CORPORATE REPUTATION, AFFECT, AND TRUSTWORTHINESS: AN EXPLANATION FOR THE REPUTATION-PERFORMANCE RELATIONSHIP

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ABSTRACT

The present paper presents the results of a research oriented to provide a micro-foundational explanation for the corporate reputation-corporate performance relationship. Two models including corporate reputation, corporate trustworthiness and corporate affect are tested using structural equations models. Additionally, we discuss possible sources of common method biases in corporate reputation research, and we control for this biases using a common method variance factor. The results of these analysis show that corporate affect is more important than corporate reputation in determining corporate trustworthiness. Moreover, affect also seems to have effect on the perceptions about the company products and services.

INTRODUCTION

Corporate reputation research and reputation literature has been increasingly capturing the attention of academicians in the fields of strategy, economics and management. Since the early recognition of reputation as a strategic asset which can generate future rents (Wilson, 1985), and the fact that corporate audiences routinely rely on the reputations of firms in making investment decisions, career decisions, and product choices (Dowling, 1986), research on this topic has been prosperous.

One of the most studied areas of corporate reputation is the reputation-performance relationship, particularly on the influence of corporate reputation on financial performance (e.g. Roberts and Dowling, 1997, 2002; Carmeli and Tisher, 2005; Srivastava et al., 1997; Deephouse, 1997; Fombrun and Shanley, 1990). While the results of these studies had shown a positive influence of corporate reputation on financial performance, doubts about the validity of these results and of the underlying theoretical framework have been raised (Fryxell and Wang, 1994; Sabate and Puente, 2003).

In this paper, building upon the resource based view of the firm (Barney, 1991; Peteraf, 1993) and in the stakeholder theory (Freeman, 1984), we propose a micro-foundational explanation for the reputation-performance relationship. This explanation argues that corporate reputation is a strategic asset because generates trustworthiness from the part of stakeholders, and therefore influences positively corporate business performance.

In order to test this argument, we develop and test two models to explain the relationship between corporate reputation, corporate affect and corporate trustworthiness. These rival models are based in two streams of the behavioral literature, which differ in terms of the role assigned to emotions as part of the behavioral process.

Finally, we discuss and apply a solution for some problems related with the validity of corporate reputation research, especially those related with relevant methodological issues as common method biases. Our purpose in doing this is not only to provide a description of these problems, but also to

show how larger this bias could be, alerting academic researches about its implications in empirical research.

THEORETICAL BACKGROUND

The Concept of Corporate Reputation

The concept of corporate reputation has been studied extensively by game theorists (Shapiro, 1983; Wilson, 1985; Kreps and Wilson, 1982; Milgrom and Roberts, 1982, 1986) and strategy scholars (Weigelt and Camerer, 1988; Fombrum and Shanley, 1990; Shamsie, 2003).

In economics, corporate reputation has been defined as a set of attributes ascribed to a firm, inferred from the firms past actions (Weigelt and Camerer, 1988). From a more managerial perspective, Herbig and Milewicz (1995, p. 5) define reputation as "an estimation of the consistency over time of an attribute of an entity", and highlight the fact that a firm can have numerous reputations – one for each attribute such as price, product quality, innovativeness, management quality – or a global reputation.

The development of reputation research is based on the vision of a world of imperfect information in which actors rely on proxies or signals to make rational assumptions about the intentions and future behaviors of other actors (Fombrun and Shanley, 1990). Thus, reputation models presume a tight coupling between past actions and future expectations, and organizational attributes and the evaluation of organizations (Weigelt and Camerer, 1988).

The Reputation-Performance Link

Several authors have argued that good corporate reputations have strategic value for the firms that possess them (Dierickx and Cool, 1989; Rumelt, 1987; Weigelt and Camerer, 1988; Roberts and Dowling, 2002; Dowling, 2004; Aqueveque, 2005). Many studies have been conducted with the aim to check the veracity of the reputation-performance argument, focused mainly on the relationship between corporate reputation and financial performance (for a review, see Sabate and Puente, 2003), and specially on the influence of corporate reputation on financial performance (e.g.

Roberts and Dowling, 1997, 2002; Carmeli and Tisher, 2005; Srivastava et al., 1997; Deephouse, 1997; Fombrun and Shanley, 1990). While the results of these studies had shown a positive influence of corporate reputation on financial performance, several doubts about the validity of these results and of the underlying theoretical framework has been raised (Fryxell and Wang, 1994; Sabate and Puente, 2003).

Considering the validity issue, it has been criticized that most of the empirical studies analyzing the relationship between corporate reputation and financial performance used data form the *Fortune* Magazine's corporate reputation survey. The validity of results using *Fortune* Magazine's corporate reputation index has been criticized for several reasons. First, since the early development of the *Fortune* study, the index was not intended for scientific research (Deephouse, 2000). Second, the survey is limited to certain constituencies without taking into consideration other stakeholders' opinions (Fombrum, 1996; Fryxell and Wang, 1994, Wood, 1995). Finally, evidence of financial bias of the valuations published in *Fortune* (Fryxell and Wang, 1994; Brown and Perry, 1994) has shed shadows over the results of previous studies, suggesting the possibility of artificial relationships between corporate reputation or corporate social responsibility measures and financial performance.

With regard to the theoretical perspective, it is possible to affirm that an adequate theoretical background linking reputation as a global property of the organization (e.g. reflecting widespread opinions, prominent representations, etc.) to micro-behavior (i.e. individual decisions) is still missing. While corporate reputation has been argued to have beneficial consequences for firms such as intention to purchase a service (Yoon et al., 1993), the attitude of buyers to salespersons and products in the organization buying situation (Brown, 1995), the perceived quality and to deterring competitor entry when a though stance is adopted (Weigelt and Camerer, 1988), contributing to performance differences between firms (Rao, 1994), attracting investors, lower cost of capital and enhancing competitive ability of firms (Fombrum and Shanley, 1990), and to enabling strong

organization identification by employees and "inter-organizational cooperation or citizenship behavior" (Dutton et al., 1994), the underlying processes that link corporate reputation with performance seem to need further conceptual development and empirical investigation. A possible answer for this missing point has been proposed by the supporters of the resource based view of the company.

