Neil A. Morgan, Eugene W. Anderson, & Vikas Mittal

Understanding Firms' Customer Satisfaction Information Usage

Despite theoretical and empirical research linking a firm's business performance to the satisfaction of its customers, knowledge of how firms collect and use customer satisfaction information is limited. The authors investigate firms' customer satisfaction information usage (CSIU) by drawing on in-depth interviews, a focus group of managers, and the existing literature. They identify key characteristics of the major processes involved in firms' CSIU and compare the CSIU practices revealed in their fieldwork with widely held normative theory prescriptions. They also identify variations in CSIU among the firms in the fieldwork and uncover factors that may help explain the observed differences.

There is increasing evidence linking a firm's financial performance to the level of satisfaction reported by its customers (Anderson, Fornell, and Lehmann 1994; Anderson, Fornell, and Rust 1997; Bolton 1998). Therefore, managers are keen to discover how to improve customer satisfaction (CS) and thus business performance (Piercy and Morgan 1995; Westbrook 2000). The literature posits that the accomplishment of this goal requires formal systems that are designed to understand and monitor CS (Sharma, Niedrich, and Dobbins 1999; Westbrook 2000; Woodruff 1997). Such CS systems are prescribed to provide managers with practical insights into how the firm's resources should be deployed to improve satisfaction (Hayes 1992; Heskett et al. 1994; Mittal, Ross, and Baldasare 1998) and with timely and accurate leading indicators of future financial performance (Fornell 1992; Fornell et al. 1996; Ittner and Larcker 1998).

Despite this strongly advocated normative prescription, little is known about the processes by which firms actually collect and use customer satisfaction information (CSI). Many important questions remain unanswered: What are the key processes that should constitute firms' customer satisfaction information usage (CSIU)? What do firms actually do in practice? Are there areas in which CSIU practice is at variance with normative prescriptions, and if so, why? and Does CSIU enable firms to gain significant customer-based insights and thus gain competitive advantage?

The purpose of this article is to illuminate the internal processes by which firms monitor and use CSI. We begin by drawing on insights from field research and the extant literature to develop a model of CSIU, identifying the key components of CSIU and how these are linked together. Next, we use our model to compare and contrast CSIU in practice with widely held normative prescriptions from the literature. On the basis of our findings, we then identify contingency factors that affect how firms implement CSIU in practice. Finally, we bring together our model and the identified contingency factors in a fully explicated model of CSIU processes, influencing factors, and the association between CSIU and firm performance. We conclude with a discussion of the implications of our work for both theory and practice.

We believe that this investigation is timely and important for both improving practice and developing theory. Customer satisfaction data collection is typically the single largest item of firms' annual expenditure on market intelligence and is often the only systematic market intelligence that a firm generates (Wilson 2002). Yet there is little or no guidance for managers on how exactly to design and implement CS systems successfully (Piercy and Morgan 1995; Powaga 2002). It is not well understood what the components of such a system should be or how they should be managed to yield maximum benefit to the firm (Griffin et al. 1995; Hauser, Simester, and Wernerfelt 1994; Westbrook 2000). As a result, many CSIU initiatives fail to reach their potential in terms of providing the hoped-for benefits of either increased CS or improved financial performance; this has resulted in a growing frustration among managers with their firms' CS programs (Reichheld 1996; Rigby 1999). A better understanding of CSIU and how best to implement such systems in practice is necessary, or managerial skepticism is likely to grow, and the resources required to support such efforts will be allocated elsewhere (Rust, Zahorik, and Keiningham 1994).

Achieving a better understanding of CSIU is also important with respect to the broader landscape of organizational theory and systems theory in marketing as a whole. Customer satisfaction information usage lies at the heart of firm's market orientation (i.e., the ability of a firm to understand and respond to its environment) and should be a major contributing factor to any link between a firm's degree of market orientation and its financial performance (Hunt and Morgan 1995; Jaworski and Kohli 1993; Narver and Slater

Neil A. Morgan is Associate Professor of Marketing, Kelley School of Business, Indiana University (e-mail: namorgan@indiana.edu). Eugene W. Anderson is Associate Dean for Degree Programs and Professor of Marketing, National Quality Research Center, Stephen M. Ross School of Business, University of Michigan (e-mail: genea@umich.edu). Vikas Mittal is Professor of Marketing, Katz Graduate School of Business, and Associate Professor of Psychiatry, School of Medicine, University of Pittsburgh (e-mail: vmittal@katz.pitt.edu). The authors gratefully acknowledge insightful comments and suggestions in the development of this article from Bruce Clark, Rohit Deshpandé, Claes Fornell, John Hulland, Don Lehmann, Nigel Piercy, Paul Root, and Valarie Zeithaml, as well as the financial support of the Marketing Science Institute.

1990). Developing an improved understanding of firms' CSIU should therefore contribute to the further explication of the underlying processes of market orientation and the theoretical mechanisms by which it is associated with firm performance. Moreover, there is growing interest in research that links marketing activities to firms' business performance. Customer satisfaction has been identified as a key outcome of marketing activities associated with subsequent business performance (Fornell et al. 1996) and therefore is widely viewed as a useful metric in implementing marketing strategy and monitoring marketing and firm performance (Hauser, Simester, and Wernerfelt 1994; Rust et al. 2004). Understanding how best to create and manage marketing control systems using appropriate performance metrics such as CS is a potentially important contribution (Morgan, Clark, and Gooner 2002; Srivastava, Shervani, and Fahey 1998).

Theory Framework

Customer satisfaction information usage refers to the processes that a firm uses to monitor, diagnose, and take action to optimize CS. We posit four distinct CSIU processes by synthesizing insights from models of information use in marketing information systems, organizational learning in management, market research utilization, and market information processing in marketing. First, CS data scanning refers to the generation of CS data. This is consistent with the intelligence generation process in market information–processing models (Jaworski and Kohli 1993) and the information acquisition process in organizational learning (Huber 1991). Second, CS data analysis refers to the examination and organization of CS to imbue it with meaning. This process is consistent with aspects of the interpretation stage of organizational learning (Crossan, Lane, and White 1999) and of sensemaking in models of organizations as information processing systems (Glazer 1991; Thomas, Clark, and Gioia 1993). Third, CSI dissemination refers to the exchange of CSI within the firm. This process is consistent with the dissemination stage of market information–processing (Maltz and Kohli 1996) and organizational learning (Slater and Narver 1995) models and the communication stage of market research utilization models (Menon and Varadarajan 1992). Fourth, CSI utilization refers to how a firm uses CSI to understand the environment, make decisions, and deploy resources. This process is consistent with conceptualizations of knowledge utilization in models of market information processing (Moorman 1995) and market research use (Deshpandé and Zaltman 1987).

Three main bodies of literature indicate the importance of firms' CSIU and provide a theoretical foundation linking it to business performance. First, the strategic management literature posits that business performance is a function of a firm's ability to process information in ways that enable it to adapt to its environment (Boisot and Child 1999; Cockburn, Henderson, and Stern 2000). Indeed, the systems perspective in management views information processing as the fundamental task of any organization (Daft and Weick 1984; Thomas, Clark, and Gioia 1993). More recent theory developments in this vein focus on models of organizational learning, delineating the processes by which firms create and use knowledge through information processing (Huber 1991) and the benefits of doing so for a firm's ability to adapt to its environment successfully (Crossan and Bedrow 2003). To the extent that CSIU affects a firm's processing of relevant environmental information, and therefore the firm's ability to adapt to its environment, CSIU should contribute to business performance.

Second, drawing on the organizational learning perspective, market orientation theory focuses explicitly on learning about markets and posits that firms that are engaged in more extensive market information processing develop superior knowledge about customers, competitors, and channel members (Day 1994b; Sinkula 1994). Firms with superior market orientation develop a "know-what" advantage over rivals that enables them to deploy their available resources in ways that more closely match target customer requirements and thus deliver superior customer value (Hunt and Morgan 1995; Slater and Narver 1998). As a result, market orientation theory indicates that firms with superior CSIU should have superior customer knowledge and be able to develop offerings that better satisfy the needs and wants of target customers (Day 1994a; Jaworski and Kohli 1993; Slater and Narver 1995).

Third, control systems theory indicates that CSIU may provide an important mechanism for directing the firm's resource deployments and the behavior of its personnel. Control systems are formalized routines and procedures that use information to maintain or alter patterns in organizational activity (Jaworski 1988; Simons 1995). Control systems theory identifies four core steps in management control systems: (1) setting a desired performance standard, (2) collecting and communicating information related to actual performance, (3) comparing this information with the performance standard, and (4) taking corrective action when necessary (Anthony 1988; Green and Welsh 1988). Customers have been identified as an important relational resource for firms (Srivastava, Shervani, and Fahey 1998), and CS has been identified as a leading predictor of firms' financial performance (Fornell 1992). Therefore, CSIU may be an important component of a firm's management control system that aids in monitoring performance (Ittner and Larcker 2003), implementing strategy (Kaplan and Norton 1996), and directing attention and resources toward satisfying target customer needs to develop and protect this relational source of competitive advantage (Griffin et al. 1995).

