Do Managers Know What Their Customers Think and Why?

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ORIGINAL EMPIRICAL RESEARCH

Do managers know what their customers think and why?

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Abstract The ability of a firm's managers to understand how its customers view the firm's offerings and the drivers of those customer perceptions is fundamental in determining the success of marketing efforts. We investigate the extent to which managers' perceptions of the levels and drivers of their customers' satisfaction and loyalty align with that of their actual customers (along with customers' expectations, quality, value, and complaints). From 70,000 American Customer Satisfaction Index (ACSI) customer surveys and 1068 firm (manager) responses from the ACSI-measured companies, our analyses suggest that managers generally fail to understand their firms' customers in two important ways. First, managers systematically overestimate the levels of customer satisfaction and attitudinal loyalty, as well as the levels of key antecedent constructs such as expectations and perceived value. Second, managers' understanding of the drivers of their customers' satisfaction and loyalty are disconnected from those of their actual customers. Among the most significant "disconnects," managers underestimate the importance of customer perceptions of quality in driving their satisfaction and of satisfaction in driving customers' loyalty and complaint behavior. Our results indicate that firms must do more to ensure that managers understand how their customers perceive the firm's products and services and why.

Keywords Organizational learning · Customer satisfaction · Customer orientation · American Customer Satisfaction Index (ACSI)

> "Marketing is so basic that it cannot be considered a separate function. It is the whole business seen from the point of view of its final result, that is, from the customers' point of view." Peter Drucker (1954)

The recent literature in strategic marketing has centered on marketing's influence in the firm (e.g., Clark et al. 2014; Feng et al. 2015; Germann et al. 2015; Homburg et al. 2015). The core of this discussion views *strategic marketing* as a field of study encompassing a focus on organizational, inter-organizational, and environmental phenomena and *marketing strategy* as "an organization's integrated pattern of decisions that specify its crucial choices concerning products, markets, marketing activities and marketing resources in the creation, communication and/or delivery of products that offer value to customers in exchanges with the organization and thereby enables the organization to achieve specific objectives" (Varadarajan 2010, p. 119). While this suggests that both managers' views and customers' perceptions are important for marketing strategy making, do managers consistently know *what* their customers think and *why*?

This is an important question since customer satisfaction, for example, has been shown to very significantly drive the bottom-line performance of the firm (e.g., Fornell et al. 2016).

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Strategically, a boundary-spanning alignment between managers and customers is critically important to marketing strategy making and deployment (Hult 2011), and to reaping the benefits of customer satisfaction initiatives (and other marketing initiatives). Alternatively, understanding potential misalignment between managers and customers is also an important "strategic benefit" (Vargo and Lusch 2016, p. 7) that can be leveraged for enhanced customer satisfaction implementation (cf. Sleep et al. 2015) and, ultimately, achieving customer loyalty (e.g., Watson et al. 2015).

Interestingly, tracing back more than 50years, marketing analysts have encouraged managers to focus on deeply understanding their customers' product and service needs and requirements (e.g., Hult et al. 2005). Essentially, answers to the "what" and the "why" questions are widely viewed as a necessary pre-condition, or knowledge, to being able to configure a firm's resources and capabilities to design, deliver, and communicate product and service offerings that satisfy customers better than its competitors' offerings do (e.g., Hult and Ketchen 2001; Narver and Slater 1990). Additionally, a large and growing literature supports the significant firm performance benefits of successfully delivering such superior customer satisfaction (e.g., Aksoy et al. 2008; Fornell et al. 2006; Fornell et al. 2016).

In their efforts to achieve these benefits, most large firms monitor the satisfaction of their customers with the firm's product and/or service offerings (e.g., Morgan et al. 2005) and use consumer survey (and other) data, combined with increasingly sophisticated analytical techniques to help uncover the drivers of customers' satisfaction and loyalty. However, there is only limited insight into whether these and other efforts that firms may employ result in managers successfully "getting inside their customers' heads" to understand how they view the firm's products and services and the drivers of these perceptions. This is an important gap in marketing knowledge for (at least) three reasons.

First, efforts to link firms' expenditures on satisfaction monitoring and improvement efforts with customer satisfaction outcomes largely treat intervening steps as a "black box" (e.g., Dotson and Allenby 2010; Morgan et al. 2005). We posit that a fundamental stage in this "black box" part of the process is the extent to which managers correctly understand the levels and drivers of customers' satisfaction with their firm's product and service offerings. Unless managers have such customer understanding, any resource deployments designed to improve customer satisfaction and loyalty are likely to be misplaced. Thus, absent some calibration of the extent to which managers within a firm accurately understand customers' product and service needs and perceptions, it is impossible to say whether a firm needs to invest in getting managers to better understand customers or in using their current understanding more effectively to design, deliver, and communicate superior need-satisfying customer offerings. We describe and illustrate one way in which firms can make calibrations of the extent to which their managers accurately understand the firm's customers.

Second, using the above-mentioned approach to examine a large sample of U.S. firms operating in consumer markets, we provide compelling evidence that, on average, managers do not accurately understand how their customers view their firm's products and services. We find that managers in most firms systematically overestimate the extent of their customers' satisfaction and loyalty, and also the levels of related antecedents such as product and service expectations and perceptions of value. Perhaps even more worrisome, our analyses indicate that managers also fundamentally misunderstand key drivers of their customers' satisfaction and loyalty. Thus, while most large firms invest in customer satisfaction monitoring systems, analyze customer feedback data, and communicate this within the firm, we show that such efforts appear to be insufficient to "close the gap" between what the firm's customers actually think of the firm's products and service offerings and why, and managerial understanding of these key aspects of customers' product and service needs and perceptions.

Third, we provide evidence that the fundamental disconnects between what customers actually think about a firm's products and services, and what the firm's managers think customers think, really matter. Specifically, we show that firms in which the manager–customer understanding gap is relatively larger have significantly lower levels of customer satisfaction than firms in which this gap is relatively narrower. Given the large and growing body of evidence linking customer satisfaction with firms' accounting and stock market performance (e.g., Fornell et al. 2016), our research suggests that closing the gap between what customers actually think and what managers think customers think is a key strategic issue for most firms.

The results of our study reveal several important gaps between managers' beliefs about their customers and the actual perceptions and intentions of those customers. Among the most significant disconnects that we observe is that managers overestimate their customers' satisfaction, their ratings of some of its key drivers (expectations and perceptions of value), and the future loyalty intention expressed by their customers, while also underestimating their customers' propensity to complain. Taken together, this pattern of overestimation of their own firms' customer performance could lead managers to fail to take needed steps to improve drivers of satisfaction, linkage between satisfaction and loyalty, thereby potentially damaging future financial performance and market share. What is more, our results show that managers also misunderstand the attributes that most strongly influence their customers' perceptions, underestimating (for instance) the importance of quality in driving satisfaction, and of satisfaction in driving both loyalty and complaint behavior. Jointly, these

perceptual gaps (along with others considered below) provide strong evidence against both the depth and breadth of managerial knowledge of their own firms' customers.

The rest of the paper is organized as follows. First, we develop the conceptual framework for our study. We then describe the research method adopted and data collection procedures employed. Next, we present the results of our analyses and discuss the nature and implications of our results. Then we more fully discuss the significance of these gaps for the firm attempting to manage and leverage customer satisfaction and loyalty, and provide some strategies for how firms might begin to close these gaps. Finally, we describe the limitations of our study and identify interesting new avenues for future research illuminated by our findings.

Theoretical background

We propose that there are two primary elements in any assessment of how accurately a firm's managers understand its customers' product and service needs and requirements. First, managers should know *what* their customers think of their firm's current product and service offerings. This is a fundamental purpose of any company's customer satisfaction monitoring and feedback systems (e.g., Morgan et al. 2005). The control system literature suggests that if customers' perceptions of the firm's products and services are the performance standard, then any difference between managers' beliefs regarding customer perceptions of these products and services and customers' true perceptions will result in an inefficient and ineffective control system (e.g., Anthony 2007; Schmenner and Vollmann 1994). If managers underestimate their customers' satisfaction with the firm's products and services, they may invest in unnecessary satisfaction improvement efforts (a "false alarm"). Conversely, if managers overestimate customer perceptions of the firm's product and service offerings they may fail to make needed changes or may even take actions that are counter-productive (a "gap"). For example, if managers think that their customers have a higher level of price tolerance than is in fact the case, they may raise prices beyond levels that customers are prepared to pay and lose market share as a result. A good of example of this mistake is the now-infamous 2011 price increase enacted by video retailer Netflix that rattled its customers and sent its share prices plummeting (down more than 70% by the end of that year).