Resource Based View, Stakeholder Theory and Corporate Reputation
Several authors have argued that good corporate reputations have strategic value for the firms that possess them (Dierickx and Cool, 1989; Rumelt, 1987; Weigelt and Camerer, 1988; Roberts and Dowling, 2002; Dowling, 2004; Aqueveque, 2005). This argument is supported by the resource-based view of the firm, which argues that firms with assets that are valuable and rare possess a competitive advantage and may expect to earn superior returns. Those firms whose assets are also difficult to imitate may achieve sustained superior financial performance (Barney, 1991; Grant, 1991). In this line of thinking, has been argued that intangible resources are very important for achieving a competitive advantage (Ambrosini and Bowman, 2001) because they are valuable, rare, difficult or costly to imitate, substitute and transfer (Barney, 1991; Dierickx and Cool, 1989, Peteraf, 1993).

Corporate reputation has been recognized as an intangible resource, because represents an overall assessment of the firm's current assets, position, and expected future performance (Teece et al., 1997). As Roberts and Dowling (2002) argue "intangible assets – such as good reputations – are critical because of their potential for value, but also because their intangible character makes replication by competing firms considerably more difficult" (p. 1077). In general, it is possible to argue that the intangible nature of reputation, its rareness and social complexity, makes it difficult to trade and imitate, and as a result reputation can contribute significantly to performance differences among organizations (Barney, 1991, Peteraf, 1993). Therefore, reputational advantages that stem from informational asymmetries can provide firms with a valuable resource that they can use against their rivals for a relatively long period of time (Shamsie, 2003).

One possible justification that has been proposed to explain the strategic value of reputation is related with the concept of corporate trustworthiness (Aqueveque, 2005). This argument is closely related with the instrumental aspects of stakeholder theory (Freeman, 1984). Following the proposition that corporations practicing stakeholder management will, all things being equal, be relatively successful in conventional performance terms, Jones (1995) makes a theoretical case for the general proposition that if firms contract (through their managers) with their stakeholders on the basis of mutual trust and cooperation, they will have a competitive advantage. In practice, corporate trustworthiness may increase the set of exchange opportunities available to a firm, compared to firms that are less trustworthy (Zajac and Olsen, 1993; Ring and Van de Ven, 1994, Barney and Hansen, 1994). Since trustworthiness and the organizational attributes that create trustworthiness are difficult to observe directly (Barney and Hansen, 1994), the identification of trustworthy partners is difficult. Spence (1973) suggested that one possible way to identify trustworthy partners can be through the use of signals of trustworthiness. Many authors consider corporate reputation as an important signal. According to this argument, reputation is an informative signal (Akerlof, 1970) and also a contract guarantor (Cornell and Shapiro, 1987) assuming an important role when there is uncertainty about the underlying quality of a firm's offering (Roberts and Dowling, 2002). Fombrun and Shanley (1990) argued that firms are involved in a competitive market for reputational status in which, because of informational asymmetries, firms signal their key characteristics to constituents.

Corporate Trustworthiness

Trustworthiness, and specifically corporate trustworthiness, is important in the management field because has been recognized as a possible source of competitive advantage (Barney and Hansen, 1994). The relevance of the concept of trustworthiness is closely related with the development of trust and trusting behavior literature. Trusting behavior implies allowing oneself to be in a potentially vulnerable position relative to another, while possessing some knowledge of the other that inspires trust in his goodwill, i.e. in his good intentions (Blomqvist, 1997). Thus risk and some information about the potentially trusted person or situation are seen as necessary conditions for

trust to exist (Lewis and Weigert, 1985; Oakes, 1990). Good (1988) suggested that trust is based on expectations of how another person will behave, based on that person's current and previous implicit and explicit claims. In a similar position, Mayer *et al.* (1995) suggested that the amount of trust that a given party will have for another party can be determinate by some attributes of the trustee. Therefore, trustworthiness is related with the attributes of the trustee, and the assumption of different scholars (Good, 1988; Johnson-George & Swap, 1982) is that characteristics and actions of the trustee will lead that person to be more or less trusted. According to this, trust is partially a product of one's capacity to assess the trustworthiness of one's potential partner (Sheppard and Sherman, 1998). Barney and Hansen (1994) explicitly differentiate between trust and trustworthiness pointing that "while trust is an attribute of a relationship between exchange partners, trustworthiness is an attribute of individual exchange partners". Therefore, we consider corporate trustworthiness as the general belief about how trustable is the corporation, expressed in terms of trust intentions.

Corporate Affect

The term affect has been rather broadly used in marketing, with different researchers often using different terminology. Today, affect is usually defined as a "valenced feeling state" (Cohen and Areni, 1991), with mood and emotions as specific examples. Moreover, affect is distinguished from attitude in that attitude is an evaluative judgment (Ervelles, 1998). While this definition considers affect as an umbrella for a set of specific mental processes (Bagozzi et al, 1999), we will use the term affect, and specifically corporate affect, as the general feeling towards the company. Since affect has been proved to influence on all aspects of cognition and behavior including attitude and persuasion (e.g. Cheng and Bargh, 1998), reasoning and decision making (e.g. Schwarz and Clore, 1996), and evaluative judgments (Pham et al, 2001), we consider corporate affect as an important piece to be considered in explaining the relationship between corporate reputation and corporate trustworthiness.

The Common Method Bias (CMB) or "Halo Effect" Problem

Most academicians in the behavioral research stream agree that common method variance (i.e. variance that is attributable to the measurement method rather than to the constructs the measures represents) is a potential problem in behavioral research (for an extensive review, see Podsakoff et al, 2003). According to Bagozzi and Yi (1991), the term method refers to "the form of measurement at different levels of abstraction, such as the content of specific items, scale type, response format, and the general context. At a more abstract level, method effects might be interpreted in terms of response biases such as halo effects, social desirability, acquiescence, leniency effects, or yea – and nay – saying" (p.426).