Having identified four CSIU subprocesses suggested in the literature and noting three streams of literature that indicate the importance of CSIU in firm performance, we now turn our attention to the methodology we used in our study to deepen the understanding of firms' CSIU.

Research Approach

Researchers have noted that given the undeveloped state of knowledge in this important domain, understanding firms' CSIU requires significant conceptual development (Piercy and Morgan 1995; Westbrook 2000). Inductive field research has been identified as the most appropriate research approach to enhance understanding of phenomena

in relatively undeveloped areas of knowledge (Bonoma 1985; Flint, Woodruff, and Gardial 2002; Zaltman, LeMasters, and Heffring 1982). Whereas inductive research in marketing has been most closely equated with the "interpretive" perspective in consumer research, it has also been successfully used to enhance the understanding of key organizational issues (Kohli and Jaworski 1990; Narayandas and Rangan 2004; Workman, Homburg, and Gruner 1998).

The nature of CSIU requires a balance between a "coarse-grained" field research approach to capture the essence of the wide-ranging domain of CSIU and a "fine-grained" approach to identify important variables and relationships that provide both a basis for future empirical research and more specific insights for managers (Eisenhardt 1989; Harrigan 1983). We bridge these conflicting requirements by adopting a discovery-oriented approach (Kohli and Jaworski 1990; Menon et al. 1999). Rather than rely on either fieldwork observations (Glaser and Strauss 1967) or existing theory and literature (Srivastava, Shervani, and Fahey 1998), we iteratively synthesize literature and field-based insights to develop a comprehensive conceptual framework that identifies key factors and relationships that enhance the understanding of firms' CSIU (Burawoy 1991; Gioia and Pitre 1990; Workman, Homburg, and Gruner 1998).

The first stage in our research involved using insights from the literature to establish initial boundaries to focus our inquiry and to guide the selection of an appropriate field research sample (Bonoma 1985; Eisenhardt 1989). We reviewed the available literature on CSIU and the broader literature on marketing information systems, organizational learning, management control systems, market information processing, and market research utilization to identify factors that may be important to the understanding of firms' CSIU. We used these literature-based insights to develop an initial conceptual framework from which we constructed a semistructured interview protocol for use in open-ended, in-depth interviews (see the Appendix). The interview protocol enabled us to focus our fieldwork investigation while providing the flexibility to incorporate fieldwork observations of issues outside the domain of our initial framework.

We then considered the field research sample that may be appropriate. Because previous research has not identified important contingencies that may affect CSIU, we adopted a purposive sampling plan to ensure the representation of a wide variety of firms in terms of areas of business activity, geographic scope, and size (Workman, Homburg, and Gruner 1998). We also included a specialist consulting firm in our sample because each consultant's exposure to CSIU in many different firms and industries provides the potential for unique insights.

Next, we conducted face-to-face in-depth interviews with individual managers. Each interview lasted between 60 and 90 minutes. We conducted multiple interviews at each firm in our sample to triangulate and build on information regarding CSIU in each firm (Eisenhardt 1989). In each firm, we attempted to identify and interview designers of CS systems, personnel who were intimately involved in the ongoing operation of CS systems, and managers who we expected to be users of CSI.

As we show in Table 1, we interviewed a total of 142 managers in 38 different firms.[1] Excluding the specialist consulting firm (for which we focused our interviews on the CSIU of the firm's clients), the 37 firms we examined ranged widely in terms of size and industry type. Of the 37, 6 are based outside the United States. For 3 firms (AirCo, FilterCo, and ScienceCo), we conducted the interviews at a time when the firms were redesigning their CS systems. Given the logistical issues involved in interviewing such a large number of managers in different locations and the desirability of conducting interviews in the same general time period, it was not possible for us to conduct all the interviews personally. To balance the competing demands of logistical and time constraints with the need to maintain as much standardization as possible in the field research to ensure comparability (Bonoma 1985; Eisenhardt 1989), we adopted a two-stage approach. First, we conducted 47 interviews across 14 firms. Even though we guaranteed confidentiality, when research access was granted, most firms identified their CS systems as "commercially sensitive" and would not allow the interviews to be taped. Therefore, following established approaches (Workman, Homburg, and Gruner 1998), we took handwritten notes during each interview and elaborated on and transcribed them within 24 hours of the conclusion of each interview.

Second, using the experience and insight gained from this first round of interviews, we developed a detailed protocol that we used to train two different groups of graduate students to aid in subsequent data collection.[2] The first group of students were participants in an executive MBA program, and the second group were participants in a full-time MBA program who were enrolled in a marketing strategy class. For the executive MBA students, we selected employer firms of individual students that were appropriate research sites, and we contacted an identified manager at the firm. For the second group, we selected appropriate research sites and again negotiated access. We then gathered the graduate students into small teams and trained them to use the interview protocol to collect the required data. At least two students conducted each interview to ensure that all required questions and appropriate follow-up prompts were used (Bonoma 1985; Eisenhardt 1989). All the students involved in the interview jointly transcribed it within 24 hours. Subsequently, we debriefed the students to clarify any points that arose from the transcribed notes. In addition, we required each student group to pool the insights from all the interviews in a particular firm and to produce a written report outlining CSIU in that firm.

Although interviewer bias is always a possibility in qualitative data collection, the use of open-ended questions, the involvement of more than one interviewer in the vast majority of interviews, and multiple interviews in each

[1]To preserve anonymity, we use industry- or market-related pseudonyms when we refer to individual firms.

[2]This involved carefully explaining the detailed protocol prepared on the basis of our interviews, role playing of interviewees by the primary researchers with feedback to students, and question-and-answer sessions with feedback to students following their initial interviews.

TABLE 1
Fieldwork Sites

Firm and CSIU Type	Firm and Market Characteristics	Number of Interviews and Interviewee Position Titles
AirwayCo: control	Large publicly traded Europe-based airline with a strong market share on most routes but facing both consolidation and new low-cost, short-haul entrants	1: Head of market research
ITC: control	One of the largest global information technology firms with a strong market share in most strategic business units in a dynamic and highly competitive market	3: Director of marketing, managers of CS and product marketing
TelCo: control	Large European telecommunications firm with a dominant share of domestic markets and a smaller share of European markets in a dynamic and somewhat regulated market	1: Market research manager
PowerCo: control	Large regional investor-owned utility (electricity and gas) supplier in a heavily regulated industry with quasi monopoly	3: Quality consultant, senior corporate planner, vice president customer service
InsCo: control and learning	One of the largest national life insurance and investment services providers in a somewhat dynamic and regulated market environment	3: Market research manager, directors of voice of the customer and service quality
ImageCo: control	One of the largest global imaging supplies and services provider in a declining and highly competitive core market with dynamic new technologies emerging	2: Director of business research, director of CS
GolfCo: limited	Regional medium-sized leisure and hospitality firm in an increasingly saturated and fragmented market that is highly competitive	2: Directors of business development and associate development
ConsultCo: not applicable	Medium-sized global marketing research and consulting with a high share of the specialist satisfaction-related niche	3: Managing consultant, senior consultant, program director
FilterCo: limited	One of the largest national industrial filter manufacturers and suppliers in a competitive and maturing market that is consolidating	9: Operations director; managers of marketing, sales, customer service, channels, engineering development, quality, planning, and channel development
AirCo: control	Medium-sized regional industrial air services supplier with a relatively small share of a fragmented market in a relatively simple environment	5: Chief executive officer, account representative, customer service representative, sales manager, operations manager
PhotoCo: control	Largest firm in global photo processing equipment and services in a highly competitive and mature market that is increasingly driven by new technology	2: Market analyst, marketing program manager
DrugCo: limited	Large global pharmaceutical company with a high market share in several different therapeutic markets that are regulated and competitive	1: Product manager
ScienceCo: limited	Large European scientific equipment supplies and services with a large global share of several relatively uncompetitive and stable niche markets	9: General manager; directors of quality assurance and operations; managers of service, sales operations, channels, quality assurance, customer service, and operations
ResortCo: control and learning	Small local hotel and golf club with a relatively large market share in a particular local niche market that is stable and relatively uncompetitive	6: Director of sales and marketing, reservations manager, director of catering, operations manager, operations supervisor, reception manager