Second, managers should know *why* their customers hold the perceptions of the firm's product and service offerings that they do. Even if managers correctly understand what their customers think of the firm's products and services, it is managers' beliefs about the *drivers* of these customer perceptions that guide their efforts to improve the firm's value offerings (or the costs of delivering them). Thus, even if managers know with some precision the level of their customers' current satisfaction with their products and services, without correctly understanding what drives this satisfaction, managers will not be able to effectively and efficiently take actions that may improve satisfaction in the future. Alternatively, if managers are looking for ways to reduce the firm's costs in ways that have a minimal negative impact on resulting customer satisfaction and/or loyalty, they will not be able to do so if they have an inaccurate understanding of what drives their customers' satisfaction and loyalty.

A simple way to assess the extent to which a firm's managers truly understand what customers think of the firm's products and services—and the drivers of those customer perceptions—is to use a common set of measures that captures these phenomena and compares responses from the firm's customers (what they actually think) and its managers (what managers think customers think). This comparison can be made both in terms of the "levels" of perceptions on the same product and service-related phenomena (e.g., perceived quality, perceived value) and in terms of the relationships between antecedent product and service perception "drivers" (e.g., expectations, perceived quality) and their perceptual outcomes (e.g., customer satisfaction, loyalty). Two obvious potential difficulties in adopting this approach are: (1) the fact that customer perceptions of products and services and the drivers of these perceptions may be idiosyncratic to each individual customer (and may certainly differ widely between firms and industries), and (2) the need to meaningfully frame the same product and service perception and driver questions for customers and managers to allow valid comparisons.

The first of these issues may be addressed by using aggregate survey measures of customer satisfaction and loyalty, and common and generic antecedents that are specifically designed to be comparable across customers. For individual firms with a customer satisfaction monitoring system, the surveys used to collect customer feedback data regarding perceptions of the firm's products and services are specifically designed to enable such aggregation across the firm's customer base (e.g., Vavra 2002). For our study, however, we also need to be able to compare customer (and manager) responses across companies and industries. The only measurement framework to receive widespread examination and use in the academic marketing literature that allows such comparison across a firm's customers, between companies in the same industry, and across industries is the American Customer Satisfaction Index (ACSI), a theoretical model described in detail by Fornell et al. (1996).

Theoretically, the ACSI model links customer perceptions regarding expectations, perceived quality, and perceived value as three central and generalizable drivers of customer satisfaction, and complaints and attitudinal loyalty as the two primary outcomes of satisfaction (for a detailed review of the model we describe briefly below, see Fornell et al. 1996). These six

constructs are described based on the established ACSI model:

- The *customer satisfaction (ACSI) index score* is calculated as a weighted average of three survey questions that measure different facets of satisfaction with a product or service.
- *Customer expectations* is a measure of the customer's anticipation of the quality of a company's products or services.
- *Perceived quality* is a measure of the customer's evaluation via recent consumption experience of the quality of a company's products or services.
- *Perceived value* is a measure of quality relative to price paid.
- *Customer complaints* are the percentage of respondents who indicate they have complained to a company directly about a product or service within a specified time frame.
- *Customer loyalty* is a combination of the customer's professed likelihood to repurchase from the same supplier in the future, and the likelihood to purchase a company's products or services at various price points (price tolerance).

Customer satisfaction is the central mediator in the model and is measured as a latent variable with questions asking the consumer's overall cumulative satisfaction with their experience ("overall satisfaction"), the confirmation or disconfirmation (either positive or negative) of prior expectations produced by the experience ("confirmation of expectations"), and a comparison of the experience to an imagined ideal product/service offering ("comparison to ideal") (Fornell et al. 1996).

In the structural model, satisfaction has three primary antecedents (or drivers): perceived quality, perceived value, and customer expectations. All three latent variable drivers are anticipated to have direct, positive effects on satisfaction, as more positive consumer perceptions of all three should lead to a more satisfying experience. Yet, both empirically and theoretically, the relationship between quality and satisfaction is expected to be the strongest, as consumer satisfaction has typically been found to be predominantly a function of a consumer's quality experience (alternatively, perceptions of performance) with a product or service (Fornell et al. 1996; Oliver 2010). As defined in the ACSI survey, there are three survey items constitutive of the quality experience included in the perceived quality latent variable: perceptions of overall quality ("overall quality"), the degree to which the product or service fulfills subjective individual requirements ("customization quality"), and how consistently and reliably the good or service performs ("reliability quality") (Fornell et al. 1996).

The second latent variable anticipated to have a direct and positive effect on customer satisfaction is perceived value, which is measured in the survey as the level of perceived quality relative to the price paid ("quality given price"), and the price paid relative to the perceived quality of the good or service ("price given quality"). Adding perceived value to the model incorporates price information, an important determinant of end-state consumer satisfaction in virtually every industry, yet still allows for comparison of results across disparate companies, industries, and sectors where pricing structures can vary substantially. This is because the variables do not ask directly about happiness with price paid—where perceptions are more likely to differ systematically across categories with widely different pricing structures—but rather asks about price relative to quality (and vice versa) (Johnson and Fornell 1991; Fornell et al. 1996). Because the perceived value variable is measured as the ratio of price paid relative to the quality *received* (and vice versa), perceived quality is also predicted to have a positive and direct effect on perceived value, as shown in the model.

The third determinant of customer satisfaction in the ACSI model is the level of quality/performance the respondent expects to receive with the good or service prior to the experience. Because expectations serve as a primary reference point in a consumer's cognitive evaluation process (in other words, a satisfaction "starting point"), expectations are predicted, like both quality and value, to positively impact satisfaction. Expectations capture all of a customer's prior knowledge (through recommendation, prior experiences, advertising, other sources of news and information, etc.) and consumption experiences with a firm's products or services (Fornell et al. 1996; Oliver 2010). Similar to quality, expectations in the ACSI model are measured as the consumer's *anticipated* perceptions of overall quality ("overall expectations"), customization quality ("expectations customization"), and reliability quality ("expectations reliability"). Furthermore, customer expectations are also hypothesized to be positively related to both perceived quality and perceived value. These hypothesized relationships recognize the consumer's ability to learn from experience and to anticipate, based on this prior knowledge, both the quality and value of a product or service they experience.

The two outcomes of customer satisfaction included in the ACSI model are customer complaints and customer loyalty. Founded in exit, voice, and loyalty theory (Hirschman 1970), when dissatisfied, customers have two basic options: leaving the company and defecting to an alternative supplier (should one exist), or voicing their dissatisfaction to the supplier in an attempt to receive some kind of recompense. Thus, an increase in satisfaction is hypothesized to be negatively related to complaint rate, while likewise predicted to improve the loyalty of

customers (Fornell et al. 1996). Customer loyalty is the ultimate dependent variable in the model—as well as being an essential and universal business objective—and it is modeled in this study by a single manifest variable (repurchase intention, for reasons mentioned above) asking the consumer how likely they are to remain a customer of the company. The importance of expressed customer loyalty lies in its relationship to outcomes like actual customer retention rate, as well as in forecasting market share, revenue growth, and profitability.

The final relationship in the model is the effect of customer complaint behavior on customer loyalty. The direction and size of this relationship reveals, by and large, the efficiency and quality of a company's complaint recovery and complaint handling system (Fornell et al. 1996). When the relationship is positive, this shows that a company is successfully converting complaining customers into loyal customers; when the relationship is negative, complaining customers are more likely to defect, and an increase in complaints will cost the firm a larger number of customers.

