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Perceived Service Quality and Customer Trust

Does Enhancing Customers' Service Knowledge Matter?

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The authors show that investments in enhancing customers' service knowledge strengthen customer trust in an organization and thus can act as an important service differentiator. Customer education initiatives, however, also affect the impact of perceived service quality on customer trust. Successful marketers should be aware of the dynamic relationships between customer education, expertise, and service quality in managing customers' attitudes toward firms. Using data collected from customers of a global financial services firm, this study modeled the multifaceted impact of customer education initiatives on the relationship between service quality and trust. The findings suggest that customer education affects the relative importance of technical and functional service quality for building customer trust in a firm. Research implications point to new business opportunities for service differentiation and relationship marketing.

Keywords: *customer trust; perceived service quality; customer education; service marketing; relationship marketing*

The trust that customers have in service organizations is a key concern for marketers and customer relationship managers. Existing research has underscored the importance of trust and its implications for driving profitable, long-lasting customer relationships (Garbarino and Johnson 1999; Morgan and Hunt 1999). In an effort to explore ways in which firms can differentiate themselves from competitors and build stable and trusting relationships with customers, practitioners and researchers have frequently emphasized the importance of service quality (Grönroos 1983; Parasuraman, Zeithaml, and Berry 1988; Rust, Moorman, and Dickson 2002; Rust and Oliver 1994; Zeithaml, Berry, and Parasuraman 1996). Indeed, in mature markets characterized by parity products, it is often service quality which sets one firm apart from its rivals (Heskett et al. 1994).

Service quality is often considered in terms of its processes and outcomes (Grönroos 1983; Kelley, Donnelly, and Skinner 1990; Parasuraman, Zeithaml, and Berry 1988), whereby the quality of service outputs (i.e., technical quality) and the nature of the interaction between service providers and customers (i.e., functional

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quality) are key contributors to customers' evaluations of the overall service offering. Intuitively, managers would expect that favorable customer perceptions of both technical and functional service dimensions would be positively associated with customers' trust in service firms. In high-involvement service contexts (e.g., professional services), however, these relationships may not be so straightforward; many customers have difficulty assessing technical outcomes confidently (even after purchase) because of the highly complex and intangible nature of these services (Crosby, Kenneth, and Cowles 1990; Darby and Karni 1973). Of course there will also be customers who, because of extensive experience in the service category, have higher levels of expertise that enable them to confidently assess technical service elements in making their overall assessments of service quality (Bettman and Park 1980; Brucks 1985).

Professional service firms have the ability to increase customer expertise and competence by investing in initiatives to enhance customers' service knowledge. Customer education is the extent to which service employees inform customers about service-related concepts and explain the pros and cons of service products they recommend to their customers (Sharma and Patterson 1999). Such efforts will be costly and may require changes to the service process; it may not be completely clear whether they will pay off for a firm. Furthermore, efforts by an organization to educate its customers are likely to be seen differently by customers on the basis of their existing levels of expertise. Will education initiatives be seen as a meaningful attempt to involve customers in the service process or as opportunistic sales ploys? Our purpose in this article is to untangle some of these potentially complicated relationships and provide an answer to the question of whether educating customers matter in building long-term, trusting relationships.

Our analysis is organized as follows. In the next section, we provide a conceptual background to our hypothesized model in which we outline seven formal hypotheses. This is followed by a description of the financial services context of this study, the research design and method, and a discussion of the results. The final section discusses managerial implications from the findings, addresses the limitations of the study, and offers suggestions for future research.

CONCEPTUAL BACKGROUND

The literature in customer education is sparse, and there remains some doubt about its value to service organizations. Many view customer education as a valuable

augmentation to the service process through which firms may increase perceived value and ultimately achieve deeper, more trusting relationships with their customers. In the context of professional, high-credence services in particular, customers face uncertainty in terms of both the quality and consistency of service quality (Bowen and Jones 1986). A firm's efforts in providing customers with critical information and explaining important service concepts to them can reduce this uncertainty. Past research acknowledges the potential advantages of customer education for organizations (for a review, see Burton 2002).

Despite the apparent advantages, firms are often reluctant to embrace customer education, believing that its added value to the service offering is only in the short run, because it ultimately equips customers with the know-how and expertise to leave firms for competitors, blame firms when things go wrong, or, worst of all, use that knowledge to compete against them (Nayyar 1990). According to such thinking, sharing valuable information with customers equips them with the tools and skills to "shop around" for competitive offerings (Heilman, Bowman, and Wright 2000). A logical conclusion, it would seem, is for service firms to prevent customers from learning the tricks of the trade. In this article, we show that providers of professional, high-credence services are likely to benefit from greater levels of trust in their organizations when they inform customers about product offerings and help them use critical information.

There are, however, likely to be a number of implications of increasing the level of customer education. In addition to its direct influence on trust, we suggest that customer education will likely affect the way in which service quality is perceived and its subsequent impact on trust. In other words, as customers become savvier as a result of education initiatives, the relationships between service quality elements (i.e., technical and functional service quality) and trust are likely to change in importance. To the extent that education enables customers to process information in greater depth, the relative importance of technical and service quality dimensions in building trust is likely to change. This expectation is based on theories of information search (e.g., Heilman, Bowman, and Wright 2000) and decision-making heuristics (e.g., Park and Lessig 1981) that predict that decision-making processes and choice evaluation will change as customer expertise changes.