TABLE 1
Continued

Firm and CSIU Type	Firm and Market Characteristics	Number of Interviews and Interviewee Position Titles
InnCo: control and learning	Small local hotel and restaurant with a relatively large market share in a particular local niche market that is stable and relatively uncompetitive	5: General manager, assistant manager, front office manager, restaurant manager, housekeeping manager
GymCo: limited	Small local consumer fitness facility with a small share of a growing but competitive and fragmented local market	4: General manager, sales manager, front desk manager, fitness coordinator
BankCo: control	Large regional consumer and business banking services with a relatively large share of a competitive and consolidating regional banking market	4: Vice president CS, market research manager, regional president, regional president
HospitalCo: control	Large regional teaching hospital with a high market share in several specialties and a quasi monopoly for these in a local, regulated market	3: Managers of marketing and customer quality information, vice president of marketing and public affairs
SportCo: control and learning	Medium regional professional sports franchise in the national league with a local monopoly for this sport and a large share of the total regional sports market	3: Assistant director marketing, promotions manager, vice president marketing
AutoCo: control and learning	One of the largest global luxury automobile manufacturers with a relatively large share of a competitive and consolidating market	3: CS supervisor, managers of customer knowledge and CS research
MarketCo: learning	Small local gourmet and specialty food retailer with a large share of a relatively uncompetitive local niche market	2: General manager, floor manager
HotelCo: control	Small local historic hotel with a large share of a niche market that is becoming increasingly competitive	4: Director of operations; managers of front office, housekeeping, and concierge services
WireCo: learning	One of the largest global providers of financial market information services in a competitive, maturing, and consolidating market	3: Managers of sales, service development, and customer service
CellCo: control	One of the largest global mobile telephone infrastructure manufacturers with a large share of a highly competitive but rapidly growing market	6: Directors of global accounts, quality, and sales; managers of brand research and analysis, operations development, and research
HotelGroupCo: control and learning	Large Latin American hotel group with a large domestic market share and a smaller share in other Latin American countries in a competitive market	4: General manager, manager of food and beverage, manager of reception, guest satisfaction system coordinator
DevelopCo: learning	Small slow-growth regional technology transfer services with a quasi monopoly in a particular local niche market	4: Director, associate director, chair of technology review panel, technology development associate
PCHelpCo: control	Medium personal computer customer service center serving customers of one of the largest global personal computer manufacturers in a competitive and maturing market	6: Managers of customer support, help center, operational service, staffing and planning, quality assurance, and development projects
FinanceCo: control and learning	Large regional consumer and business banking services with a relatively large share of a competitive and consolidating regional banking market	4: Chief executive officer, head of customer service, managers of customer service and group retail banking

TABLE 1
Continued

Firm and CSIU Type	Firm and Market Characteristics	Number of Interviews and Interviewee Position Titles
CivilCo: learning	Medium regional civil engineering services with a small share of fragmented and competitive market and a larger share in some specialist niches	3: Vice president of marketing, division vice president, office manager
TechCo: limited	Medium national technology research, consulting, and services organization with a small share of a fragmented and dynamic market	3: Director of center, assistant director, program area manager
HealthCo: control	Medium regional health maintenance organization with relatively small share of regional market in a competitive, consolidating, and regulated market	4: Chief executive officer, vice president service excellence, director of medical economics, medical director
MedicCo: control and learning	Large regional hospital with significant and stable share of increasingly competitive local market	3: Strategic planning director, market analyst, case manager
ShieldCo: control and learning	Large regional health insurance provider with largest share of regional market in competitive, consolidating, and regulated market	3: Vice presidents of CS and market research, market research manager
LightCo: control	Large regional investor-owned electric utility in a regulated industry with a quasi monopoly in the geographic markets in which it operates	3: Vice president CS, managers of market research and customer service
ChemicalCo: control	Large global industrial hygiene services with a relatively large share of a fragmented, competitive, and increasingly dynamic market environment	8: Vice presidents of national accounts, sales, and marketing; managers of marketing, sales information, customer reporting, technical services, and customer service
NetworkCo: control	Large global telecommunications technology provider with a subordinate share in a consolidating, highly competitive, and dynamic market	4: Vice president of development, managers of customer value and customer accounts, market research services director
CruiseCo: learning	Large national cruise line with a growing share of a niche market in a growing, consolidating, and dynamic market	3: Vice president of marketing, accommodation director, consumer insight manager
CarCo: control	One of the largest global automobile manufacturers with a significant share of all of the global market in a consolidating and highly competitive industry	3: Vice president customer knowledge, managers of customer loyalty and group CS

research site helped reduce the likely presence and impact of such bias in our study (Narayandas and Rangan 2004; Strauss and Corbin 1998). We then reviewed all 142 individual interview transcripts and the reports on each firm that the graduate students produced. We used the insights generated from this review to modify and refine the initial literature-based framework. We then used the revised conceptual framework to guide a second, more focused review of the literature. Our aim was to gain theoretical support (or a lack thereof) for the insights that had emerged thus far. In addition, during this stage of the research, we used the emerging conceptualization of CSIU as the basis of interview discussions with three academics (all of whom have studied various aspects of CSIU) to provide insights that may not have been available from the fieldwork or the existing literature.

In the final stage of our research, we discussed the conceptual framework and fieldwork observations regarding CSIU practice in a focus group setting with 12 managers from seven different firms. The managers in our focus group were intimately connected with some aspect of CSIU and worked in a wide range of industries, none of which had been a part of our fieldwork interview sample. This stage of the research provided an additional form of "triangulation" (Deshpandé 1982; Menon et al. 1999), which enabled us to assess the face validity of our conceptual framework and our fieldwork insights. It also enabled us to refine key CSIU constructs, explicate expected relation-

ships, and achieve a balance among theoretical rigor, domain coverage, model parsimony, and managerial relevance (Zaltman 1997).

CSIU

We now turn to our fieldwork findings about CSIU, drawing particular attention to aspects of CSIU in which we observed substantial departures from extant theory prescriptions. We summarize the most salient characteristics of each of the four CSIU subprocesses in Figure 1 and the pertinent numerical data from our fieldwork observations in Table 2.

CSIU Subprocesses

CS data scanning. We identified four salient aspects of CS data scanning: formalization, frequency, measures, and sampling. "Formalization" refers to the degree to which standardized rules and procedures are used to gather CS data (Menon et al. 1999). Our fieldwork indicates that managers view formalization as enabling CS scanning efficiencies through specialization and routinization. Consistent with institutional theory (Feldman and March 1981; Zeitz, Mittal, and McCauly 1999), formalization is also sometimes viewed as having a symbolic value in signaling the importance of CSI within the firm. In addition, our fieldwork suggests that formalization is viewed as useful in minimizing potential risks associated with data collection. For example, at CellCo, the CS program manager, who championed a more formalized data collection system, noted, "We want to avoid the risk that different parts of our organization approach the same customers at different times with almost the same questions, which would certainly annoy customers." Despite these benefits, we observed that 10 of the 37 companies in our sample did not have formal CS data collection processes. The literature also advocates complementing formalized CS data collection processes with informal customer feedback to achieve richer insights (Chakrapani 1998; Day 1994b). In the 27 firms with formalized systems, our fieldwork revealed some support for normative propositions that supplementing formalized CS data-scanning processes with more informal CS data collection can enhance the customer knowledge generated. For example, a manager at CruiseCo commented, "I also sometimes undertake some informal qualitative research work. It's the only way to really understand what drives customers scoring a '4' versus those scoring a '5' in our surveys."

"Frequency" of CS data scanning refers to the number of times various scanning activities are performed in a given time frame. In our fieldwork, we observed that firms often invest in several different CS scanning activities. The number of different CS data collections (i.e., separate data collection exercises that generate CS data) ranged from one to six for each of the 37 firms in our sample (mean = 2.11, mode = 1). Normative prescriptions suggest that CS data scanning should be a "continuous process" (Chakrapani 1998; Day 2000). However, in our fieldwork, we found large variations in CS scanning frequency with firms that collected CS data—daily: 15 firms; weekly: 2 firms; monthly: 6 firms; quarterly: 2 firms; biannually: 3 firms; annually: 5 firms; and less frequently: 4 firms.

"Measures used" refers to the specific indicators of CS and related constructs with which firms collect data. The consumer behavior (Spreng, MacKenzie, and Olshavsky 1996; Yi 1990) and managerial (Naumann and Giel 1995) literature suggest a wide range of different CS measures. Normative prescriptions advocate capturing standardized CS data on attribute-level and overall satisfaction and on important postpurchase intentions to enable tracking over time and offer diagnostic insights; normative prescriptions also advocate open-ended questions to facilitate a richer understanding (Gale 1994; Hanan and Karp 1989). In the 78 different CS data collections across the 37 firms in our fieldwork, we observed that attribute-specific CS questions were the most common and were used in 64 data collections; overall CS questions were used in 58 data collections, likelihood-to-recommend questions were used in 40 data collections, future purchase intention questions were used in 38 data collections, and open-ended questions of various types were used in 28 data collections. In addition, as we show in Table 2, our fieldwork revealed that firms use several different data collection mechanisms to collect CS data on these measures.

"Sampling" refers to the ways that firms identify and target customers from whom they collect CS data. We observed significant sampling differences among firms. Our fieldwork suggests that there are particularly important differences in the identification of strategic versus other types of existing customers and the inclusion of "lost" and competitors' customers in the sample. The literature suggests the collection of CS data from representative samples that include all current customers (with the ability to identify key accounts or strategic customers separately), lost customers, and competitors' customers (Griffin and Hauser 1993; Reichheld 1996; Rust, Zeithaml, and Lemon 2000). In our fieldwork, all 37 firms collected CS data from a sample of all of their current customers. However, only 7 firms separately identify and collect CS data from strategic customers, only 4 firms collect data from competitors' customers, and only 2 firms collect data from lost customers.

