identification with the US brand Ford. Interestingly, Asian participants showed the highest identification with the Japanese brand Toyota, but an almost equally high identification with the German brand Volkswagen.

Consequently, only the German participants were found to have a slight national bias, while this phenomenon cannot be confirmed for Asian and US American respondents. Table 21 shows the average identification with the three brands for the three different respondent groups.

Table 22: Identification with brand (Scale range: 1 (minimum) to 5 (maximum))

	Asians	Germans	US Americans
Toyota	Ø 3,46	Ø 1,93	Ø 2,86
Ford	Ø 2,76	Ø 2,07	Ø 2,68
Volkswagen	Ø 3,26	Ø 2,67	Ø 2,65

Source: authors' own representation; based on survey data

To get a better understanding of customers' demands on car attributes, and eventually reveal cultural differences in these demands, the survey respondents were asked to rank seven car-specific purchase criteria from most important to least important. The rank of importance of certain product attributes may then help explain part of customers' strength of reaction to a corporate crisis affecting a car brand. For example, if safety is seen as highly important, a product flaw scandal such as the Toyota case might cause strong customer reactions, or likewise, the Volkswagen emissions scandal might be experienced as more severe by people who give high priority to eco-friendliness of a car.

In the survey, respondents of all three geographic origins agreed with safety being the most important criteria in regard to cars. Followed by safety, quality is located on the second and value-for money on the third rank. Germans and US Americans further agree on design/style in the fourth and environmental friendliness in the fifth place. However, while the Germans rank technology/innovation sixth, these criteria were ranked seventh by the US Americans and vice versa.

The Asian participants, however, differ from their German and US American counterparts: For them, performance/speed occupies rank four, followed by design/style on rank four, technology/innovation as penultimate, and eco-friendliness at the last place.

Table 23: Rank of car purchase criteria by geographic origin (Scale: 1= most important)

	Safety	Quality	Value-for-money	Design/ Style	Eco-friendliness	Performance/ Speed	Technology/ Innovation
USA	1	2	3	4	5	6	7
Germany	1	2	3	4	5	7	6
Asia	1	2	3	5	7	4	6

Source: authors' own representation; based on survey data

The previously identified cultural differences between Western and Eastern cultures in regard to the importance of eco-friendliness are strongly noticeable in the Volkswagen rating carried out by survey participants. The low importance of eco-friendliness among Asians might explain why Volkswagen was generally less harshly evaluated by Asians respondents in terms of environmental commitment as by Germans and US Americans, who give more importance to eco-friendliness of cars. Correspondingly, in other CSR-related questions Asian participants still perceive Volkswagen mostly positive in regard to these issues, the Germans' and US Americans' evaluation of Volkswagen has suffered tremendously in the course of the scandal (See Appendix 4).

However, it has to be mentioned that, unlike Germans and US Americans, Asians were not significantly affected by the Volkswagen scandal and thus lower involved, which also explains the positive rating of Volkswagen. Consequently, the level of involvement seems to have an influence on the evaluation of the dimensions of a brand, which are affected in a corporate scandal. This also explains why the Germans' high identification rate with Volkswagen and a slight national bias are not able to buffer the scandal. However, they might so in the future, when the scandal is less recent and less present in the mind.

Another interesting observation is the effect of scandal awareness on customer perceptions. To investigate that, respondents were divided into two groups: those who heard about the Toyota scandal and those who did not. Likewise, the same division was carried out for Volkswagen. However, the question of scandal awareness was asked in the end of the survey, in order not to negatively influence participants' evaluation of the brand beforehand. It was expected that people who had not heard of the scandal would evaluate Toyota and Volkswagen much better in the questions of interest related to the scandals (e.g. on quality and CSR) as those who had heard about the scandal.

For the Toyota case, the quality dimension - the company's core reputational dimension - was the focus of interest. Although people from all three geographic origins stated that they attach very high importance to the safety and quality of cars in the survey, the 2009/2010 Toyota unintended acceleration scandal hardly seems to have affected customers' evaluation of the brand. This becomes clear when analyzing the following relevant survey questions: The evaluation of product quality, perceived risk exposure, product reliability, but also profit thinking (the trigger of Toyota's

deteriorating product quality), and the provision of accurate and truthful information (which was initially not provided by the company during the scandal).

It was found that Toyota in general did not perform worse in these questions, neither among those who had heard about the scandal, nor did Toyota perform worse than its competitors Ford and Volkswagen, which had been evaluated in these dimensions simultaneously. Only in the "provide accurate and truthful information" and the "not only focused on generating profits" questions, respondents who were familiar with the Toyota scandal slightly more frequently evaluated the company with the worst grade than those who had not heard about the scandal. Nevertheless, a similar effect could not be observed for the questions about product quality, risk exposure and product reliability (See Appendix 5).

However, in addition to the finding that scandal awareness does not seem to affect Toyota's brand reputation significantly and long-lastingly, one supplementary remark should be made. A probable explanation for the overall phenomenon that the Toyota quality scandal is almost imperceptible is that the fame of the "Toyota way" with its strict quality controls and the reputation build around it might be so strong that its serves as a reputational buffer, as it was predicted earlier in the theoretical foundation by Rhee & Valdez (2006). Most importantly, however, is that the survey was conducted nine years after the Toyota incident, and despite of its severity, many customers might have already forgotten about it, whereas the Volkswagen scandal is more recent and thus also more noticeable in survey participants' responses.

For the Volkswagen case, especially the CSR dimension - a reputational dimension in which Volkswagen usually outperforms - was of interest. The questions to be analyzed were fair behavior, trustworthiness, profit-thinking, social responsibility, likeability, image, commitment to protect the environment, clear vision, truthful information and risk exposure when buying the company's products. In all these reputational items, a significant difference was noticeable among those who heard about the Volkswagen scandal and those who did not, in the respect that scandal-aware individuals evaluated the company much worse (See Appendix 6). Other, non-scandal related reputational items, especially from the Competence dimension, were however not influenced negatively. This supports previous findings from Rhee & Valdez (2006) that a company with several

outstanding reputational dimensions can benefit from a buffer when the damaged dimension is compensated by the remaining positive dimensions.

In sum, it can thus be concluded that scandal awareness does affect customer perceptions of the brand, but only for scandal-related dimensions and not enduringly. The latter is also true for the level of severity of the scandal: In line with previous theoretical assumptions, it can be confirmed that severe crises do cause strong reputational damage (Rhee & Valdez, 2009), but this damage seems to be of temporary nature. When the corporate crisis is recent, some momentary negative peaks in scandal-related reputational dimensions are observable, as it can be seen in the case of Volkswagen. These peaks represent belief system modifications/ updating. However, the effects seem to diminish over time, as the equally severe case of Toyota shows.

Besides scandal awareness, brand identification is another interesting area of research. For example, in terms of product quality, Toyota performs on average equally well as Volkswagen, and better than Ford. However, some cultural and national differences are noticeable: While 50% of the Asians and 40.54% of the US Americans – the most affected victim group during the Toyota scandal – evaluate Toyota with the highest grade for product quality, it is only a 12.05% of the Germans that gives Toyota the top score. In contrast, Volkswagen is given the quality top score by 21.69% of the Germans. A possible reason for that is the generally low identification rate of the German participants with the brand Toyota and a slight national bias, which becomes apparent through a preference for domestic brands by the majority of the Germans, as examined previously. In accordance with that, Asians and US Americans showed the highest identification rate for Toyota, but were not found to have national bias.

These observations indicate that high brand identification seems to have a significant positive influence on brand evaluation, and that this influence in some cases might even be able to absorb the effect of a not recent scandal, as the responses from part of the most affected US American participant group indicate. Also, another observation can be made in regard to the criteria seen as most relevant by all three respondent groups in regard to cars. The survey shows that even though quality and safety were evaluated as the most important car-related criteria, expectancy violations do not cause stronger negative reactions as compared lower ranked criteria, e.g. eco-friendliness. Therefore, the hypothesis

developed in the theoretical part based on Rhee & Haunschild (2006) that violations of highly rated criteria cause stronger negative reactions has to be rejected based on the underlying survey data.

Another area to be investigated were switching behavior and switching reasons in regard to car brands, with a special focus on national and cultural differences. Furthermore, the influence of customers' involvement with the brand/affectedness by the crisis on their brand evaluation behavior was analyzed. Therefore, survey participants were asked whether they would rather stick to the same brand or switch to a new brand when buying a new car.

In regard to involvement with the brand, the 170 study participants were filtered for their car ownership of the three evaluated brands. Of the 15 Volkswagen owners within the sample, 7 would switch to another brand. For the 8 Toyota owners, 2 would switch to another brand, whereas in the case of Ford, all 5 Ford owners would switch. These findings are surprising, as Ford was the only scandal-free brand to be evaluated. Also, no significantly worse evaluation of the two scandal-hit brands Toyota and Volkswagen could be observed among the higher involved car owners.

However, looking at the switching reasons of the car owners gives an explanation for these findings. In all three brand cases, a more attractive brand in regard to products or services or financial reasons were mentioned as the main switching reasons, but only one Volkswagen owner mentioned unethical business behavior of the current brand. Consequently, corporate scandals seem not to be a major cause of customer switching behavior. Instead, as previously identified within the Porter's Five Forces Analysis, it is rather the high availability of alternative brands and high bargaining power of buyers within the automotive industry that causes brand switches among the less brand loyal customers. This is also in line with previous findings from Rhee and Haunschild (2006) that a high level of substitutability facilitates a withdrawal from the brand in case of product defects and crisis.

When analyzing for the national and cultural differences in switching behavior, participants from Western cultures such as Germany and the US were found to be almost equally brand loyal, with almost 57% of participants stating that they would stick to the same brand. However, among their Eastern culture counterpart, the Asian participants, 62% would switch to a new brand.

Table 24: Switching behavior by geographic origin

	Asians	Germans	US Americans
Stick to the same brand	38.00%	56.63%	56.76%
Switch to a new brand	62.00%	43.37%	43.24%

Source: authors' own representation; based on survey data

Switching behavior is a highly relevant topic in the context of automotive scandals, as it gives an indication of the risk to lose customers. Most likely, loyal customers with a low propensity to switch are easier to retain in a corporate crisis than customers with an already larger willingness to try a new brand. Therefore, automotive companies should be aware of national and cultural differences in regard to brand loyalty, and could for instance establish customer loyalty programs in areas where likeliness to switch brand is high. This might reduce strong customer losses in crisis situations.

In addition to switching behavior, survey respondents were also asked about the main reason that would make them to switch their existing brand. These common switching reasons were inspired by a graph from Marketingcharts (2014). Most noticeable is that all three respondent groups, Asians, Germans and US Americans, found a more attractive brand by far the main reasons for switching a brand. This, once again consistently, was followed by financial reasons as the second most mentioned main switching reason. Thereafter, however, some national and cultural differences appear: Among Asians and US Americans, recommendations from friends or family were the third leading cause for switching to another brand. The third most frequently mentioned reason among the Germans with 16.87%, however, is that a more eco-friendly product attracts them. Advertising was found to be the least common reason to switch to another brand by all three respondent groups.

Table 25: Main reasons to switch car brand by geographic origin

	Asians	Germans	US Americans
Financial reasons	14.00%	19.28%	18.92%
Recommendations from friends/family	12.00%	4.82%	16.22%
More attractive brand (products/services)	48.00%	43.37%	48.65%
Current brand found to have bad business practices	8.00%	4.82%	2.70%
More eco-friendly product attracts you	6.00%	16.87%	8.11%

Advertising causes a brand change	0.00%	2.41%	0%
Other	12.00%	8.43%	5.41%

Source: authors' own representation; based on survey data

Especially for the Asian and US American participants, recommendations from friends and family are of high importance and in both cases the third most frequently mentioned switching reasons. This implies that automotive companies should not underestimate the power of word-of-mouth in certain countries, be it in terms of marketing or reputation restoration activities. For the Germans, however, third-party opinions play a significantly smaller role as a main switching reasons. Instead, eco-friendlier products occupy the rank of the third most important switching reasons. These findings once again emphasize the existence of national and cultural differences and need for locally adapted business strategies.

Surprisingly, the current brand found to have bad business practices was no frequently mentioned switching reason. Only 2.70% of the US Americans, 4.82% of the Germans, and 8% of the Asians stated unethical business practices as a main reason for switching their car brand. It may thus be concluded that the importance of unethical behavior as a main brand switching reasons among customer is rather low for all three investigated cultural/national groups. This is contrary to findings from Kastanakis & Voyer (2014) that violations of moral and ethical values lead to a significant loss of reputation.

Seen in a different light, the main switching reasons can also be interpreted as main reasons to gain new customers. With attractive products and services as well as interesting financial offers, scandal-hit companies might be able to gain new customers or regain previous ones in the aftermath of the crisis.

To conclude, companies should be aware of cultural and national differences in the level of identification with the brand, as well as in main buying and switching reasons, as these factors were found to affect brand evaluation and the probability to lose or gain customers. Furthermore, cultural and national differences also influence the composition of corporate reputation when seen as a construct composed by several reputational items. This composition of brand reputation as perceived by customers will be analyzed in the following.

As discussed in the beginning of this paper, corporate scandals can be manifold and might involve different reputational dimensions and even have the potential to spill over to other dimension. For this reason, it is helpful for companies to be aware of the variables, which have the biggest impact on reputation. Against this background, it is essential to investigate the impact of the formative dimensions, *quality, corporate social responsibility, attractiveness and financial performance*, on the reflective *sympathy* and *competence* dimensions of corporate reputation. In order to address the research question as accurate as possible, the analysis is conducted per nationality and origin of the respondents.

Germans

In the model for the German sample, only *sympathy* can sufficiently be explained by the four exogenous variables in case of all three car brands. The *competence* dimension can be explained at 62% and 65% by the four exogenous variables in case of Volkswagen and Ford, respectively.