Any educational initiatives undertaken by a service organization will be in the context of an installed customer base with varying levels of expertise. Accordingly, we allow for a further possible interaction between service quality and trust, customer education, and customer expertise. Customer education efforts are

likely to mean different things to customers with different starting levels of expertise. For expert customers, the education initiatives of service employees and the openness that they entail lead to more productive dialogues and working relationships sooner. The literature on customer-firm coproduction provides strong support for this expectation (e.g., Bendapudi and Leone 2003; Prahalad and Ramaswamy 2000). Less expert customers, in contrast, will take longer to arrive at this level of intimacy, perceiving customer education programs as yet another sales tool.

Model Development and Hypotheses

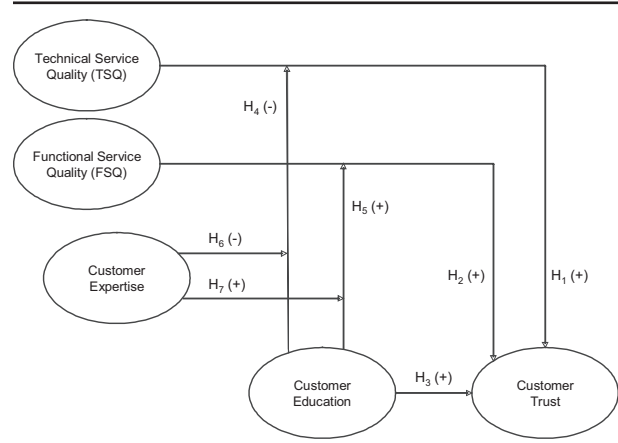
The conceptual model guiding this research is depicted in Figure 1. Our analysis begins by conceptualizing customer trust to be a function of both technical and functional perceived service quality elements. Specifically, we argue that technical and functional service quality would be positively associated with customer trust. We also expect customer education to have a direct and positive effect on trust. We then explore the moderating effects of increases in customer education on the relationships between functional service quality, technical service quality and customer trust. Finally, we explore the potential for a three-way interaction between perceived service quality, customer education, and customer expertise.

Service Quality, Customer Education, and Trust

We define trust as customers' confidence in a service seller's reliability and integrity (Morgan and Hunt 1994) and the expectation that it can be relied upon to deliver its promises (Sirdeshmukh, Singh, and Sabol 2002). We define technical service quality as the quality of the service output (Sharma and Patterson 1999). In the context of this study, this would apply to the performance and security of a customer's investment portfolio. Functional service quality is the extent to which an advisor provides courteous and attentive service and empathizes with a customer's circumstances (Hartline and Ferrell 1996).

It is now widely accepted that both technical and functional service quality elements will have a positive effect on customer evaluations of an organization (Bloemer, de Ruyter, and Wetzels 1999; Zeithaml, Berry, and Parasuraman 1996), and recent evidence suggests a positive relationship between service quality and trust (Chiou and Droge 2006; Sharma and Patterson 1999). A firm that consistently meets or exceeds the technical or core performance expectations of customers will cultivate more trusting relationships with its customers.

FIGURE 1
Hypothesized Model



NOTE: H = hypothesis.

Customers, however, also seek effective relationships with professionals who care, listen, and relate to their ideas, feelings, and concerns (Sheth and Sobel 2002; Weisinger 1998). The manner in which an advisor delivers service outcomes can provide insight into the character of the organization and help, in the absence of other information, set initial levels of trust. The courteous, caring, and responsive employee behaviors that are characteristic of functional service quality will inspire confidence in customers, particularly in high-involvement professional services contexts (Weisinger 1998). Accordingly, we hypothesized as follows:

- Hypothesis 1:* The higher the technical service quality, the stronger is customer trust in an organization.
Hypothesis 2: The higher the functional service quality, the stronger is customer trust in an organization.

We define customer education as the extent to which service employees (a) inform customers about service-related concepts and (b) explain the pros and cons of service products they recommend to their customers (Sharma and Patterson 1999). For customers to be able to use critical information, they must first have the relevant information and, second, have the tools with which this information can be understood (i.e., concepts are explained to them).

We argue that customer education is likely to indicate to customers that a service provider is trustworthy for a number of reasons. First, the lack of tangibility and the complexity involved in professional services means that trust is difficult to build; the opacity of many professional service organizations makes it difficult to evaluate the nature of the service offering, leading to uncertainty and

potential distrust. By informing customers and explaining service-related concepts, service firms can directly address customers' fear of opportunistic behavior (Dwyer, Schurr, and Oh 1987). Customer education, by definition, requires that service employees demystify the service process, which introduces a level of clarity and certainty that is the basis for building a trusting relationship.