CS data analysis. Our research revealed three particularly important characteristics of the CS data analysis process: data integration, analytical sophistication, and relationships examined. "Data integration" refers to the degree to which CS-related data from different sources are combined and considered holistically as a single data set (Zahay and Griffin 2002). We found that many firms collect CS-related data of multiple kinds and through multiple scanning activities. For example, many of the firms we studied track CS scores and have customer complaint monitoring systems. The literature prescribes integrating such diverse CS-related data for analysis to provide data synergy benefits and enable richer interpretation (Davenport and Klahr 1998; Powaga 2002). The value of such CS-related data integration was also emphasized in our interviews. For example, a research manager at ImageCo commented, "Pulling all the formal and informal CS data from different sources together provides real opportunities for insight." However, the firms in our sample varied in their efforts to integrate diverse sets of available CS-related data, and only 8 firms considered CS-related data from different sources

FIGURE 1
A Framework for Understanding Firms' CSIU

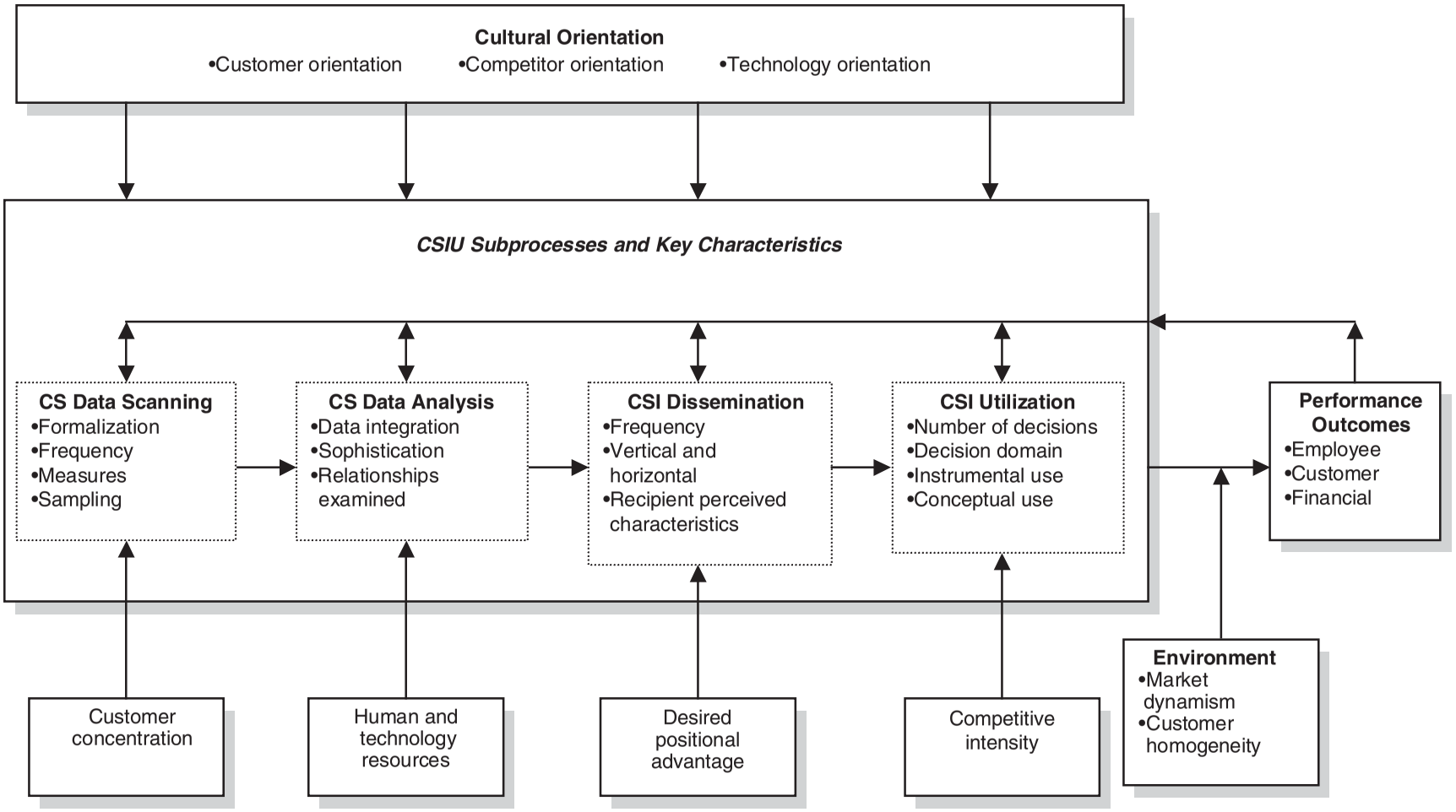

TABLE 2
Prescription Versus Fieldwork Evidence

CSI Elements	Literature Prescription	Fieldwork Findings		Possible Contingencies
Scanning: formalization	Formalized systems complemented by informal customer feedback	In total, 27 of the 37 (73%) firms have formal CS data collection systems. Few of these 27 integrate or use any additional informal customer feedback.		Control versus learning focus of CSIU Customer concentration
Scanning: frequency	Continuous CS data collection to provide "real-time" feedback	The 37 firms engage in 78 different CS data collections (range = 1–6, mean = 2.11, and mode = 1).		Control versus learning focus of CSIU Cultural orientation
		Frequency range for the 78 different CS data collections across our sample: •Daily: 24 (31%) •Weekly: 3 (4%) •Monthly: 10 (13%) •Quarterly: 11 (14%) •Biannually: 10 (13%) •Annually: 14 (18%) •Less frequently: 6 (8%)	Frequency range for CS collection among the 37 firms: •Daily: 15 (41%) •Weekly: 3 (8%) •Monthly: 8 (22%) •Quarterly: 9 (24%) •Biannually: 6 (16%) •Annually: 11 (30%) •Less frequently: 4 (11%)	
Scanning: CS measures	Multi-item scales, relative to expectations, importance weights, price, nonattribute cues, postpurchase attitudes and behaviors	In the 78 CS data collections and in 37 firms, frequency of measures used: •Attribute-level satisfaction: 64 (82%) and 34 (92%) •Overall satisfaction: 58 (74%) and 32 (86%) •Likelihood-to-recommend: 40 (52%) and 20 (54%) •Purchase intentions: 38 (49%) and 18 (49%) •Open-ended questions: 28 (36%) and 18 (49%)	Data collection mechanisms used in the 37 firms: •Mail surveys: 18 (49%) •Telephone surveys: 18 (49%) •"In-venue" surveys: 9 (24%) •Online surveys: 5 (14%) •Focus groups: 4 (11%) •Depth interviews: 2 (5%) •Mystery shoppers: 2 (5%)	Control versus learning focus of CSIU Cultural orientation
Scanning: sampling approach	"Strategic" and other existing customers, lost customers (defectors), and competitors' customers	Sampling approaches used in the 37 firms: •All existing customers: 37 (100%) •Separate strategic customers: 7 (19%)	•Competitors customers: 4 (11%) •Lost customers: 2 (5%)	Control versus learning focus of CSIU Cultural orientation
Analysis: CS data integration	Customer insight database with CS monitoring data, complaint data, customer service data, customer behavior data, and so forth	No integration of CS data with any other related customer data in 29 of the 37 firms.		Availability of human and technology resources Control versus learning focus of CSIU Cultural orientation

TABLE 2
Continued

CSI Elements	Literature Prescription	Fieldwork Findings	Possible Contingencies
Analysis: relationships examined	Drivers of CS and other postpurchase phenomenon, CS relationships with purchase behavior, internal metrics, and business performance outcomes	Relationships examined in the 37 firms: •Current attribute-level and overall satisfaction and past scores: 34 (92%) •Attribute-level satisfaction and overall satisfaction: 14 (38%) •Overall satisfaction and future purchase intentions: 7 (19%) •Overall satisfaction and likelihood-to-recommend: 2 (5%) •CS and subsequent customer behavior: 1 (3%) •CS and internal performance metrics: 1 (3%)	Availability of human and technology resources Control versus learning focus of CSIU Cultural orientation
Analysis: analytical sophistication	Multivariate assessment of measurement properties and relationships, time-series analyses to establish causality	Analyses performed in the 37 firms: •Univariate analyses: 34 (92%) •Multivariate analyses: 14 (38%) •No quantitative analyses: 3 (8%)	Availability of human and technology resources Control versus learning focus of CSIU Cultural orientation
Dissemination: frequency	Frequent, if not continuous, dissemination of CS scores and data	Frequency of CS dissemination in the 37 firms: •Daily: 2 (5%) •Quarterly: 9 (24%) •Weekly: 1 (3%) •Monthly: 10 (27%) •Annually: 1 (3%) •Biannually: 2 (5%) •Less frequently: 8 (22%)	Desired positional advantage Control versus learning focus of CSIU Cultural orientation
Dissemination: vertical and horizontal	CS monitoring data made accessible to everyone in the firm	CS dissemination targets in the 37 firms: •Upward to senior managers: 32 (86%) •Downward to frontline employees: 23 (62%) •Horizontal to other departments: 25 (68%)	Desired positional advantage Control versus learning focus of CSIU Cultural orientation
Dissemination: perceived CSI characteristics	Users perceive CSI as valid and reliable, timely, relevant, and actionable	Variation in user reliability and validity assessments, CSI disseminated often viewed by potential users as "too late" to be considered timely even if relevant, no "causes" or "fixes" for CS-related issues or problems identified.	Desired positional advantage Control versus learning focus of CSIU Cultural orientation User awareness of CSI properties
Utilization: number of decisions	CSI widely used in most decisions that may affect customers	CSI use in the 37 firms: •Instrumental use: 31 (84%) •Conceptual use: 9 (24%)	Dissemination of CSI Desired positional advantage Competitive intensity Control versus learning focus of CSIU Cultural orientation