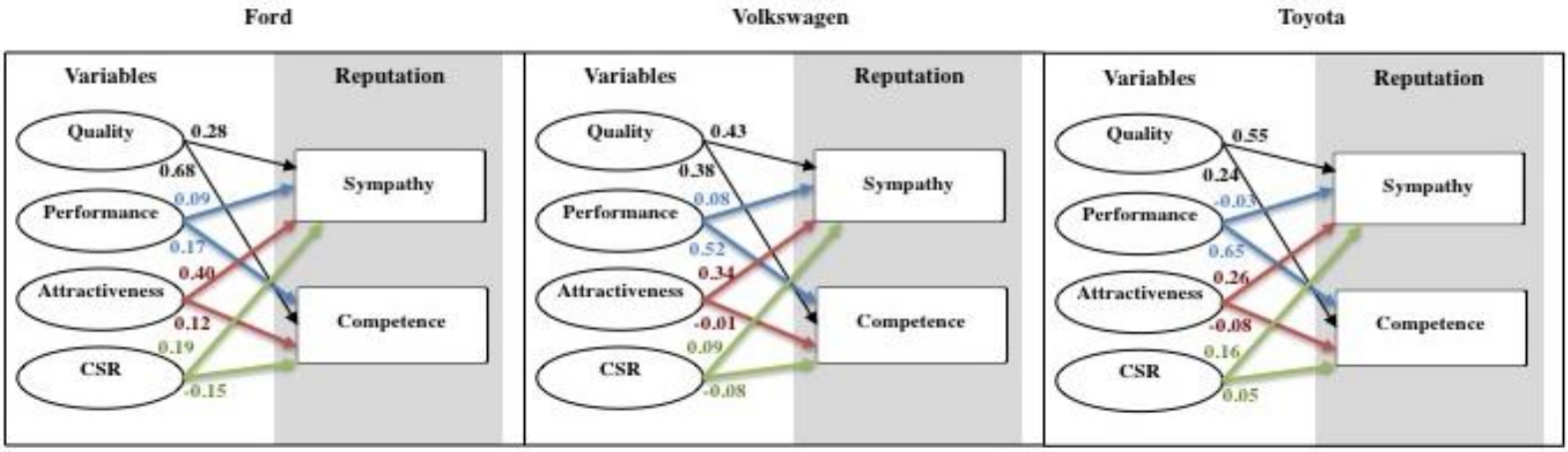

Fig. 7 Results from the Schwaiger Reputation Model – Germans, own figure based on survey results

Ford

The model reveals that for Germans almost all variables positively influence both the *sympathy* and *competence* dimension of reputation. Only the CSR variable negatively influences the *competence* dimension; in other words, this means the more responsibility for the society and environment Ford wants to take over, the weaker is its competence perceived by the German respondents. A possible

explanation for this could be that so far Ford has not attracted attention in Germany neither with environmental nor with societal campaigns.

Volkswagen

It can be observed that in case of Volkswagen the CSR as well as the attractiveness variable have a negative impact on *competence*. Consequently, the more societal and environmental responsibility Volkswagen wants to assume, the weaker its competence perceived by the German sample. This can be considered in line with the negative impact that attractiveness has on *competence*. It means that the more attractive Volkswagen is as employer, the weaker its *competence* perceived. Basically, from this it follows that the German respondents do not perceive Volkswagen as competent when it comes to implementing social as well as environmental responsibility and attracting competent employees. Besides that, the evaluation of the previous section demonstrated that Germans generally attach much importance to eco-friendliness of cars and therefore most likely have high expectations concerning environmental responsibility. In general, it can be assumed that this way of thinking is a consequence from the extensive emissions scandal Volkswagen initiated.

Toyota

Just like in case of Volkswagen, also in case of Toyota the attractiveness variable negatively influences the *competence* dimension of corporate reputation. In the light of the acceleration scandal Toyota had to face a few years ago, the German respondents might not think that Toyota is capable of attracting competent employees. Therefore it follows that the more attractive Toyota is as employer, the lower is the perceived *competence*. It can be observed that also the (financial) performance has a negative impact on *sympathy*. Considering the strong growth ambitions of Toyota and the aim for best financial results in the past years, the German respondents might associate this with higher mass processing and negligence of quality. This could be interpreted as repercussion of the Toyota acceleration scandal.

Given the overall picture, it can be concluded that for Germans, a car manufacturer that wants to take over responsibility for society and environment is perceived as likeable. However, social responsibility overall has only a relatively small impact on *sympathy*. This is surprising against the background that the previous section has shown that Germans consider eco-friendliness as an important aspect when purchasing a car. Whether social responsibility is also perceived as competent

with regards to CSR depends on the car manufacturer. While in case of Volkswagen and Ford a higher social responsibility negatively affects *competence*, in case of Toyota there is a small positive impact.

Another aspect, which pretty much can be considered as common sense, is that higher perceived quality has a huge positive impact on both perceived *sympathy* and *competence*. Further, it is obvious that for Germans a good financial performance has a big positive impact on the perceived *competence*. It means that a company, which has sufficient (financial) resources, can be viewed as competent. On the other hand, financial performance only marginally influences *sympathy* positively and even negatively in case of Toyota. In other words, Germans do not necessarily consider a car manufacturer likeable when there is a good financial performance; a reason for this could be that a big focus on financial success in some cases is associated with negligence of quality. Lastly, the higher the attractiveness as employer, the more likeable Germans perceive a company.

Asians

In the model for the Asian sample, both the *sympathy* and *competence* dimension can sufficiently be explained by the four exogenous variables in case of all three car brands.

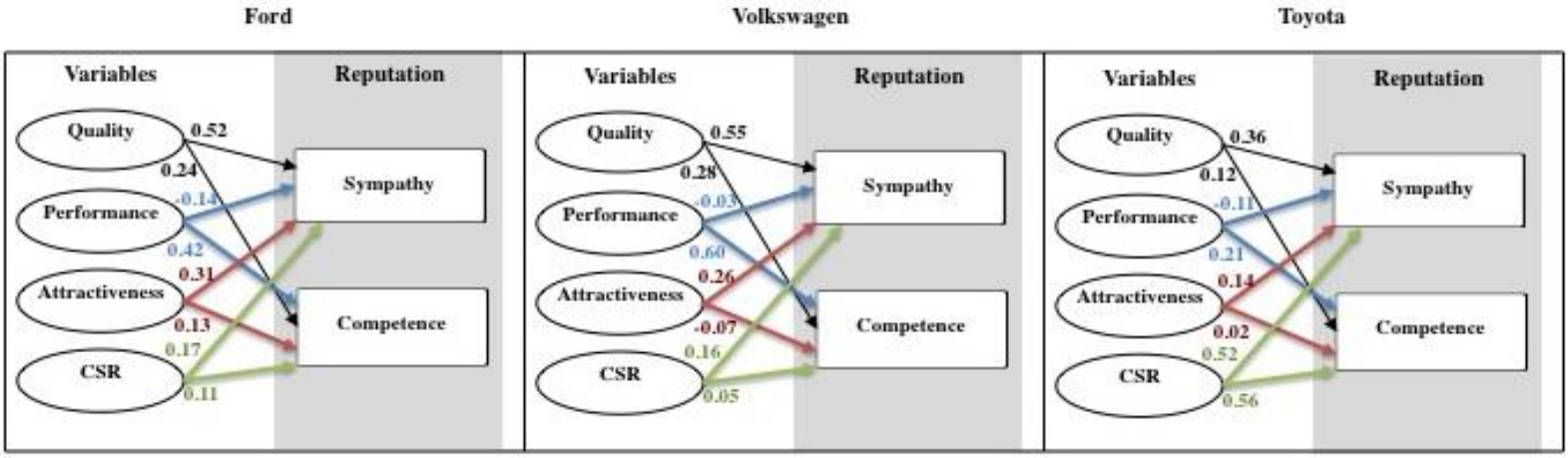

Fig. 8 Results from the Schwaiger Reputation Model – Asians, own figure based on survey results

Ford

For Asians almost all variables positively influence both the *sympathy* and *competence* dimension of reputation. The financial performance is the only variable, which negatively affects the *sympathy* dimension. Therefore, the higher the financial success of Ford is, the less likeable the Asian respondents perceive it.

Volkswagen

In this case it can be observed that attractiveness has a negative impact on *competence*. For this reason, just like the German respondents, Asians do not perceive Volkswagen as competent when it comes to attracting employees. However, in this case, the explanation cannot be the past emissions scandal. Unlike for the Germans, for the Asians taking over social responsibility has a positive impact on perceived the *competence*. The financial performance again negatively influences the perceived *sympathy.*

Toyota

In case of Toyota it is noticeable that a high degree of social responsibility has a very high positive impact on both the *competence* and *sympathy* dimension, while in case of Ford and Volkswagen it is only a marginal positive influence. The financial performance again negatively influences the perceived *sympathy*, which is noticeable in case of all three car brands.

The overall picture for the Asian sample reveals that a good financial performance of a car manufacturer weakens the perceived *sympathy*. There are two possible reasons for this phenomenon. It could be due to the rather collectivistic culture that is predominant in most Asian countries. In other words, this implies that the Asian respondents consider a good financial performance as selfish and egoistic, which makes the company less likeable. The other reason possible is linked to the acceleration scandal initiated by Toyota. As discussed earlier in this paper, Toyota was extensively focused on its growth ambitions and on its financial gains when the quality issues arose. Against this background, Asians might think that companies with a good financial performance in general are more likely to neglect quality and safety and thus are less likeable.

Another conspicuity is that the Asian respondents perceive both higher *competence* and *sympathy* when the company takes over more social responsibility. This observation corresponds to the findings from the previous section that Asians do not attach as much importance to eco-friendliness of cars as their German counterparts. In other words, it can be supposed that already small environmental actions are sufficient to make Asians consider a company more likeable and competent. The Asian respondents therefore seem not affected by the Volkswagen emissions scandal.

US Americans

In the model for the US American sample, only *competence* can sufficiently be explained by the four exogenous variables in case of all three car brands. The *sympathy* dimension can be explained at 65% by the four exogenous variables in case of Ford.

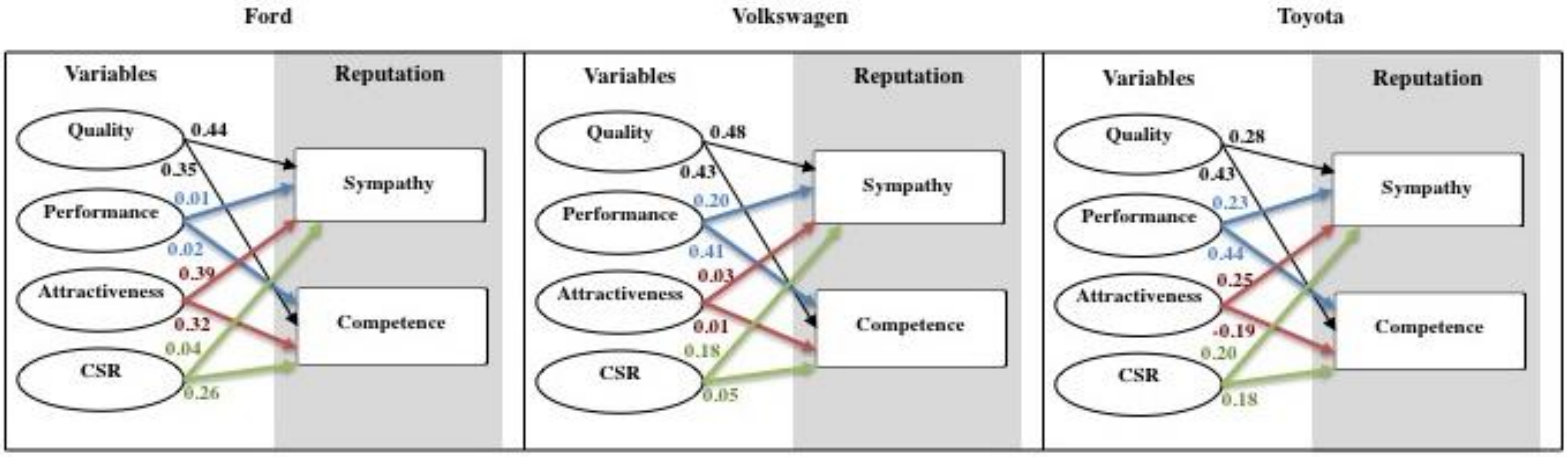

Fig. 9 Results from the Schwaiger Reputation Model – US Americans, own figure based on survey results

Ford

In case of Ford all the variables influence both the *sympathy* and *competence* dimension positively. A noticeable aspect here is that the financial performance has only a very small positive impact both on *sympathy* and *competence* compared to Volkswagen and Toyota. A possible reason behind this could be that US Americans assume Volkswagen and Toyota to invest more of their resources in innovations and therefore consider them as more competent. Another noticeable result is that the US Americans evaluate the influence of Ford's attractiveness as employer extremely positive on both *competence* and *sympathy* as compared to Volkswagen and Toyota. This could indicate a domestic bias according to Bowen et al. (2017). For example, respondents, who are former employees of Ford, usually tend to evaluate this impact very positively.

Volkswagen

In this case, the overall picture looks pretty similar to that of the German sample. Taking over social responsibility as well as attracting employees have only an extremely slight positive influence on the *competence* dimension. This similarity can be attributed to the fact that the cars affected by the emissions scandal were mainly distributed in the USA and Germany. The fact that for the US Americans CSR still has a positive impact on *competence,* while for the Germans it clearly negatively

impacts *competence*, could be attributable to the differences concerning Hofstede's cultural dimensions (Wertz & Ki, 2010). Since Germans are more uncertainty avoidant than US Americans, as a result of the emissions scandal, they might not believe (anymore) that taking over social and environmental responsibility affects Volkswagen's *competence* positively.

Toyota

In case of Toyota it is obvious that the higher the attractiveness of Toyota is as employer, the less competent the US American respondents perceive it. Due to the fact that it is a relatively high negative impact, it could be attributable to the acceleration scandal. Because of the quality issues that arose as part of this scandal, the US American respondents do not believe that Toyota hires many skilled employees.

The main difference to the Asian and German sample can be observed concerning the influence of financial performance. Despite the very low positive impact in case of Ford, it can be concluded that US Americans consider a car manufacturer with a good financial performance as likeable. This could be attributable to the predominant individualistic and egoistic culture, which is the complete opposite to the collectivistic Asian culture.

A phenomenon that can be observed for all three cultures is the financial halo effect (Caruana, 1997). The German, Asian and the US American respondents believe that the higher the financial performance of a car manufacturer is, the higher is its *competence*. This is a very common bias because a company does not necessarily have high competence just because it has a good financial performance. Further, for all three cultures the product and service quality highly influences both *sympathy* and *competence* positively. This is especially important to consider concerning scandals because the quality variable seems to have the biggest impact on the overall reputational construct. Another noticeable aspect is that the consequences from the Volkswagen emissions scandal seem to be more present among the German and US American respondents than the Toyota acceleration scandal, which also corresponds to the findings of the previous section. With regards to the research question, it can be concluded that there are slight national differences concerning the importance of corporate social responsibility, financial performance and attractiveness, which for the most part are explicable through the cultural characteristics as well as through the degree of involvement in recent scandals.