Method biases are a problem because they are one of the main sources of measurement error, and particularly, of systematic error. This systematic measurement error is problematic because it provides an alternative explanation for the observed relationships between measures of different constructs that is independent of the one hypothesized, with serious confounding influence on empirical results, and yielding potentially misleading conclusions (Campbell and Fiske, 1959).

According to Posdakoff et al. (2003), method biases are likely to be particularly powerful in studies in which the data for both the predictor and the criterion variable are obtained from the same person in the same measurement context using the same item context and similar item characteristics, conditions that are often present in corporate reputation research, and have been recognized in the corporate reputation literature as "halo effects". As Brown and Perry (1994) noted: "researchers must be cautious when using these large-scale surveys because the characteristics of survey respondents, data-gathering methods, and survey questions may introduce measurement error. If this error is pervasive, coloring many or all of the individual attribute rating of an object ….. a halo is said to exist" (p.1347).

Several authors have shown the existence of a financial halo in the widely used *Fortune* dataset. Using factor analysis, previous studies (Fombrun and Shanley, 1990; Fryxell and Wang, 1994) have found that all eight components of the *Fortune* index were loaded on a single factor, which may be

indicative of a halo effect (Podsakoff et al., 2003). This financial bias of the valuations published in *Fortune* suggests the artificiality of the relationship between corporate reputation and financial performance.

Insert Table 1 About Here

The presence of CMB (or halo effects) in corporate reputation research can be attributed to several reasons, which are resumed in Table 1. First, some method effects result from the fact that the respondent providing the measure of the predictor and the criterion variable is the same person, and are associated with consistency motif, implicit theories and leniency biases. Second, item characteristic effects, as common scale formats and common scale anchors, can also cause common variance. Third, item context effects, as grouping of items or constructs on the questionnaire could origin common variance. Finally, measurement context effects related with the moment, medium and context of measurement of predictor and criterion variables are considered.

While a deep discussion of all these possible sources is out of the scope of this paper, we remark that the sources of CMB – or halo effects – in corporate reputation research are several, enlightening about the importance of diagnostic and control for these effects in the developmental and testing phases of empirically based research.

TWO MODELS TO EXPLAIN THE RELATION BETWEEN CORPORATE REPUTATION, CORPORATE AFFECT AND CORPORATE TRUSTWORTHINESS

In developing a theory to explain the relationship between cognition, attitude, intention and behavior, one widely accepted and used approach has been to postulate that these are sequential stages in the consumer behavior process, arguing that cognition determines affect which, in turn, results in attitudes and behavior (Holbrook and Batra, 1987). According to this approach, a person's attitude toward an object is determined by the subjective values of the object's attributes in interaction with the strength of beliefs associating the object with the attributes (Malhotra, 2005).

Therefore, this approach assumes that attitude and behavior are determined by cognitive processes, arguing that liking an object is a function of perceptions about the object's attributes and the importance of those attributes to individuals (Reibstein, Lovelock and Dobson, 1980).

While the previous mentioned approach has been widely used and has become an established framework for explaining attitude, intention and behavior (Agarwal and Malhotra, 2005), a different stream of research that considers affect (feelings/emotions) as an important and independent explanatory variable for attitude and behavior, had started to gain popularity. This stream suggests that affective responses do not depend on prior cognitions (Zajonc and Markus, 1982; Zanjoc, 1980). According to this stream, affect have influence on all aspects of cognition and behavior including attitude and persuasion (e.g. Cheng and Bargh, 1998), reasoning and decision making (e.g. Schwarz and Clore, 1996), and evaluative judgments (Pham et al, 2001). Therefore, affect is considered a powerful and independent explanatory construct for attitude and behavior.

Finally, and following the perspective of scholars who characterize reputation as a global impression, which represents how a collective (e.g. a stakeholder group) perceive a firm, we will consider Corporate Reputation as a high-order construct. If reputation is defined as the collective impressions of the members of a social group about the general disposition of some particular target entity (Bromley, 1993), it is reasonable to conceive it as a high-order construct, which is composed by different dimensions. Therefore, our conceptualization of corporate reputation posited that the five corporate reputation dimensions (first-order factors) as indicated by their respective measurement items are reflective of the higher level construct, corporate reputation (second-order factor). In structural equation modeling terms, the specific components are represented by latent variables or factors that are modeled or indicated by the scale items used to measure that construct. These are known as first-order latent variables because they are derived from the observed data (Bollen, 1989). The global constructs are higher-order latent variables indicated by first-order latent variables and are therefore one level of abstraction higher than the first-order constructs (Marsh &

Hocevar, 1985). Therefore, in the second-order model, corporate reputation acts as a second order factor (i.e., a more abstract construct that is not directly measured) comprised of the five dimensions of corporate reputation as first order factors.

Based on the two above mentioned approaches, we built two rival models to explain the relationship between corporate reputation, corporate affect, and corporate trustworthiness.

Model 1: Corporate Affect as mediator between Corporate Reputation and Corporate Trustworthiness

Considerable research in the last decades has focused on multiattributes models to analyze consumer decision-making (e.g. Wilkie and Pessemier, 1973; Cohen et al., 1980). This approach assumes that consumers are compulsive processors of information and vigorously analyze various facets before making a decision. These multiattribute models, like the Fishbein and Ajzen's (1975) attitude model, imply that affect is a postinformation processing (postcognitive) outcome, and have been quite robust in predictive ability due to its inherent compensatory processing mechanism, being specially useful in diagnosing brand strengths and weaknesses (Agarwal and Malhotra, 2005). According to these models, a series of cognitive processes, including cognitive retrieval and elaboration, are thought to occur before affective decisions are finally made (Anand et al., 1988). Therefore, they have characterized the process of evaluation as a cold, reasoned assessment and weighting of the component qualities of the target (e.g. Anderson, 1981; Bettman et al. 1998; Fishbein and Ajzen, 1975), arguing that attitude formation can be only cognitive based (Fishbein and Middlestadt, 1995) Following this line of thinking, studies examining the role and relationships of emotions as the mediator of responses to advertising have found that cognition can drive affect, which mediates the relationship between advertising content and the attitude toward the ad or brand (Edell and Burke, 1987; Holbrook and Batra, 1987), and that affect can mediate the impact of attribute perception on behavior (Reibstein et al., 1980). Based on the previous discussion, we propose a model in which corporate reputation has a direct and an affect-mediated effect on corporate trustworthiness, as depicted in figure 1.

