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Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro



The effect of corporate social responsibility on consumer satisfaction and perceived value: the case of the automobile industry sector in Portugal

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ARTICLE INFO

Article history: Received 20 March 2011 Received in revised form 31 May 2012 Accepted 3 July 2012 Available online 15 July 2012

Keywords: Corporate social responsibility Consumer satisfaction Perceived value Car industry Environment

ABSTRACT

Previous research has suggested that a good record of corporate social responsibility (CSR) or corporate social performance (CSP) positively influences corporate financial performance (CFP) by lowering costs and increasing productivity. Corporate financial performance might also be impacted by the effect of perceived CSR on consumer satisfaction. In this study, we present research on the contribution to consumer satisfaction of the perceived CSR of three car manufacturers in terms of labor practices, community development and environmental performance within a group of 329 Portuguese car buyers and users. These consumers valued environmental performance much more than activities related to labor practices and community development. However, determinants outside the realm of CSR, such as perceived product and service quality and empathy with the brand, were much more important for Portuguese consumers than CSR. The overall importance of CSR for consumer satisfaction suggests that in the automobile industry, CSR may not only contribute to better financial performance by directly reducing costs and increasing productivity but may also contribute indirectly by increasing consumer satisfaction.

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1. Introduction

The idea that "a positive link between social and financial performance would legitimize corporate social performance (CSP) on economic grounds" (Useem, 1996 in Margolis et al. (2007), pp. 4–5) has led to the study of the relationship between CSP or corporate social responsibility (CSR) and corporate financial performance (CFP) over the last thirty-five years (e.g., Arlow and Gannon, 1982; Bragdon and Marlin, 1972; Margolis and Walsh, 2003; Margolis et al., 2007; Orlitzky et al., 2003).

Theorists have attempted to distinguish CSP from CSR, sometimes subsuming CSP under the umbrella of CSR or vice versa. The terms CSP and CSR, or "socially responsible behavior", are often used interchangeably in empirical studies (Margolis et al., 2007, pp. 7), and the terms CSR and CSP are used interchangeably in this paper.

Studies about the relationship between CSR and CFP present contradictory findings that range from a positive to a negative relation in a U-shaped or inverse U-shaped relation (Margolis and Walsh, 2003; Orlitzky et al., 2003).

Some studies argue that CSP puts companies at a disadvantage compared to their competitors and that the impact of CSP on CFP is not always positive (e.g., Aupperle et al., 1985; Cochran and Wood, 1984; Jensen, 2002). Others suggest a neutral contribution of CSP on CFP (e.g., McWilliams and Siegel, 2000), and some studies point out that CSR or CSP has a positive effect on companies by attracting and retaining higher quality employees (e.g., Greening and Turban, 2000; Turban and Greening, 1996), lowering costs and risks through cleaner production and energy efficiency (Carrol and Shabana, 2010; Zeng et al., 2010), increasing demand for goods and services with reduced price sensitivity (e.g., Milgrom and Roberts, 1986; Navarro, 1988; Sen and Bhattacharya, 2001), better marketing of goods and services (Fombrun et al., 2000; Moskowitz, 1972), and attracting socially conscious consumers (Hillman and Keim, 2001).

Four meta-analyses have been conducted to consolidate previous work on this subject. The first meta-analysis was conducted by Orlitzky et al. (2003), followed by Allouche and Laroche (2005), Wu (2006) and Margolis et al. (2007). All of these studies concluded that there is a positive relation between CSP and CFP

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across industries, and the link ranges from strong to moderate. In addition, Margolis et al. (2007) found that the positive relation is strong for specific CSP dimensions, such as charitable contributions and environmental performance.

In sum, CSR can be considered strategically important for companies (e.g., Barnett and Salomon, 2006; Porter and Kramer, 2006). CFP seems to be directly positively influenced by CSR because these activities lower costs and risks and increase productivity. Additionally, there may be an indirect positive influence of CSR on CFP when consumers positively value such activities and choose to buy products for this reason.