5.3 Corporation's Choice of a Crisis Response Strategy

How do these cultural and national differences in regard to customer perceptions, as well as intraorganizational factors, influence a corporation's choice of a crisis response strategy?

In order to find out about which crisis response strategies is most preferred by customers, respondents were specifically asked in the survey to choose between one of Benoit's five crisis communication strategies. However, this occurred from two perspectives.

First, survey participants were asked to imagine that they were a manager of a company affected by a corporate scandal and had to choose one of the five strategies to communicate with the public. Second, survey participants were asked to state the crisis communication strategy they themselves would perceive as most adequate when being the customer of a scandal-hit company.

Primarily, the aim was to investigate whether there are cultural or national differences in the preference for a certain crisis response strategy. Furthermore, the way of asking the same question from two different perspectives (corporate manager and affected customer) was meant to uncover whether there are differences in what people would personally prefer versus what they would choose for the good of the company. A detailed overview of the survey evaluation in regard to response strategies by question type and geographic origin of the respondents can be found in Appendix 7.

It was anticipated that in general, the choice from the customer perspective trends towards accommodative strategies, where they are probably taken more seriously in their role as a victim of a corporate crisis and are also more likely to receive indemnification. On the other side, the choice made from the perspective of the affected company was expected to tend to the most defensive strategy choice that is acceptable or useful in the underlying socio-cultural, economic and legal environment. Indeed, respondents from all three geographical groups (Asians, Germans and US Americans) were slightly more likely to choose defensive strategies (defend the company's or justifying the crisis) from the perspective of a manager than from a customer view. Nonetheless, the overall distribution clearly shows that accommodative strategies (implement corrective measures or apologize publicly) were in general far more frequently chosen than defensive strategies, no matter from which perspective or nationality. This result gives an indication that in a situation where the

crisis is attributable to the company's faulty actions, companies should not opt for defensive crisis strategies, as these are rather unpopular among customers and thus unlikely to maintain or restore good reputation. However, this challenges the research results from Dardis and Haigh (2009) that the two most accommodative strategies were not more effective for image restoration than more defensive strategies.

Interestingly, from both perspectives and for all three respondent groups, one strategy clearly and consistently won over other strategies: the "implement corrective measures" strategy, classified as the second most accommodative strategy along the continuum of five strategies. This strategy might consist in replacing managers responsible for the crisis, conduct audits to find problem roots within the organizational structures, as well as establish crisis prevention plans and measurement systems. From a customer viewpoint, the "implement corrective measures" strategy was elected by 32% of the Asians, 33.73% of the Germans, and even 43.24% of the US Americans. Also, from the manager viewpoint, the "implement corrective measures" strategy was chosen by 30% of the Asians, 43.37% of the Germans, and 45.95 % of the US Americans. The popularity of this strategy may be explained by the fact that more than words of defense or apology, what really counts in the opinion of the respondents are concrete actions taken in order to prevent future crisis occurrences.

Nevertheless, the "mortification" strategy, the most accommodative strategy in which the company apologizes publicly and assumes full responsibility and which was chosen by both Volkswagen and Toyota, also performs strongly: It occupies the rank of the second most preferred strategy after the "implement corrective measures" strategy, both from management and customer perspective. Especially among German respondents in the customer role, with 32.53%, the mortification strategy was frequently chosen and almost as popular as implementing corrective measures (33.73%). Although previous theory from Benoit (1997) indicated that this strategy might not be very recommendable, neither from a customer nor a company perspective, due to its risk of credibility and litigation, in practice it seems to be well received. One possible theoretical explanation for the popularity of the mortification strategy is that in the survey setting, respondents were put in a high-involvement role (as a crisis victim or manager), which was found to foster the acceptance for an apology.

The only exception are the US Americans, which from an affected customer viewpoint do not see much value in an apology strategy and rather opt for the middle-way strategy "reduce offensiveness", which seeks to minimize the issue and compensate the victims. This result confirms the assertions from the theoretical part that the US is a highly litigious society, where claims for litigation are very prominent. Indeed, both Volkswagen and Toyota were exposed to lawsuits initiated by affected US customers and car dealers seeking for compensation for the acceleration and emissions scandals (Trop, 2013; Shepardson, 2018).

In the same vein, US Americans were also slightly more likely than Asians and Germans to opt for the most defensive denial strategy. For example, from the manager position, 13.51% of the US citizens would choose a denial strategy for communication with the public, whereas only 4.82% of the Germans and 8% of the Asians would do the same. This goes along with previous theoretical estimations that the USA's high level of individualism (91 on Hofstede's scale from 0 to 100) implies high self-esteem and the need to be seen in a positive light (Hofstede, 1983; Kastanakis & Voyer, 2014, based on Baumeister et al., 1989). This is why defending one's reputation and denying responsibility could be much more tolerated than in Germany and most Asian countries, which score lower on individualism

Furthermore, as anticipated by theory (Huang et al., 2016), Asian participants – especially from a manager perspective – had a stronger tendency to opt for the "golden mean" strategy of reducing offensiveness: 22% opted for this strategy, as compared to 12.05% of Germans and 5.41% of US Americans. This is in line with the assumptions deduced based on Confucian principles and the pursuit to save face and reputation of the crisis-hit company.

In summary, it can be said that the "implement corrective measures" strategy seems to be a universally recommendable strategy in all three investigated geographical locations. Nevertheless, there are some small differences among countries which might be traced back to socio-cultural and legal issues: While US American customer do not value the apology strategy (probably due to a suing-for-compensation culture), it can be very powerful for communication with the German public, which is quite receptive for an apology. For Asian countries, however, the "golden mean" strategy of reducing offensiveness might be an acceptable option. However, apologies are also well-received in an Asian environment, which might be due to Zhu et al.'s (2017) previously stated assumption that apologies

are traditionally rare in "saving face" cultures. However, when being applied, apologies have the potential to exceed customers' expectations and thus be perceived positively (Zhu et al., 2017).

Consequently, companies should be aware of cultural and national differences and consider them in their choice of crisis response strategy. Implementing corrective measures could be applied as a global response strategy. Nevertheless, such an accommodative strategy is not always necessary. Instead, companies can win by locally adapting their crisis response strategy. For example, US American and Asian customers might also be pleased with a more moderate "reducing offensiveness" strategy, in which the company does not have to directly admit its responsibility for the crisis. In this way, the risk of litigation can be lowered.

Besides cultural considerations, as recommended by Choi & Chung (2013; based on Coombs, 2007), the choice of response strategy should also be set in a relation to the type/severity of the crisis. The more severe a crisis or the more intentional/preventable its nature, the more companies should consider accommodative strategies. This is due to the fact that defensive strategies such as denial and evasion of responsibility might be perceived as offensive by victims of the crisis. In addition, in the case of intentional/preventable crisis, litigation for the caused damages is anyhow likely, which in turn relativizes the arguments for avoiding a mortification strategy in which guilt is fully admitted in public. Consequently, strongly scandal-hit might be most effective in appeasing their affected customers and regaining customer goodwill by also applying the most accommodative mortification strategy – on condition that the apology seems credible and sincere.

To sum up, it can thus be said that strategy choices should be made dependent on both cultural and contextual factors. A recommendation that can be deduced is that for moderate (victim or accidental) crisis, a local adaptation to socio-cultural, legal and economic environments can help companies to be more effective and less opposed to risk in their choice of response strategy. However, in the case of a severe crisis for which the company holds a substantial degree of responsibility, trying to exploit cultural singularities in order to go for the least accommodative strategy possible, might be a double-edged sword. In the worst case, victims feel that they are not receiving enough respect from part of the company crisis, especially if they find out that the company appears more accommodating in other countries affected by the corporate crisis. Therefore, the globally standardized use of highly accommodative strategies seems more adequate in severe crisis contexts. Among those, companies

then have to decide between the "implement corrective measures" strategy, which was universally best received among customers in all three investigated geographic areas (USA, Asia and Germany), and mortification, which varied in its level of acceptance among the cultural regions, but can be especially valuable for communication with highly-involved customers.

However, this raises another question, to which this paper will contribute: should crisis communication also be conducted in a globally standardized way? In order to investigate this question, survey respondents were asked whether they would perceive a global message from the company's CEO in English as more authentic for crisis communication, or whether a message from a local manager in the national language would be more adequate.

Interestingly, the results were quite balanced: Among the Asian participants, 54% would prefer a global message in English, and 46% in their local language. For the Germans, 46.99% went for a global message delivered by the company's CEO, while 53.01% opted for a local language communication strategy. Interestingly, also among the US Americans, whose mother tongue is English, 45.95% think that crisis communication should be carried out in the respective country's local language. Consequently, with such narrow results, it is difficult to give recommendations whether companies should issue globally standardized messages in English language via the company's CEO, or whether messages adapted to the local contexts are more preferable.

However, it should also be mentioned that the results were generated in a survey which was carried out completely in English in order to ensure the equivalence of survey questions asked. In turn, this means that all respondents had a good command of the English language. Nevertheless, this is not representative for the whole population of countries where English is not an official language. As a consequence, the survey has an exclusive character, and including respondents without English proficiency would most probably shift results more in the direction of preference for a local language communication strategy.

Arguments in favor of a local language strategy, as already mentioned in the theory section, is that in this way, cultural and linguistic singularities can be taken into account. For example, message content and communication channels may be adapted depending on whether the specific country is a high-context or low-context culture. While people from low-context cultures like information to be

explicitly stated within written or verbal messages, people from high-context cultures pay attention to nonverbal communication (body language, the tone of the speaker's voice etc.) within the transmitted message (Jandt, 2015). Therefore, a consideration of cultural and linguistic factors can considerably determine how a message is received and interpreted by the local audience. Besides that, employees rather than managers were found to be the most believable ambassadors for a company in crisis (Ravazzani, 2016; based on Fearn-Banks, 2007, Johansen et al., 2012.

On the contrary, a globally standardized communication also has its advantages. The use of the CEO as a spokesman, as previously stated, shows top management visibility and commitment, which in turn can be interpreted as a positive sign by customers. Especially among customers from Asian countries, as previously mentioned, hierarchy is well-accepted and the role of the CEO is thus a respected authority and was found to reduce negative customer reactions (Laufer et al., 2017; based on Seeger et al., 2003). This might also explain why more than the half of the Asian survey respondents went for the CEO in English option, while the Germans for example rather preferred the local manager and local language option. Furthermore, standardized communication schemes can more quickly and less labor-intensively be spread all around the world, as they don't have to be adapted linguistically and contentwise. In addition, the affected brand represents itself in a coherent and unified way, which might enhance the perception of credibility of the message communicated to the public.

As a conclusion, it can thus be stated that both the communication via the CEO in English and the local language strategy have its advantages and disadvantages. However, although being more complex, time-consuming and costly for the company, a localization strategy in the end still might be the better choice: it not only improves global reach due to the fact that linguistic barriers from part of the customers are circumvented, but also makes communication more appealing if local singularities are integrated. This means that the corporate crisis communication statements should not purely be translated, but also be adapted to socio-cultural factors and the local crisis context (Conversis, 2016).

However, in a severe crisis context where the world's eyes are on the affected company waiting for a position statement and explanations, crisis communication has to occur in a timely manner. In order to be able to guarantee quick local language responses, it is recommendable that companies already

in advance – as part of their pre-crisis preparation – compose crisis response kits and process manuals tailored to the countries in which the company operates and thus could be affected (Conversis, 2016). For example, these may include important country-specific relevant media channels, cultural aspects to be considered, as well as the responsibilities for locally translating and adapting messages issued by the headquarter.

For companies which, due to their product range or philosophy, have an organizational culture and structure with a strong emphasis on decentralized decision-making and local adaptation might also find it easier to be locally responsive in crisis communication. Usually, in these cases, product marketing is already carried out in a way respective of social-cultural singularities, communication styles and channels. These insights can then also be used for crisis communication. Furthermore, companies which apply a regionally oriented strategy often also rely on a diverse workforce. This, in turn, improves the in-house capabilities of adapting crisis communication to local needs (Conversis, 2016).

Contrarily, companies with an organizational culture based on centralized decision-making and a standardization strategy might lack experience in adapting communication to regions other than their home country. Thus, they should either go for a globally standardized message in English – knowing that this implies some significant efficiency drawbacks – or cooperate with regional advisors, e.g. PR agencies (Conversis, 2016), in order to be able to successfully apply a local crisis communication strategy.

Looking at the automotive industry, it can be said that manufacturing processes are often standardized (although taking place at different global locations) in order to keep quality standards, while marketing, sales and distribution tasks are mostly localized. Thus, car producers are doing a balancing act between standardization and localization. Nevertheless, for reputational issues, often a global communication pattern is used. This is also true for the two case companies underlying this paper, Toyota and Volkswagen. For example, Toyota globally communicates the quality component of its reputation. According to Toyota, it does not matter whether its cars are “Made in Japan” or “Made in US”, what counts is the label “Made by Toyota”, as this is a standardized and consistent sign of quality, which arises from the globally standardized “Toyota Way” (Toyota, n.d.). As previously stated, for crisis communication, Toyota also applied a global apology strategy carried out in English

by the company's CEO. Thus, the strategy choice can be seen as consistent with the global, country-independent thinking arising from the corporate culture.