Model 2: Corporate Affect and Corporate Reputation as independent sources of Corporate Trustworthiness

While the multiattribute model has been widely accepted and used in marketing research during the last decades, a separate stream of research on affect has become prominent in the recent years. Since the early 80's a group of scholars acknowledged the importance of taking into account the emotional or affective aspects of consumer behavior, arguing that attitude is not necessary formed by the utility paradigm (Zajonc, 1980; Zajonc and Markus, 1982; Hobrook and Hirschman, 1982; Burke and Edell, 1989), and that affective responses do not necessary depend on prior cognitions (Zajonc, 1980; Zajonc and Markus, 1982; Brown and Stayman, 1992). For example, Abelson et al. (1982) found that affect was independent and more important in predicting political preferences than cognitive evaluations, and several studies conducted in the context of advertising and bran attitude demonstrated the importance of feelings and emotions (Aaker et al., 1986; Burke and Edell, 1989; Edell and Burke, 1987). Moreover, emotional reports have been demonstrated to be useful predictors of attitude when compared to traditional measures of cognitive structure (Allen et al., 2005), and affect had demonstrated to influence aspects of cognition and behavior including attitude and persuasion (e.g. Chen and Bargh, 1998) and reasoning and decision making (e.g. Schwarz and Clore, 1996).

In addition, affect has not been only identified as and influent variable on attitudes, but also as an important determinant of judgments and evaluations, with increasing evidence that people also perform evaluations by monitoring their subjective affective responses to the target (e.g. Damasio, 1994; Pham, 1998; Schwarz and Clore, 1996; Wyer, Clore and Isbell, 1999). Recently, Pham et al. (2001) demonstrated that, compared to cold, reason based assessments of the target, the monitoring of feelings provides judgmental responses that are potentially faster, more stable and consistent across individuals, and importantly more predictive of the number and valence of people's thoughts.

Based on the previous arguments, we propose a model in which corporate affect and corporate reputation are independent sources of corporate trustworthiness, with corporate affect also affecting the judgments on corporate reputation dimensions, as depicted in figure 2.

Insert Figure 2 About Here

SAMPLE CHARACTERISTICS AND METHODS

The Italian Reputation Quotient (RQ) Research Project

The RQ Research Project has been described as a global project oriented to construct a database of reputation ratings that can inform research and practice (Gardberg and Fombrun, 2002). This research has been guided by The Reputation Institute and Harris Interactive, and it is based on the work carried out by Professor Charles Fombrun and colleagues (Fombrun, Gardberg and Sever, 2000; Fombrun, 1998; Gardberg and Fombrun, 2002). RQ research evaluates stakeholder perceptions across 20 attributes that are grouped into six dimensions of reputation: Products & Services (4 items), Financial Performance (4 items), Workplace Environment (3 items), Social Responsibility (3 items), Vision & Leadership (3 items), and Emotional Appeal (3 items). In addition to the 20 attributes, the research includes a number of reputation-related questions that help provide a comprehensive understanding of public perceptions. This research has been carried out in more than 10 countries, and has been focused in the opinion of general public. A detailed explanation of the scale, methodology, and procedures can be found in the Reputation Institute website (www.reputationinstitute.com)

In Italy, this research was conducted in 2002, and included the judgments about 21 companies with a total of 2900 telephonic interviews.

Data Selection

A refinement data procedure was conducted with the purpose to restrict the research objectives and allow the application of specific statistical analyzes. First, we restricted our analysis to companies

producing consumption goods or services. Therefore, from the original 21 companies evaluated in the RQ research, only 8 were included. Non selected companies were companies producing industrial or specialty products, and those belonging to the public sector. This first restriction provided us with a total of 2195 cases, with an average of 274 cases for each company (S.D. = 13.8).

Second, respondents with missing values in any of the measures were not included due to restrictions in the estimation processes. While the alternative to deletion is imputation, which could be done using different methods (e.g mean imputation, regression imputation, pattern matching imputation), these procedures had several problems and can strongly affect results of estimation procedures (for a description of these problems, see Byrne, 2001). Therefore, and considering that the amount of data available, we decided to apply a listwise deletion method, meaning that all cases having a missing value for any of the variables in the data are excluded from the computations. This second refinement provided us with a total of 905 valid cases, with an average of 113 cases for each company (S.D. = 14).

Finally, a multivariate normality test was performed to check this property of the data, which is one of the assumptions of most of the estimation procedures frequently used for structural equation models. At this point, is important to briefly discuss the selection of the estimation procedure. The most used estimation function, and default option in some programs, is maximum likelihood (ML). Unweighted least squares (ULS) and generalized least squares (GLS) are also popular. These three estimation functions require multivariate normality, which is very rare property in data sets in the social and behavioral sciences (Miceri, 1989). In the case of ML estimation, violation of multivariate normality inflates the computed chi-square value, leading researchers to think their models were more in need of modification than they actually were. Violation of multivariate normality also tends to deflate standard errors moderately to severely. These smaller-than-they-

should-be standard errors mean that regression paths and factor/error covariances are found to be statistically significant more often than they should be (Byrne, 2001)

To deal with this problem, other estimation functions had been developed, as weighted least squares (WLS) or the derivation of asymptotically distribution-free estimators (Browne, 1984). However, these solutions have not been used frequently because they may need very large samples. For example, Boomsma (2000) notes that if the number of variables is 15 or greater, WLS will require the sample to include several thousands cases.