Overall, our study is rooted in the above robust and rigorously tested theoretical model at the consumer level. However, a major gap in the literature is the capturing of these phenomena and comparing assessments from a firm's customers (what they actually think) and the company's managers (what managers think customers think). As such, a second issue regarding how to use the same survey instrument to allow meaningful comparisons between a firm's customers and managers may be addressed by re-framing the ACSI survey questions to prompt managers to answer them as they believe their customers would. This is consistent with the management and psychology literature approach to studying perspective-taking by managers and employees (e.g., Gilin et al. 2013; Parker and Axtell 2001). Thus, rather than asking managers for their own perceptions of the products or services offered by their firms, managers can be asked *what they believe their customers' perceptions of the firm's products and services to be*. For example, the overall expectations question in the ACSI survey asks consumers to consider their expectations of the overall quality of one of the firms' top brand products or services prior to their most recent purchase and consumption experience. To compare this with managers' beliefs regarding their customers' perceptions, the same question could be framed as follows[1]:"Thinking about your customers' expectations of the quality they would receive, how would you rate your customers' expectations of the overall quality of your top brands?" Similarly, when consumers are asked about their overall satisfaction with their experiences with a company's top brand's products and services in the ACSI survey, the firm's managers can be asked: "Please consider all of your customers' experiences with your top brands. How satisfied do you think your customers are with your top brands?"

Having developed a conceptual framework that allows us to calibrate the extent to which managers understand the levels and drivers of customers' perceptions of their products and services, we now turn to an empirical illustration of our framework.

Research design and data

To assess the extent to which managers understand their customers, we analyze two distinct samples, one comprised of consumers of the products and services of firms across a range of industries regarding their product and service consumption experiences, and the other comprised of senior managers employed in customer-facing roles within these same companies. Our sample of consumers was drawn from data collected by the American Customer Satisfaction Index (ACSI). The ACSI interviews customers of more than 250 of the largest consumer-oriented firms in the United States each year. Data are collected on a quarterly basis for different industries, with approximately 25% of the total annual sample of respondents interviewed each fiscal quarter, and each company measured once annually. Only the largest, most economically significant companies within any measured industry are included in the ACSI, resulting in a sample that primarily includes customers of Fortune 500 companies. For each measured company within an industry, approximately 250 interviews of customers that have recently purchased and consumed the products/services offered by the company are completed. Approximately 60,000 interviews are conducted during each annual cycle of ACSI data collection. For the purposes of this study, 2009 ACSI data, including only interviews completed during the 2009 calendar-year cycle of annual interviewing, were utilized.[2]

The ACSI survey instrument used to collect this data is standardized and generalized for applicability across the full range of companies and industries measured, allowing for the estimation of a common statistical model and facilitating

[1] Consumers surveyed by the ACSI are asked questions with regard to a specific product/service brand rather than the company marketing the brand (where these are different). These named brands are the largest that a company will sell in that specific marketplace. In many cases, companies have only one brand in that marketplace, or one major brand that most consumers will have experienced. However, as a robustness check we compared our results for the whole sample with those for the subset of companies in our sample marketing only one brand in the same ACSI industry and did not find any significant differences.

[2] As a robustness check we also examined the impact of using 2010 ACSI consumer data, and the conclusions of the analyses remain largely unchanged. This is not surprising, as company-level ACSI satisfaction results tend to exhibit a significant amount of autocorrelation.

comparison of the analyzed data between both similar and dissimilar consumer experiences (Fornell et al. 1996; Johnson and Fornell 1991; Johnson et al. 2002). The questionnaire seeks the customer's perceptions regarding a general set of issues that apply across different product and service categories, thereby allowing comparison across industries. While the customer sample includes consumers who may user "smaller" brands from the company, the very nature of our sample—randomly drawing from a company's customers—means that this group will be a very small group within the overall sample. Specifically, the ACSI is designed to collect data from customers of the largest brands in each of the 40 industries in which it collects data (seeking to collect data from brands representing the majority of the sales in an industry). The customer data were collected by ACSI and the manager data were collected in strategic partnership with the ACSI to stay as consistent as practically possible in achieving aligned and matched responses at the disaggregate level of the constructs (i.e., at the item level). The questions included in the survey, along with abbreviated question wording and question/item scale, are provided in Appendix 1.

The measured variables for each company are included in the standard ACSI structural equation model for analysis (see Fig. 1). Because ACSI estimates a type of latent variable-partial least squares structural model (LV-PLS) for each company included in the study, multiple survey items are measured for each latent construct included in the model (i.e., three questions on expectations, three questions on quality, two questions on value). This multiple-item approach accounts for the 13 survey items included in Table 1, corresponding to the six estimated latent variables in Fig. 1.[3] All of the observed variables are asked on a 1–10 scale during interviewing (with the exception of the "no"-"yes", 0–1 complaint question shown in Appendix 1).

For the analysis conducted, the samples examined within the structural model differ somewhat from what is normally used in the ACSI. Instead of estimating company-level models using respondent-level data, we utilize company-level mean scores (i.e., the sum of the responses for each observed variable for each company's customers divided by the *N* respondents for that company) for the manifest data used in our analysis. This is because we are investigating the alignment between the perceptions of a company's customers *in the aggregate* and marketing managers' perceptions of these perceptions (also in the aggregate and at the company level, although obviously with far fewer observations/cases, as we discuss below).

The second sample we analyze in this study includes marketing and sales managers employed by firms included in the ACSI database. This sampling frame was designed to include professionals who are knowledgeable of their customers' perceptions of the firm's products and services (Fornell et al. 2006) and influential in the company's customer value-creating processes (Srivastava et al. 1999) and marketing activities (Vorhies and Morgan 2005). To collect this sample, we first identified managers from each firm included in the ACSI using the 2010 Dun and Bradstreet Information Services (D&B) directory as the universe of potential managers. The identified executives had managerial positions with titles such as chief marketing officer, vice president of marketing, marketing director, vice president of product development, vice president of brand marketing, vice president of sales, and director of sales. Through a qualifying email invitation sent to these professionals, a total of 1439 executives were identified as willing to respond to the survey.[4]

The surveys were made available and completed online via a customized online interface in three waves. Each wave of surveys was sent out on a different weekday (with 4 to 7 days in between each mailing) and at different times of day to maximize the likelihood of obtaining responses, as well as responses that were not skewed by design measures. A total of 1068 managers completed the survey, and these individuals represent 122 different ACSI-measured firms. All data collection for this managerial sample was completed in early 2010, providing the best possible match to the 2009 annual wave of ACSI customer data. The managers that chose to participate in the survey were asked the manager-framed ACSI consumer questions as outlined in Appendix 1.

Finally, where multiple responses from managers within any single firm were collected (e.g., five managers from Company X completed the survey), data were aggregated to the firm level as a simple average of these responses, similar to the aggregation approach used with the customer-level ACSI data described earlier. Following this procedure, and after further trimming the sample to include only those manager-respondents with strong knowledge of their customers (as described in footnote 4), 97 matched company-level customer–manager cases of data were available for analysis. The ACSI customer data file, originally containing the 226 companies

[3] The standard ACSI structural model typically includes a 14th survey item, a question regarding price tolerance/reservation price included in the customer loyalty latent variable. This question asks the respondent to indicate how much the company could raise the price of the product/service/brand experienced before he or she would definitely defect to a competitor. During questionnaire design and pre-testing with academics and managers, it was determined that this question would be too difficult to meaningfully adapt to the marketing manager questionnaire, and it was therefore excluded from both samples.

[4] As part of the qualification/eligibility validation process, the responding managers were asked to respond to the statement, "I have great knowledge of our company's customers" using a 10-point Likert-type scale ranging from "strongly disagree" to "strongly agree." Respondents reported an average score of 7.89 (standard deviation = 1.82). In all of the analysis that follows, we limited our sample of manager-respondents to only those who answered above average on the "knowledge of their company's customers" question, i.e., scoring 8 or higher.