Volkswagen, likewise, uses its German origin for worldwide communication around its reputation. The German slogan "Das Auto" was used for years in marketing campaigns all over the world, thus evoking associations of German craftsmanship and technology in car manufacturing (Allen, 2016). When the Volkswagen emissions scandal arose, the "Germanness" as part of the corporate culture was mirrored by CEO Martin Winterkorn's apology speech, which was completely held in German (Allen, 2016). Although held in German and not in English, this can be seen as a global strategy, due to the fact that no locally adapted statements to the strongly affected US markets were provided. Interestingly, the "Das Auto" slogan was replaced in the aftermath of the scandal by a new campaign which is ought to win back customers' trust and puts more emphasis on people than on cars and technology (Allen, 2016)

To sum up, both Toyota and Volkswagen applied a globally standardized crisis response strategy, both in linguistic terms and in strategy choice, which can be seen as consistent with the respective corporate cultures. By opting for an apology, both companies went for the most accommodative strategy, thus showing awareness for the severity of their scandals. However, this strategy was found to be less preferred by US Americans (which were a main affected group in both the Toyota and Volkswagen scandal), as compared to their counterparts from different geographic regions. Nevertheless, in both cases, the crisis response strategies have been effective insofar that in 2017, after the scandals, Volkswagen occupies the first rank among the global car manufacturers, followed by Renault-Nissan and Toyota, which are neck-and-neck for place two (Schmitt, 2017). This supports the findings of Reuber and Fischer (2009) findings that companies frequently survive reputation-damaging events. Nevertheless, although sales numbers give a positive impression, the survey results showed that at least Volkswagen has lost on reputation in the CSR and sympathy dimension. Therefore, a localized communication strategy in combination with an "implement corrective measures" response strategy, which was the universally best performing strategy in the survey conducted, might have been even more effective in regaining customer goodwill and corporate reputation in the given case.

Last but not least it should also be mentioned that – irrespective of which crisis communication strategy the company decides to apply, or whether it is globally standardized or locally adapted – customer reactions (e.g in social media) and media coverage will mainly occur in local language. This means that even if the affected company decides to use a globally standardized communication strategy, it will not be able to avoid dealing with local languages in order to monitor responses from part of the public (Conversis, 2016), evaluate the effectiveness of the chosen strategy for restoring reputation, and intervene when additional corporate actions are needed. Consequently, it is inevitable for companies to show awareness local and cultural singularities in case of a cross-national corporate crisis context in order to conduct effective reputation management.

5.4 Limitations and Outlook

As usual, the study carried out also has some limitations, which narrow the generalization of the findings. In the following, limitations based on the chosen theory and methodology will be presented, and recommendations for further research be made.

In theoretical terms, the study is limited in regard to the following issues: First of all, the distinction between Eastern and Western cultures is very broad and little specific. Although some characteristics and cultural singularities attributed to this Eastern/Western distinction could be confirmed within the research context, other expectations did not prove to be true. This is especially the case for the applied cultural dimensions from Hofstede.

For example, although being considered highly individualistic by Hofstede, US Americans were found to put a high value on the recommendations of friends and family as a reason for switching their car brand, although this is usually considered a collectivist culture trait. On the contrary, however, in line with Hofstede's findings on individualism, US Americans would chose a more defensive behavior when defending their reputation in a crisis context, whereas in Asian cultures, a harmonic way is more frequently opted for. Also, the dimension of power distance had some explanatory value in regard to the preference of Asian respondents for a strategy communicated by the company's CEO. Nevertheless, due to this inconsistent results, the suitability of Hofstede's cultural dimensions as a theory for explaining culture-specific differences in customer behavior is very limited, and thus also represents a limitation for this paper. Instead, there is a significant scientific need for additional, more sophisticated and reliable cultural models.

For the underlying research paper, only three culture groups were chosen: Asians, US Americans and Germans. This choice was made in order to verify prevailing and popular cultural theories with their Eastern/Western distinction, but also in consideration of interesting corporate scandals contexts in the automotive industry and the thereby affected customer groups. However, only investigating three culture groups is of course not representative enough to for explaining universally valid cultural differences in customer reactions in the course of a corporate crisis.

Furthermore, some other criticism points apply to the underlying research setting. First of all, culture is a highly sophisticated and complex construct, and cannot be approximated by nationality or geographic origin, as it was done in the underlying survey for reasons of simplicity. Nationality does not imply cultural sameness, as most nations are characterized by a heterogeneous composition of individuals and ethnic groups (Jones, 2007). Furthermore, culture is not bound by national borders (Jones, 2007), and especially in times of globalization becomes more dispersed and also mixed. Some researchers even speak of acculturation or homogenization of the Eastern culture towards the Western culture, due to Western media exposure and adoption of a Western lifestyle (Kastanakis, & Voyer, 2014; based on Triandis, 2001).

Irrespective of whether this phenomenon of cultural homogenization/Westernization is the case or not, what can definitely be concluded is that culture is not a rigid but a dynamic construct, and therefore object to change. For this reason, the conclusions drawn in regard to cultural differences based on survey results can only be considered a snapshot of the current situation. Besides that, one might also argue that customer reactions towards a corporate crisis are not necessarily a cultural issue, but rather an individual reaction which is determined by personal values and character traits.

Besides the theoretical limitations of the paper, there are also some methodological restrictions. To begin with, reputation – just like culture – is a dynamic construct. It develops and changes over time, and can sometimes quickly shift, for example when the public perceptions change due to new media stories or crisis occurrences (Choi & Chung, 2013). Therefore, the brand- and culture specific reputational picture retrieved within the survey is also only a snapshot. Also, as it can be seen especially in the case of Volkswagen, corporate crisis seem to have a strong temporary negative effect on relevant reputational dimensions for affected and scandal-aware customer groups when the crisis

has occurred recently and has high media attention. However, these negative effects are estimated to diminish over time, as it probably happened in the case of Toyota. For this reason, the momentary character of the reputational survey results can be considered a limitation.

Furthermore, Schwaiger's reputational model, which was used as a basis for investigating the effect of corporate crisis and cultural differences, tries to consider the multidimensionality of reputation in the best possible way, but it is still giving an oversimplified picture (Choi & Chung, 2013). Also, the four dimensions and their 27 related items, although carefully developed and investigated, are far from perfect and complete. This is indicated by partly poor t-values and weights in the survey data.

Besides that, the respondents, which were asked to evaluate the three brands Ford, Toyota and Volkswagen in regard to the items from Schwaiger's model are not representative. In total, 170 respondents were obtained, of which 50 participants were from Asia, 83 from Germany, and 37 from the USA. However, these participants were mainly generated through snowball techniques within the authors' circle of acquaintances, the use of social media groups, as well as the corporate mail system of an international automotive supplier. Consequently, the composition of survey respondents is quite arbitrary, and the sample size in general rather small, with imbalances in regard to the number of representatives for the three chosen respondent groups.

Also, the respondents' were only asked for their current car brand and if they would stick to it or switch to another brand. However, the concrete level of personal affectedness by either the Toyota or Volkswagen scandal was not measured, which in turn limits conclusions drawn about the effect of involvement on response behavior.

In addition, the influencing power of interorganizational parties such as watchdog agencies, mass media, and endorsers on customers' brand evaluation was not investigated. This is due to the fact that this would have risen the extent and complexity of the survey significantly. However, third-party influence on brand reputation in a corporate crisis context would be an interesting study object for further research. Also, investigating the responses from stakeholder groups other than customers on corporate crisis would be an interesting study object.

Furthermore, due to the fact that the survey was consistently carried out in English in order to avoid linguistic variations, only individuals with a good command of English were able to participate. This in turn leads restricts survey participation and leads to a slight bias of the results, especially in regard to the research question whether corporate crisis communication should be carried out in English or in the local language. Also, potential misunderstandings due to linguistic barriers form part of the non-native speakers of English cannot be excluded.

Last but not least, as already mentioned, the data retrieved from the survey was filtered in regard to the geographic origin of survey participants. Apart from the previously discussed argument that national belongingness is not an adequate choice for measuring culture, Asian participants were not further distinguished by nationality as it was done for the German and US American respondents, but all grouped together in order to represent the Eastern culture. Although this is frequently done within cultural literature and theory, one might criticize the study's Western centric view of Asian countries, which are actually quite diverse in cultural terms. For example, Turkish, Russian, Indian and Korean people should not be lumped all together in the same group. The cultural diversity can even be noticed within the same country, as it is the case in China, where mainland Chinese and people from Western influenced Hong Kong differ considerably. Also, Hofstede in his studies found different values for Asian countries in regard to their level of uncertainty avoidance, individualism, masculinity, and power distance. Therefore, a more sophisticated distinction of Asian respondents would also lead to more sophisticated survey outcomes.

Recommendations for Further Research

Due to extent limitations and in order to keep the paper specific, certain research areas were not covered in the scope of this paper. For this reason, this section points some further interesting potential research fields out.

First of all, it would be a great advance to come up with cultural distinctive factors other than nationality, which provide a more differentiated depiction of the complex concept of culture. Furthermore, due to the fact that only three survey respondent groups were investigated, there are still many more cultural groups to be observed in their corporate crisis reaction. Also, it could be investigated whether it is mainly culture or rather individual character traits that determine customer reactions in regard to a reputational crisis situation.

In the course of corporate scandals or product recalls the media usually plays an important role for the mass distribution of it. Therefore, including information about the media consumption of the survey participants would give more detailed insights into their evaluation of the car manufacturers. Also, it would be interesting to further investigate how customers estimate the corporate reputation after a government initiated product recall as compared to a "voluntary" company initiated product recall. In the same vein, it would be interesting to know whether and how the crisis type (victim, accidental or preventable crisis) affects customer perceptions and reactions.

Furthermore, more research is needed in regard to Benoit's crisis communication strategies. Literature mainly recommends choosing the strategy, which best suits the most important target group, and then follow this strategy consistently. However, some strategies are non-exclusive: For example, a company can apologize publicly, but still decide to implement corrective measures. Therefore, the compatibility and multiple use of crisis response strategies should be further investigated.

In addition, probably more relevant dimensions and especially items for the multidimensional construct of reputation can be identified and added to Schwaiger's model. Especially for the formative construct, a theoretically infinite number of relevant items can be added to the model in order to improve explanatory power (Eberl, 2007). Alternatively, new research outcomes could also be incorporated into a completely new reputational model. For example, it would be interesting to integrate a temporal component, in order to investigate the change of reputational indexes over time.

The buying decision of customers is a concept that is supposedly strongly impacted by corporate reputation and reputational performance. Including mediating as well as moderating effects into the here presented model could draw conclusions about how a negative corporate reputation influences the ultimate buying decision of involved customers according to their cultural background. In that regard, the method of structural equation modeling could be combined with a choice-based conjoint analysis, which aims to find out which product attributes determine a customer's buying decision. Also, the investigation of industry sectors other than the automotive industry and additional stakeholder groups would be of interest.

Lastly, as cultural considerations within crisis response and reputational management theories are a rather novel research trend, there is still a lot to be investigated in regard to cultural differences in opinion formation processes and brand evaluation, as well as the design of corporate messages in order to be appealing to the target culture group.

5.5 Managerial Implications

The study findings can contribute to improve practical crisis response management considerably for several reasons. First of all, corporate crises are an event that cannot be ruled out or excluded completely, even if there are some corporate governance or internal control mechanisms in place. Therefore, it is even more important for companies to be prepared in advance, for example automotive companies for a recall situation. This includes concrete action plans, communication channels, responsibilities and spokesmen.

As found in this study, cultural differences matter for both customer reactions to a corporate crisis and reactions to crisis communication strategies. Consequently, companies need to be aware of the singularities of their target market and customers. Companies whose organizational structure already puts a high emphasis on local adaptiveness might have an advantage in crisis situations. Practical experiences and insights from local business operations, as well as the availability of a diverse workforce, facilitate the identification of local differences and choice of appropriate response strategies. Otherwise, companies should seek advice from experts, as a wrong crisis response can cause further reputational damage. Local awareness is not only required for crisis communication, but also for tracking the reactions of local customer groups, e.g. in the media or social media.

In regard to crisis reactions, strong temporal effects among highly affected customer groups, which could be noticed for crisis-related dimensions of reputation, for example CSR in the case of Volkswagen. However, when the company has an overall strong reputation in regard to other dimensions, or the customers hold a national bias, this seems to have a buffer effect. Also, negative effects are likely to recoup over time. Therefore, managers are recommended to invest strongly in a good reputation, and try to repair damaged reputational dimensions through well-thought out, culturally sensitive response strategies. However, a universally well-received strategy among the three investigated culture groups was found to be to implement corrective measures. Apart from that, the crisis context and severity are factors that managers of a crisis-hit company should consider for

their choice of response strategy. Last but not least, strategy choice should be made by consideration of socio-cultural, legal and economic factors of the affected target markets.

6. Conclusions

The starting point of this work was an insufficient state of research concerning the relationship between corporate reputation damaging events and national as well as cultural background of customers. As it was mentioned in the introduction, it was unclear if and how the cultural background of customers influences their perceptions about and reactions to reputation damaging events like for instance scandals or product recalls. In this regard it was also investigated whether a globally oriented crisis response strategy is sufficient or whether companies should react more to the individual cultures of its customers and hence should establish local response strategies.

After having explained the choice of the automotive industry in the scope of the introduction through a Porter's five forces analysis, the theoretical background of customer perceptions, the phenomenon of corporate reputation and crisis response strategies has been established. In this context, it has been pointed out that customer perceptions in fact are impacted by culture and national bias (Bowen et al., 2017). With regard to possible crisis response strategies, the five different approaches defined by Benoit (1997) have been explained in order to set the foundation for the further development of the paper.

The subsequent methodological section has presented and evaluated several approaches to measure corporate reputation. Based on its many advantages and scientific relevance, the reputational model according to Schwaiger (2004) has been chosen for this paper.

In the analysis of the Volkswagen emissions scandal as well as the Toyota acceleration scandal it became clear that several factors of a scandal are important to consider in the scope of customer perceptions and reactions; first, the level of severity of the crisis and car-related purchase/switching reasons; second, the general loyalty of customers towards a company; third, the reputational dimensions as well as substitutability from a customer's point of view; fourth, the crisis response strategy chosen by a company considering national and cultural backgrounds of the customers; fifth, cultural and national differences as regards to the different geographic origins of the customers.

Concerning the cultural and national differences in customer perception of corporate scandals, it was firstly investigated whether there is a national bias among the respondents concerning brand

preference. It resulted that Germans were found to have a national bias, while for Asians and US Americans the origin of a car seemed irrelevant. In a second step, it was investigated that safety, quality and value-for-money are the most important criteria when purchasing a car regardless of geographic origin of the customer. In combination with the results from the second part of the analysis, it can be concluded that there are cultural and national differences in customer perceptions of corporate scandals, however, taking also the degree of scandal involvement of the customers into account. This is due to the fact that customers, who are more involved into scandals, are more sensitive to the consequences regardless of the national and cultural background.