The discussion of the importance of CSR for companies' CFP and the influence of CSR on consumer satisfaction and purchasing extends to automobile manufacturers (Lacy et al., 2010; Lane and Potter, 2007; Wells and Nieuwenhuis, 2001; Williams, 2007; Zapata and Nieuwenhuis, 2010).

We have identified two main gaps in previous studies regarding the importance of CSR in the automobile industry sector. First, there is a lack of research on how car consumers' perspectives on specific CSR dimensions influence their satisfaction and, consequently, the perceived value of goods. The literature review revealed that previous studies have tended to focus on environmental performance rather than on other dimensions of CSR. Furthermore, conclusions about the impact of perceived environmental performance on consumers' purchasing decisions remain ambiguous (e.g., Lacy et al., 2010; Low CVP, 2005). Second, empirical work on the topic tends to focus on the context of the US and the UK (Alniacik et al., 2011) and has neglected other EU countries.

CSR has become increasingly important in Portuguese industry (Branco and Rodrigues, 2008; Dias-Sardinha and Reijnders, 2005; KPMG, 2006). In particular, the environmental aspects of cars manufacturing have been discussed frequently in the mass media in recent years, also linked to new legislation in the European Union and Portugal (Directive, 2000/53/EC, Portaria n° 468/ 2010).

Against this background, we present a study of the value placed by Portuguese car buyers and users on CSR, including labor practices, community development and environmental performance. The car manufacturers selected were Toyota, Renault and Ford. These companies sold the most cars in Portugal during 2007 and 2008 (ACP, 2009). An additional reason for this choice lies in the findings of Zeugner-Routh et al. (2008), who argue that the association between a product and a particular country significantly impacts consumers' perceptions of products. By choosing three companies originating in three different countries, this research attempts to control for this type of effect. The three companies' websites, as accessed in January 2011, provided information about their CSR. All reported activities aimed to improve environmental performance. The Toyota website also included a number of social activities in the field of labor practices and community development.

Our paper proceeds in five sections. First, we present a review of work on the determinants of consumer satisfaction and the broad approach used in the analysis of consumer attitudes toward cars produced by Renault, Ford and Toyota. Second, we present the applied methodology. The results of the consumer attitude analysis are then presented, followed by a discussion and conclusion.

2. Consumer satisfaction and corporate social responsibility

Consumer satisfaction has been defined as an overall evaluation of a consumer's total purchasing and consumption experience of goods or services over time (e.g., Anderson et al., 2004; Fornell et al., 1996; Oliver, 1980, 1981, 1993). Perceived value reflects consumers' perceptions of quality for a given price and costs versus

benefits when compared with competitors (Bolton and Lemon, 1999; Johnson et al., 2006).

We have reviewed previous work on consumer satisfaction and value determinants as perceived by consumers (e.g., Anderson et al., 2004; Fornell et al., 1996; Handelman and Arnold, 1999; Johnson et al., 2001; Kotler, 1991; Lane and Potter, 2007; Luo and Bhattacharya, 2006; Mohr et al., 2001; Oliver, 1980, 1981, 1993; Sen and Bhattacharya, 2001; Smith, 2003; Walsh and Beatty, 2007; Webb et al., 2008). Several of these studies have suggested a positive relationship between consumer satisfaction, the value perceived by consumers, and market value (e.g., Anderson et al., 2004; Johnson et al., 2001; Luo and Bhattacharya, 2006).

Studies point out that CSR has a positive effect on companies because it is believed to maintain or improve both the consumer and society's well-being (Kotler, 1991; Luo and Bhattacharya, 2006; Milgrom and Roberts, 1986; Sen and Bhattacharya, 2001). A good CSR record might generate a favorable image that positively influences consumers' evaluations and attitudes toward the firm.