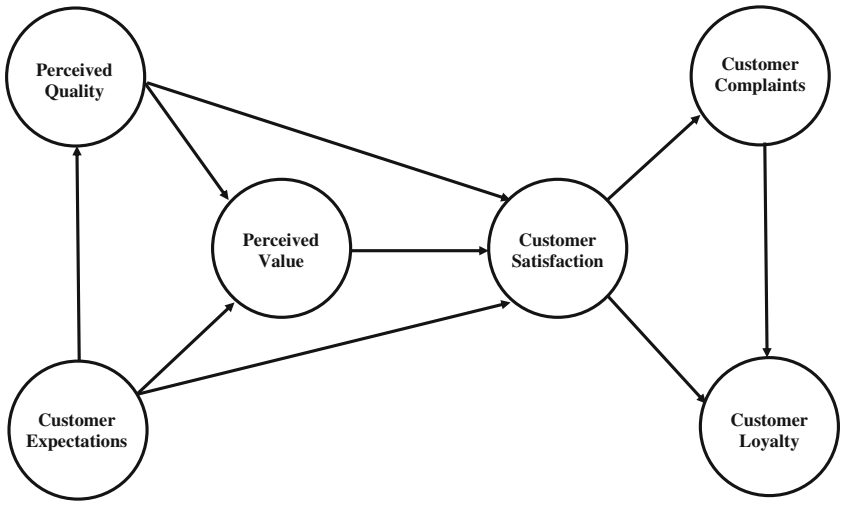

Fig. 1 Theoretical ACSI research model

measured in 2009 by the ACSI, was trimmed to match the original managerial sample, leaving a sample of 97 complete cases available for analysis. A list of the companies in the final sample is included in Appendix 2.

Analyses and results

To analyze the two samples outlined above to determine the degree of alignment between the customers' perceptions and the managers' perceptions of those perceptions, a multi-stage modeling approach was utilized. First, as shown in Table 1, we computed descriptive statistics for the ACSI company-level manifest variable mean scores (hereafter the "customer sample"), along with those for the sample of manager responses (hereafter the "manager sample").

Table 1 Observed variable descriptive statistics

	Customer sample		Manager sample	
	Mean	SD	Mean	SD
Overall expectations	8.147	0.426	8.600	0.984
Expectations customization	8.444	0.417	8.726	1.045
Expectations reliability	7.745	0.506	7.783	1.698
Overall quality	8.382	0.533	8.455	0.921
Customization quality	8.375	0.575	8.436	0.835
Reliability quality	8.223	0.588	7.920	1.536
Quality given price	8.040	0.614	8.301	1.030
Price given quality	7.665	0.739	7.905	1.256
Overall satisfaction	8.350	0.601	8.509	0.888
Confirmation of expectations	7.534	0.554	7.736	1.286
Comparison to ideal	7.462	0.625	7.960	1.101
Customer complaints	0.136	0.124	0.097	0.076
Repurchase intentions	8.090	0.684	8.458	1.203

As seen in Table 1, the mean scores on the thirteen measured ACSI survey items for the customer and manager samples exhibit both some similarities and some noteworthy differences. While for some variables only small differences in mean scores exist (e.g., expectations of reliability, overall perceived quality, and perceived customization quality)—suggesting that customers and managers are relatively well-aligned in these areas—for others the differences are more noteworthy (e.g., overall expectations, comparison to ideal)—suggesting a larger gap between the two sets of perceptions. Furthermore, even where the differences are only slight, for all but two items (and one of these is the number of complaints voiced) manager perceptions are more positive than customer perceptions, suggesting something of an ingrained over-optimism among managers. Finally, the standard deviations are significantly larger for the managerial sample, suggesting greater variation between companies' managers and their perceptions than corresponding consumer perceptions, although some of this variance is undoubtedly due to the smaller underlying managerial sample (respondents per company).

Next, following the data aggregation procedures discussed earlier, with the customer and managerial survey responses aggregated to company-level means and the cases matched across the two samples, we estimated two structural equation models: a customer model, including the company-level aggregated mean scores derived from the ACSI surveys of consumers, and a managerial sample model, including the cases for managers asked the same questions. Following the analytical techniques originally adopted for estimation of this model (Fornell et al. 1996), in this study we utilize partial least squares-based structural equation modeling (PLS-SEM) methods to estimate both the latent variable scores and the paths between the constructs shown in the ACSI model (see Fig. 1 above). PLS-SEM is a very popular and widely used method in marketing research, especially in consumer

Table 2 PLS measurement model statistics

Measurement variables	Customer model		Manager model	
(Latent variable)	Unstd. weight	Std. loading	Unstd. weight	Std. loading
Overall expectations (LV expectations)	0.345	0.956	0.516	0.907
Expectations customization	0.358	0.971	0.416	0.846
Expectations reliability	0.342	0.942	0.272	0.664
AVE/*Cronbach's* α	0.915	*0.953*	0.660	*0.743*
Overall quality (LV quality)	0.349	0.985	0.472	0.932
Customization quality	0.345	0.980	0.406	0.894
Reliability quality	0.330	0.963	0.291	0.678
AVE/*Cronbach's* α	0.952	*0.975*	0.709	*0.789*
Quality given price (LV value)	0.549	0.989	0.620	0.964
Price given quality	0.464	0.985	0.435	0.926
AVE/*Cronbach's* α	0.975	*0.974*	0.893	*0.884*
Overall satisfaction (LV satisfaction)	0.350	0.988	0.468	0.908
Confirmation of expectations	0.341	0.982	0.296	0.742
Comparison to ideal	0.333	0.959	0.406	0.875
AVE/*Cronbach's* α	0.953	*0.975*	0.713	*0.799*

-All weight and loadings significant at the $p < 0.05$ level for both models

satisfaction studies (Kristensen and Eskildsen 2010). Previous studies estimating the ACSI model have predominantly used this technique as well (e.g., Rigdon et al. 2011), and therefore employing the same methods will provide replicable results (e.g., weights, scores, path estimates) comparable to a majority of earlier studies examining the model (e.g., Fornell and Bookstein 1981; Henseler et al. 2009; Hulland et al. 2010; Morgeson et al. 2015; Vilares et al. 2010).

Beyond replicating the methods used in earlier research on the ACSI model, for the purposes of our study there are additional benefits of PLS-SEM that recommend this technique over alternative approaches. PLS enables researchers to assess both latent variables at the observation level (measurement model), a feature important to the between-model mean-comparisons integral to our study, and the relationships between latent variables on a theoretical level (structural model) (Hair et al. 2012; Hair et al. 2014, 2017). Moreover, while PLS-SEM is similar to traditional covariance-based, maximum likelihood structural equation modeling (CB-SEM), in the sense that the measurement and structural models are analyzed simultaneously, PLS relies on ordinary least squares estimation (implemented iteratively via the PLS-SEM algorithm) to solve the models, thereby relaxing the assumption of multivariate normality underlying CB-SEM. Given some of the features of the data we examine here (and particularly vis-à-vis the manager data sample, where the sample is small and the manifest variables exhibit larger variance), relaxing this assumption during analysis is optimal (Compeau and Higgins 1995).

PLS-SEM is also preferable to alternative (CB-SEM) methods when the researcher is focused on optimized prediction of dependent variables, as we are in this study. While CB-SEM focuses on maximizing overall model fit and inter-item covariance among a matrix of observed variables, PLS-SEM is a "biased" method that maximizes the relationship between specified latent variable predictor and response variables (Chin 1998). The scores thus capture the variance most useful for predicting the endogenous latent variables (Hair et al. 2014). Finally, simulations have shown PLS-SEM to be robust against inadequacies often experienced in modeling this type of data (i.e., consumer satisfaction data), such as multicollinearity, skewness, and omission of regressors (i.e., omitted variable bias) (Cassel et al. 1999). Because of all of the aforementioned advantages, PLS-SEM has routinely been suggested as the preferred estimation method for customer satisfaction studies (Fornell 1992).

For this and most studies, PLS-SEM analysis is conducted in two stages. In the first stage, the researcher ensures that the measures used as operationalizations of the underlying constructs are both reliable and valid (the measurement model). After the adequacy of the measurement model has been established, the researcher proceeds to the second stage and interprets the resulting model coefficients (the structural model). The subsequent sections report the results and key statistics for each of these two stages.