With regards to a company's choice of a crisis response strategy, the survey participants have been asked to evaluate the response strategies as defined by Benoit (1997). Since this has been conducted both from a customer's and a company's point of view, it became clear, firstly, which crisis response is preferred and expected by customers from the different geographic regions and secondly, which strategy they would choose in position of the company. In case of both perspectives, all three nationalities preferred the strategy of implementing corrective measures, which means that regardless of the nationality, customers prefer concrete actions over apology speeches by the CEO. When it comes to speeches by the CEO, it has been questioned whether this speech should be made in the countries' local language or whether a global message in English is sufficient. This question could not be answered completely in this paper because the responses were quite balanced among all three nationalities. However, since a response in the local language is more sensitive to local conditions, it can be concluded that a local message combined with a strategy of implementing corrective measures can be considered as the most effect strategy for regaining customer trust and for retaining a good corporate reputation.

All in all, it can be said that the study conducted in this paper contributes to the important topic of retaining corporate reputation after a scandal/crisis. It was found that national and cultural differences as well as the degree of scandal involvement of a cultural/national group are essential to consider with regard to customer reactions to crises. When it comes to a company's crisis response strategy, all three nationalities/cultures favored the same response strategy and no concrete language for an apology message by the CEO, which makes it easier for a company to react adequately.

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Appendix 1: *Cronbach's Alpha* of the Reflective Items

Cronbach's Alpha of reflective items – Germans

Construct	Cronbach's Alpha >0.7		
	V	T	F
Sympathy	0.77	0.60	0.76
Competence	0.62	0.61	0.44

Cronbach's Alpha of reflective items – Asians

Construct	Cronbach's Alpha >0.7		
	V	T	F
Sympathy	0.60	0.78	0.64
Competence	0.61	0.72	0.71

Cronbach's Alpha of reflective items – US Americans

Construct	Cronbach's Alpha >0.7		
	V	T	F
Sympathy	0.57	0.79	0.70
Competence	0.69	0.84	0.64

Source: Own representation based on SmartPLS data

Appendix 2: Cross loadings with the latent contructs

Americans
Ford

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,631	0,583	0,497	0,621	0,507	0,447
attr_2	0,655	0,475	0,495	0,274	0,429	0,485
attr_3	0,837	0,440	0,625	0,573	0,613	0,627
comp_1	0,603	0,432	0,616	0,223	0,365	0,429
comp_2	0,483	0,545	0,849	0,433	0,621	0,538
comp_3	0,653	0,661	0,814	0,794	0,742	0,601
csr_1	0,436	0,755	0,498	0,672	0,573	0,521
csr_2	-0,142	-0,325	-0,255	0,029	0,048	-0,176
csr_3	0,283	0,446	0,279	0,227	0,300	0,326
csr_4	0,611	0,572	0,410	0,527	0,439	0,355
csr_5	0,509	0,676	0,540	0,617	0,705	0,353
perf_1	0,404	0,575	0,477	0,702	0,473	0,437
perf_2	0,528	0,556	0,402	0,559	0,411	0,324
perf_3	0,655	0,474	0,554	0,852	0,606	0,559
perf_4	0,541	0,562	0,572	0,792	0,636	0,457
perf_5	0,568	0,553	0,519	0,786	0,613	0,506
qual_1	0,592	0,618	0,564	0,578	0,721	0,540
qual_2	0,577	0,629	0,584	0,697	0,732	0,536
qual_3	0,611	0,764	0,645	0,752	0,835	0,634
qual_4	0,564	0,569	0,529	0,680	0,603	0,393
qual_5	0,410	0,498	0,465	0,466	0,533	0,350
qual_6	0,512	0,443	0,546	0,619	0,706	0,536
qual_7	0,547	0,454	0,594	0,436	0,750	0,555
qual_8	0,564	0,454	0,611	0,582	0,742	0,525
symp_1	0,424	0,436	0,369	0,406	0,549	0,720
symp_2	0,599	0,629	0,671	0,623	0,631	0,821
symp_3	0,696	0,372	0,568	0,440	0,601	0,821

Source: Own representation based on SmartPLS data

Americans
Toyota

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,846	0,655	0,509	0,644	0,635	0,668
attr_2	0,454	0,447	0,339	0,426	0,358	0,307
attr_3	0,767	0,503	0,484	0,662	0,553	0,588
comp_1	0,450	0,548	0,831	0,601	0,616	0,455
comp_2	0,437	0,605	0,884	0,656	0,657	0,598
comp_3	0,686	0,817	0,897	0,818	0,835	0,777
csr_1	0,624	0,792	0,517	0,630	0,683	0,720
csr_2	0,069	0,116	-0,048	0,062	0,257	0,225
csr_3	0,665	0,775	0,593	0,719	0,698	0,621
csr_4	0,408	0,734	0,584	0,554	0,627	0,567
csr_5	0,437	0,651	0,514	0,567	0,636	0,507
perf_1	0,515	0,659	0,395	0,555	0,550	0,509
perf_2	0,483	0,594	0,541	0,609	0,381	0,454
perf_3	0,679	0,483	0,602	0,754	0,606	0,629
perf_4	0,601	0,698	0,685	0,845	0,761	0,693
perf_5	0,681	0,782	0,676	0,853	0,771	0,715
qual_1	0,541	0,639	0,499	0,587	0,609	0,499
qual_2	0,729	0,700	0,702	0,704	0,837	0,669
qual_3	0,344	0,556	0,497	0,635	0,652	0,570
qual_4	0,659	0,740	0,676	0,754	0,885	0,772
qual_5	0,492	0,644	0,504	0,611	0,639	0,542
qual_6	0,566	0,586	0,661	0,708	0,760	0,582
qual_7	0,552	0,658	0,691	0,682	0,800	0,619
qual_8	0,413	0,545	0,633	0,589	0,692	0,500
symp_1	0,458	0,550	0,359	0,478	0,562	0,705
symp_2	0,821	0,761	0,665	0,840	0,758	0,916
symp_3	0,632	0,680	0,733	0,712	0,727	0,884

Source: Own representation based on SmartPLS data

Americans
Volkswagen

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,743	0,374	0,535	0,498	0,470	0,456
attr_2	0,461	0,380	0,202	0,300	0,295	0,416
attr_3	0,903	0,622	0,645	0,734	0,722	0,560
comp_1	0,342	0,277	0,646	0,405	0,423	0,279
comp_2	0,503	0,541	0,823	0,623	0,678	0,533
comp_3	0,666	0,784	0,854	0,851	0,801	0,630
csr_1	0,545	0,651	0,343	0,528	0,508	0,625
csr_2	0,211	0,088	0,060	0,146	0,209	0,071
csr_3	0,642	0,679	0,442	0,620	0,605	0,569
csr_4	0,551	0,704	0,656	0,596	0,586	0,394
csr_5	0,606	0,920	0,676	0,780	0,792	0,694
perf_1	0,564	0,669	0,421	0,644	0,610	0,649
perf_2	0,456	0,404	0,438	0,486	0,386	0,361
perf_3	0,612	0,622	0,688	0,813	0,729	0,653
perf_4	0,626	0,696	0,788	0,914	0,781	0,719
perf_5	0,533	0,560	0,553	0,579	0,610	0,399
qual_1	0,751	0,795	0,570	0,721	0,761	0,707
qual_2	0,655	0,568	0,576	0,627	0,682	0,567
qual_3	0,445	0,540	0,331	0,500	0,440	0,408
qual_4	0,696	0,528	0,551	0,702	0,651	0,538
qual_5	0,164	0,543	0,328	0,301	0,390	0,326
qual_6	0,455	0,502	0,715	0,689	0,772	0,576
qual_7	0,545	0,559	0,646	0,645	0,745	0,600
qual_8	0,708	0,691	0,692	0,847	0,864	0,755
symp_1	0,521	0,432	0,192	0,385	0,437	0,575
symp_2	0,581	0,737	0,712	0,776	0,773	0,882
symp_3	0,361	0,433	0,422	0,544	0,566	0,722

Source: Own representation based on SmartPLS data

Asians
Ford

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,669	0,647	0,415	0,544	0,708	0,575
attr_2	0,778	0,503	0,627	0,592	0,572	0,530
attr_3	0,867	0,549	0,618	0,673	0,695	0,669
comp_1	0,577	0,519	0,750	0,474	0,583	0,603
comp_2	0,522	0,462	0,807	0,684	0,500	0,538
comp_3	0,620	0,635	0,819	0,693	0,729	0,626
csr_1	0,547	0,720	0,476	0,564	0,693	0,545
csr_2	0,375	0,667	0,437	0,398	0,468	0,509
csr_3	0,584	0,784	0,540	0,546	0,647	0,572
csr_4	0,490	0,660	0,472	0,405	0,494	0,466
csr_5	0,489	0,699	0,532	0,536	0,610	0,463
perf_1	0,471	0,620	0,391	0,569	0,620	0,436
perf_2	0,297	0,316	0,258	0,357	0,358	0,257
perf_3	0,710	0,569	0,661	0,835	0,721	0,535
perf_4	0,578	0,559	0,654	0,802	0,688	0,490
perf_5	0,585	0,602	0,588	0,787	0,606	0,547
qual_1	0,614	0,765	0,579	0,599	0,806	0,695
qual_2	0,745	0,770	0,642	0,699	0,820	0,657
qual_3	0,767	0,591	0,630	0,645	0,831	0,685
qual_4	0,628	0,692	0,660	0,673	0,756	0,540
qual_5	0,578	0,649	0,597	0,678	0,678	0,480
qual_6	0,659	0,742	0,680	0,698	0,861	0,683
qual_7	0,625	0,565	0,602	0,613	0,691	0,495
qual_8	0,545	0,494	0,588	0,719	0,662	0,464
symp_1	0,546	0,630	0,489	0,446	0,632	0,785
symp_2	0,649	0,624	0,615	0,549	0,643	0,849
symp_3	0,542	0,413	0,613	0,495	0,588	0,651

Source: Own representation based on SmartPLS data

Asians
Toyota

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,621	0,474	0,369	0,617	0,586	0,474
attr_2	0,682	0,450	0,495	0,433	0,428	0,435
attr_3	0,952	0,661	0,623	0,736	0,766	0,673
comp_1	0,362	0,546	0,623	0,374	0,427	0,447
comp_2	0,566	0,719	0,862	0,727	0,598	0,636
comp_3	0,637	0,766	0,901	0,760	0,798	0,608
csr_1	0,547	0,760	0,642	0,715	0,642	0,629
csr_2	0,311	0,645	0,611	0,438	0,410	0,465
csr_3	0,646	0,874	0,704	0,685	0,751	0,759
csr_4	0,593	0,708	0,596	0,690	0,602	0,589
csr_5	0,484	0,661	0,565	0,615	0,664	0,540
perf_1	0,426	0,593	0,386	0,593	0,477	0,531
perf_2	0,316	0,509	0,417	0,548	0,506	0,425
perf_3	0,584	0,652	0,609	0,790	0,660	0,604
perf_4	0,685	0,718	0,726	0,870	0,739	0,606
perf_5	0,577	0,547	0,628	0,722	0,603	0,476
qual_1	0,632	0,714	0,540	0,690	0,726	0,609
qual_2	0,460	0,575	0,584	0,639	0,706	0,535
qual_3	0,486	0,654	0,469	0,484	0,693	0,625
qual_4	0,683	0,532	0,572	0,608	0,741	0,601
qual_5	0,563	0,503	0,616	0,626	0,696	0,488
qual_6	0,520	0,551	0,650	0,617	0,770	0,571
qual_7	0,703	0,648	0,661	0,712	0,784	0,581
qual_8	0,510	0,475	0,589	0,618	0,737	0,579
symp_1	0,677	0,789	0,612	0,682	0,722	0,904
symp_2	0,601	0,704	0,646	0,657	0,727	0,882
symp_3	0,442	0,543	0,505	0,483	0,558	0,701

Source: Own representation based on SmartPLS data

Asians
Volkswagen

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,696	0,442	0,461	0,701	0,627	0,530
attr_2	0,820	0,497	0,608	0,574	0,574	0,569
attr_3	0,826	0,641	0,470	0,632	0,622	0,696
comp_1	0,247	0,272	0,568	0,388	0,366	0,325
comp_2	0,350	0,277	0,741	0,556	0,422	0,315
comp_3	0,700	0,675	0,862	0,795	0,837	0,730
csr_1	0,608	0,822	0,463	0,614	0,663	0,638
csr_2	0,410	0,739	0,544	0,444	0,536	0,463
csr_3	0,608	0,858	0,524	0,579	0,608	0,631
csr_4	0,598	0,708	0,437	0,566	0,556	0,516
csr_5	0,509	0,699	0,454	0,556	0,561	0,490
perf_1	0,697	0,717	0,494	0,705	0,699	0,653
perf_2	0,510	0,258	0,541	0,627	0,559	0,471
perf_3	0,674	0,668	0,697	0,885	0,841	0,736
perf_4	0,691	0,526	0,812	0,905	0,740	0,647
perf_5	0,532	0,510	0,535	0,633	0,634	0,489
qual_1	0,664	0,862	0,548	0,672	0,732	0,658
qual_2	0,656	0,653	0,618	0,812	0,823	0,739
qual_3	0,492	0,576	0,570	0,603	0,751	0,669
qual_4	0,456	0,502	0,706	0,662	0,742	0,522
qual_5	0,471	0,394	0,542	0,596	0,580	0,418
qual_6	0,664	0,572	0,703	0,827	0,851	0,703
qual_7	0,692	0,688	0,674	0,713	0,833	0,701
qual_8	0,621	0,454	0,711	0,739	0,808	0,624
symp_1	0,584	0,594	0,427	0,545	0,580	0,854
symp_2	0,700	0,724	0,638	0,740	0,812	0,881
symp_3	0,405	0,204	0,509	0,441	0,459	0,469