Second, the effort of customer education signals a firm's commitment to a relationship with customers. Because investments in one client are impossible to redeploy to other customer relationships, education initiatives are customer-specific investments that are likely to be reciprocated. Urban (2004), for instance, suggested that customers reciprocate with their trust as companies provide clear and comprehensive information. Furthermore, customer education signals that firms are taking a long-term view of the relationship by showing a willingness to make up-front investments.

Finally, customer education ensures that customers understand what a company is offering in terms of products and services. Education efforts require increased dialogue between service providers and customers, which enables a better understanding of customers' needs and expectations. Attention to customers' needs and interpersonal care has been shown to enhance affect-based trust (Bendapudi and Berry 1997; Morgan and Hunt 1994). Furthermore, customers who have a better understanding of a firm will be better able to express their needs in the context of the firm's capabilities. Service firms will be more likely to match customers' requirements with the right service products. Efforts to personalize marketing offerings are likely to generate highly favorable responses from customers (Day 2003; Rust and Verhoef 2005). Therefore, we hypothesized as follows:

Hypothesis 3: The higher the level of customer education, the stronger is customer trust in an organization.

The Moderating Effect of Customer Education

Past research suggests that knowledge is likely to influence information valuation and choice (Alba and Hutchinson 1987; Rao and Monroe 1988). Educated customers have the tools to verify a company's claims and map the performance level of their investments relative to other customers and competitor organizations. More knowledgeable customers tend to be more efficient in their selection and assessment of market information (Brucks 1985). Also, education reveals to customers the inner workings of a service firm, which, in many industries, are likely to look somewhat standardized. A given level of technical performance, therefore, is likely to look less remarkable to a better informed customer and hence

less likely to drive trust. Furthermore, as customers gain greater confidence in their own ability to evaluate technical outcomes, they may generally demand higher levels of technical outcomes and display a growing distrust of business if expected outcomes are not achieved.

Moreover, in the financial services industry, very often, service providers have only limited ability to influence and guarantee technical performance.¹ As education contributes to customers' knowledge and understanding of service concepts, customers are likely to discover the extent to which a firm controls technical service quality. When service firms have only marginal control over technical service quality, we suggest that the positive impact of technical service quality on customer trust will be weaker at higher levels of customer education. Accordingly, we hypothesized as follows:

Hypothesis 4: The positive impact of technical service quality on customer trust will be weaker at higher levels of customer education.

In a professional services context, customers may not feel comfortable asking questions regarding service concepts because of the complex nature of service products. The more customers know about financial products and services, the more comfortable customers are likely to be with asking questions, and the easier it will become for them to see the value of timely information that is difficult and costly to obtain (Dawar and Vandenbosch 2004). In other words, customers are likely to value more the process by which services are delivered.

As previously argued, education helps customers use critical information. The more comfortable customers are with evaluating service concepts, the more questions they may have regarding current service offerings and alternatives (Ouschan, Sweeney, and Johnson 2006). Accordingly, customer education may lead to more frequent interaction between customers and service providers and thereby increase the importance of service employees' attentiveness in handling customer concerns. Consequently, we hypothesized as follows:

Hypothesis 5: The positive impact of functional service quality on customer trust will be stronger at higher levels of customer education.

Three-Way Interaction Between Service Quality, Customer Expertise, and Customer Education

Customer expertise measures the level of a customer's extant product knowledge and ability to assess product performance. In contrast, customer education involves the levels of information and explanation service firms

provide to their customers. Customer expertise is likely to play a significant role in a financial services context, given the technical nature of many investment products and the uncertainty about performance of an investment portfolio.

In addition to the influence of customer education on the relationship between service quality and trust, there is potential for a three-way interaction between service quality, customer education, and customer expertise. The possibility of a three-way interaction between these variables arises from the fact that customers may have different levels of expertise when firms invest in customer education. Accordingly, we suggest that for customers with high levels of expertise, the moderating effect of customer education on the relationships between technical and functional service quality and trust will be different from customers with low levels of expertise.

We expect that expertise will reduce the negative moderating effect of education on the relationship between technical service quality and trust. We previously argued that, all things being equal, education efforts reveal to customers the homogeneity of technical service offerings across competing firms and the relative lack of control financial services firms have over the technical outcome. High-expertise customers, however, will already have a good sense of the competitive landscape and the technical proficiency of a firm. Education efforts, we suggest, will be seen by these customers as a means to draw them closer into the service delivery process. Ouschan, Sweeney, and Johnson (2006) found that physician support for patients (e.g., helping patients achieve skills and overcome barriers through education) resulted in more committed and trusting relationships. Expert customers in a financial services context are likely to see education as an effort to do something about the generic nature of technical aspects of the service. These customers are better able to make meaningful contributions to the technical outcomes of the service and are likely to appreciate the increased control they perceive (Bateson 1985).

Customers with high levels of expertise are also more likely to value a service provider's courtesy, empathy, and personal attention. Because experienced customers may feel more comfortable asking questions when service contexts are complex (Miyake and Norman 1979), they are more likely to value service providers' willingness to provide additional information. Furthermore, expertise is (by definition) accrued over time and is also likely to be the result of an investment of significant personal time and energy. Those who have achieved a "mastery" of the service context, therefore, are likely to accord more value to service employees who are more respectful of their achievements and responsive to their needs. Accordingly, we hypothesized as follows:

Hypothesis 6: The negative moderating effect of customer education on the relationship between technical service quality and trust will be weaker as customer expertise increases.