While multivariate normality is an assumption for ML estimation, recent studies had shown that ML seems to be quite robust against the violation of the normality assumption (cf. Boomsma and Hoogland, 2001; Chou and Bentler, 1995; Curran, West and Finch, 1996; Muthén and Muthén, 2002; West, Finch and Curran, 1995), and that bootstrapping (Efron and Tibshirani, 1993) may be an alternative to evaluate the adequacy of the results (Shipley, 2000; Byrne, 2001).

Based on this evidence, we decided to use a ML estimation function and to perform a bootstrap analysis as a way to estimate the possible biases in the results. To this objective, we decided to remove some outliers to decrease multivariate non-normality to a moderate level. The original Mardia's coefficient for the refined sample (N=905) was 383.7, meaning significant and strong non-normality. We decided to take this value below 100 to obtain a moderate level of non-normality. This threshold is arbitrary and mainly based on the observation of Tabachnick and Fidell (2001) referred to large samples. They cautioned that with large samples, variables with statistically significant skewness and kurtosis often do no deviate enough from normality to make a substantive difference in the analysis, and that departures can be significant with samples larger than 200. Considering our sample size, our objective is not to obtain multivariable normality, but just to reduce in a considerable amount the level of non-normality. Therefore, outliers were removed in groups of 12, with a final sample size of 749 valid cases, with an average of 94 cases for each company (S.D. = 10) and a Mardia's coefficient value of 78.9.

Resuming, the final sample was composed by a total of 749 responses corresponding to judgments of 8 different Italian companies – 4 mass consumption goods companies and 4 mass consumption services companies – were considered in the study. Interviews were conducted by telephone. The average number of judgments per company was 94, with a maximum of 115 and a minimum of 82. Of the entire sample, 51.1% of the respondents were female and 49.9% were male.

Measures

The measures used in the study are draw on the RQ scale developed by Fombrun et al. (2000) and one additional question from the RQ research regarding trust in the company. We used the original items for all the dimensions with exception of Emotional Appeal. This dimension was originally measured with 3 items, measuring the "feeling about the company", "admiration and respect towards the company", and "trust in the company". While the first two items measure emotions towards the company, the third one measures a behavioral intention, and therefore is considered a different construct. This measure of trust was combined with other question included in the RQ questionnaire to measure corporate trustworthiness, while the two original measures of Emotional Appeal were retained and the construct was renamed as Corporate Affect.

Statistical Considerations

All the models (CFA and SEM) described below were run using the AMOS 5 program (Arbuckle, 2003). The goodness-of-fit of the models was assessed with chi-squared tests, the comparative fit index (CFI; Bentler, 1990), the goodness-of-fit index (GFI; Jöreskog and Sörbom, 1989; Tanaka and Huba, 1984), and the root mean square error of approximation (RMSEA; Steiger, 1990). In general, it is possible to say that CFI values higher than 0.97 are indicative of good fit, while CFI values higher than 0.95 may be interpreted as an acceptable fit (Bentler, 1990; Bollen, 1990; Hu and Bentler, 1995, 1998, 1999). Considering the goodness-of-fit index, GFI values higher than 0.95 is indicative of good fit, while values greater than 0.90 are usually interpreted as indicating an acceptable fit (Marsh and Grayson, 1995; Schumacker and Lomax, 1996). For the RMSEA measure, and according to Browne and Cudeck (1993), values below 0.05 can be considered as

good fit, values between 0.05 and 0.08 as an adequate fit, and values between 0.08 and 0.10 as a mediocre fit, whereas values above 0.10 are not acceptable. Finally, is important to note that satisfactory model fit is usually indicated by non-significant chi-square test. This is a very unusual result for large samples, because the chi-square test is affected by sample size, and therefore not too much emphasis should be placed on the significance of the chi-square statistic because is deemed a poor measure of fit when sample size is large (Jöreskog and Sörbom, 1993; Bagozzi and Yi, 1988)

Preliminary Analysis

A set of preliminary analyzes were conducted to check the properties of the data and the measurement model.

First, a confirmatory factor analysis was performed to test the discriminant validity of the original RQ scale. This analysis showed that the correlations between the constructs of Vision and Leadership, Financial Performance, and Work Environment, were not significant different form 1, and therefore that respondents did not discriminate among these constructs. Consequently, and because such a combination is theoretically justifiable (all the items are related with organizational characteristics), these three constructs were treated as a single construct labeled "Organizational Performance". A depuration process was followed, in which the items with loadings to the construct below 0.7 were dropped in order to extract at least 50% of variance in the item. This process resulted in a final measurement model for the "Organizational Performance" construct formed by six items, two from each of the three original constructs.

Second, an exploratory factor analysis was performed to assess the extent to which common method variance may be a problem. This test is called Harman's one-factor (or single-factor) test and consists in loading all the variables in the study into an exploratory factor analysis (cf. Andersson and Bateman, 1997; Aulakh and Gencturk, 2000; Organ and Greene, 1981) and examine the unrotated factor solution to determine the number of factors that are necessary to account for the variance in the variables. The basic assumption of this technique is that if a substantial amount of