Source: Own representation based on SmartPLS data

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,516	0,329	0,302	0,501	0,462	0,413
attr_2	0,563	0,450	0,368	0,252	0,359	0,419
attr_3	0,959	0,533	0,597	0,567	0,686	0,738
comp_1	0,314	0,190	0,621	0,418	0,394	0,338
comp_2	0,266	0,067	0,633	0,445	0,398	0,232
comp_3	0,606	0,537	0,768	0,466	0,730	0,558
csr_1	0,300	0,589	0,238	0,509	0,458	0,403
csr_2	0,236	0,205	0,152	0,064	0,178	0,093
csr_3	0,411	0,736	0,285	0,413	0,448	0,512
csr_4	0,230	0,468	0,183	0,303	0,275	0,324
csr_5	0,608	0,935	0,454	0,456	0,604	0,587
perf_1	0,542	0,525	0,398	0,703	0,530	0,512
perf_2	0,350	0,297	0,403	0,617	0,434	0,394
perf_3	0,482	0,365	0,470	0,699	0,458	0,434
perf_4	0,438	0,335	0,498	0,682	0,539	0,382
perf_5	0,401	0,442	0,515	0,808	0,612	0,529
qual_1	0,584	0,692	0,487	0,570	0,690	0,582
qual_2	0,593	0,499	0,515	0,633	0,728	0,612
qual_3	0,525	0,510	0,369	0,426	0,543	0,471
qual_4	0,535	0,469	0,503	0,614	0,656	0,510
qual_5	0,503	0,512	0,454	0,543	0,578	0,439
qual_6	0,590	0,427	0,703	0,660	0,860	0,625
qual_7	0,601	0,541	0,705	0,544	0,879	0,652
qual_8	0,450	0,478	0,469	0,361	0,568	0,408
symp_1	0,528	0,454	0,367	0,456	0,450	0,731
symp_2	0,721	0,662	0,572	0,632	0,729	0,898
symp_3	0,637	0,479	0,488	0,487	0,656	0,837

Source: Own representation based on SmartPLS data

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,699	0,442	0,454	0,701	0,625	0,531
attr_2	0,823	0,497	0,600	0,573	0,576	0,571
attr_3	0,821	0,640	0,450	0,630	0,620	0,695
comp_1	0,249	0,274	0,592	0,394	0,369	0,325
comp_2	0,351	0,278	0,769	0,560	0,424	0,318
comp_3	0,700	0,674	0,834	0,793	0,836	0,732
csr_1	0,606	0,821	0,448	0,610	0,661	0,636
csr_2	0,411	0,739	0,532	0,437	0,534	0,464
csr_3	0,606	0,860	0,513	0,576	0,607	0,630
csr_4	0,596	0,708	0,424	0,562	0,555	0,517
csr_5	0,507	0,694	0,437	0,553	0,557	0,489
perf_1	0,697	0,717	0,483	0,701	0,696	0,652
perf_2	0,510	0,258	0,551	0,636	0,560	0,471
perf_3	0,673	0,668	0,686	0,882	0,841	0,737
perf_4	0,692	0,526	0,808	0,907	0,741	0,649
perf_5	0,533	0,508	0,519	0,627	0,633	0,490
qual_1	0,663	0,862	0,531	0,668	0,728	0,657
qual_2	0,656	0,654	0,609	0,811	0,825	0,738
qual_3	0,492	0,577	0,561	0,601	0,754	0,670
qual_4	0,458	0,501	0,697	0,661	0,743	0,525
qual_5	0,475	0,393	0,537	0,595	0,583	0,421
qual_6	0,665	0,570	0,683	0,824	0,848	0,704
qual_7	0,693	0,688	0,662	0,712	0,834	0,703
qual_8	0,622	0,454	0,702	0,739	0,810	0,627
symp_1	0,581	0,594	0,415	0,544	0,579	0,851
symp_2	0,699	0,724	0,620	0,738	0,812	0,880
symp_3	0,407	0,204	0,504	0,441	0,460	0,476

Source: Own representation based on SmartPLS data

Cross loadings

	Attractiveness	CSR	Competence	Performance	Quality	Sympathy
attr_1	0,451	0,343	0,434	0,407	0,362	0,234
attr_2	0,817	0,429	0,518	0,562	0,610	0,629
attr_3	0,894	0,556	0,482	0,638	0,719	0,754
comp_1	0,475	0,302	0,799	0,632	0,501	0,455
comp_2	0,362	0,375	0,714	0,544	0,480	0,437
comp_3	0,524	0,338	0,741	0,520	0,653	0,496
csr_1	0,593	0,873	0,368	0,556	0,543	0,531
csr_2	0,343	0,440	0,277	0,251	0,271	0,198
csr_3	0,360	0,745	0,345	0,462	0,383	0,430
csr_4	0,333	0,639	0,279	0,419	0,289	0,381
csr_5	0,382	0,524	0,286	0,405	0,411	0,269
perf_1	0,597	0,559	0,460	0,698	0,665	0,570
perf_2	0,306	0,302	0,499	0,566	0,428	0,330
perf_3	0,513	0,369	0,557	0,693	0,424	0,461
perf_4	0,646	0,493	0,526	0,766	0,662	0,603
perf_5	0,544	0,570	0,569	0,799	0,691	0,609
qual_1	0,691	0,673	0,434	0,631	0,703	0,639
qual_2	0,637	0,471	0,586	0,714	0,793	0,634
qual_3	0,522	0,265	0,498	0,546	0,664	0,525
qual_4	0,506	0,404	0,459	0,635	0,631	0,511
qual_5	0,391	0,271	0,253	0,329	0,375	0,322
qual_6	0,636	0,414	0,709	0,676	0,903	0,685
qual_7	0,610	0,351	0,508	0,507	0,754	0,646
qual_8	0,588	0,371	0,451	0,514	0,617	0,497
symp_1	0,663	0,575	0,566	0,652	0,683	0,872
symp_2	0,753	0,585	0,558	0,673	0,764	0,879
symp_3	0,519	0,239	0,380	0,425	0,538	0,718

Source: Own representation based on SmartPLS data

Appendix 3: Correlation Matrices of the Formative Items

Germans

Volkswagen

	attr_1	attr_2	attr_3
attr_1	1,00	0,36	0,18
attr_2	0,36	1,00	0,52
attr_3	0,18	0,52	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,39	0,46	0,35	0,39
csr_2	0,39	1,00	0,10	0,19	0,11
csr_3	0,46	0,10	1,00	0,36	0,47
csr_4	0,35	0,19	0,36	1,00	0,43
csr_5	0,39	0,11	0,47	0,43	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,32	0,31	0,59	0,63
perf_2	0,32	1,00	0,28	0,37	0,25
perf_3	0,31	0,28	1,00	0,30	0,27
perf_4	0,59	0,38	0,30	1,00	0,63
perf_5	0,63	0,25	0,27	0,63	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,50	0,47	0,50	0,42	0,52	0,35	0,34
qual_2	0,50	1,00	0,64	0,60	0,43	0,63	0,56	0,53
qual_3	0,47	0,64	1,00	0,47	0,36	0,51	0,50	0,52
qual_4	0,50	0,60	0,47	1,00	0,48	0,54	0,37	0,38
qual_5	0,42	0,43	0,36	0,48	1,00	0,33	0,20	0,31
qual_6	0,52	0,63	0,51	0,54	0,33	1,00	0,52	0,54
qual_7	0,35	0,56	0,50	0,37	0,20	0,52	1,00	0,51
qual_8	0,34	0,53	0,52	0,38	0,31	0,54	0,51	1,00

Toyota

	attr_1	attr_2	attr_3
attr_1	1,00	0,34	0,45
attr_2	0,34	1,00	0,47
attr_3	0,45	0,47	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,43	0,53	0,61	0,56
csr_2	0,43	1,00	0,49	0,58	0,54
csr_3	0,53	0,49	1,00	0,61	0,55
csr_4	0,61	0,58	0,61	1,00	0,57
csr_5	0,56	0,54	0,55	0,57	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,42	0,65	0,50	0,41
perf_2	0,42	1,00	0,46	0,50	0,25
perf_3	0,65	0,46	1,00	0,68	0,44
perf_4	0,50	0,50	0,68	1,00	0,49
perf_5	0,41	0,25	0,44	0,49	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,66	0,57	0,45	0,37	0,59	0,61	0,36
qual_2	0,66	1,00	0,68	0,61	0,46	0,65	0,59	0,52
qual_3	0,57	0,68	1,00	0,50	0,52	0,49	0,67	0,46
qual_4	0,45	0,61	0,50	1,00	0,61	0,66	0,57	0,60
qual_5	0,37	0,46	0,52	0,61	1,00	0,59	0,47	0,62
qual_6	0,59	0,65	0,49	0,66	0,59	1,00	0,58	0,67
qual_7	0,61	0,59	0,67	0,57	0,47	0,58	1,00	0,65
qual_8	0,36	0,52	0,46	0,60	0,62	0,67	0,65	1,00

Ford

	attr_1	attr_2	attr_3
attr_1	1,00	0,16	0,33
attr_2	0,16	1,00	0,39
attr_3	0,33	0,39	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,12	0,55	0,02	0,44
csr_2	0,12	1,00	0,24	0,15	0,28
csr_3	0,55	0,24	1,00	0,21	0,59
csr_4	0,02	0,15	0,21	1,00	0,25
csr_5	0,44	0,28	0,59	0,25	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,47	0,27	0,47	0,50
perf_2	0,47	1,00	0,32	0,47	0,38
perf_3	0,27	0,32	1,00	0,35	0,29
perf_4	0,47	0,47	0,35	1,00	0,44
perf_5	0,50	0,38	0,29	0,44	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,49	0,45	0,35	0,44	0,57	0,48	0,38
qual_2	0,49	1,00	0,34	0,56	0,49	0,60	0,52	0,46
qual_3	0,45	0,34	1,00	0,45	0,32	0,47	0,42	0,26
qual_4	0,35	0,56	0,45	1,00	0,59	0,52	0,44	0,43
qual_5	0,44	0,49	0,32	0,59	1,000	0,44	0,46	0,40
qual_6	0,57	0,60	0,47	0,52	0,44	1,00	0,61	0,31
qual_7	0,48	0,52	0,42	0,44	0,46	0,61	1,00	0,46
qual_8	0,38	0,46	0,26	0,43	0,40	0,31	0,46	1,00

Asians

Volkswagen

	attr_1	attr_2	attr_3
attr_1	1,00	0,34	0,45
attr_2	0,34	1,00	0,47
attr_3	0,45	0,47	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,43	0,53	0,61	0,56
csr_2	0,43	1,00	0,49	0,58	0,54
csr_3	0,50	0,49	1,00	0,61	0,55
csr_4	0,61	0,58	0,61	1,00	0,57
csr_5	0,56	0,54	0,55	0,57	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,42	0,65	0,50	0,41
perf_2	0,42	1,00	0,46	0,50	0,25
perf_3	0,65	0,46	1,00	0,68	0,44
perf_4	0,50	0,50	0,68	1,00	0,49
perf_5	0,41	0,25	0,44	0,49	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,66	0,57	0,45	0,37	0,59	0,61	0,36
qual_2	0,66	1,00	0,68	0,61	0,46	0,65	0,59	0,52
qual_3	0,57	0,68	1,00	0,50	0,52	0,49	0,67	0,46
qual_4	0,45	0,61	0,50	1,00	0,61	0,66	0,57	0,60
qual_5	0,37	0,46	0,52	0,61	1,00	0,59	0,47	0,62
qual_6	0,59	0,65	0,49	0,66	0,59	1,00	0,58	0,67
qual_7	0,61	0,59	0,67	0,57	0,47	0,58	1,00	0,65
qual_8	0,36	0,52	0,46	0,60	0,62	0,67	0,65	1,00

Toyota

	attr_1	attr_2	attr_3
attr_1	1,00	0,21	0,55
attr_2	0,21	1,00	0,45
attr_3	0,55	0,45	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,21	0,49	0,41	0,33
csr_2	0,21	1,00	0,44	0,44	0,45
csr_3	0,49	0,44	1,00	0,66	0,61
csr_4	0,41	0,44	0,66	1,00	0,36
csr_5	0,33	0,45	0,61	0,36	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,48	0,32	0,35	0,20
perf_2	0,48	1,00	0,40	0,37	0,33
perf_3	0,32	0,40	1,00	0,63	0,43
perf_4	0,35	0,37	0,63	1,00	0,50
perf_5	0,20	0,33	0,43	0,50	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,54	0,33	0,35	0,38	0,52	0,46	0,54
qual_2	0,54	1,00	0,35	0,48	0,44	0,65	0,43	0,46
qual_3	0,33	0,35	1,00	0,44	0,34	0,29	0,45	0,28
qual_4	0,35	0,48	0,44	1,00	0,66	0,49	0,65	0,47
qual_5	0,38	0,44	0,34	0,66	1,00	0,56	0,65	0,63
qual_6	0,52	0,65	0,29	0,49	0,56	1,00	0,55	0,71
qual_7	0,46	0,43	0,45	0,65	0,65	0,55	1,00	0,47
qual_8	0,54	0,46	0,28	0,47	0,63	0,71	0,47	1,00

Ford

	attr_1	attr_2	attr_3
attr_1	1,00	0,27	0,45
attr_2	0,27	1,00	0,48
attr_3	0,45	0,48	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,19	0,31	0,25	0,51
csr_2	0,19	1,00	0,55	0,34	0,31
csr_3	0,31	0,55	1,00	0,54	0,45
csr_4	0,25	0,34	0,54	1,00	0,34
csr_5	0,51	0,31	0,45	0,34	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,40	0,53	0,68	0,37
perf_2	0,40	1,00	0,38	0,41	0,34
perf_3	0,53	0,38	1,00	0,65	0,38
perf_4	0,68	0,41	0,65	1,00	0,49
perf_5	0,37	0,34	0,38	0,49	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,57	0,46	0,59	0,52	0,62	0,43	0,44
qual_2	0,57	1,00	0,71	0,60	0,54	0,71	0,51	0,50
qual_3	0,46	0,71	1,00	0,57	0,39	0,60	0,55	0,47
qual_4	0,59	0,60	0,57	1,00	0,70	0,69	0,68	0,55
qual_5	0,52	0,54	0,39	0,70	1,00	0,69	0,70	0,61
qual_6	0,62	0,71	0,60	0,69	0,69	1,00	0,65	0,52
qual_7	0,43	0,51	0,55	0,68	0,70	0,65	1,00	0,64
qual_8	0,44	0,50	0,47	0,55	0,61	0,52	0,64	1,00