Hypothesis 7: The positive moderating effect of customer education on the relationship between functional service quality and trust will be stronger as customer expertise increases.

RESEARCH METHOD

Background

We selected the financial planning services context for this study. According to the services literature, effective relationship selling will be most critical when (a) the service is complex, customized, and delivered over a continuous stream of transactions; (b) many buyers are relatively unsophisticated about the service (Crosby, Kenneth, and Cowles 1990); and (c) customers face uncertainty regarding technical outcomes (Zeithaml 1981). The service context selected for this study possesses all these characteristics and thus was considered ideal for examining the effects of customer education and expertise on the relationships between perceived service quality and customer trust.

Financial planning services are both highly complex and highly intangible. They are intrinsically difficult for customers to evaluate with confidence, even after purchase. Furthermore, one of the primary functions performed by financial service employees is product customization; advisors are specialized and trained in conducting detailed needs assessments and presenting personalized proposals to customers. Finally, interactions between service providers and customers tend to be ongoing rather than single encounters because the core service tends to unfold over time. Accordingly, both technical and functional elements of service quality are likely to play an important part in determining customers' trust in the organization.

Sample and Data Collection

We secured the cooperation of a global financial services organization that was willing to provide contact details of customers for the administration of a survey questionnaire. The firm generates over \$40 billion in annual revenues, operates offices in more than 20 countries, and offers a full suite of financial services. Traditionally, the firm had focused primarily on stock-broking services, although, like many of its competitors, it had broadened its service offerings over recent years to include, among other things, financial advice and planning,

tax advice, insurance, property trusts, and funds management. However, the firm did not provide traditional banking services (e.g., home loans, credit and checking accounts).

We obtained a list of 4,244 clients, randomly chosen from the population of customers classified as "high value" by the firm in one country. Responses of high-value customers were of great interest to the firm because of the breadth (i.e., number of service products) and depth (i.e., amount of money) of their investments with the firm. We received 1,268 usable questionnaires, for a response rate of 30%. The final sample was representative of the total population on the basis of demographic criteria such as age, gender, and relationship length with the firm. Most customers were men (84%), had been with the firm for more than 5 years (66%), and were 46 to 65 years of age (50%).

Measures

The measures used in this study were adapted from previous research. Where appropriate, we adapted the wording of the measures to suit the context of our study. All scales used a 7-point, Likert-type scale with anchors of *strongly disagree* (1) and *strongly agree* (7).

Technical service quality involves the outcome-related aspects of a service (e.g., providing a high return on investments, the quality and accuracy of advice). We adopted a four-item scale from Sharma and Patterson (1999) because it was developed specifically to measure technical service quality in the financial service industry. Scale items measured the extent to which the organization provided a quality service outcome in terms of both security of investments and financial portfolio performance.

Functional service quality is concerned with process-related elements of service delivery. In this study, we used a five-item scale adapted from the process dimensions of Hartline and Ferrell's (1996) scale measuring perceived service quality. We used this scale because of its focus on employee-related aspects of service quality, which were particularly appropriate to this study. More specifically, scale items captured advisors' empathy with the customers' circumstances and the extent to which advisors provided courteous and attentive service.

Customer education involves the extent to which service employees provide customers with the abilities and techniques to use critical information (Burton 2002). Providing customers with the skills and abilities to use critical information requires customers to have both appropriate information and the tools with which this information can be understood. Accordingly, we adapted a four-item scale (Sharma and Patterson 1999) intended

to capture the extent to which advisors informed customers and explained financial concepts to them.

We define customer expertise as the extent of a customer's product knowledge and ability to assess product performance. For the purpose of this study, we used a measure of customers' market-related investment expertise rather than expertise with a particular financial service provider per se. We adapted two items of a four-item scale developed by Sharma and Patterson (2000) to capture customer expertise. The two selected items specifically measure customer understanding and knowledge and are conceptually similar to established definitions of expertise (Brucks 1985).

The measure of trust included four items adapted from the scales of Morgan and Hunt (1994). Trust is defined as confidence in an exchange partner's reliability and integrity. A full list of scale items and their measurement properties is provided in the Appendix.

Control Variables

We included customer age, gender, and relationship length as control variables. As argued by previous research, information processing styles (Meyers-Levy and Sternthal 1999) and risk aversion may differ by gender (Holbrook 1986; Wallach and Kogan 1959), which may potentially have an impact on the way trusting relationships are formed. Age and gender have been shown to moderate the relationship between satisfaction and loyalty (Mittal and Kamakura 2001). We controlled for relationship length to account for the fact that trust tends to be built over time (i.e., firms have more opportunity to demonstrate reliability). Questionnaire respondents indicated their gender as male (1) or female (2). Age was indicated by the following five categories: 18 to 30, 31 to 45, 46 to 65, 66 to 80, and 81 years or older, and relationship length was measured by asking customers how long (in years) they had held accounts with the firm.