common method variance is present, either (a) a single factor will emerge from the factor analysis or (b) one general factor will account for the majority of the covariance among the measures (Podsakoff, 2003). The analysis of our data resulted in a one factor solution, with this factor accounting for 64,3% of the variance. Therefore, we believe that a considerable amount of common method bias is present in the data. To deal with this problem, we follow the recommendation of Podsakoff and colleagues (2003). They suggest that in the circumstance in which the predictor and the criterion variables came from the same source, the measurement context is not separated, and the source of the method bias cannot be identified, which is our case, the best solution is to use a single-common-method-factor approach to statistically control for the method biases. In this method, all the items are allowed to load on their theoretical constructs, as well as on a latent common method variance (CMV) factor. Such a model has been used in a number of studies (e.g., Carlson & Kacmar, 2000; Carlson & Perrewe, 1999; Conger, Kanungo, & Menon, 2000; Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995; MacKenzie, Podsakoff, & Fetter, 1993; MacKenzie, Podsakoff, & Paine, 1999). The main advantages of this method is that it does not require the researcher to identify and measure the specific factor responsible for the method effects, and that models the effect of the method factor on the measures rather than on the latent constructs they represent and does not require the effects of the method factor on each measure to be equal. One of the disadvantages of this method is that if the number of indicators of the constructs is small relative to the number of constructs of interest, the addition of the method factor can cause the model to be underidentified. As a solution to this problem, some researchers have constrained the measurement factor loadings to be equal. In our case, we constrained all but one measure to be equal. While the items that were part of the RQ scale were all measured in a seven-point scale, using not reversed questions, and in the same section of the questionnaire, one item (CT2) is a reversed question, measured in a four-point scale, and asked in a different section of the questionnaire. Therefore, we did not constrain the method effect on this specific item to be equal to the others.

RESULTS

Internal Consistency of the Measurement Model

We used two methods to evaluate internal consistency. The first one, named composite reliability (ρ_ε) is a measure analogous to coefficient α (Bagozzi and Yi, 1988; Fornell and Larcker, 1981). The second method used is the average variance extracted ($\rho_{VC(\xi)}$), which estimates the amount of variance captured by a construct's measure relative to random measurement error (Fornell and Larcker, 1981). Estimates of ρ_ε above 0.60 and $\rho_{VC(\xi)}$ above 0.50 are considered supportive of internal consistency (Bagozzi and Yi, 1988). The ρ_ε and $\rho_{VC(\xi)}$ values for all constructs in the models are provided in Table 2. These were higher than the stipulated criteria, and therefore indicative of good internal consistency.

Insert Table 2 About Here

Discriminant Validity of the Measurement Model

Discriminant validity of the model constructs was evaluated using two different approaches. A confirmatory factor analysis model was built with 5 latent constructs and a total of 17 measures. Results showed that the model fir the data well. The goodness-of-fit statistics for the model were as follows: $\chi^2(108)=318.78$, p≈0.000, RMSEA=0.051, GFI=0.951, CFI=0.981. As a first test of discriminate validity, we checked whether the correlations between the latent constructs showed in Table 3 were significantly less than one. Since none of the confidence intervals for the correlations (± two standard errors) included the value of one (Bagozzi and Yi, 1988), this test provides evidence of discriminant validity.

Insert Table 3 About Here

The second test for discriminant validity considered the comparison, for each pair of factors, of the χ^2-value for a measurement model constraining their correlation to equal one to a baseline measurement model without this constrain. A χ^2-difference test was performed for each pair of factors (a total of 10 tests in all) and in every case resulted in a significant difference (p<0.001 for

all the comparisons), again suggesting that all of the measures of constructs in the measurement model achieve discriminant validity.

Is important to note that high correlation between first-order factors that form the second-order corporate reputation factor (i.e. products and services, organizational performance, and social responsibility) are expected, since they are dimensions of a higher-level construct. Also is important to note that while the high correlation between these and the other first-order factors (i.e. emotional appeal and corporate trustworthiness) is a non-desirable result, they can be explained by the high presence of common method biases.

Models Fit and Model Selection

Table 4 provides the goodness-of-fit statistics for the models and the R^2 values of the endogenous constructs. Considering the fit statistics form table for, the chi-square is significant (p<0.001) for both models, which is usually the case for large sample sizes. All the other statistics are within the "good fit" ranges for both models.

The main criteria to compare the proposed models is the χ^2-difference test. This test is appropriate to compare goodness of fit of nested models as in the present situation. A specific model (Model A) is said to be nested within a less restricted model (Model B) with more parameters and less degrees of freedom than model A, if Model A can be derived from Model B by fixing at least one free parameter in Model B or by introducing other restrictions, e.g., by constraining a free parameter to equal one or more other parameters. In the present research, Model 1 is nested within Model 2 because in Model 1 the three parameters relating Corporate Affect and Corporate Reputation dimensions are restricted to be zero, while the parameter for the relationship between Corporate Reputation and Corporate Affect is freeing, giving a total of two more free parameters and therefore two more degrees of freedom for Model 1.

Insert Table 4 About Here

As the test statistic of each of the nested models follows a χ^2 distribution, the difference in χ^2 values between two nested models is also χ^2 distributed (Steiger, Shapiro and Browne, 1985), and the number of degrees of freedom for the difference is equal to the difference in degrees of freedom for the two models. The difference in model fit can be tested using the χ^2 difference test

$$\chi^2_{\text{diff}}(df_{\text{diff}}) = \chi^2_1(df_1) - \chi^2_2(df_2)$$

where χ^2_1 denotes the χ^2 value of Model 1, a model that is a restricted version of Model 2, χ^2_2 denotes the χ^2 value of Model 2, and $df_{\text{diff}} = df_1 - df_2$.

If the χ^2 difference is significant, the null hypothesis of equal fit for both models is rejected, and the less restricted model (Model 2) should be retained. But if the χ^2 difference is nonsignificant, the null hypothesis of equal fit for both models cannot be rejected and the restricted model (Model 1) should be favored (Bentler, 1990; Bollen, 1989; Jöreskog, 1993). In our particular case, $\chi^2_{\text{diff}} = 9.789$, and $df_{\text{diff}} = 2$, resulting in a significant difference ($p < 0.01$). Therefore, Model 2 is retained.

An examination of the other descriptive goodness-of-fit measures presented in Table 4 confirms the superiority of Model 2 against Model 1.