US Americans

Volkswagen

	attr_1	attr_2	attr_3
attr_1	1,00	0,20	0,55
attr_2	0,20	1,00	0,12
attr_3	0,55	0,12	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,32	0,50	0,39	0,59
csr_2	0,32	1,00	0,20	0,39	0,38
csr_3	0,50	0,20	1,00	0,40	0,63
csr_4	0,39	0,39	0,40	1,00	0,67
csr_5	0,59	0,38	0,63	0,67	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,41	0,42	0,45	0,35
perf_2	0,41	1,00	0,26	0,36	0,36
perf_3	0,42	0,26	1,00	0,66	0,39
perf_4	0,45	0,36	0,66	1,00	0,33
perf_5	0,35	0,36	0,39	0,33	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,72	0,55	0,55	0,47	0,36	0,46	0,64
qual_2	0,72	1,00	0,63	0,42	0,27	0,40	0,29	0,64
qual_3	0,55	0,63	1,00	0,34	0,22	0,32	0,19	0,49
qual_4	0,55	0,42	0,34	1,00	0,05	0,49	0,56	0,72
qual_5	0,47	0,27	0,22	0,05	1,00	0,09	0,23	0,17
qual_6	0,36	0,40	0,32	0,49	0,09	1,00	0,44	0,64
qual_7	0,46	0,29	0,19	0,56	0,23	0,44	1,00	0,54
qual_8	0,64	0,64	0,49	0,72	0,17	0,64	0,54	1,00

Toyota

	attr_1	attr_2	attr_3
attr_1	1,00	0,47	0,31
attr_2	0,47	1,00	0,22
attr_3	0,31	0,22	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	0,20	0,54	0,34	0,56
csr_2	0,20	1,00	0,24	0,32	0,41
csr_3	0,54	0,24	1,00	0,41	0,64
csr_4	0,34	0,32	0,41	1,00	0,46
csr_5	0,56	0,41	0,64	0,46	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,34	0,31	0,41	0,45
perf_2	0,34	1,00	0,38	0,32	0,52
perf_3	0,31	0,38	1,00	0,41	0,42
perf_4	0,41	0,32	0,41	1,00	0,77
perf_5	0,45	0,52	0,42	0,77	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,69	0,43	0,64	0,53	0,49	0,46	0,21
qual_2	0,69	1,00	0,38	0,70	0,46	0,68	0,63	0,40
qual_3	0,43	0,38	1,00	0,70	0,33	0,70	0,53	0,57
qual_4	0,64	0,70	0,70	1,00	0,44	0,75	0,65	0,48
qual_5	0,53	0,46	0,33	0,44	1,00	0,23	0,32	0,56
qual_6	0,49	0,68	0,70	0,75	0,23	1,00	0,76	0,44
qual_7	0,46	0,63	0,53	0,65	0,32	0,76	1,00	0,43
qual_8	0,21	0,40	0,57	0,48	0,56	0,44	0,43	1,00

Ford

	attr_1	attr_2	attr_3
attr_1	1,00	0,32	0,27
attr_2	0,32	1,00	0,27
attr_3	0,27	0,27	1,00

	csr_1	csr_2	csr_3	csr_4	csr_5
csr_1	1,00	-0,11	0,24	0,31	0,39
csr_2	-0,11	1,00	0,16	0,04	0,30
csr_3	0,24	0,16	1,00	0,12	0,27
csr_4	0,31	0,04	0,12	1,00	0,60
csr_5	0,39	0,30	0,27	0,60	1,00

	perf_1	perf_2	perf_3	perf_4	perf_5
perf_1	1,00	0,54	0,45	0,40	0,32
perf_2	0,54	1,00	0,33	0,48	0,42
perf_3	0,45	0,33	1,00	0,67	0,63
perf_4	0,40	0,48	0,67	1,00	0,46
perf_5	0,32	0,42	0,63	0,46	1,00

	qual_1	qual_2	qual_3	qual_4	qual_5	qual_6	qual_7	qual_8
qual_1	1,00	0,78	0,51	0,31	0,51	0,55	0,26	0,41
qual_2	0,78	1,00	0,71	0,52	0,61	0,66	0,32	0,42
qual_3	0,51	0,71	1,00	0,71	0,51	0,52	0,64	0,59
qual_4	0,31	0,52	0,71	1,00	0,62	0,49	0,55	0,49
qual_5	0,51	0,61	0,51	0,62	1,00	0,40	0,30	0,36
qual_6	0,55	0,66	0,52	0,49	0,40	1,00	0,26	0,27
qual_7	0,26	0,32	0,64	0,55	0,30	0,26	1,00	0,68
qual_8	0,41	0,42	0,59	0,49	0,36	0,27	0,68	1,00

Source: Own representation based on SmartPLS data

Appendix 4: Evaluation of Volkswagen's CSR commitment by geographic origin

❖ Environmenal commitment of Volkswagen

➢ Asian respondents

Q22.(16/27) [Company] is committed to protect the environment.				
22(c) : (16/27) [Company] is committed to protect the environment.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	6	3	12.00%	
2	9	3	18.00%	
3	17	3	34.00%	
4	10	3	20.00%	
5 (totally agree)	8	3	16.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	50			20% 40% 60% 80% 100%

Ø 3.10

➢ German respondents

Q22.(16/27) [Company] is committed to protect the environment.				
22(c) : (16/27) [Company] is committed to protect the environment.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	24	3	28.92%	
2	30	3	36.14%	
3	17	3	20.48%	
4	10	3	12.05%	
5 (totally agree)	2	3	2.41%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 2.23

➢ US American respondents

Q22.(16/27) [Company] is committed to protect the environment.				
22(c) : (16/27) [Company] is committed to protect the environment.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	11	3	29.73%	
2	4	3	10.81%	
3	11	3	29.73%	
4	8	3	21.62%	
5 (totally agree)	3	3	8.11%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	37			20% 40% 60% 80% 100%

Ø 2.67

Source: Sogo Survey Report

❖ Fair behavior of Volkswagen

➢ Asian respondents

Q7.(1/27) I believe [Company] is behaving fairly.				
7(c) : (1/27) I believe [Company] is behaving fairly.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	3	3	6.00%	
2	10	3	20.00%	
3	12	3	24.00%	
4	14	3	28.00%	
5 (totally agree)	11	3	22.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	50			20% 40% 60% 80% 100%

Ø 3.40

➢ German respondents

Q7.(1/27) I believe [Company] is behaving fairly.				
7(c) : (1/27) I believe [Company] is behaving fairly.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	25	3	30.12%	
2	27	3	32.53%	
3	19	3	22.89%	
4	11	3	13.25%	
5 (totally agree)	1	3	1.20%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 2.23

➢ US American respondents

Q7.(1/27) I believe [Company] is behaving fairly.				
7(c) : (1/27) I believe [Company] is behaving fairly.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	5	3	13.51%	
2	8	3	21.62%	
3	12	3	32.43%	
4	5	3	13.51%	
5 (totally agree)	7	3	18.92%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	37			20% 40% 60% 80% 100%

Ø 3.03

Source: Sogo Survey Report

❖ Trustworthiness of Volkswagen

➢ Asian respondents

Q11.(5/27) [Company] is trustworthy.				
11(c) : (5/27) [Company] is trustworthy.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	4	3	8.00%	
2	5	3	10.00%	
3	12	3	24.00%	
4	20	3	40.00%	
5 (totally agree)	9	3	18.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	50			20% 40% 60% 80% 100%

Ø 3.50

➢ German respondents

Q11.(5/27) [Company] is trustworthy.				
11(c) : (5/27) [Company] is trustworthy.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	22	3	26.51%	
2	25	3	30.12%	
3	21	3	25.30%	
4	9	3	10.84%	
5 (totally agree)	6	3	7.23%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 2.42

➢ US American respondents

Q11.(5/27) [Company] is trustworthy.				
11(c) : (5/27) [Company] is trustworthy.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	7	3	18.92%	
2	7	3	18.92%	
3	8	3	21.62%	
4	8	3	21.62%	
5 (totally agree)	7	3	18.92%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	37			20% 40% 60% 80% 100%

Ø 3.02

Source: Sogo Survey Report

❖ Socially responsible behavior of Volkswagen

➢ Asian respondents

Q17.(11/27) [Company] acts socially responsible.				
17(c) : (11/27) [Company] acts socially responsible.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	4	3	8.00%	
2	4	3	8.00%	
3	22	3	44.00%	
4	11	3	22.00%	
5 (totally agree)	9	3	18.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	50			20% 40% 60% 80% 100%

Ø 3.34

➢ German respondents

Q17.(11/27) [Company] acts socially responsible.				
17(c) : (11/27) [Company] acts socially responsible.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	22	3	26.51%	
2	26	3	31.33%	
3	21	3	25.30%	
4	12	3	14.46%	
5 (totally agree)	2	3	2.41%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 2.35

➢ US American respondents

Q17.(11/27) [Company] acts socially responsible.				
17(c) : (11/27) [Company] acts socially responsible.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	8	3	21.62%	
2	5	3	13.51%	
3	12	3	32.43%	
4	7	3	18.92%	
5 (totally agree)	5	3	13.51%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	37			20% 40% 60% 80% 100%

Ø 2.89

Source: Sogo Survey Report

❖ Provision of accurate and truthful information

➢ Asian respondents

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(c) : (21/27) I believe that [Company] provides accurate and truthful information.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	3	3	6.00%	
2	7	3	14.00%	
3	13	3	26.00%	
4	19	3	38.00%	
5 (totally agree)	8	3	16.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	50			20% 40% 60% 80% 100%

Ø 3.44

➢ German respondents

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(c) : (21/27) I believe that [Company] provides accurate and truthful information.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	32	3	38.55%	
2	29	3	34.94%	
3	14	3	16.87%	
4	7	3	8.43%	
5 (totally agree)	1	3	1.20%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 1.99

➢ US Americans

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(c) : (21/27) I believe that [Company] provides accurate and truthful information.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	10	3	27.03%	
2	7	3	18.92%	
3	10	3	27.03%	
4	6	3	16.22%	
5 (totally agree)	4	3	10.81%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	37			20% 40% 60% 80% 100%

Ø 2.65

Source: Sogo Survey Report

Appendix 5: Evaluation of survey questions relevant for the Toyota scandal by scandal awareness

❖ Profit focus of Toyota

→ Respondents who had heard of the Toyota scandal

Q12.(6/27) I think [Company] is not only focused on generating profits.				
12(a) : (6/27) I think [Company] is not only focused on generating profits.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	23	3	26.44%	
2	8	3	9.20%	
3	21	3	24.14%	
4	18	3	20.69%	
5 (totally agree)	17	3	19.54%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	87			20% 40% 60% 80% 100%

Ø 2.98

→ Respondents who had not heard of the Toyota scandal

Q12.(6/27) I think [Company] is not only focused on generating profits.				
12(a) : (6/27) I think [Company] is not only focused on generating profits.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	16	3	19.28%	
2	19	3	22.89%	
3	23	3	27.71%	
4	13	3	15.66%	
5 (totally agree)	12	3	14.46%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 2,83

❖ Product quality of Toyota

→ Respondents who had heard of the Toyota scandal

Q16.(10/27) The products from [Company] are of good quality.				
16(a) : (10/27) The products from [Company] are of good quality.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	2	3	2.30%	
2	7	3	8.05%	
3	14	3	16.09%	
4	37	3	42.53%	
5 (totally agree)	27	3	31.03%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	87			20% 40% 60% 80% 100%

Ø 3.92

→ Respondents who had not heard of the Toyota scandal

Q16.(10/27) The products from [Company] are of good quality.				
16(a) : (10/27) The products from [Company] are of good quality.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	4	3	4.82%	
2	10	3	12.05%	
3	21	3	25.30%	
4	25	3	30.12%	
5 (totally agree)	23	3	27.71%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 3.64

❖ **Accurate and truthful information provided by Toyota**

→ Respondents who had heard of the Toyota scandal

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(a) : (21/27) I believe that [Company] provides accurate and truthful information.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	6	3	6.90%	
2	13	3	14.94%	
3	23	3	26.44%	
4	34	3	39.08%	
5 (totally agree)	11	3	12.64%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	87			20% 40% 60% 80% 100%

Ø 3.36

→ Respondents who had not heard of the Toyota scandal

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(a) : (21/27) I believe that [Company] provides accurate and truthful information.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	1	3	1.20%	
2	10	3	12.05%	
3	35	3	42.17%	
4	24	3	28.92%	
5 (totally agree)	13	3	15.66%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 3.30

❖ **Perceived risk exposure when buying a Toyota product**

→ Respondents who had heard of the Toyota scandal

Q30.(24/27) When buying a product from [Company], I am exposed to low risk.				
30(a) : (24/27) When buying a product from [Company], I am exposed to low risk.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	4	3	4.60%	
2	6	3	6.90%	
3	20	3	22.99%	
4	35	3	40.23%	
5 (totally agree)	22	3	25.29%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	87			20% 40% 60% 80% 100%

Ø 3.75

→ Respondents who had not heard of the Toyota scandal

Q30.(24/27) When buying a product from [Company], I am exposed to low risk.				
30(a) : (24/27) When buying a product from [Company], I am exposed to low risk.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	6	3	7.23%	
2	10	3	12.05%	
3	19	3	22.89%	
4	34	3	40.96%	
5 (totally agree)	14	3	16.87%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 3.48

❖ **Reliability of Toyota products**

→ Respondents who had heard of the Toyota scandal

Q31.(25/27) I believe [Company] and its products are reliable.				
31(a) : (25/27) I believe [Company] and its products are reliable.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	1	3	1.15%	
2	8	3	9.20%	
3	22	3	25.29%	
4	27	3	31.03%	
5 (totally agree)	29	3	33.33%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	87			20% 40% 60% 80% 100%

Ø 3.86

→ Respondents who had not heard of the Toyota scandal

Q31.(25/27) I believe [Company] and its products are reliable.				
31(a) : (25/27) I believe [Company] and its products are reliable.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	2	3	2.41%	
2	5	3	6.02%	
3	26	3	31.33%	
4	31	3	37.35%	
5 (totally agree)	19	3	22.89%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	83			20% 40% 60% 80% 100%

Ø 3.72

Source: Sogo Survey Report

❖ **Perceived product quality of Toyota as compared to its competitors**

➢ Toyota

Q16.(10/27) The products from [Company] are of good quality.				
16(a) : (10/27) The products from [Company] are of good quality.: Toyota				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	6	3	3.53%	
2	17	3	10.00%	
3	35	3	20.59%	
4	62	3	36.47%	
5 (totally agree)	50	3	29.41%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**170**			20% 40% 60% 80% 100%

Ø 3.78

➢ Ford

Q16.(10/27) The products from [Company] are of good quality.				
16(b) : (10/27) The products from [Company] are of good quality.: Ford				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	11	3	6.47%	
2	33	3	19.41%	
3	57	3	33.53%	
4	47	3	27.65%	
5 (totally agree)	22	3	12.94%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**170**			20% 40% 60% 80% 100%