Measure Assessment

We estimated our measurement models using exploratory and confirmatory factor analyses in AMOS 6.0 (Arbuckle 2005). Following Anderson and Gerbing's (1988) suggested approach, we first examined whether observable indicators loaded significantly on their intended factors (>.40) and checked cross loadings. On the basis of this analysis, we dropped one item from the initial functional service quality scale from the original pool of items. Remaining item loadings were significant, and all the estimates for the average variance extracted were higher than .50, supporting the convergent validity of each scale (Bagozzi and Yi 1988). We assessed discriminant validity

TABLE 1
Correlations, Reliabilities, and Descriptive Statistics

	1	2	3	4	5
1. Customer trust	1.00				
2. Technical service quality	.59	1.00			
3. Customer education	.58	.77	1.00		
4. Functional service quality	.58	.70	.78	1.00	
5. Customer expertise	.24	.28	.32	.32	1.00
Cronbach's α	.96	.97	.91	.86	.86
Average variance extracted	.86	.89	.72	.62	.62
Composite reliability	.96	.97	.91	.87	.75
<i>M</i>	5.67	4.83	5.44	5.96	5.55
<i>SD</i>	1.25	1.54	1.22	0.98	0.99

NOTE: Correlations are significant at the .01 level.

following Fornell and Larcker's (1981) suggested procedures to account for the possibility that measurement error can vary in magnitude across items. More specifically, we calculated the average variance extracted for all pairs of constructs and compared this value with the squared correlation between the two constructs of interest. The squared correlation between any pair of constructs was less than the respective average variance extracted for each of the constructs in the pair, indicating discriminant validity. Cronbach's α values were high, ranging from .86 to .97 (for customer expertise and technical service quality, respectively). Moreover, composite reliabilities and average variance extracted exceeded the recommended threshold values for reliable estimates (Table 1). Confirmatory factor analyses produced the following results: $\chi^2 = 1,637.4$, $df = 215$, $p < .01$, Tucker-Lewis index = .98, comparative fit index = .99, normed fit index = .99, incremental fit index = .99, and root mean square error of approximation = .074 (90% confidence interval = .071 to .078).

RESULTS

Table 2 summarizes the results of the regressions of customer trust on the control, main, and interaction effects. As hypothesized, perceived technical and functional service quality had a significant and positive impact on trust, providing support for Hypotheses 1 and 2. Consistent with Hypothesis 3, customer education had a significant, direct, and positive effect on consumer trust.

In accord with Hypothesis 4, customer education weakened the positive impact of technical service quality on trust (Figure 2). Regarding Hypothesis 5, the positive and significant interaction term between customer education and functional service quality indicates that the effect of functional service quality on customer trust was stronger when customer education was high (Figure 3).

In support of Hypothesis 6, the negative interaction between technical service quality and customer education was indeed weakened as customer expertise increased (Figure 4). Finally, the results showed that the positive moderating effect of customer education on the relationship between functional service quality and trust was strengthened as customer expertise increased, supporting Hypothesis 7 (Figure 5). Given that the standardized coefficients on our interaction terms were small, we checked for their robustness by randomly splitting our sample into four subsamples. We found that all our hypothesized effects remained significant in individual subsamples.

DISCUSSION

The finding of positive and significant relationships between technical and functional service quality and customer trust is consistent with expectations and previous research (Chiou and Droge 2006; Sharma and Patterson 1999). While both outcome and process elements of services had an impact on customers' trust in the financial service organization, the main effect of functional service quality on trust was stronger than technical service quality. This suggests that the functional elements of service delivery (e.g., courteousness of staff, personalized attention) are perhaps easier to interpret and therefore more relevant than the technical elements (e.g., investment portfolio risk and performance) in forming attitudes toward the service organization.

The results indicate that customer education has a significant, direct, and positive effect on customer trust. In addition to helping customers use critical information, investments in customer education are likely to build further credibility with customers about the sincerity of an organization's efforts. The effort to help customers to

TABLE 2
Regression Results (dependent variable: customer trust)

Variable	Model 1	Model 2	Model 3	Model 4
Control variables				
Age	.46***	.22***	.22***	.214***
Gender	.14	-.04	-.03	-.03
Relationship length (years)	.01**	.01**	.01**	.01**
Main effects				
TSQ		.22***	.23***	.23***
FSQ		.29***	.29***	.29***
Customer education		.18***	.15***	.16***
Customer expertise		.03	.03	.05
Interaction effects				
Two way				
Customer Education × TSQ			-.05***	-.06***
Customer Education × FSQ			.07**	.08***
Customer Education × Customer Expertise			.02	-.02
Investment Expertise × TSQ			.07***	.07**
Investment Expertise × FSQ			-.15***	-.08*
Three way				
TSQ × Customer Education × Customer Expertise				-.05**
FSQ × Customer Education × Customer Expertise				.06**
R^2	.091	.436	.446	.449
Change in R^2		.345***	.010***	.003*
F	37.7	124.3	75.2	65.1
Change in F		172.1***	4.12***	2.91*

NOTE: TSQ = technical service quality; FSQ = functional service quality.
 * $p < .10$; ** $p < .05$; *** $p < .01$ (two-tailed t test).