Regarding the specific influence of CSR on private buyers' car purchasing behavior, a literature review on consumer attitudes about low-carbon and fuel-efficient passenger cars (LowCVP, 2005) suggests that "the decision-making process for UK private car purchases is predominantly driven by financial and performance considerations including price, fuel consumption, comfort, size, practicality and reliability" (Lane and Potter, 2007, pp. 1089). Moreover, the same authors found that environmental issues play a small part in the process of car purchasing and are among the least important considerations for new car buyers. However, the websites of Renault. Ford and Toyota show an emphasis on environmental performance, indicating a sector investment in some areas of CSR. This finding is in accordance with findings from a recent study that evaluated automobile CEOs' claims about concerns for the environmental impact of vehicles (automobiles' greatest impact), mainly carbon emissions and, to a lesser extent, social and governance issues (Lacy et al., 2010). Furthermore, 67% of CEOs sampled in that study considered consumers as most important stakeholder group that affects the way CEOs manage societal expectations. However, the extent of this group's influence on automobile purchasing decisions is unclear.

Based on this review, we designed a conceptual model (see Fig. 1) that links CSR dimensions to consumer satisfaction and perceived value. The CSR dimensions in Fig. 1 are specified in Table 2. We note that the CSR dimensions used here (environment,

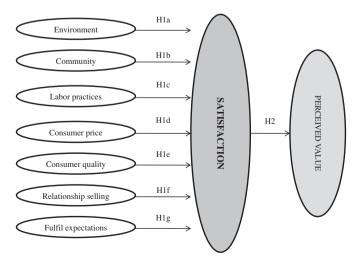


Fig. 1. Proposed conceptual model.

Table 1Demographic characteristics of car buyers and users and number of respondents by region.

Gender	Age	Region
Male: 59.6%	18-20: 2.4%	OPorto: 30.4%
Female: 40.4%	21-30: 31.0%	Lower Vouga: 48.6%
_	31-40: 27.4%	Tâmega: 21.0%
_	41-50: 24.0%	_
_	51-60: 11.2%	_
-	>60: 4.0%	_

community development and labor practices) also emerge on the websites of the selected companies.

The approach presented in Fig. 1 is based on the assumption that CSR can have a positive impact on consumer satisfaction and that consumer satisfaction, in turn, can have a positive influence on perceived value.

3. Methodology

3.1. Sample and data collection

A questionnaire covering brand preference and demographic information was developed based on the approach presented in Table 2. The questionnaire was pretested by six car buyers and users who were interviewed during visits to car dealers. The questionnaire was then finalized.

The final questionnaire was given to car buyers and users of three different brands (Toyota, Renault, and Ford). The surveyed individuals resided in three regions of Portugal (Oporto, Lower Vouga and Tâmega). In all, 374 car buyers and users returned the questionnaire, and 329 of those surveyed fully completed the survey between May and September of 2009.

More than 50% of the sample was between 31 and 50 years old. Approximately 20% of the respondents were under 31 years of age, and approximately the same percentage of respondents were over 50 (Table 1). The car buyers and users of the three brands were divided into 35.0% Renault, 33.4% Ford, and 31.6% Toyota. This distribution is roughly similar to the relative market shares of these mass car brands in Portugal in 2007–2008 (ACP, 2009).

The demographic distribution of the respondents is roughly similar to the demographic distribution of car users in Portugal who bought a new car in 2007.

3.2. Measurement

The constructs in this study were measured by means of multiitem scales, and the instruments used were adapted from the existing literature. The items in the questionnaire were written in English, translated to Portuguese and then translated back into English. Back translation was used to ensure that similar information was conveyed by the items in Portuguese and in English (adapted from the literature) (Brislin, 1970; Sekaran, 1983).

The items for the seven dimensions of CSR were formulated based on the International Standard Organization Draft (DIS/ISO 26000, 2009) and the work of Walsh and Beatty (2007) and Webb et al. (2008).

Three items were used to measure perceived value: the performance received for the price paid, whether the offering was a good deal compared with others in the market, and whether the price was fair (Bolton and Lemon, 1999; Cronin et al., 2000; Johnson et al., 2006) (see Table 3).

To measure satisfaction, this study used a 5-item scale, including an overall evaluation (Brady et al., 2002; Oliver, 1981, 1993, 1997) of

the respondent's experience with the car brand. The respondents rated all measures on a 5-point Likert-type scale ranging from 1 ("completely disagree") to 5 ("completely agree").