Results for the two measurement models (customer sample and manager sample), including factor weights and loadings, and evidence of convergent and discriminant validity, are presented in Table 2. The measurement model results for the two samples indicate some divergence in the manifest-latent variable relationships between the two samples, but none that diminish the applicability of the specified model to either sample. In the customer sample measurement model, all of the manifest variables load strongly and significantly on their respective latent variables, and generally the model appears stable and well-specified. Consistent with prior testing of the ACSI model using customer data, each of the standardized loadings score at the 0.940 level or higher, indicating very strong manifest-latent variable relationships. The Cronbach's α statistics for each of the four multi-item latent constructs are above $\alpha = 0.950$, and the average variance extracted (AVE) statistics for each latent variable is above 0.910 (from 0.915 to 0.975), also suggesting strong convergent validity (Fornell and Larcker 1981; Voorhees et al. 2016).

In the manager sample measurement model, a somewhat less "tight" data-to-latent-variables fit in this case is apparent. The manifest variables, in general, load less strongly on their respective latent variables, with most falling below the >0.900 levels observed in the customer sample model. However, all of the estimated latent variables meet the standard thresholds for acceptability, with Cronbach's α statistics greater than 0.7, and AVE's ranging from 0.660 to 0.893 for each of the latent variables as well. Table 3 provides the item loadings and cross-loadings for the two samples. These results show that all of the items load most strongly on their own constructs for both samples.

Having examined the results from the measurement models for the two samples, we turn now to the results for the structural models. Table 4 provides descriptive statistics for the latent variables for the two samples, as well as inter-construct correlations. These results confirm and extend upon the conclusions drawn from the measurement model statistics. While generally the latent variables exhibit significant

Table 3 Latent variable loadings and cross-loadings

Indicators	Latent variables					
Customer model	Expectations	Quality	Value	Satisfaction	Complaints	Loyalty
Overall expectations	**0.956**	0.853	0.661	0.824	−0.422	0.607
Expectations customization	**0.971**	0.885	0.689	0.849	−0.456	0.595
Expectations reliability	**0.942**	0.875	0.642	0.798	−0.466	0.503
Overall quality	0.897	**0.980**	0.806	0.969	−0.685	0.804
Customization quality	0.893	**0.985**	0.788	0.958	−0.648	0.751
Reliability quality	0.875	**0.963**	0.749	0.904	−0.656	0.662
Quality given price	0.760	0.865	**0.989**	0.924	−0.688	0.699
Price given quality	0.598	0.703	**0.985**	0.803	−0.639	0.568
Overall satisfaction	0.849	0.962	0.901	**0.988**	−0.753	0.782
Confirmation of expectations	0.821	0.945	0.892	**0.982**	−0.722	0.760
Comparison to ideal	0.853	0.926	0.781	**0.959**	−0.669	0.807
Customer complaints	−0.468	−0.680	−0.674	−0.732	**1.000**	−0.711
Repurchase intentions	0.595	0.758	0.647	0.801	−0.711	**1.000**
Manager model	Expectations	Quality	Value	Satisfaction	Complaints	Loyalty
Overall expectations	**0.907**	0.673	0.598	0.700	−0.219	0.391
Expectations customization	**0.846**	0.594	0.451	0.537	−0.142	0.502
Expectations reliability	**0.664**	0.458	0.223	0.335	−0.200	0.241
Overall quality	0.698	**0.932**	0.597	0.785	−0.319	0.500
Customization quality	0.573	**0.894**	0.480	0.721	−0.223	0.441
Reliability quality	0.537	**0.678**	0.295	0.436	−0.223	0.405
Quality given price	0.600	0.625	**0.964**	0.685	−0.147	0.468
Price Given quality	0.424	0.404	**0.926**	0.498	−0.053	0.286
Overall satisfaction	0.604	0.762	0.681	**0.908**	−0.259	0.547
Confirmation of expectations	0.446	0.476	0.395	**0.742**	−0.302	0.269
Comparison to ideal	0.641	0.721	0.506	**0.875**	−0.237	0.413
Customer complaints	−0.226	−0.306	−0.114	−0.307	**1.000**	−0.259
Repurchase intentions	0.476	0.533	0.415	0.503	−0.259	**1.000**

Table 4 Latent variable descriptive statistics and correlations

	Customer Sample ($n = 97$)	Mean	SD	1	2	3	4	5
1	Customer expectations (LV)	8.09	0.42	1				
2	Perceived quality (LV)	8.30	0.55	0.91**	1			
3	Perceived value (LV)	7.86	0.65	0.69**	0.80**	1		
4	Customer satisfaction (LV)	7.77	0.57	0.86**	0.97**	0.88**	1	
5	Complaints	0.14	0.12	−0.47**	−0.68**	−0.67**	−0.73**	1
6	Customer loyalty	8.11	0.71	0.59**	0.76**	0.65**	0.80**	−0.71**
	Manager Sample ($n = 97$)			1	2	3	4	5
1	Customer expectations (LV)	8.41	0.95	1				
2	Perceived quality (LV)	8.28	0.87	0.72**	1			
3	Perceived value (LV)	8.08	1.08	0.56**	0.56**	1		
4	Customer satisfaction (LV)	8.08	0.90	0.68**	0.79**	0.64**	1	
5	Complaints	0.09	0.08	−0.23*	−0.31**	−0.11	−0.31**	1
6	Customer loyalty	8.50	1.21	0.48**	0.53**	0.42**	0.50**	−0.26**

correlations and in the expected directions, the relationships are weaker for the manager sample than for the customer sample.

Table 5 summarizes the mean scores of the latent constructs in the model for both managers and customers and shows *t*-test statistic significance levels for the mean differences in each of the latent constructs between the two samples. Comparing the two samples, the mean scores for the customer sample are lower for each latent variable, with managers only less "positive" than customers (and then only very slightly so) about their customers' perceptions of the quality of their product and service consumption experiences. The mean differences are significant for four of the six latent variables at the $p < .05$ level and for one further latent variable at the $p < .10$ level. These results show that managers significantly overestimate the levels of their customers' pre-purchase product and service expectations, customers' perceptions of the value of the products and services that the firms provide, the level of customer satisfaction with the firms' products and services, and their customers' attitudinal loyalty (repurchase intentions). The only variable that managers significantly underestimate is the level of complaining behavior about the firm's products and services reported by customers.

Figure 2 provides standardized parameter estimates, significance of the parameter estimates, and explained variance (R^2) for each of the endogenous variables for the two structural models. In the customer sample model,

Table 5 Customer vs. manager mean-level construct differences

Construct	Sample	Mean	Standard deviation	Standard error	Mean difference
Expectations	Customers	8.093	.416	.044	-.317**
	Managers	8.410	.947	.099	
Quality	Customers	8.305	.547	.057	.0250
	Managers	8.280	.873	.092	
Value	Customers	7.857	.648	.068	-.228†
	Managers	8.085	1.075	.113	
Satisfaction	Customers	7.766	.566	.059	-.316**
	Managers	8.082	.896	.094	
Complaints	Customers	.1352	.119	.012	.041**
	Managers	.0941	.076	.008	
Loyalty	Customers	8.106	.707	.074	-.394**
	Managers	8.500	1.212	.127	