FIGURE 2
Two-Way Moderating Effect of Customer Education on the Relationship Between Technical Service Quality and Trust

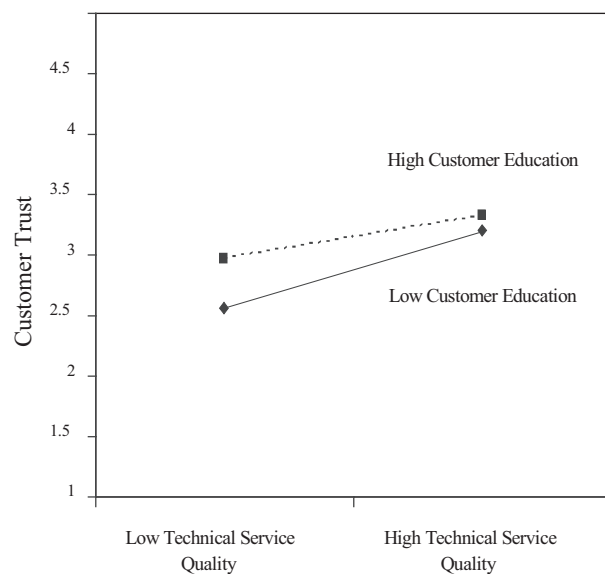


FIGURE 3
Two-Way Moderating Effect of Customer Education on the Relationship Between Functional Service Quality and Trust

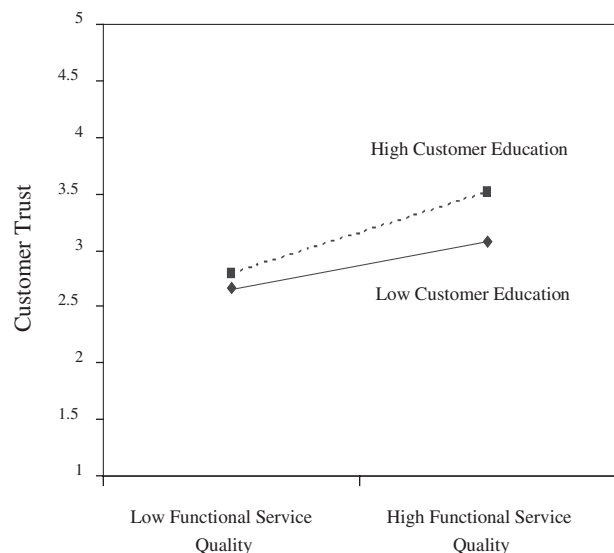


FIGURE 4
Three-Way Moderating Effect of Customer Education and Customer Expertise on the Relationship Between Technical Service Quality and Trust

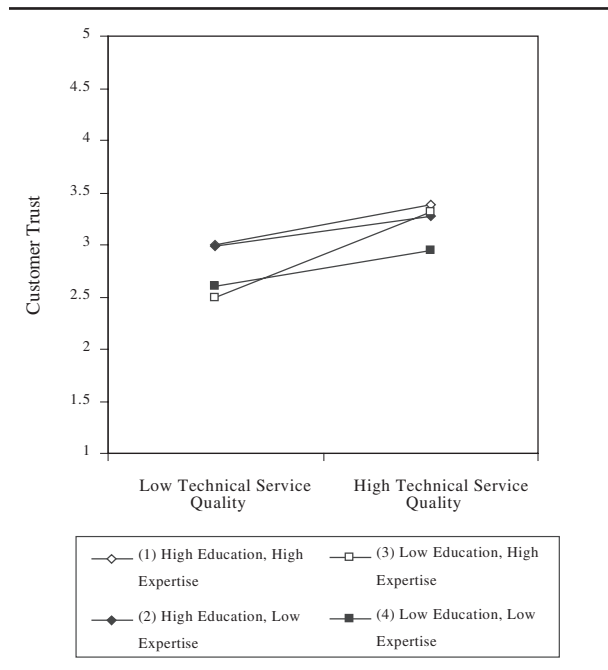
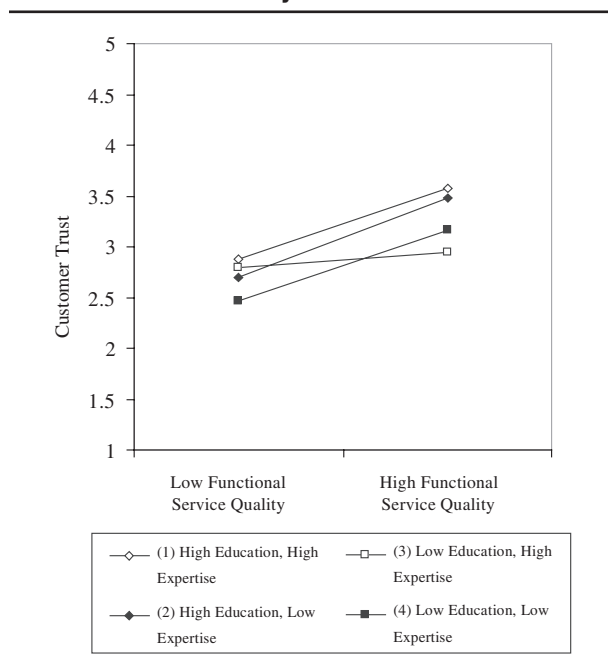