3.3. Data analysis

A structural equation model approach using Partial Least Squares (PLS) (Ringle et al., 2005) was employed to test the relationships in this study (Fig. 1). PLS is based on an iterative combination of principal components analysis and regression. It aims to explain the variance of the constructs in the model (Chin, 1998). The advantage of PLS is that it simultaneously estimates all path coefficients and individual item loadings in the context of a specified model and allows researchers to avoid biased and inconsistent parameter estimates. PLS has been found to be an effective analytical tool to test interactions by reducing type II errors (Lohmoller, 1989; Chin et al., 2003). In general, PLS is better suited for explaining complex relationships than it is for simple relationships because it avoids two problems: inadmissible solutions and factor indeterminacy (Fornell and Bookstein, 1982). It can readily handle formative dimensions (Chin et al., 2003).

4. Results

A PLS model should be analyzed and interpreted in two stages. First, the adequacy of the measures (see Table 2 and Table 3) is assessed by evaluating the reliability of the individual measures and the discriminant validity of the constructs (Hulland, 1999). Then, the structural model is evaluated. Item reliability is assessed by examining the loading of the measures on their corresponding construct. In this study, almost all the loadings of scales measuring reflective constructs approached or exceeded 0.707, except Rs2 (eliminated due to its value of 0.503). A loading of 0.707 or above indicates that more than 50% of the variance in the observed variable is explained by the construct (Carmines and Zeller, 1979) (see Tables 2 and 3).

Composite reliability was used to analyze the reliability of the constructs because this criterion has been considered to represent a more exact measurement than Cronbach's alpha (Fornell and Larcker, 1981). Table 2 indicates that all constructs are reliable. The composite reliability values exceeded the threshold value of 0.7 and the strictest threshold of 0.8 (Nunnally, 1978). The measures also demonstrated convergent validity. The average variance of manifest variables extracted by constructs (AVE) was at least 0.5. This result indicates that more variance was explained than unexplained by the variables associated with a given construct.

Finally, the square root of AVE should be greater than the correlation between the construct and other constructs in the model if the discriminant validity of the construct is adequate (Fornell and Larcker, 1981). Table 4 shows that this criterion was met.

The full structural results are presented in Fig. 2.

This study used the bootstrap, a nonparametric approach, to estimate the precision of the PLS estimates and to test the hypotheses in conjunction with a *t*-test. A total of 500 sample sets were created to obtain 500 estimates for each parameter in the PLS model. Each sample was obtained by sampling with a replacement from the original data set (Chin, 1998; Fornell and Larcker, 1981). Path coefficients, interpreted as standardized betas, indicate the strength of the direct relationship between constructs. Three path coefficients were found to be significant at levels of 0.001, 0.01 or 0.05 (see Fig. 2), and the signs were positive, as expected.

The Q² statistic (chi-squared of the Stone–Geisser criterion) can be used to evaluate the predictive relevance of the model, the cross-validated redundancy (Chin, 1998). If the relations in the model

Table 2Measurement results for CSR constructs.

Construct	Mean (Standard deviation)	LV Index values	Item loading	Composite reliability	AVE*
Labor practices		3.4		0.877	0.706
Rs1 – This brand is concerned with working conditions in its factories	3.4 (0.99)		0.696		
Rs2 – This brand does not employ children	3.7 (1.20)		a		
Rs3 – This brand (organization) seems to treat its employees well	3.4 (0.90)		0.897		
Rs4 – The organization seems to be a pleasant place to work	3.5 (0.89)		0.911		
Environment		3.4		0.885	0.719
Rs5 — This brand is concerned with the implementation of a recycling policy at its factories	3.4 (0.97)		0.826		
Rs6 – This brand (cars and company) emits the lowest possible levels	3.3 (0.98)		0.810		
of CO ₂ and CO (carbon monoxide) to the atmosphere					
Rs7 — This brand is concerned about the environmental damage that might be caused by its activity	3.4 (1.01)		0.905		
Community development		3.3		0.857	0.750
Rs8 – This brand is socially responsible and has a positive effect on	3.4 (0.95)		0.909		
society	3.3 (0.00)		0.820		
Rs9 – This brand supports (sponsors) worthy social causes	3.2 (0.99)	3.4	0.820	0.805	0.676
Consumer price	3.3 (0.87)	3.4	0.743	0.805	0.676
Rs10 – It is possible that this brand is socially responsible and can make high quality products at a fair price	3.3 (0.87)		0.743		
Rs11 – The cars of this brand have a good performance (speed and power) in relation to the price charged	3.5 (0.92)		0.894		
Consumer quality		3.6		0.898	0.815
Rs12 – Overall, the quality of the car brand is good	3.7 (0.90)		0.889		
Rs13 – This brand provides good customer after-sale services	3.4 (0.97)		0.917		
Fulfill expectations		3.4		0.927	0.863
Rs14 – This brand is committed to provide what it promises	3.7 (0.93)		0.929		
Rs15 – This brand fulfills the promises it makes	3.5 (0.92)		0.929		
Relationship selling (empathy)		3.4		0.952	0.831
Rs16 – This brand is always willing to help its customers	3.3 (0.95)		0.897		
Rs17 — Customers of this brand feel safe in the relationship they establish with the brand	3.4 (0.94)		0.915		
Rs18 — This brand is concerned with the best interests of its	3.3 (0.96)		0.934		
Rs19 – This brand understands the needs of customers	3.4 (0.91)		0.900		