TABLE 2
Continued

CSI Elements	Literature Prescription	Fieldwork Findings	Possible Contingencies
Utilization: decision domains	CSI should be an important input in decisions across all functional areas	CSI mainly used in customer service decision making.	Dissemination of CSI Desired positional advantage Competitive intensity Control versus learning focus of CSIU Cultural orientation
Utilization: instrumental use	CSI as a key input in any decisions that affect the value delivered to customers, CS data as an important component of reward and evaluation systems	CSI important in customer service decisions, few formal links to reward and evaluation system.	Dissemination of CSI Desired positional advantage Competitive intensity Control versus learning focus of CSIU Cultural orientation
Utilization: conceptual use	CS monitoring as a mechanism for organizational learning, CSI as a key input into strategic planning	CSI use in the 37 firms: •Primarily as a performance-monitoring system component: 22 (59%) •Primarily as a tool for learning about customers: 15 (41%)	Dissemination of CSI Desired positional advantage Competitive intensity Control versus learning focus of CSIU Cultural orientation

simultaneously in analyzing CS. Many of the 29 firms that undertook no data integration viewed this as a weakness in their CSIU.

"Analytical sophistication" refers to the complexity of the statistical analysis approaches used to interpret and derive meaning from CS data. The literature advocates using sophisticated multivariate data analyses in analyzing CS data (Anderson and Mittal 2000). However, our fieldwork indicates wide variation in analytical sophistication among firms. For example, of the 37 firms in our fieldwork sample, 3 undertake no quantitative analysis at all, and 34 undertake univariate analyses, primarily calculating means, frequencies, and trend lines for attribute-level and overall CS scores. However, only 14 of these firms also use more sophisticated multivariate analyses, primarily multiple regression analyses of the relationships between CS and individual attributes and in constructing overall CS "index" scores. Despite this, our fieldwork indicates that managers in firms that use more sophisticated multivariate analyses believe that deeper and more actionable insights are realized through the firm's CS data analysis.

"Relationships examined" refers to the linkages among variables that are studied in CS data analysis. Our fieldwork suggests that analyzing relationships between CS drivers and CS and between CS and other internal metrics and performance outcomes is an important characteristic of a firm's CS data analysis. The literature suggests examining relationships between overall CS and (1) attribute-level performance to identify CS drivers (Chakrapani 1998; Sharma, Niedrich, and Dobbins 1999), (2) postpurchase phenomenon to identify drivers of buying and recommendation behavior (Gale 1994; Perkins 1993), and (3) other internal performance metrics to understand the firm's "service-profit" chain and validate the firm's performance-monitoring system (Anderson and Mittal 2000; Rust, Zahorik, and Keiningham 1994). In our fieldwork sample, 34 firms relate current attribute-level and overall CS to prior scores in their CS data analysis. However, only 14 firms relate attribute-level satisfaction to overall CS, only 7 firms relate overall CS to future purchase intentions, and only 2 firms relate CS to likelihood-to-recommend. We observed regular CS data analyses that examined linkages between CS and customers' subsequent purchase behavior in only 1 firm (CarCo). Furthermore, we encountered efforts (single, isolated experimental projects) to relate CS with other internal performance metrics, such as employee satisfaction and sales, in only 1 firm (AirwayCo). None of the firms in our sample had ever tried linking CS data to their financial performance.

CSI dissemination. A firm often generates CS data in one particular department in the firm (e.g., marketing research, customer service department), whereas employees acting on that information reside in various other departments of the organization. Therefore, it is crucial that CSI is disseminated to these internal audiences (Day 2000). Our fieldwork indicated three important aspects of CSI dissemination: frequency, vertical and horizontal dissemination, and recipient perceptions. "Frequency" refers to the number of CSI dissemination events during a given period of time (Fisher, Maltz, and Jaworski 1997). The literature prescribes frequent dissemination to emphasize the value of CSI and to provide personnel with timely information for decision making (Dutka 1993; Maltz and Kohli 1996). Our fieldwork indicates that managers believe that frequent dissemination leads to CSI being more routinely used. For example, FinanceCo senior managers view their monthly dissemination of CSI to all branches as key in maintaining a customer focus. One respondent indicated, "The results are widely anticipated and a great source of excitement for these [front-line service] employees." Conversely, at DrugCo, one manager commented, "Communicating satisfaction research here is so rare that it never becomes a part of what our product and sales managers routinely think about." Table 2 reveals wide variance in CSI dissemination frequency among the 37 companies in our sample; more than half the firms disseminate CSI quarterly or less frequently. Notably, CSI is often not disseminated as frequently as it is collected and analyzed in our fieldwork sample.

The extent of "vertical and horizontal dissemination" refers to the degree to which CSI is disseminated up and down the firm's hierarchy and across functional areas. Our fieldwork suggests that managers view such dissemination as an important determinant of CSI use in decision making. As one ConsultCo manager commented, "Measurement doesn't change anything, people change things…. So you have to make sure you get the satisfaction data in the hands of whoever may be able to use it." The literature advocates horizontal CSI dissemination to focus attention on the CS outcomes of all activities within the firm (Griffin et al. 1995; Hanan and Karp 1989) and vertical dissemination to provide important control information to senior managers and information that is useful in guiding the behavior of frontline employees (Davenport and Klahr 1998; Gale 1994). However, we observed that 12 of the 37 firms in our sample do not undertake any horizontal dissemination of CSI. In an extreme example at NetworkCo, a design vice president was amazed to discover from the researcher conducting the interview that the firm had an extensive system for collecting satisfaction data from its largest customers. Furthermore, 5 of the 37 firms in our sample do not engage in upward vertical dissemination of CSI, and 14 do not routinely engage in any downward vertical dissemination to frontline employees.

"Recipient perceptions" refer to the perceived characteristics of CSI among those to whom it is disseminated. Both fieldwork observations and the literature suggest that such user perceptions are critical determinants of the utilization of CSI (Moorman, Deshpandé, and Zaltman 1993). Our fieldwork suggests that three types of recipient perceptions are of particular importance: (1) Accuracy is the degree to which recipients view the CSI as valid and reliable (Moenaert and Souder 1990; Piercy and Morgan 1995), (2) usability is the degree to which recipients perceive CSI to be relevant and timely (Maltz and Kohli 1996; Menon and Varadarajan 1992), and (3) diagnosticity is the degree to which CSI enables the recipient to understand the drivers of the level of CS (Sharma, Niedrich, and Dobbins 1999; Woodruff 1997). For example, CellCo's account managers suggested that they ignore the CSI they receive because

they believe that the CS questions are flawed, thus producing invalid responses. One manager commented, "The people [collecting CSI data] have no clue about our industry or our customers." In another example, managers at MedicCo reported being reluctant to attach much importance to CSI in making decisions because the information was typically five- to six-months old when they received it. Furthermore, supporting the importance of diagnosticity, a manager at InsCo commented, "People here say 'don't give me numbers, just tell me what I got to do!'"

CSI utilization. Our fieldwork indicates that a firm's CSI does not have value unless it is translated into appropriate strategy and tactics. For example, one vice president stated, "We know which of our clients are happy with us and which aren't. We know that before we call them. The real question is what do we do with the [CS survey] information once we get it?" The literature suggests that firms should use CSI as an important input in almost all significant decisions across all functional areas (Hanan and Karp 1989; Jaworski and Kohli 1993). However, our fieldwork reveals that most of the firms in our sample use CSI as an input in only a limited number of decisions, most of which are in the domain of customer service and account management. The degree to which CSI is used in decisions outside these domains appears to be an important feature that distinguishes CSI utilization differences among firms. For example, a PowerCo manager commented, "It's amazing the number of decisions that impact customers that get taken here without considering our satisfaction data." Conversely, at SportCo, senior managers indicated that CSI is an important input in significant product resource allocation decisions with respect to roster changes and free-agent hires.