FIGURE 5
Three-Way Moderating Effect of Customer Education and Customer Expertise on the Relationship Between Functional Service Quality and Trust



become more financially literate may address customers' need for control so that the "trusted" do not behave opportunistically (Shapiro 1987); education reduces information asymmetries between relationship partners. Faced with highly complex and intangible service products, customers perceive an organization's effort to provide essential information as an important and valuable service augmentation. The finding is consistent with the notion of partnership building. As customers are provided with the tools to use critical information, they may feel more comfortable to ask questions and engage with a firm. Past research has shown that frequent and strong linkages among exchange partners are likely to enhance trust and levels of commitment (Crosby, Kenneth, and Cowles 1990; Doney and Cannon 1997; Palmatier et al. 2006; Solomon et al. 1985; Uzzi 1996).

Our results also highlight the differential effect of customer education on the relationship between service quality and trust. We found that the positive impact of technical service quality dimensions on trust decreased as customer education increased. On the other hand, functional service quality had an even stronger positive effect on trust as customer education increased. The more customers know about financial products and services, the easier it will become for them to see the value of timely information that is difficult and costly to obtain (Dawar and Vandenberg 2004). Furthermore, through education, customers may be in a better position to assess the subtleties of services they receive (Söderlund 2002), and the more customers know about services and products and how to use them, the easier it becomes for them to see the value of advisors' personal attention. Miyake and Norman (1979), for example, showed that knowledge is positively associated with the number of questions asked when the context requires specific domain knowledge and is relatively complex. In sum, better educated customers are more likely to appreciate financial advisors' personal attention, and this has a positive impact on their willingness to trust the organization.

Technical service, by contrast, is less important for building trust as customers become more knowledgeable about the services context. We suggested that this might be due to the standardized nature of financial services associated with changes in the financial industry environment (e.g. deregulation, increased competition, standardized nature financial services practices across the industry). Efforts to educate customers reveal the difficulty in providing genuine differentiation along the technical aspects of the service. This is consistent with Bell and Eisingerich (2007), who found that market-specific education can have a negative effect on loyalty. Education also reveals the relative lack of control that financial services institutions have over the technical

outcomes of the service.² Consequently, the positive effect of technical service quality is reduced as customer education increases.

The findings of the proposed three-way moderating effects of customer education and investment experience suggest that functional service quality dimensions play an even more important role in building customer trust as both expertise and customer education increase. It is entirely possible that the courtesy and friendliness of service employees can sometimes make customers with limited expertise uncomfortable or suspicious, whereas customers with high levels of expertise are more likely to value this additional personal attention. Because experts possess a richer knowledge and experience base, they are also more likely to recognize and value service employees' availability and efforts to offer additional information. To the extent that customers with high levels of expertise feel more confident assessing technical outcomes, they are likely to perceive a service provider's courtesy, empathy, and personal attention as sincere.

The results also suggest that the negative moderating effect of customer education on the positive relationship between technical service quality and trust is reduced for customers with higher expertise. Customers with high expertise are likely to assess new facts in relation to their prior knowledge (Moorthy, Ratchford, and Talukdar 1997; Park and Lessig 1981) and thus may already know what technical outcomes to expect realistically. Inevitable ups and downs of varying investment performance in the short term, therefore, are less likely to have an impact on customers' trust in an organization. To the extent that expert customers assess technical outcomes more confidently and evaluate new information in relation to their prior knowledge, the negative moderating effect of customer education on the relationship between service quality and trust is likely to be low when levels of customer expertise are high.

Managerial Implications: Creating Value Through Interactive Customer Relationships

The results of this study have important implications for managers. Professional service firms need to be aware of the changing nature of customer perceptions as education contributes to customer expertise over time. In addition to their focus on selling superior service products, firms need to be increasingly oriented toward the users of those products and the fulfillment of customer needs (Rust, Lemon, and Zeithaml 2004; Rust, Moorman, and Dickson 2002; Shah et al. 2006).

Efforts to provide customers with the skills and abilities to use critical information can help firms differentiate

their service offerings and provide a foundation on which to build trusting relations with customers. Although customer education creates the potential for rents, these may only be unlocked if firms are equipped with sufficient coordination and problem solving skills. As Shah et al. (2006) pointed out, "customer centricity" remains a challenging goal for many organizations. Our results show that service firms should become more transparent to customers and supply them with comprehensive and open information. This will allow service providers to trade on their levels of functional service quality and develop and nurture trust-based relationships. One possible way of facilitating closer, more empathetic relationships with customers is to offer single points of contact for customers (Day 2003). There are few substitutes for the intimacy of ongoing, personal relationships between service employees and customers.