have predictive relevance, then $Q^2 > 0$ (Fornell and Cha, 1994). In this analysis, all Q^2 values were positive. This result indicates that the relations in the model have predictive relevance. The model also demonstrated predictive power (R^2). The model constructs explained 62.7% of the variance in satisfaction and 22.0% of the variance in perceived value. No overall goodness-of-fit index is used with the PLS model because the objective of PLS is prediction in a regression sense. However, the overall goodness of fit proposed by Tenenhaus et al. (2005) revealed a good value of fit (Fig. 2).

The multiplicative products of the Pearson's correlation value and path coefficient value for each pair of constructs revealed that 20.3% of the variability of satisfaction was explained by relationship selling (empathy), 15.8% by consumer quality, 8.5% by the

environment, 6.1% by fulfilling expectations and less than 5% by each of the other variables.

5. Discussion

This research finds perceived value to be a consequence of consumer satisfaction, showing that satisfied consumers may have a more favorable perception of product value. In other words, an increase in consumer satisfaction should increase perceived value. Hence, not only does perceived value lead to consumer satisfaction, as proposed by Fornell et al. (1996) in the American Customer Satisfaction Index Model, but satisfaction can also contribute to the perception of value.

Table 3Measurement results for satisfaction and perceived value constructs.

Construct	Mean (Standard deviation)	LV Index values	Item loading	Composite reliability	AVE ^a
Satisfaction		3.3		0.907	0.661
S1 – My experience with this car brand has been satisfactory	3.4 (1.01)		0.768		
S2 – The characteristics of the car meet my needs	3.5 (1.00)		0.808		
S3 — The representatives of this brand provide me with the service I expect to receive	3.2 (1.03)		0.796		
S4 — This brand provides excellent service	3.2 (1.01)		0.832		
S5 — In general, my experience with this brand is good	3.4 (0.95)		0.859		
Perceived value		3.5		0.867	0.685
Vp1- The car has a good level of performance considering its price	3.6 (0.84)		0.859		
Vp2 — The car is a good choice relative to other cars available in the market	3.5 (0.93)		0.819		
Vp3 — The price of the car is fair considering its performance	3.4 (0.95)		0.805		

^a AVE Average Variance Extracted (an item eliminated).

 Table 4

 Discriminant validity analysis: square root of AVE and correlations of constructs.

Construct	1	2	3	4	5	6	7	8	9
AVE ^{1/2}	0.85	0.84	0.87	0.91	0.93	0.82	0.90	0.81	0.83
1. Environment	1.00	0.66	0.70	0.43	0.56	0.53	0.56	0.58	0.41
2. Labor practices	0.66	1.00	0.72	0.54	0.60	0.55	0.64	0.62	0.37
3. Community development	0.70	0.72	1.00	0.54	0.64	0.66	0.65	0.63	0.43
4. Relationship selling (empathy)	0.43	0.54	0.54	1.00	0.57	0.51	0.57	0.66	0.37
5. Fulfill expectations	0.56	0.60	0.64	0.57	1.00	0.62	0.68	0.63	0.47
6. Consumer – Price	0.53	0.55	0.66	0.51	0.62	1.00	0.62	0.59	0.59
7. Consumer – Quality	0.56	0.64	0.65	0.57	0.68	0.62	1.00	0.68	0.46
8. Satisfaction	0.58	0.62	0.63	0.66	0.63	0.59	0.68	1.00	0.47
9. Perceived value	0.41	0.37	0.43	0.37	0.47	0.59	0.46	0.47	1.00