Ø 3.21

➢ Volkswagen

Q16.(10/27) The products from [Company] are of good quality.				
16(c) : (10/27) The products from [Company] are of good quality.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	9	3	5.29%	
2	14	3	8.24%	
3	31	3	18.24%	
4	68	3	40.00%	
5 (totally agree)	48	3	28.24%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**170**			20% 40% 60% 80% 100%

Ø 3.78

Source: Sogo Survey Report

Appendix 6: Evaluation of survey questions relevant for the Volkswagen scandal by scandal awareness

❖ Fair behavior of VW

→Participants who heard of the Volkswagen scandal

Q7.(1/27) I believe [Company] is behaving fairly.				
7(c) : (1/27) I believe [Company] is behaving fairly.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	32	3	22.54%	
2	44	3	30.99%	
3	35	3	24.65%	
4	21	3	14.79%	
5 (totally agree)	10	3	7.04%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.53

→ Participants who had not heard of the Volkswagen scandal

Q7.(1/27) I believe [Company] is behaving fairly.				
7(c) : (1/27) I believe [Company] is behaving fairly.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	1	3	3.57%	
2	1	3	3.57%	
3	8	3	28.57%	
4	9	3	32.14%	
5 (totally agree)	9	3	32.14%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.86

❖ Trustworthiness of VW

→ Participants who heard of the Volkswagen scandal

Q11.(5/27) [Company] is trustworthy.				
11(c) : (5/27) [Company] is trustworthy.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	33	3	23.24%	
2	36	3	25.35%	
3	33	3	23.24%	
4	27	3	19.01%	
5 (totally agree)	13	3	9.15%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.65

→ Participants who had not heard of the Volkswagen scandal

Q11.(5/27) [Company] is trustworthy.				
11(c) : (5/27) [Company] is trustworthy.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	8	3	28.57%	
4	10	3	35.71%	
5 (totally agree)	9	3	32.14%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.96

❖ **Profit-thinking of VW**

→ Participants who heard of the Volkswagen scandal

Q12.(6/27) I think [Company] is not only focused on generating profits.				
12(c) : (6/27) I think [Company] is not only focused on generating profits.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	52	3	36.62%	
2	24	3	16.90%	
3	32	3	22.54%	
4	20	3	14.08%	
5 (totally agree)	14	3	9.86%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.44

→ Participants who had not heard of the Volkswagen scandal

Q12.(6/27) I think [Company] is not only focused on generating profits.				
12(c) : (6/27) I think [Company] is not only focused on generating profits.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	3	3	10.71%	
2	2	3	7.14%	
3	10	3	35.71%	
4	10	3	35.71%	
5 (totally agree)	3	3	10.71%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.29

❖ **Social responsibility of VW**

→ Participants who heard of the Volkswagen scandal

Q17.(11/27) [Company] acts socially responsible.				
17(c) : (11/27) [Company] acts socially responsible.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	33	3	23.24%	
2	34	3	23.94%	
3	44	3	30.99%	
4	19	3	13.38%	
5 (totally agree)	12	3	8.45%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.60

→ Participants who had not heard of the Volkswagen scandal

Q17.(11/27) [Company] acts socially responsible.				
17(c) : (11/27) [Company] acts socially responsible.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	1	3	3.57%	
2	1	3	3.57%	
3	11	3	39.29%	
4	11	3	39.29%	
5 (totally agree)	4	3	14.29%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.57

❖ **Likeability of VW**

→ Participants who heard of the Volkswagen scandal

Q18.(12/27) To me, [Company] seems likeable.				
18(c) : (12/27) To me, [Company] seems likeable.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	17	3	11.97%	
2	21	3	14.79%	
3	37	3	26.06%	
4	48	3	33.80%	
5 (totally agree)	19	3	13.38%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 3.22

→ Participants who had not heard of the Volkswagen scandal

Q18.(12/27) To me, [Company] seems likeable.				
18(c) : (12/27) To me, [Company] seems likeable.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	7	3	25.00%	
4	11	3	39.29%	
5 (totally agree)	9	3	32.14%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 4.00

❖ **Image of the company (VW)**

→ Participants who heard of the Volkswagen scandal

Q20.(14/27) I like the image of [Company].				
20(c) : (14/27) I like the image of [Company].: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	27	3	19.01%	
2	21	3	14.79%	
3	42	3	29.58%	
4	32	3	22.54%	
5 (totally agree)	20	3	14.08%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.98

→ Participants who had not heard of the Volkswagen scandal

Q20.(14/27) I like the image of [Company].				
20(c) : (14/27) I like the image of [Company].: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	0	3	0%	
3	7	3	25.00%	
4	12	3	42.86%	
5 (totally agree)	9	3	32.14%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 4.07

❖ **Commitment to protect environment of VW**

→ Participants who heard of the Volkswagen scandal

Q22.(16/27) [Company] is committed to protect the environment.				
22(c) : (16/27) [Company] is committed to protect the environment.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	41	3	28.87%	
2	42	3	29.58%	
3	34	3	23.94%	
4	16	3	11.27%	
5 (totally agree)	9	3	6.34%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.37

→ Participants who had not heard of the Volkswagen scandal

Q22.(16/27) [Company] is committed to protect the environment.				
22(c) : (16/27) [Company] is committed to protect the environment.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	11	3	39.29%	
4	12	3	42.86%	
5 (totally agree)	4	3	14.29%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.68

❖ **Clear vision of VW**

→ Participants who heard of the Volkswagen scandal

Q24.(18/27) It seems like [Company] has a clear vision.				
24(c) : (18/27) It seems like [Company] has a clear vision.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	15	3	10.56%	
2	23	3	16.20%	
3	47	3	33.10%	
4	35	3	24.65%	
5 (totally agree)	22	3	15.49%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 3.18

→ Participants who had not heard of the Volkswagen scandal

Q24.(18/27) It seems like [Company] has a clear vision.				
24(c) : (18/27) It seems like [Company] has a clear vision.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	12	3	42.86%	
4	9	3	32.14%	
5 (totally agree)	6	3	21.43%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.71

❖ **Truthful information from part of VW**

→ Participants who heard of the Volkswagen scandal

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(c) : (21/27) I believe that [Company] provides accurate and truthful information.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	45	3	31.69%	
2	42	3	29.58%	
3	28	3	19.72%	
4	19	3	13.38%	
5 (totally agree)	8	3	5.63%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 2.32

→ Participants who had not heard of the Volkswagen scandal

Q27.(21/27) I believe that [Company] provides accurate and truthful information.				
27(c) : (21/27) I believe that [Company] provides accurate and truthful information.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	9	3	32.14%	
4	13	3	46.43%	
5 (totally agree)	5	3	17.86%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.78

❖ **Risk exposure when buying VW's products**

→ Participants who heard of the Volkswagen scandal

Q30.(24/27) When buying a product from [Company], I am exposed to low risk.				
30(c) : (24/27) When buying a product from [Company], I am exposed to low risk.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	20	3	14.08%	
2	22	3	15.49%	
3	39	3	27.46%	
4	43	3	30.28%	
5 (totally agree)	18	3	12.68%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 3.12

→ Participants who had not heard of the Volkswagen scandal

Q30.(24/27) When buying a product from [Company], I am exposed to low risk.				
30(c) : (24/27) When buying a product from [Company], I am exposed to low risk.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	9	3	32.14%	
4	11	3	39.29%	
5 (totally agree)	7	3	25.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.86

❖ **Product reliability of VW**

→ Participants who heard of the Volkswagen scandal

Q31.(25/27) I believe [Company] and its products are reliable.				
31(c) : (25/27) I believe [Company] and its products are reliable.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	16	3	11.27%	
2	14	3	9.86%	
3	39	3	27.46%	
4	47	3	33.10%	
5 (totally agree)	26	3	18.31%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**142**			20% 40% 60% 80% 100%

Ø 3.37

→ Participants who had not heard of the Volkswagen scandal

Q31.(25/27) I believe [Company] and its products are reliable.				
31(c) : (25/27) I believe [Company] and its products are reliable.: Volkswagen				
Answer	**Responses**	**Value**	**%**	**Percentage of total respondents**
1 (do not agree at all)	0	3	0%	
2	1	3	3.57%	
3	7	3	25.00%	
4	13	3	46.43%	
5 (totally agree)	7	3	25.00%	
(Did not answer)	0	NULL	0%	
Weighted Score : 3.00				
Total Responses	**28**			20% 40% 60% 80% 100%

Ø 3.92

Source: Sogo Survey Report

Appendix 7: Preferred response strategies of survey participants by geographic origin

- **Preferred response strategies by Asians**

Q34. Imagine you were a manager of a company involved in a reputational crisis. Which strategy would you choose for interaction with the public?			
Responses	**Responses**	**%**	**Percentage of total respondents**
Defend the company's reputation and/ or attribute the cause of the crisis to other parties	4	8.00%	
Justify the crisis (e.g. present it as an accident, or caused by a lack of information)	6	12.00%	
Reduce offensiveness (minimize the issue, compensate victims)	11	22.00%	
Implement corrective measures to prevent future incidents	15	30.00%	
Apologize publicly and admit responsibility	14	28.00%	
(Did not answer)	0	0%	
Total Responses	**50**		20% 40% 60% 80% 100%

Q35. Imagine now, you were a consumer of a company involved in a reputational crisis. Which behavior from part of the company would you perceive as adequate?			
Responses	**Responses**	**%**	**Percentage of total respondents**
Defend the company's reputation and/ or attribute the cause of the crisis to other parties	1	2.00%	
Justify the crisis (e.g. present it as an accident, or caused by a lack of information)	8	16.00%	
Reduce offensiveness (minimize the issue, compensate victims)	12	24.00%	
Implement corrective measures to prevent future incidents	16	32.00%	
Apologize publicly and admit responsibility	13	26.00%	
(Did not answer)	0	0%	
Total Responses	**50**		20% 40% 60% 80% 100%

Q36. A scandal-hit company decides to apologize publicly. What would you perceive as more authentic/ adequate?):			
Responses	**Responses**	**%**	**Percentage of total respondents**
A global message from the company's CEO in English	27	54.00%	
A message from a local manager in the your country's national language	23	46.00%	
(Did not answer)	0	0%	
Total Responses	**50**		20% 40% 60% 80% 100%

Source: Sogo Survey Report

- **Preferred response strategies by Germans**

Q34. Imagine you were a manager of a company involved in a reputational crisis. Which strategy would you choose for interaction with the public?			
Responses	**Responses**	**%**	**Percentage of total respondents**
Defend the company's reputation and/ or attribute the cause of the crisis to other parties	4	4.82%	
Justify the crisis (e.g. present it as an accident, or caused by a lack of information)	7	8.43%	
Reduce offensiveness (minimize the issue, compensate victims)	10	12.05%	
Implement corrective measures to prevent future incidents	36	43.37%	
Apologize publicly and admit responsibility	26	31.33%	
(Did not answer)	0	0%	
Total Responses	**83**		20% 40% 60% 80% 100%

Q35. Imagine now, you were a consumer of a company involved in a reputational crisis. Which behavior from part of the company would you perceive as adequate?			
Responses	**Responses**	**%**	**Percentage of total respondents**
Defend the company's reputation and/ or attribute the cause of the crisis to other parties	4	4.82%	
Justify the crisis (e.g. present it as an accident, or caused by a lack of information)	4	4.82%	
Reduce offensiveness (minimize the issue, compensate victims)	20	24.10%	
Implement corrective measures to prevent future incidents	28	33.73%	
Apologize publicly and admit responsibility	27	32.53%	
(Did not answer)	0	0%	
Total Responses	**83**		20% 40% 60% 80% 100%

Q36. A scandal-hit company decides to apologize publicly. What would you perceive as more authentic/ adequate?):			
Responses	**Responses**	**%**	**Percentage of total respondents**
A global message from the company's CEO in English	39	46.99%	
A message from a local manager in the your country's national language	44	53.01%	
(Did not answer)	0	0%	
Total Responses	**83**		20% 40% 60% 80% 100%

Source: Sogo Survey Report

- **Preferred response strategies by US Americans**

Q34. Imagine you were a manager of a company involved in a reputational crisis. Which strategy would you choose for interaction with the public?			
Responses	**Responses**	**%**	**Percentage of total respondents**
Defend the company's reputation and/ or attribute the cause of the crisis to other parties	5	13.51%	
Justify the crisis (e.g. present it as an accident, or caused by a lack of information)	3	8.11%	
Reduce offensiveness (minimize the issue, compensate victims)	2	5.41%	
Implement corrective measures to prevent future incidents	17	45.95%	
Apologize publicly and admit responsibility	10	27.03%	
(Did not answer)	0	0%	
Total Responses	**37**		20% 40% 60% 80% 100%

Q35. Imagine now, you were a consumer of a company involved in a reputational crisis. Which behavior from part of the company would you perceive as adequate?			
Responses	**Responses**	**%**	**Percentage of total respondents**
Defend the company's reputation and/ or attribute the cause of the crisis to other parties	3	8.11%	
Justify the crisis (e.g. present it as an accident, or caused by a lack of information)	2	5.41%	
Reduce offensiveness (minimize the issue, compensate victims)	11	29.73%	
Implement corrective measures to prevent future incidents	16	43.24%	
Apologize publicly and admit responsibility	5	13.51%	
(Did not answer)	0	0%	
Total Responses	**37**		20% 40% 60% 80% 100%

Q36. A scandal-hit company decides to apologize publicly. What would you perceive as more authentic/ adequate?):			
Responses	**Responses**	**%**	**Percentage of total respondents**
A global message from the company's CEO in English	20	54.05%	
A message from a local manager in the your country's national language	17	45.95%	
(Did not answer)	0	0%	
Total Responses	**37**		20% 40% 60% 80% 100%

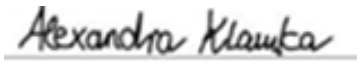
Source: Sogo Survey Report

Declaration of Authorship

We declare that we have according to the regulations independently authored the present Master Thesis with the title "*Reputation Management in the Automotive Industry: The Impact of Scandals on Customer Perceptions and Adequate Corporate Response Strategies by Consideration of Cultural and National Differences*".

This paper was written within the scope of the academic program M.Sc. International Business at Copenhagen Business School. We have not used other than the declared sources or resources, and we have explicitly marked all material which has been quoted either literally or by content from the used sources.

Copenhagen, May 10, 2018



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