† Significant at $p < 0.10$

**Significant at $p < 0.01$

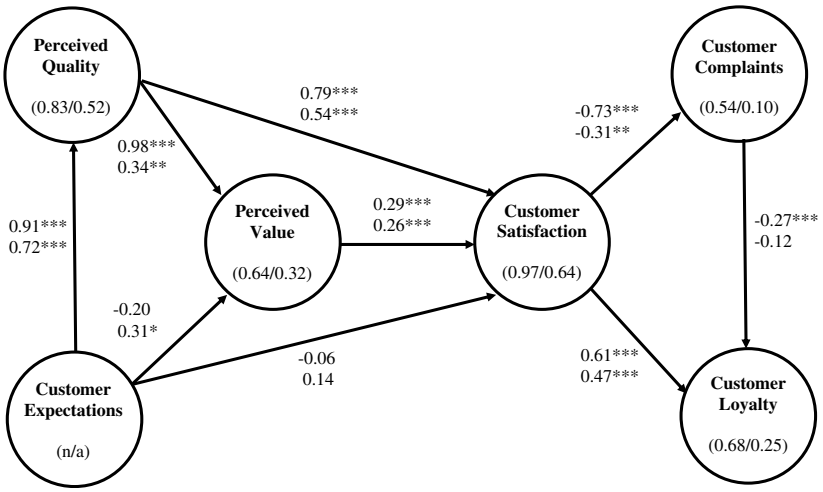

Fig. 2 Structural model results for the customer and manager samples. Notes: 1. *** Significant at $p < 0.001$; ** Significant at $p < 0.01$; * Significant at $p < 0.05$. 2. Standardized estimates are used along each path, with customer results on top and manager sample beneath. 3. R^2's for each endogenous variable is included in parenthesis (customer sample followed by manager sample). 4. Relative Goodness-of-Fit = 0.953 for customer sample and 0.901 for manager sample

the Customer Expectations latent variable is strongly and positively related to Perceived Quality ($\beta = 0.91$; $p < .001$), explaining 83% of the variance in Perceived Quality, but insignificantly predictive of Perceived Value ($\beta = -0.20$; $p > .05$) and Customer Satisfaction ($\beta = -0.06$; $p > .05$). Perceived Quality is a strong and positive predictor of both Perceived Value ($\beta = 0.98$; $p < .001$) and Customer Satisfaction ($\beta = 0.79$; $p < .001$). Perceived Value is a significant predictor of Customer Satisfaction ($\beta = 0.29$; $p < .001$), although its effect is much smaller than the effect of Perceived Quality on Satisfaction. Finally, the specified predictors explain a large proportion of the variance in both Perceived Value ($R^2 = 0.64$) and Customer Satisfaction ($R^2 = 0.97$). Customer Satisfaction is a strong negative predictor of Customer Complaints ($\beta = -0.73$; $p < .001$), explaining 54% of the variance in this variable. Customer Satisfaction is also a strong positive predictor of Customer Loyalty ($\beta = 0.61$; $p < .001$), and together Customer Satisfaction and Customer Complaints ($\beta = -0.27$; $p < .001$) explain 68% of the variance in Customer Loyalty.

Turning to the manager model, and the differences between the two models across the samples become clearer. Here, the Customer Expectations latent variable is again strongly and positively related to Perceived Quality ($\beta = 0.72$; $p < .001$), although the effect is substantially smaller than in the customer sample model, and Customer Expectations explains only 52% of the variance in Perceived Quality. Interestingly, and unlike the customer sample model, for the manager model Customer Expectations is a relatively stronger and significant predictor of Perceived Value ($\beta = 0.31$; $p < .05$) but is not a significant predictor of Customer Satisfaction ($\beta = 0.14$; $p > .05$). On the other hand, Perceived Quality is not nearly as strong a predictor of either Perceived Value ($\beta = 0.34$; $p < .01$) or Customer Satisfaction ($\beta = 0.54$; $p < .001$) as in the customer model. Perceived Value is a significant predictor of Customer Satisfaction ($\beta = 0.26$; $p < .001$), with a strength similar to that of the customer model. The specified predictors explain a smaller proportion of the variance in both Perceived Value ($R^2 = 0.32$) and Customer Satisfaction ($R^2 = 0.64$) than is the case for the customer sample model. In addition, Customer Satisfaction is a significant but weaker predictor of Customer Complaints ($\beta = -0.31$; $p < .01$), explaining only 10% of the variance in this variable. Likewise, while Customer Satisfaction is a significant predictor of Customer Loyalty ($\beta = 0.47$; $p > .001$), Customer Satisfaction and Customer Complaints ($\beta = -0.12$; $p > .05$) both have much weaker relationships than observed in the customer model and explain only 25% of the variance in Customer Loyalty.

To confirm the comparisons of the results for the two models offered above, we formally test whether or not each of the pairs of parameter estimates in the two models is equal (nine tests in all). While for covariance-based structural equation modeling several established techniques exist for comparing estimates between sub-group models—most notably, the chi-square test of difference, where each pair of model parameters is constrained to equality and the changes in chi-square values are indicative of significant parameter estimate differences—no single similarly accepted method exists for LV-PLS. However, options exist to draw this comparison. Following the recommendations of Eberl (2010), Chin (1998), and Wetzel et al. (2009), we used independent samples t-tests that assume unequal variances (standard

Table 6 Path coefficient differences

Path	Customer model			Manager model			Difference
	Unstd. path	Std. path	Std. error	Unstd. path	Std. path	Std. error	
Expectations → Quality	1.170	0.91	0.049	0.664	0.72	0.065	0.506*
Expectations → Value	−0.326	−0.20	0.212	0.314	0.31	0.138	−0.640*
Quality → Value	1.184	0.98	0.165	0.402	0.34	0.149	0.781*
Expectations → Satisfaction	−0.079	-.06	0.057	0.135	0.14	0.087	−0.215*
Quality → Satisfaction	0.840	0.79	0.053	0.518	0.54	0.096	0.321*
Value → Satisfaction	0.244	0.29	0.025	0.233	0.26	0.064	0.011
Satisfaction → Complaints	−0.157	−0.73	0.014	−0.026	−0.31	0.008	−0.131*
Satisfaction → Loyalty	0.717	0.61	0.092	0.604	0.47	0.126	0.113
Complaints → Loyalty	−1.471	−0.27	0.430	−1.870	−0.12	1.494	0.399

*Significant at $p < 0.05$

errors) between the samples, and a more conservative estimate of degrees of freedom, to compare the paths across the two models. The results from these tests are presentedin Table 6.

The results in Table 6 provide a final confirmation of the extent of the differences between the two samples and models. Of the nine parameter estimates included in each model, six significant differences in the estimates are found, suggesting that overall the relationships are considerably more dissimilar than similar for these two samples. Taken together, the observed differences in these estimates and their statistical significance across the two models provide a calibration of the extent to which managers understand the drivers of customers' views of the firm's product and service offerings.

To provide an initial indication of the potential impact of such manager–customer perception differences or misalignment, we examined the levels of satisfaction reported by the customers of firms in which the manager–customer perceptual differences are relatively larger and smaller (satisfaction was emphasized given that the original LV-PLS-tested ACSI model maximizes explanatory power on Customer Satisfaction). To accomplish this we first computed the firm-level mean differences between each firm's managers and customers on each of the six ACSI constructs contained in Table 5. We then aggregated these to a firm-level overall score representing the cumulative perceptual differences between the firm's managers and customers across all six ACSI constructs. Finally, we identified and grouped the firms with the relatively largest and smallest manager–customer perception differences in our sample and examined the difference in mean Customer Satisfaction scores across the two groups. We tested the significance of the differences in observed customer satisfaction across the two groups of firms using t-tests. As shown in Table 7, the results of this analysis reveal that the average Customer Satisfaction reported for the group of firms with the relatively largest gaps between customer perceptions of the firm's products and services and managers' views of those same customer perceptions is significantly lower than that of the group of firms with the smallest customer–manager perception gaps.

The literature contains a large and growing body of evidence linking firm-level ACSI customer satisfaction

Table 7 Customer satisfaction in most vs. least manager–customer aligned firms

Firm alignment group	N	Mean customer satisfaction	Standard deviation	Std. error	Mean difference	Std. error	t	df	Sig. (2-tailed)
Most manager–customer aligned	15	7.89	.554	.143	.462	.232	1.996	28	.056
Least manager–customer aligned	15	7.43	.704	.182					

scores with firms' accounting and stock market performance (e.g., Anderson et al. 2004; Aksoy et al. 2008; Morgan and Rego 2006; Tuli and Bharadwaj 2009). The results contained in Table 7 therefore suggest that the size of the gap between what customers actually think and what managers think customers think of their firm's products and services has a significant negative effect on firms' performance outcomes. For example, Gruca and Rego (2005) show that for the average firm tracked in the ACSI, one point of customer satisfaction is worth $55 million in next year cash-flows. This indicates that the almost half of one point ACSI customer satisfaction gap we observe between the two groups is of clear economic as well as statistical significance.