Information utilization has been theoretically conceptualized in terms of instrumental and conceptual use (Menon and Varadarajan 1992), and the literature suggests that firms should benefit from both (Day 2000; Slater and Narver 1998). "Instrumental" use refers to using information directly to solve a specific problem or make a particular decision (Moorman 1995). Our fieldwork suggests that in most firms, CSI utilization is typified by instrumental use, such as the identification of key drivers of overall satisfaction and the execution of decisions designed to manage the firm's performance on these attributes (Sharma, Niedrich, and Dobbins 1999). Of the 37 firms in our sample, 31 engage in some form of instrumental CSI utilization of this kind. For example, at FinanceCo, CSI indicated that customers were dissatisfied with the reliability of the bank's automated teller machines. Therefore, senior managers invested $10 million to upgrade metro location machines, and with this aspect of the bank's service, CS subsequently increased significantly.

"Conceptual" use refers to using information to enhance thinking processes that do not lead to short-term actions (Menon and Varadarajan 1992). For example, conceptual use of CSI may entail learning about customer preferences for existing products. Therefore, it is more forward looking and enables managers to identify opportunities for developing new offerings (Moorman 1995). However, we identified only eight firms in our sample that exhibit conceptual utilization of CSI. For example, at MedicCo, CS data trends led managers to conclude that customers had pastoral care needs that were not being met. This resulted in the development of a new set of services that was radically different from those previously available. More typically, however, our fieldwork suggests that managers often consider the CSI they receive as tactical rather than strategic in terms of the revealed insights.

CSIU Outcomes

In our fieldwork, many managers voiced a strong belief that effective CSIU is associated with superior business performance. Although we were not able to verify this empirically—and notably, none of the firms in our sample had ever tried to do so—these beliefs are consistent with the theoretical (Anderson and Mittal 2000; Rust, Zahorik, and Keiningham 1994) and managerial (Flanagan and Fredericks 1993; Naumann and Giel 1995) literature. Our fieldwork suggests that CSIU is related to three different types of performance outcomes. First, both the literature and the fieldwork suggest a relationship between CSIU and employee outcomes (Heskett et al. 1994). For example, LightCo managers reported an increase in team spirit among employees following the introduction of a new CS system. In general, managers in our fieldwork believe that by signaling a clear and believable customer focus, firms that invest greater time and effort in CSIU have more satisfied employees. Most managers also believe that increases in employee satisfaction associated with CSIU subsequently lead to increased CS. Notably, however, at AirwaysCo, an attempt to link CS to employee satisfaction indexes revealed a negative correlation, and the trends in these metrics moved in opposite directions over time. A similar experience was recounted in our focus group, suggesting that, in general, though managers believe that there is a positive monotonic relationship between employee satisfaction and CS, the relationship is more complex.

Second, our fieldwork suggests that there is a relationship between CSIU and customer perceptions and behaviors. Consistent with the literature (Anderson and Mittal 2000; Kamakura et al. 2002), managers believe that effective CSIU is directly related to CS, behavioral loyalty (retention, price sensitivity, and share of business), and resulting sales revenue (sales growth and market share). For example, managers at ShieldCo directly attributed its recent return to growth (after four years of steady decline) to its investment in CSIU. In addition to these "effectiveness" market performance dimensions, the literature indicates that CSIU may also be related to adaptive performance in terms of the firm's ability to develop new products (Griffin and Hauser 1993). This was supported in our interviews, in which several managers suggested that insights from CSI provided a source of ideas for product development and refinement, as well as information relevant to the positioning and launching of new products.

Third, our fieldwork indicates that CSIU is related to firms' financial performance. For example, WireCo managers stated that the firm's customer service reputation, which they attributed in large part to its CSIU, enabled them to charge higher prices than competitors and achieve

higher margins while maintaining customer retention and enjoying above-industry sales growth. Our fieldwork indicates that managers believe that CSIU contributes to financial performance by prioritizing resource allocation to the areas that are most likely to maximize CS. For example, managers at CarCo, which is widely viewed as one of the most efficient auto manufacturers, indicated that the firm's CSI drives almost all product and even component redesign decisions. Analogous to the efficient market hypothesis in capital markets, our fieldwork suggests that improvements in CS-related information flows within firms improve the efficiency of resource allocations in their "internal capital markets" (Anderson and Mittal 2000; Rust, Moorman, and Dickson 2002). For example, CSI led ShieldCo managers to halt a new service development project and, instead, to allocate resources to advertise more heavily two existing services that seemed to link directly to observed weaknesses in two particular drivers of CS. A manager commented, "The market now perceives considerable value from these service 'enhancements,' yet the cost to the company is minimal."

CSIU Variance Among Firms

In addition to the divergence between CSIU theory prescriptions and the fieldwork reality we previously described, we also observed wide CSIU variance among the firms in our sample. Assuming that managers are acting rationally, such variance indicates that there are contingency factors that lead to interfirm CSIU differences. Our fieldwork suggests several factors that affect firms' CSIU. We identify particular contingencies observed in our fieldwork and how these factors may affect individual CSIU subprocesses; we also examine a firm's cultural orientation, which our fieldwork indicates is a contingency that affects a firm's entire CSIU.

Contingencies Affecting CS Data Scanning

Our fieldwork indicates that customer concentration (i.e., the amount of a firm's output purchased by a small number of customers) affects firms' CS data scanning. High customer concentration implies a larger risk to firms in losing such important customers, providing a greater incentive to understand and monitor their satisfaction (Li and Calantone 1998). For example, NetworkCo established a separate unit and a formal system to track the CS of its 12 largest customers; because these customers accounted for the majority of the firm's revenue, dissatisfaction among any one of them could risk significant revenue loss. Customer concentration also implies more powerful customers that may mandate that their suppliers use particular CS systems, as was the case at TechCo (cf. Zeitz, Mittal, and McCauly 1999).

The cultural orientation of a firm also appears to affect CS data scanning. The literature identifies three major cultural orientations among firms: customer orientation, competitor orientation, and technology orientation (Day and Nedungadi 1994; Kohli and Jaworski 1990; Narver and Slater 1990). We observed that customer- and competitor-oriented firms in our sample engaged in more frequent CS data collection, were more likely to capture data on customers' postpurchase intentions, and more often included key accounts and competitors' customers in their CS sampling frame than did firms with a strong technology orientation. Our fieldwork also suggests that customer-oriented firms are particularly likely to measure CS relative to customer expectations, whereas competitor-oriented firms are most likely to measure CS relative to competitors. We also observed that technology-oriented firms appear to be the most likely to sample the firm's newest customers in CS data collection.

Contingencies Affecting CS Data Analysis

An important contingency that our fieldwork revealed is firms' human and technology resources. For example, ShieldCo managers identified their inability to make the different systems used to collect and store customer account, inquiry, complaint, and satisfaction data to "talk to each other" as a major weakness in their CS data analysis. They expected that the firm's investment in a new enterprise resource-planning system would enable them to link these diverse sets of CS-related data in the future. From an analytical sophistication perspective, managers in several firms identified the statistical knowledge and skills of personnel involved in analyzing and managing CS data as key. Even when firms outsource data analysis to specialist vendors, managers still need sufficient statistical knowledge to ask for and understand sophisticated CS data analyses. As one vendor in our focus group commented, "If they [the client's vendor manager] cannot fully comprehend and explain the dynamics of satisfaction—interaction terms, nonlinearities, causality directions, [and so forth]—to their bosses and peers, then they don't want to hear the realities of what their satisfaction data are saying."

Our fieldwork indicates that the cultural orientation of the firm is also an important determinant of CS data analysis. Surprisingly, given our preceding observation, we found that customer- and competitor-oriented firms in our sample were the most likely to integrate data from multiple different sources in analyzing CS data. Because firms with a strong technology orientation may be expected to have greater technology resources, this suggests that access to technology provides the ability but not necessarily the motivation to integrate diverse sets of CS-related data. We also observed that firms with a strong technology orientation were less likely to examine relationships between attribute-level and overall satisfaction and between satisfaction and loyalty in their CS data analysis than were more customer- and competitor-oriented firms.

Contingencies Affecting CSI Dissemination

Our fieldwork suggests that the positional advantage pursued by a firm affects its CSI dissemination. We observed that firms emphasizing revenue enhancement exhibited more extensive dissemination of CSI than did firms pursuing a cost-based competitive advantage (Rust, Moorman, and Dickson 2002). For example, one of the most extensive CSI disseminators in our sample was AutoCo. A manager reported, "It's all about quality and satisfaction here…. We never compete on price." Although the literature suggests that firms pursuing cost-based strategies must maintain

acceptable CS levels to achieve competitive advantage (Porter 1980), our fieldwork indicates that such firms are much less likely to disseminate CSI widely. For example, at PhotoCo, CS data dissemination is limited. A manager explained, "We want to keep our peoples' focus on enhancing our profitability by driving productivity."

Our fieldwork indicates that the cultural orientation of the firm also affects CSI dissemination. We observed that customer- and competitor-oriented firms in our sample engaged in much greater dissemination of CSI. For example, at WireCo, which views itself as customer focused, managers indicated that after CSI is collected and analyzed, it is quickly and widely shared in the firm to maximize the ability of as many decision makers as possible to use it. Similarly, ImageCo, which views itself as being strongly competitor focused, expends considerable resources in the blind tracking of customer and prospect satisfaction with both the firm's own products and those of its major competitors. This CSI is quickly and widely disseminated in the firm and is viewed by most recipients as both valid and useful.