Bootstrapping Results
Since the data was multivariate non-normally distributed, a bootstrapping technique was applied to estimate standard error and significance based not on assumptions of normality but on empirical resampling with replacement of the data. Taking a large number of random samples from the dataset generates information on the variability of parameter estimates based on empirical samples, not on assumptions about probability theory of normal distributions, an is specially recommended in studies with moderately large samples that not met the multivariate normality assumption (Byrne, 2001). We performed a bootstrap procedure to Model 2 with a total of 1000 samples, which provided with information about the amount of bias for the estimates. These results showed biases (i.e. difference between the unstandardized ML estimates and the mean bootstrap unstandardized estimates for the parameters) that ranged from 0.005 for the CA→OP path to 0.049 for the

CR→P&S path. Therefore, we are confident that, despite the violation of the multivariate normality assumption, estimates are robust.

GENERAL DISCUSSION

Conclusions about the selected model

While affect as a determinant of judgments and intentions has been widely studied in the consumer behavior field, its implications in the corporate reputation literature has not been clearly assessed. The fact that the model with corporate affect and corporate reputation as independent causes for corporate trustworthiness showed to fit better the data than the affect-mediated model opens a new area of research, especially because of the important effect of affect in trustworthiness, which seems to be independent and more relevant than reputation. Moreover, affect not only influence trustworthiness, but also the judgments of individuals about the company products and services. Therefore, corporate affect appears as a key determinant, not only in terms of the trust towards the company, but also influencing the judgments concerning the products and services of the firm, whit the consequent implications on behavior.

The final model, as depicted in figure 3, makes evident the important role of corporate reputation as a general impression about the firm which affects the judgments of the different dimensions of reputation. Nevertheless, is important to note that three of the original five dimensions were merged because of the lack of discriminant validity between them. This provides a first evidence of the role played by corporate reputation as umbrella for the specific dimensions, specially those related with internal or less visible aspects of the company.

Insert Figure 3 About Here

Common Method Biases

To really appreciate the importance of controlling for CMB we present in Table 5 the results for the selected model with and without controlling. First of all, it is possible to observe that the model without CMB control is in the good-acceptable range in terms of fit, with GFI=0.980, CFI=0.950 and RMSEA=0.051. Therefore, if a researcher is not aware about the possible effects of CMB in this type of research, he or she could be satisfied with the fit results for the model and the estimated paths, and therefore obtaining conclusions about some relationships that are not true. For example, if we consider the CA→OP path, we can observe that this path is significant (0.841, p<0.001) for the model without controlling, but is completely not significant (0.035, p>0.7) if we control for CMB. These results make clear the importance of considering these issues when studying corporate reputation from a behavioral perspective.

Second, all the loadings form the CMV factor to the items were significant, providing evidence of the strong presence of method biases in the dataset.

<center>Insert Table 5 About Here</center>

Another important result to discuss is the fact that the loadings of three of the six items related to the organizational performance construct were not significant when controlling for CMB, and therefore variance in those items seems to be just method variance.

Limitations

The main limitations of the present research is related with the data characteristics. First, the considerable number of missing values and the presence of outliers compelled us to eliminate cases, placing some doubts about the validity of the results. Second, the statistical properties of the data were not optimal, with a moderate level of multivariate non-normality. As a solution to that problem, a bootstrapping technique was performed giving us some evidence of small biases in the estimators. Finally, data correspond to a national study, and therefore cross-national validity should not be assumed.

Research opportunities

The results presented in this research could be extended by investigating some important issues. First, understanding the way in which corporate affect is created seems to be relevant, since corporate affect has revealed as an important driver of corporate trustworthiness. Second, this model could be tested in a different context, considering a different group of stakeholders. Finally, it seems interesting to test if this model is culture-invariant.

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Table 1. Summary of potential causes of common method biases in reputation research (adapted from Podsakoff et al, 2003)

Potential cause	Definition
Common rather effect	Refer to any artifactual covariance between the predictor and the criterion variable produced by the fact that the respondent providing the measure of these variables is the same.
Consistency motif	Refers to the propensity for respondents to try to maintain consistency in their responses to questions.
Implicit theories	Refer to respondents' beliefs about the covariation among particular traits, behaviors, and/or outcomes.
Leniency biases	Refer to the propensity for respondents to attribute socially desirable traits, attitudes, and/or behaviors to someone they know and like than to someone they dislike.
Item characteristics effects	Refer to any artifactual covariance that is caused by the influence or interpretation that a respondent might ascribe to an item solely because of specific properties or characteristics the item possesses.
Common scale formats	Refer to artifactual covariation produced by the use of the same scale format on a questionnaire.
Common scale anchors	Refer to the repeated use of the same anchor points on a questionnaire.
Item context effects	Refer to any influence or interpretation that a respondent might ascribe to an item solely because of its relation to the other items making up an instrument.
Intermixing (or grouping) of items or constructs on the questionnaire	Refers to the fact that items from different constructs that are grouped together may decrease intra-construct correlations and increase inter-construct correlations.
Measurement context effects	Refer to any artifactual covariation produced from the context in which the measures are obtained.
Predictor and criterion variables measured at the same point in time	Refers to the fact that measures of different constructs measured at the same point in time may produce artifactual covariance independent of the content of the constructs themselves.
Predictor and criterion variables measured in the same location	Refers to the fact that measures of different constructs measured in the same location may produce artifactual covariance independent of the content of the constructs themselves.
Predictor and criterion variables measured using the same medium	Refers to the fact that measures of different constructs measured with the same medium may produce artifactual covariance independent of the content of the constructs themselves.