To facilitate customer education, service firms might provide employees with additional autonomy or behavioral latitude to explain concepts to customers. This is likely to help customers better articulate their needs and expectations, which in turn will help the firms customize their service offerings and differentiate themselves from competitors. Past research shows that the personalization of marketing efforts is more profitable than other forms of customer segmentation (Day 1999; Rust and Verhoef 2005). All too often, constrictive job designs and simplistic reward structures hinder the pursuit of developing deeper relationships with customers. An important step, therefore, is for service firms to design incentive schemes and rewards (e.g., rewards based on customer satisfaction and retention rather than sales) that encourage greater customer intimacy and responsiveness.

Interactions with customers are costly in terms of effort and time invested by service providers. As firms pursue opportunities for customer education, the distribution of knowledge within organizations and their ability to transfer this knowledge internally will become increasingly important. Firms need to identify cost-effective means, such as online databases and portals that can assist service employees in their efforts to educate customers.

Our findings that technical and functional service quality attributes change in relative importance as customer education increases suggest that firms need to view customer relationships as dynamic. Much vaunted customer relationship management systems still, in our opinion, take a static view of customers. These systems need to reflect the reality that customers will grow with firms over time, continually developing their skills and competencies in the product category. While sellers of customer relationship management systems would argue that they are capable of measuring customer competence, we suggest that there is no substitute for socializing, training, and

empowering service employees to sense these developments in customers and respond accordingly. Relationships deepen as firms and customers continuously interact and share information (Doney and Cannon 1997; Solomon et al. 1985). Service-selling strategies, therefore, have to adapt to customers' expertise and achieve the right "tone" to prompt favorable evaluations by novices and experts alike. Service employees have a particularly important role to play in professional services organizations (e.g., financial planning, legal, medical), for which one-on-one customer relationships are the norm.

Limitations and Directions for Future Research

The limitations of our study are as follows. First, we were not able to capture longitudinal data to test our hypotheses. Potentially, the rates of customer learning and thus the impact of customer education will be non-linear. An intriguing avenue for future research would be the investigation of customer education's longitudinal impact on purchase behavior. Second, the parsimony of our proposed model suggests that some additional variables might help explain key variables and moderate the strength relationships within the model. For example, customers' availability of time, perceived cost of acquiring investment techniques, and knowledge of available alternatives might also influence the impact of customer education initiatives. We should also note that while all hypothesized moderating effects were significant, interaction effects contribute limited additional explanatory power. Accordingly, the inclusion of additional variables in our model might render some of our moderating effects insignificant. Third, the current construct of customer education may not capture all aspects of educating customers, which may go beyond informing customers and explaining service-related concepts. We encourage future research to examine the effects of these factors and to further the development of the customer education construct. Finally, for the purpose of this study, we chose a single-industry approach in order to minimize systematic and random noise attributable to industry differences (McKee, Varadarajan, and Pride 1989; Voss and Voss 2000); results, however, may differ for companies with varying degrees of control over technical service quality. Replication in different service contexts can provide greater confidence in the generalizability of the current results.

CONCLUSION

Our findings underscore the value of customer education for financial services firms as a means for building deeper, more trusting relationships. We have also shown that

educating customers has implications for how service quality is evaluated. Finally, we have seen that education initiatives will be perceived differently on the basis of the starting levels of expertise of individual customers. Our findings underscore the importance of treating relationships as dynamic and evolving over time. While this presents an added level of complexity for customer relationship management, firms that reflect this in their service management will be able to leverage an important source of competitive advantage.

NOTES

1. We thank an anonymous reviewer for this suggestion.
2. Indeed, proponents of the efficient-markets hypothesis would argue that financial advisors and financial services in general actually have no control over the performance of an investment portfolio.

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APPENDIX

Results of Confirmatory Factor Analysis

<i>Construct</i>	<i>Factor Loading</i>	<i>t Value</i>
Technical service quality		
1. My advisor has assisted me to achieve my financial goals.	.91	60.22
2. My advisor has performed well in providing the best return on my investments.	.96	76.61
3. My advisor has helped me to protect my current position by recommending the best investing options.	.95	72.13
4. My advisor has performed well in investing my money in appropriate investment options.	.95 ^a	—
Functional service quality		
1. My advisor's behaviour instils confidence in me. ^b		—
2. My advisor is courteous.	.66	25.19
3. My advisor gives me personal attention.	.81	34.38
4. My advisor has my best interests at heart.	.87 ^a	—
5. I can share my thoughts with my advisor.	.81	34.36
Customer expertise		
1. I can understand almost all the aspects of the services I purchase from my advisor.	.95	8.25
2. I possess good knowledge of financial planning services and products.	.58 ^a	—
Customer education		
1. My advisor keeps me very well informed about what is going on with my investments.	.83	34.98
2. My advisor explains financial concepts and recommendations in a meaningful way.	.87	37.79
3. My advisor always offers me as much information as I need.	.86	36.70
4. My advisor always explains to me the pros and cons of the investment he/she recommends to me.	.84 ^a	—
Customer trust		
1. [Business name] is an organization that can be trusted at all times.	.94 ^a	—
2. [Business name] is an organization that is honest and truthful.	.93	60.51
3. [Business name] is an organization that can be counted on to do what is right.	.93	61.86
4. I have confidence in [business name] as an organization.	.90	55.10

a. Fixed item to set the scale.

b. Deleted item.