Contingencies Affecting CSI Utilization

Our fieldwork suggests that the competitive intensity of a firm's marketplace is an important factor affecting CSI utilization. Firms facing intense competition appear to use CSI in more decisions and across more diverse areas than do firms facing less competitive pressure. For example, at HopsitalCo and PowerCo, both of which enjoy a quasi-monopoly position in their geographic marketplaces, managers reported using CSI in a limited number of tactical decisions, primarily in the area of customer service. Conversely, firms facing intense competition, such as InsCo, CruiseCo, and CarCo, reported a greater utilization of CSI in making a wide range of strategic and tactical decisions across a wide range of business activities.

The cultural orientation of the firm also appears to affect CSI utilization. We observed that firms in our sample with strong customer or competitor orientation were more likely to make greater conceptual and instrumental use of CSI and to use CSI as an important input across a broader range of decisions than were firms with a technology orientation. For example, TechCo, a firm described as "heavily technology focused," has a CS data collection system in place for only one of its customers, and this was at the insistence of that customer. This CSI is accessed only by the program director in the firm, who views it as a "[public relations] exercise to keep this particular customer on board" and who reported using this CSI for no other purpose. Conversely, managers at CruiseCo, one of the most customer-oriented firms in our sample, report using CSI in almost every decision made within the firm.

Contingencies Affecting Relationships Between CSIU and Firm Performance

The normative literature posits that CSIU affects performance outcomes under all conditions (Dutka 1993; Hanan and Karp 1989; Sharma, Niedrich, and Dobbins 1999). However, our fieldwork indicates that the link between CSIU and firm performance may be moderated by factors in the firm's environment. Two such moderating factors that were suggested are "customer homogeneity" and "market dynamism." When customers are heterogeneous in their preferences, their key satisfaction drivers and the nature of the satisfaction–retention–profitability linkages should differ markedly (Anderson and Mittal 2000). Our fieldwork suggests that in highly heterogeneous customer markets, CSIU distinguishes a firm's ability to understand and effectively segment its markets and deliver higher satisfaction levels to different groups of customers. For example, ShieldCo managers indicated that CSIU helped them segment their markets and match their service offerings better with each segment than their rivals. However, when customers are homogeneous, satisfaction drivers may become well known in the industry, thus reducing the ability of a firm's CSIU to deliver competitive advantage. For example, a TelCo manager indicated that CSIU benefits were primarily "defensive" because residential telephone customer preferences were relatively homogeneous and well known.

Market dynamism refers to the rate of change in the composition of customers and their preferences (Jaworski and Kohli 1993). When customers and their preferences change slowly over time, all firms may achieve a similar level of customer knowledge, and the CSIU process may add differentially less competitive advantage. For example, FilterCo managers indicated that their customers' preferences changed relatively rarely, and this made it difficult to have a know-what advantage over rivals through CSIU. However, when customer preferences change rapidly, CSIU processes may be unable to keep pace and, again, may not deliver significant competitive advantage (Flint, Woodruff, and Gardial 2002). For example, NetworkCo's manager of the key account CS program indicated that customers' technology demands change so quickly that it is difficult for the CS program to do anything more than address customer service issues. However, when customers and their preferences change but do so at a speed that can be detected and acted on by a firm's CSIU, our fieldwork suggests that the potential performance benefits of firms' CSIU are enhanced.

Overall Role of CSIU in the Firm

Although our fieldwork indicates many differences among firms on specific CSIU characteristics, we also observed that the firms in our sample could be categorized into one of four groups with respect to their overall CSIU. First, six firms in our sample exhibited limited CSIU. These firms were characterized by less formal and more infrequent CS data collections, typically *ad hoc* data collections occurring less than once a year. These *ad hoc* data collections often seem to be associated with some precipitating event or problem, such as the development of a new offering or a loss of market share. As a result of the relatively infrequent CS data collections, most of the subsequent stages of the CSIU process were necessarily more limited than were those exhibited in the rest of our fieldwork sample.

A second group of 17 firms exhibited more extensive CSIU that was primarily connected with the firm's management control system. In these firms, CSIU is used along with other monitoring systems, typically those that focus on

financial and sales indicators, to track CS as one of several key performance indicators. Of the 37 firms in our sample, 29 regularly use CS data to help monitor firm performance. In these 17 firms, however, CSIU is viewed as primarily a performance-monitoring issue. In this group, our field research indicates that CSIU tends to be characterized by (1) more formalized CS data collection systems that are particularly likely to use CS measures that include specific referents (e.g., customer expectations, perceptions of competitors' products); (2) relatively simple univariate analyses of overall CS; (3) a more frequent dissemination of CS data and recipients that view the CSI as having little diagnostic capacity; and (4) a stronger instrumental CSI utilization that is focused on strategy implementation and control, including the greatest use of explicit CS goals and systems that link employee rewards to their achievement.

In a third group of five firms, we observed that CSIU primarily provides a mechanism for learning about customers, and the managers in these firms believe that it provides customer knowledge that can be leveraged to provide a strategic advantage (Barabba and Zaltman 1991; Sinkula 1994). In these firms, CSIU appears to be congruent with theoretical conceptualizations of organizational learning (Crossan and Bedrow 2003; Sinkula 1994). Consistent with this literature, the majority of the learning about customers that firms in our field research derive from CSIU appears to be adaptive (Slater and Narver 1995). However, the five firms for which CSIU predominantly fills an organizational learning role also often engage in more open-ended *ad hoc* CS inquiries that are consistent with generative organizational learning (Day 1994b). We observed that CSIU in these firms (1) is more likely to involve both informal and formal CS data collection, (2) is likely to use more sophisticated multivariate analyses that focus on understanding the attribute drivers of overall CS and the relationship between CS and customer loyalty, (3) expends more time and effort uncovering diagnostic and actionable CS insights, and (4) makes greater conceptual use of CSI and uses CSI in formulating strategy.

Fourth, we identified a group of nine firms that appeared to use CSIU as both a key component of the firm's management control system and an important customer-focused organizational learning mechanism. Notably, each of these nine firms operated in consumer rather than business-to-business markets. Compared with the other three groups identified, these firms (1) are the most likely to include lost and strategic customers in their CS data collection samples; (2) are the most likely to integrate CS-related data from different sources in CS data analysis; and (3) have both the greatest dissemination of CS data within the firm and some of the most positive user perceptions of the accuracy, relevance, and diagnosticity of CSI. However, there appears to be less generative learning from CSIU in these firms than in those in which CSIU is predominantly a learning mechanism. This may be a result of the lower use of supplemental *ad hoc* and informal CS-related data collections to complement formalized CS systems. This is consistent with our observation that the firms in this final group tend to have more extensive formal CS data collection systems and make greater use of these formal systems to derive primarily adaptive learning benefits.

Overall, this grouping of firms' CSIU in our fieldwork sample suggests that there are tensions between using CSIU for control purposes and for generative organizational learning. Comparisons between current and prior CS data are important contributors to both management control system success and adaptive learning within the firm (Moorman 1995; Slater and Narver 1995). These comparisons contribute to a shared mental model of what managers believe is important to customers, and they provide actionable benchmarks against which managers can monitor the firm's performance (Day 1994a, 2000). However, our fieldwork indicates that these same characteristics can also be restrictive (Moorman and Miner 1997). They can make open-ended inquiry that challenges a firm's assumptions about its customers difficult, even if a firm's CS systems identify triggers that suggest the need for such an inquiry. For example, several managers in our fieldwork admitted that their firms continue to use CS systems they believe to be outdated—even in terms of measuring performance on attributes that may no longer be relevant to their customers' satisfaction—to continue to provide the same CS data for performance monitoring. Managers indicated that in these situations, it can be difficult to instigate research projects to verify whether changes in CS drivers have occurred because of the pressure to maintain consistency with historical CS data for benchmarking purposes.

Implications

We summarize a selection of the most important findings from our fieldwork in Table 3. The table presents typical practices we found with respect to the four subprocesses of CSIU, and it classifies each practice along a continuum from encouraging to discouraging.

Encouraging practices are those we find to be consistent with normative prescriptions and appropriate given the context in which the firm operates; they include widespread use of formalized data collection, multivariate driver analysis, regular dissemination of findings, and an impact on decision making in customer service and account management functions. To a large extent, these are the fundamental components of any successful CSIU system.

Normative departures are practices that do not fit with normative theory but may be appropriate given certain situational factors. Such practices include the lack of formal in-depth inquiry into underlying causes of satisfaction and dissatisfaction, the use of single-item scales, little integration of CS data with other relevant data within the firm (only one firm in our sample linked CS to purchase behavior and none to financial consequences), failure to inform frontline employees, and CSI not making its way into functional areas other than customer service and account management. For example, in many industries, it is difficult to link CS data with purchase behavior or customer profitability. Managers whose CSIU systems exhibit such departures should ensure that these are appropriate given the nature of the company and the competitive environment it faces.