Discussion and implications

Our goal in this study was to assess the extent to which the perceptions of senior managers (employed in customer-facing roles) about their customers' views of their firms' products and services align with customers' actual perceptions. Based on a comparison of data and models from a survey of managers in predominantly Fortune 500 firms and their actual customers, we find important disconnects between what customers perceive and what managers think their customers perceive in relation to the firm's product and service offerings. These differences cannot simply be explained by the managers in our sample having little knowledge about the firm's customers since (1) these managers are in roles within the firm where they should have a good understanding of customers, and (2) we excluded surveys from managers who rated their own knowledge of the firm's customers as being less than eight on a ten-point scale. Thus, the differences that we observe are between customers of a firm and managers within that firm who are confident that they understand their customers' perceptions and their drivers, and who are not only in a position to use this knowledge to make marketing decisions but also have the authority to allocate resources to address marketplace issues.

We find a number of important customer–manager "disconnects" in our analyses. First, our results show that managers overestimate the positivity of customer perceptions of the firm's products and services. Importantly, this suggests that managerial beliefs regarding customer perceptions will likely present a "too-rosy" picture if relied upon in isolation to guide the firm's marketing decisions and resource allocations with respect to the firm's product and service offerings. Our results show that managers' beliefs regarding customer perceptions of the firm's products and services were more positive than customers self-reported perceptions for 11 out of 13 variables reported in Table 2.[5] This indicates the prevalence of an ingrained optimism regarding customer perceptions of firms' product and service offerings among managers, and these differences are also statistically significant for five of the six latent constructs examined.

Since the large consumer-focused firms in our sample typically have customer satisfaction monitoring and feedback systems in place, this finding has a number of important implications. Assuming that satisfaction and loyalty as captured in the ACSI survey questions does not produce results that are systematically different from those produced by these firms' own customer feedback questions (the similarity across most market research vendor satisfaction surveys and firm-specific surveys indicates that this is a reasonable assumption), there could be a number of reasons for the customer–manager disconnect in "levels" of perceptions of the firm's products and services. Logically, either managers are not being exposed (at least not completely) to their firms' customer feedback data, or they are not interpreting (and/or remembering) it accurately. In either case, while the managerial "fixes" required may be different, the clear implication is that firms' existing customer satisfaction monitoring efforts generally do not currently constitute good control systems.

In particular, the significant "rosy view" bias we observe among managers regarding their overestimation of the positivity of customers' views of the firm's products and services is likely to result in managers failing to act when they should. The combination of managers overestimating customers' perceived value of the firm's product and services, customers' satisfaction with the firm's products and services, and customers' likelihood to re-purchase these same products and services from the firm in the future is clearly problematic from this perspective; these overly optimistic managers are likely to miss trouble signs when they appear. This is compounded by managers significantly underestimating the proportion of their customers who have complained about the firm's products/services in the recent past. In practice, it likely means that, all else being equal, man-

[5] One of the two variables for which this is not the case is the percentage of customers who have complained about their experiences with the firm's products/services within the past 6 months. While the manager sample number is lower than that self-reported by customers, this is also a further indicator of a "rosy view" bias among managers.

agers are less likely to see a need to improve the firm's product and service offerings and their value to the firm's customers than may actually be required by customers to remain loyal to that firm.

Second, our results also clearly show that managers generally do not accurately understand the drivers of customers' perceptions of the firm's products and services. While the relatively lower incidence of "driver analysis" as a component of firms' customer satisfaction monitoring systems noted in prior research (e.g., Morgan et al. 2005) makes this result less surprising than the "levels" results discussed earlier, the implications of this finding may be even greater. Specifically, this suggests that even when managers do recognize a need to take actions to improve customers' perceptions of the firm's product and service offerings, they are unlikely to do so in ways that have the strongest direct effects on the desired customer perception outcomes. For example, our results indicate that managers are likely to underinvest in raising customer quality perceptions as a route to enhancing customer satisfaction (cf. Habel and Klarmann 2015). In this respect, our findings may also provide an explanation for overemphasis on cost-cutting and efficiency observed in firms' strategies relative to that on quality improvements or achieving differentiation (Mithas and Rust 2015; Rust et al. 2002). Where managers overestimate their own customers' perception of the firm's performance, cutbacks that undermine the delivery of service, for example, may seem less dangerous than they really are.

Perhaps even more damaging, managers are also likely to underinvest in efforts to raise customer satisfaction since they believe it has a much weaker relationship with customers' complaining behavior than is in fact the case. The literature shows that customer complaints have a significant negative effect on stock returns (e.g., Luo 2007; Luo and Homburg 2008) and future sales growth and margins (e.g., Morgan and Rego 2006). Thus, any such underinvestment in a key driver of complaint behavior has significant negative implications for firm performance. In addition, there are also likely to be important cost and efficiency downsides that result from failing to accurately understand the drivers of customers' perceptions of the firm's products and services. Managers with such inaccurate understanding of the drivers of customer perceptions are likely to inefficiently allocate available resources among available satisfaction and loyalty driver improvement options. To the extent that they are held accountable for demonstrable perceptual outcomes (as they increasingly are through performance incentives tied to satisfaction results), managers may also spend more on relatively weaker drivers to achieve the required perceptual outcomes (and thus cost the firm money).

For managers, the results of our study should serve as a wake-up call that all is not well with most firms' customer satisfaction and complaint monitoring systems. For firms with such monitoring systems already in place (such as those in our sample), the first priority should be to establish the extent and nature of the manager–customer perception "level" and "driver" disconnects within the firm. The approach adopted in our study may provide a useful starting point in doing so. Managers may be best served by simply taking their own firm's customer feedback survey measures and translating these into managerial versions of the same questions and items in much the same way our study converted the ACSI survey measures. Managers can then compare the results of their internal managerial samples with those of their existing customer data to establish the extent and nature of the manager–customer (mis-) alignment in their own firm.

In the interim, senior managers may be well advised to ensure that actual customer feedback data and driver analysis is appended to all action recommendations and resource requests related to efforts to enhance customer satisfaction and/or loyalty within the firm. This will not solve the control system "gap" problem of failing to identify when actions to enhance customer satisfaction and/or loyalty required are created by the managerial "rosy view" bias that we identify. However, it will at least ensure that managers are forced to examine and consider the firm's actual customer feedback data concerning what drives their customers' product- and service-related perceptions and behaviors. This should allow resources to be more efficiently deployed in any customer satisfaction and loyalty improvement efforts.

For firms without formal customer feedback systems, our results indicate that in any efforts to introduce such systems, managers should give great consideration to how they can communicate and establish the credibility of the customer feedback produced among managers within the firm. Enhancing managers' perceptions of the credibility of customer feedback data should enhance the likelihood that they will pay attention to it (e.g., Morgan et al. 2005) and reduce the likelihood that managers will substitute their own views of what they think customers think. Significant attention should also be given to how the results of the firm's customer feedback system can be effectively communicated to managers within the firm. The importance of these considerations suggested by our results may require new or revised customer feedback system designs and will likely also

have significant resource cost and allocation implications in implementing such systems.

Limitations and future research

While our study provides new and important insights regarding the extent to which managers understand their customers' product and service perceptions and the drivers of these perceptions, it has some limitations that are inherent in the research design and data availability. Perhaps most obvious, our study uses data only on large Fortune 500-type firms. Such larger firms generally have customer feedback systems in place, but managers within such large organizations may also be further removed from their firm's customers than is often the case with smaller firms. There is therefore a need to conduct similar studies for mid-size and small firms to establish the generalizability of our findings. In addition, while many of the firms in our sample have global operations, in our study we only collect customer and manager data for the firms in our sample operating in the United States. Data collection and analysis of this issue across different countries is required to establish the degree to which our findings are generalizable across countries.