The results show that the perception of car brand CSR by the buyers and users of cars influences their satisfaction, but some CSR issues have a greater impact on customer satisfaction than others.

The present study analyzed the impact on consumer satisfaction of the CSR dimensions of labor practices, community development and environmental performance. We found that the CSR dimensions applied in this study together explain 15.6% of the variability in satisfaction, with environmental performance accounting for more than half of this value. Different impacts of CSR dimensions on consumer satisfaction have also been found by other studies (Allouche and Laroche, 2005; Margolis et al., 2007).

The overall importance of perceived CSR for automobile consumer satisfaction suggests that in automobile manufacturing, CSR may not only directly contribute to better CFP by lowering costs and risks (in line with Carrol and Shabana (2010) and Zeng et al. (2010)) but may also indirectly increase consumer satisfaction and perceived value, potentially attracting socially conscious consumers (Hillman and Keim, 2001).

Our findings also indicate that the satisfaction of the buyers and users of the three automobile brands studied depends on consumer issues, such as the empathy of sellers and support staff, the relationship with the brand, and perceived quality. Therefore, managers should encourage the relationship between car buyers and users and the brand producer by providing good after-sale services and demonstrating true concern for the customer.

The present study suggests that car companies might benefit by reporting their CSR practices and performance in the consumer—brand relationship and through direct marketing mechanisms. In this way, companies can improve consumer awareness of CSR, which influences consumer satisfaction and perceived value, by generating a favorable image that positively influences the purchasing behavior of new car buyers.

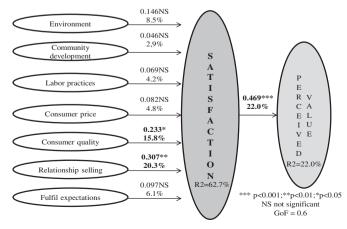


Fig. 2. Structural results.

In terms of further research, the Global Reporting Initiative launched an automobile sector supplement for sustainability reporting with indicators for sector accountability. Additional work could investigate how automobile firms report their CSR and whether this reporting effectively contributes to improving corporate reputation, commitment and trust amongst consumers. Furthermore, it would be relevant to investigate whether these findings apply to other economic sectors. It may be that the relative importance of specific CSR dimensions for consumer satisfaction differs for various economic sectors. For instance, the environmental performance of automobiles has been the focus of relatively intensive social discussion, whereas in the textiles sector, child labor has been more of a concern (Brown, 2001; Hindman and Smith, 1999; Nardinelli, 1980; Wolfe and Dickson, 2002). Additionally, further research could enhance the proposed model with additional approaches that mediate the relationship between CSR and customer perceived value and other variables, such as customers' personality, lifestyle, age or gender.

6. Conclusion

We studied the contribution of three car manufacturers' perceived CSR regarding labor practices, community development and environmental performance and the relationship between CSR and consumer satisfaction within a group of 329 Portuguese car buyers and users. This study found that these consumers valued environmental performance much more than activities related to labor practices and community development. However, outside the realm of CSR, indicators such as perceived product and service quality and empathy with the brand were much more important for Portuguese consumers than CSR. Nevertheless, the overall importance of CSR for consumer satisfaction suggests that in car manufacturing, CSR may not only directly contribute to better CFP by lowering costs and increasing productivity but may also indirectly contribute to better CFP by increasing consumer car purchasing satisfaction.

Acknowledgments

The authors are grateful for the enormous help provided by Cátia Gomes with the literature review and data collection. We are also grateful to the three anonymous referees for their thoughtful comments. All mistakes are the authors' responsibility.

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