Table 2. Details of measures

Constructs and measures	
Products and Services (P&S) 　PS1: Stands behind its products and services 　PS2: Develops innovative products and services 　PS3: Offers high quality products and services 　PS4: Offers products and services that are good value for money 　(seven-point scale where 1 means "this item does not describe Company X well" and 7 means "This item describes Company X very well")	$\rho_\varepsilon = 0.86^a$ $\rho_{VC(\xi)} = 0.60^b$
Corporate Affect (CA) 　CA1: How do you feel about Company X? 　(seven-point scale where 1 means "do not have a very good feeling about the company" and 7 means "have a very good feeling about the company") 　CA2: How would you rate your admiration and respect for Company X? 　(seven-point scale where 1 means "do not admire and respect the company" and 7 means "admire and respect the company very much")	$\rho_\varepsilon = 0.85$ $\rho_{VC(\xi)} = 0.73$
Corporate Trustworthiness (CT) 　CT1: How much do you trust Company X? 　(seven-point scale where 1 means "do not trust the company" and 7 means "trust the company very much") 　CT2: Would you trust Company X to do the right thing if it were faced with a product or service problem? 　(four-point scale, where 1 means "Yes, I definitely would" and 4 means "No, I definitely would not")	$\rho_\varepsilon = 0.81$ $\rho_{VC(\xi)} = 0.69$
Social Responsibility (SR) 　SR1: Support good causes 　SR2: Is an environmentally responsible country 　SR3: behaves responsibly towards the people in the communities where it operates 　(seven-point scale where 1 means "this item does not describe Company X well" and 7 means "This item describes Company X very well")	$\rho_\varepsilon = 0.77$ $\rho_{VC(\xi)} = 0.52$
Organizational Performance (OP) 　OP1: Tends to out-perform its competitors 　OP2: Looks like a company with strong prospects for future growth 　OP3: Has excellent leadership 　OP4: Has a clear vision for its future 　OP5: Is well managed 　OP6: Looks like a company that would have good employees 　(seven-point scale where 1 means "this item does not describe Company X well" and 7 means "This item describes Company X very well")	$\rho_\varepsilon = 0.91$ $\rho_{VC(\xi)} = 0.63$

[a] ρ_ε is the value of composite reliability.

[b] $\rho_{VC(\xi)}$ is the average variance extracted.

Table 3. Correlations between constructs

	Corporate Trustworthiness	Corporate Affect	Products & Services	Organizational Performance
Corporate Affect	0.94 (.019)[a]			
Products & Services	0.89 (.019)	0.87 (.015)		
Organizational Performance	0.84 (.020)	0.85 (.015)	0.95 (.008)	
Social Responsibility	0.82 (.023)	0.80 (.020)	0.93 (.011)	0.91(.012)

[a] numbers in parenthesis are standard deviations

Table 4. Descriptive statistics for the rival models

Statistics	Model 1	Model 2
χ^2	χ^2 (111)=263.336, p<0.001	χ^2 (109)=253.547, p<0.001
CFI	0.986	0.987
GFI	0.961	0.963
RMSEA	0.043	0.042
R^2 values for endogenous variables		
Products and Services	0.770	0.785
Organizational Performance	0.082	0.423
Social Responsibility	0.204	0.347
Corporate Affect	0.076	-
Corporate Trustworthiness	0.586	0.577

Table 5. Descriptive statistics and paths for Model 1 with and without controlling for Common Method Biases.

Statistics	Model 2	Model 2 no CMB Factor
χ^2	χ^2 (109)=253.547, p<0.001	χ^2 (111)=326.254, p<0.001
CFI	0.987	0.980
GFI	0.963	0950
RMSEA	0.042	0.051
Estimated Paths		
CR → P&S	.242 (.796)[a]**	.467 (.469)**
CR → OP	.131 (.650)*	.433 (.463)**
CR → SR	.261 (.585)**	.550 (.505)**
CA → P&S	.229 (.390)**	.847 (.872)**
CA → OP	.014 (.035)	.767 (.841)**
CA → SR	.057 (.067)	.849 (.800)**
CR → CT	.167 (.258)**	.146 (.137)**
CA → CT	.894 (.715)**	.977 (.936)**
CMV Factor → Items	.945 (.674 - .847)**	----
CMV Factor → CT2	.334 (.491)**	----

** p<0.001, * p<0.05
[a] numbers in parenthesis are standardized values

Figure 1. Model 1

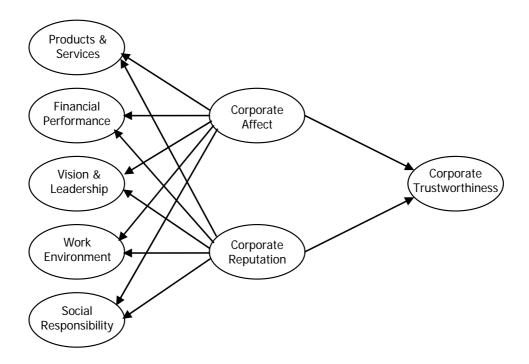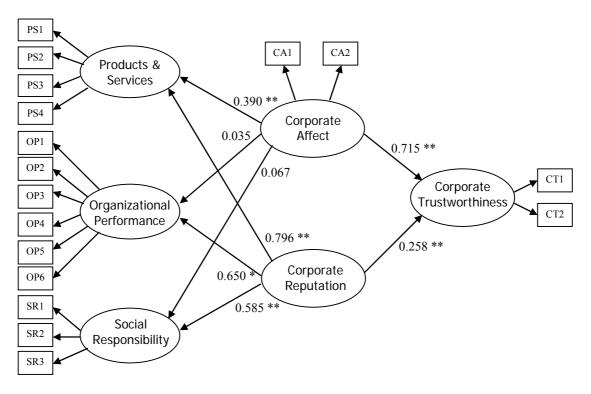**Figure 2. Model 2**

Figure 3. Final Model

PS1		
PS2	Products & Services	
PS3		
PS4		

Corporate Affect

CA1 CA2

0.390 **

0.035

0.067

Corporate Trustworthiness

CT1

CT2

0.715 **

OP1	
OP2	
OP3	Organizational Performance
OP4	
OP5	
OP6	

0.796 **

Corporate Reputation

0.650 *

0.258 **

0.585 **

SR1	
SR2	Social Responsibility
SR3	

* p < 0.05 ** p < 0.001