Beyond the need for additional research to overcome these limitations, our study also has numerous implications for future research. Here, we focus on three issues that we believe may provide particularly fruitful avenues for theoretically important and managerially relevant inquiry. First, why are managers overly positive in their views of what customers perceive of their firm's product and service offerings? Cognitive limitations and biases arising from the use of judgmental heuristics such as representativeness, availability, and adjustment and anchoring (e.g., Chinader and Schweitzer 2003; Tetlock 2000; Kahneman and Tversky 1979) may help explain differences between what customers think and what managers think customers think. But what explains the systematic positivity bias we observe? Is it that the within-firm objective data on product and service quality and costs observed by managers is systematically greater than the perceptions of customers?

Second, many large firms systematically track the satisfaction of their customers using actual consumer survey data and use sophisticated analysis techniques to uncover the drivers of satisfaction among their customers. Yet, as our results show, this is clearly insufficient if the goal is to allow managers to understand customers' perceptions of the firm's product and service offerings and the drivers of those perceptions. There may be two basic reasons why such disconnect is apparent. First, it is possible that the data and analysis results of the firm's customer feedback systems are not being communicated effectively within the firm. This may be a sender issue (e.g., using insufficient or ineffective media or messages) and/or a receiver issue (e.g., insufficient time or cognitive resources). Moreover, managers may be skeptical of the results of their firms' customer feedback systems and instead trust their own perceptions as a substitute for findings from this data and base their marketing decisions on such perceptions. Which is it? Or is it a combination of the two?

Third, given the indications of the negative impact of the manager–customer perception gaps we uncover for customer satisfaction outcomes, what works and doesn't work in closing the gap between what managers think customers think and what customers actually think? Most firms currently spend the overwhelming majority of their customer feedback monitoring budgets on data collection and analysis (e.g., Morgan et al. 2005). Should they focus greater attention on establishing the credibility of the customer feedback data collected and analyses performed on this data among managers and employees within the firm? If so, what are the predictors of customer feedback data and data analysis output credibility among managers? These issues are becoming increasingly important to tackle in the new era of big data. Alternatively, is the problem that results are simply under- or ineffectively communicated to managers? If so, what communication approaches work best to ensure that customer feedback data and insights are successfully received by managers and employees? For example, can data visualization approaches help bridge the sender–receiver communication gap?

Conclusion

Based on an analysis of consumer survey data from the American Customer Satisfaction Index (ACSI) and a sample of surveys of managers employed within ACSI-measured companies, this study provides evidence that managers generally fail to accurately understand both what customers think of their firm's products and services and why customers hold the perceptions that they do. These findings suggest that despite often being the single biggest line-item of most firms' market research expenditures, existing customer feedback systems are not performing an effective management control role. In addition, firms need to do much more to communicate and establish the credibility of the insights produced by their customer feedback systems.

Appendix 1

Table 8 Survey items, item wording, and scale

ACSI Item *(Scale)*	Original customer respondent question wording	Manager respondent revised question wording
Overall Expectations *(1 = "not very high" and 10 = "very high")*	Thinking about your overall expectations of the quality you would receive from (Company/Brand), how would you rate your expectations?	Thinking about your customers' expectations of the quality they would receive, how would you rate your customers' expectations of the overall quality of your top brands?
Expectations of Customization *(1 = "not very well" and 10 = "very well")*	At the same time, you probably thought about things you personally require from (Company/Brand), how would you rate the degree to which you expected that these personal requirements would be met?	Think about the things your customers personally require from the products or service that your company sells. To what degree do you think your customers expected your top brands to meet their personal requirements?
Expectations of Reliability *(1 = "very often" and 10 = "not very often")*	Thinking about your expectations before your recent experiences with (Company/Brand), how often did you expect that things could go wrong (Company/Brand)?	Thinking about your customers' expectations before their most recent experiences with your top brands, how often do your customers expect that things could go wrong with your top brands?
Overall Quality *(1 = "not very high" and 10 = "very high")*	First, please consider all your experiences with (Company/Brand). How would you rate the overall quality of (Company/Brand)?	Now, please consider all of your customers' experiences with your top brands. How would your customers would rate the overall quality of your top brands?
Quality as Customization *(1 = "not very well" and 10 = "very well")*	Now, thinking about your personal requirements from (Company/Brand), please tell me how well (Company/Brand) has actually met your requirements?	Now, thinking about your customers' personal requirements from your top brands, how well do your customers believe that your top brands actually met their personal requirements?
Quality as Reliability *(1 = "very often" and 10 = "not very often")*	How often do things go wrong with (Company/Brand)?	How often do your customers believe that things actually go wrong with your top brands?
Price given Quality *(1 = "very poor price given the quality" and 10 = "very good price given the quality")*	Given the quality of (Company/Brand), how would you rate the prices that you pay for (Company/Brand)?	Given the quality of your top brands, how would your customers rate the price that they paid?
Quality given Price *(1 = "very poor quality given the price" and 10 = "very good quality given the price")*	Given the prices you pay at (Company/Brand), how would you rate the quality of (Company/Brand)?	Given the price that the customers paid for your top brands, how would they rate the quality?
Overall Satisfaction *(1 = "very dissatisfied" and "10" = "very satisfied")*	First, please consider all your experiences to date with (Company/Brand). How satisfied are you with (Company/Brand)?	Please consider all of your customers' experiences with your top brands. How satisfied do you believe your customers are with your top brands?
Confirmation of Expectations *(1 = "falls short of the customers' expectations" and 10 = "exceeds the customers' expectations")*	To what extent has (Company/Brand) fallen short of your expectations or exceeded your expectations?	To what extent has your top brands fallen short of the customers' expectations or exceeded their expectations?
Comparison to Ideal *(1 = "not very close to the ideal" and "10" = "very close to the ideal")*	Forget (Company/Brand) for a moment. Now, I want you to imagine an (Company/Brand). How well do you think (Company/Brand) compares with that ideal (product or service)?	Forget your top brands for a moment. Now, we want you to imagine an ideal (product or service in your category) from the customers' standpoint. How well do you think your customers believe that your top brands compares with that ideal product/service?
Complaint *(1 = "No" and 2 = "Yes" for customers and Percentage for managers)*	Have you complained to (Company/Brand) within the past 6 months?	What percentage of your customers do you think complained about any of your top brands within the past 6 months?
Repurchase Intention *(1 = "very unlikely" and 10 = "very likely")*	The next time you are going to choose a (product or service) for your needs, how likely is it that it will be (Company/Brand) again?	The next time your customers are going to purchase the same product/service which you sell, how likely is it that they will purchase from your company?

Appendix 2

Table 9 Companies included in sample

1-800-Flowers	Costco	Kraft	Southwest
ABCNews.com	CVS Caremark	Kroger	Sprint
Adidas	Darden	Lowe's	Starbucks
Aetna	Dell	Macy's	Staples
Allstate	Delta	Marriott	Starwood
Amazon	DIRECTV	McDonald's	Supervalu
Ameren	DISH Network	Mercedes-Benz	Target
American	Domino's Pizza	MetLife	UnitedHealth
Apple	eBay	Microsoft	UPS
AT&T	Edison International	Molson Coors	USATODAY.com
Bank of America	Exelon	Motorola	Verizon
Best Buy	Expedia	Nike	V.F. Corp.
Blue Cross Blue Shield	Farmers	Nokia	Volkswagen
Campbell Soup	FedEx	Office Depot	Walgreens
CenterPoint Energy	FirstEnergy	OfficeMax	Wal-Mart
Charter Communications	Ford	PepsiCo	Wells Fargo
Choice Hotels	Gap	Philip Morris	Winn-Dixie
Citigroup	General Electric	PPL	WellPoint
Clorox	General Mills	Procter & Gamble	Wyndham
CMS Energy	Google	Rite Aid	Whirlpool
Coca-Cola	Hewlett-Packard	Safeway	Xcel Energy
Colgate-Palmolive	Honda	Sara Lee	Yahoo!
Comcast	J.C. Penney	Sears	
ConAgra	JPMorgan Chase	Sempra Energy	
Continental	Kellogg	Southern Company	

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