TABLE 3
Fieldwork Finding Highlights

	Encouraging Practices	Normative Departures	Discouraging Practices
Scanning	•Formalized systems are common. •Data collection is usually frequent.	•There are few formal inquiries to understand the causes of (dis)satisfaction. •Most firms use single-item scales.	•Data are usually collected only from existing customers (few sample former customers or competitors). •Few firms distinguish strategic or valuable customers from others.
Analysis	•Multivariate analysis is used by nearly half the firms in our sample to examine the drivers of satisfaction.	•There is little integration of CS data with other customer data or relevant data from elsewhere in the firm. •Only one firm links CS to purchase behavior. •None of the firms in our sample attempts to link CS to profitability.	•More than half the firms do not conduct driver analyses linking attributes to overall satisfaction. •Only two firms routinely link CS to postpurchase intentions.
Dissemination	•Most firms disseminate CS data internally at least once a quarter.	•Approximately 40% of firms do not routinely disseminate satisfaction data to frontline employees.	•Data are often disseminated without identifying root causes or fixes to guide recipients. •Many users are skeptical of the CS data they receive.
Utilization	•Satisfaction information is an important input into many decisions in the customer service and account management domain.	•CSI is not a key input to decisions in many key functional areas in which it would be useful.	•Satisfaction data tend to be used in decision making at a tactical rather than a strategic level.
Overall	•CSIU systems are widespread. •Basic subprocesses are often well executed within specific functional domains.	•CSIU implementation often reflects the purpose of the system in a particular firm and key contingency factors.	•Using CSIU for control purposes (adaptive learning) can lead to myopia with respect to gaining new insights about customers (generative learning).

Discouraging practices are those that both depart from normative theory and would benefit from correction regardless of the situation. The major practices that fall into this category include the following: Few firms sample lost customers or customers who work with competitors, many firms do not conduct driver analyses, few firms link CS data to postpurchase intentions, firms often disseminate data without interpretation or guidance to help recipients respond appropriately, recipients often have not "bought in" to the use of CSI, and firms use CS data more often for tactical adjustments than for strategic decision making. We believe that corrective action should be taken in such cases, beginning with conducting appropriate driver analysis and disseminating CSI in a way that is immediately useful and diagnostic. Finally, we highlight three general implications for theory development and managerial practice that we believe are particularly important.

Contingency Factors Should Drive CSIU Implementation

Instead of attempting to emulate a normative CSIU ideal, CSIU implementation should vary across firms to the extent that each firm faces different situational factors. Our findings indicate that managers should focus on identifying the key contingencies the firm faces and should design a CSIU system that is appropriate for these specific conditions. Investment in further CSIU improvements that move the firm closer to a classical theory-based norm would likely not produce a reasonable return. Thus, for example, it may not always make sense for a firm to build competitive superiority in its CSIU. In markets with either slow or rapidly changing customer preferences and in firms with a strong orientation toward technological innovation or low costs, investments in building extensive CSIU processes seem unlikely to be the most efficient use of resources.

Systematic CSIU Efforts May Become a "Learning Trap"

Many of the firms in our sample do not appear to gain significant customer-focused learning benefits from their CS systems, because they are designed to act primarily as a control mechanism. Consistent with conceptualizations of learning traps in organizational learning theory (Levinthal and March 1993), we observed that using CSI primarily for control purposes can actually limit managers' ability to learn about customers. Although firms may gain adaptive learning benefits by investing in more extensive CSIU, our study suggests that generative learning about customers also requires less-formalized *ad hoc* research projects. This has important implications for the further development of

conceptualizations and operationalizations of market orientation and for management practice.

Allocate CSIU Resources to Maximize CSIU Effectiveness

For firms that operate in contexts in which CSIU can deliver a competitive advantage, our study indicates that managers may be well served to reevaluate how they deploy their existing CSIU resources. The majority of CSIU resources in the firms in our sample are consumed in CS data collection. This often leads to too few resources being allocated to the analysis, dissemination, and utilization of this information to realize fully the potential payback from the investment in data collection. For example, our fieldwork suggests that investments to improve the sophistication of CS analyses and to make CSI more frequently and widely available to managers have a significant impact on recipient perceptions of its accuracy, usability, and diagnosticity. In turn, this may lead to a greater utilization of CSI in decision making and boost the learning outcomes of firms' CSIU, which may benefit firms even if their major CSIU objective is to enhance their management control systems.

Conclusion

The ability to acquire and use CSI is central to marketing theory and practice. Our fieldwork identifies important characteristics of the scanning, analysis, dissemination, and utilization subprocesses in firms' CSIU. We highlight numerous areas in which CSIU practice diverges from normative theory prescriptions and identify a wide variance in CSIU among firms. We bring these insights together to propose a new contingency-based model of CSIU and its relationship with firm performance.

The proposed model provides new theoretical insights into CSIU and enriches our understanding of CSIU, of how CSIU is influenced by contextual factors, and of the role of CSIU in organizational learning and making marketing metrics work within an organization. We believe that the model provides a foundation for further theoretical and empirical work. Important next steps might include examining the link between CSIU and financial performance, understanding the relative payoff of investing in different components and subprocesses of CSIU, and learning to balance CSIU initiatives with those aimed at generative learning and developing new customer insights.

The model is also useful to managers who want guidance in creating, managing, and improving their CSIU systems. In particular, the model highlights the components and processes of CSIU that must be managed successfully for the full benefits of an organization's investment in CSIU to be realized. By identifying key contingency factors that influence how CSIU should be implemented in different firms, the framework also provides a roadmap for managers to prioritize their investments in CSIU.

In general, we recommend that managers do the following:

- Collect data from current customers, former customers, and competitors' customers;
- Conduct multivariate analyses that link attribute perceptions to overall satisfaction and intentions and, when possible, to customer behaviors and profitability;
- Ensure that CSI is viewed by recipients as accurate, usable, and diagnostic;
- Use CSI as an input for strategic decision making and for day-to-day tactics;
- Augment CSIU systems with market research geared toward the generative learning of new customer insights;
- Design CSIU systems that are dependent on contingency factors (i.e., desired positional advantage, ability to match CS data to actual purchase behavior, and competitive intensity); and
- Examine the allocation of CSIU budgets to determine whether sufficient resources are being devoted to the analysis, interpretation, and dissemination of CS data after it is collected.

Customer satisfaction is a central concept in marketing and a core strategic objective for any firm. Customers are ultimately the primary source of all positive cash flows. Therefore, attracting and retaining profitable customers must be one of the firm's most fundamental tasks. Thus, the creation and successful management of CSIU systems that enable the firm to achieve a superior understanding of customer needs and respond more effectively and efficiently than competitors are important ways that marketing makes significant contributions to the success of the firm. It is our hope that this study furthers the theoretical understanding of such initiatives and enhances their implementation in practice.

Appendix
Qualitative Depth Interview Protocol

1. How is CS measured here?

- Measures: complaints, overall CS, CS with different aspects of product and exchange, outcomes or perceptions/expectations, importance weights, attribute drivers versus cues.
- Frequency: time frames, systematic or around key events (e.g., test marketing new product).
- Sampling: all customers versus subset, current versus previous customers/defectors, customers versus prospects, competitors' customers, end users versus channel.
- Data collection method: qualitative versus quantitative, complaints versus CS, written survey versus telephone versus face-to-face, internal versus third party, primary versus secondary.
- Processes: formalized versus informal.

2. How is CS data analyzed and interpreted?

- Data analysis tools: averages, correlations, multiple regressions, and so forth.
- Relationships examined: purchase behavior, market performance, financial performance, employee satisfaction, other internal metrics.

3. How is CSI disseminated within the organization?

- Frequency.
- Channels and media used.

- •User targets: vertical dissemination, horizontal dissemination.
- •How information is viewed by recipient managers (e.g., valid and reliable, useful, timely).

4. How is CSI used in decision making?

- •In what types of decisions are CS data a routine input?
- •How important is CS data in each of these decisions?
- •In what types of decisions are CS data an infrequent input?
- •Orientation of decisions? Time scale of decision? Speed of utilization?

5. What resources and capabilities are required for effective CS usage?

- •Financial, human, technological, research skills, customer knowledge.

6. What aspects of the organizational context seem to help and hinder the effective generation and use of CSI?

- •Culture: information sharing norms, customer versus competitor orientation, internal versus external orientation.
- •Structure: formalization, specialization, centralization, interdepartmental connectedness.
- •Strategic: CS goals, competitive strategy, reward system link.
- •Political: management commitment, cross-functional buy-in.

7. What are the outcomes of CSIU in this company?

- •Internal: employee satisfaction, team spirit.
- •Market: satisfaction, price sensitivity, loyalty, retention, new product success, sales growth, market share.
- •Financial: margin, return on investment, cash flow.

8. What internal and/or external factors may affect the relationship between CSIU and performance outcome?

- •Market issues, competitive conditions, customer characteristics.

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