# Comparative service quality:
# German and American ratings across service settings

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## Abstract

Marketing services internationally requires that companies become familiar with consumer attitudes in different service settings across different cultures. Using items from established measures of service quality, this study compared ratings of banks, medical care, retail clothing stores, postal facilities, and restaurants in Germany and the United States. The German respondents had lower service expectations, and generally lower perceived service outcomes, than did the American subjects. Five dimensions of service — reliability, empathy, responsiveness, assurance, and tangibles — explained 56% of overall service quality in the German sample and 69% in the American sample. Other important differences and some similarities between the samples appeared when service factors were examined across settings.
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## 1. Introduction

Service providers, as well as companies selling tangibles with a substantial service component, are increasingly crossing national boundaries, not just to reach business markets, but also for retail customers. Examples of the latter include bank credit cards (America's Citicorp), telecommunications (British Telecoms, Sweden's Ericsson), delivery companies (America's UPS and Federal Express), fast food franchises (America's McDonald's and Pizza Hut), department and home furnishing stores (Britain's Marks & Spencer, Sweden's IKEA), and catalog marketers (America's Land's End, Germany's Otto Versand). In addition, original equipment manufactures, such as Whirlpool Europe, are taking steps to establish customer assistance centers in various markets (Jancsurak, 1995). Such companies need to be informed about prevailing consumer service attitudes across service settings in different cultures.

Because services marketing often requires direct customer participation, which itself may entail providers and receivers learning new roles and scripts (Solomon et al., 1985), cultural factors should be an especially strong influence on the success of a service encounter (Fugate and Zimmerman, 1996). Customer involvement in the creation and delivery of a service is a Western tradition that some cultures, such as the Middle East, do not necessarily accept (Kassem, 1989). Similarly, the perishability of services sometimes requires the shifting of demand, but not all cultures may have the same waiting line behavior or willingness to defer consumption.

This research compares German and American consumer ratings of service quality experiences in five service settings — banks, medical care, retail clothing stores, postal facilities, and restaurants. This project utilizes the SERVQUAL scale, a measure of service quality well documented in multiple settings in the United States (Berry et al., 1993; Parasuraman et al., 1986, 1990) and additional items from SERVPERF (Cronin and Taylor, 1992). It is not clear how well either of these scales, and especially the items developed to measure five-service dimensions — reliability, empathy, responsiveness, assurance, and tangibles — will apply in different countries. In summarizing their research, SERVQUAL's authors reported that American customers consistently rated reliability to be the most important factor in service quality, followed in order by responsiveness, assurance, empathy, and tangibles (Berry et al., 1993). For both practical and theoretical reasons, the international generalizability of these findings should be investigated.

This article proposes a method whereby SERVQUAL can be used to measure service quality in different coun-

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tries. The research compares expectations and outcomes for each of five service settings and service quality dimensions, as well as relationships between ratings on the five dimensions and overall ratings of service quality in Germany and the U.S. Despite many institutional similarities, as well as increasing convergence in some areas such as television programming and advertising (Witkowski and Kellner, 1998), the two countries differ markedly in their service delivery systems and in the underlying cultural values and social practices that guide them. Specifically, the research seeks to (1) establish an interpretive context by comparing German and American service expectations and perceived outcomes, (2) determine how well the items and constructs in SERVQUAL predict German consumers' judgments of overall service quality, and (3) see how each of the five service attributes contributes to satisfaction among German as compared to American consumers. The information provided by using SERVQUAL can be used as a strategic starting point in adjusting a service offering for export, for licensing and franchising, and when establishing a foreign subsidiary.

## 2. Service quality in Germany and the United States

According to Hans-Joerg Bullinger, director of the Fraunhofer Institute for Labor Economics and Organization, Germany has fallen behind its major economic competitors and, in comparison, is an "outright service desert" (TWIG, 1997, p. 4). Economic data support this assertion. Only 58% of all Germans work in the service sector compared to nearly 72% of all Americans (Walsh, 1996) and Germany has lagged far behind the U.S. in the creation of service jobs (Judis, 1999). In 1998, Germany imported US$46.1 billion more services than it exported, whereas the U.S. exported US$74.2 billion more than it imported (World Trade Organization, 2000).

German retailing is notoriously unfriendly to consumers. The 1956 Shop Closure Law that forced stores to close at 6:30 p.m. on most weekdays and at 2:00 p.m. on most Saturdays (Ardagh, 1995) has been relaxed only grudgingly, most recently in November 1996, when hours were extended to 8:00 p.m. weekdays and 4:00 p.m. on Saturdays. Other restrictions include the circa 1900 Law Against Unfair Competition, which prohibits putting goods on sale for all but 4 weeks of the year, the Discount Law of 1933, which limits the percentage by which stores may mark down items for sale, and the Bonus Regulation of 1932, which bans businesses from offering American-style premiums such as the bottomless cup of coffee or linkages between credit cards and frequent-flier miles (Economist, 1995; Walsh, 1996). In the name of "consumer protection," cash or in kind rebates are limited to only 3% of the cost of a good and retailers are forbidden from making direct price comparisons with competitors (Economist, 1996). Typically, the interests of unions, shopkeepers,

and environmentalists take precedence over those of consumers.

German service workers are relatively rule-bound, often dodge customer complaints by blaming higher authority, and generally find service jobs demeaning, while German consumers are less likely than Americans to insist upon their rights (Walsh, 1996). Instead of receiving the friendliness and courtesy that abound in many countries, new customers in numerous German stores, banks, or service desks encounter glares or, more commonly, a bored look of compulsory compliance (Lord, 1996). In restaurants, guests usually must find their own seats and, because a service charge is included by law in all prices and tipping is more or less optional, German staffs have less incentive to humor diners than do their American counterparts. "Service with a Frown" is how one guidebook wryly titles its section discussing this topic (Stern, 1994). Interestingly, a number of salespeople and even some customers reject company training programs to reduce hostility and rudeness as an exercise in nothing more than "superficial American friendliness" (Lord, 1996, p. 141). Wal-Mart has been very cautious in introducing chatty American-style greeters in its newly acquired German stores (Williams, 1999).

Perhaps more than many peoples, Germans compartmentalize their private and public selves. With friends, family, and close colleagues, they can be warm and engaging, but with strangers the common attitude seems to be one of coldness and suspicion. The German language distinguishes between *Sie*, the formal "you" invoked to maintain social distance, and the informal *du* used to address family, friends, and children. German customer behavior also bears some responsibility for difficulties in service interactions. Unlike the more courteous British or American practice, Germans often jostle each other and mill about in front of service counters, rather than form queues, and typically ignore the norm of first come, first served (Lord, 1996; Stern, 1994). Germans define customer service "chiefly in terms of providing customers with good, reliable products and good follow-up service where needed. As far as making the very act of shopping or dealing a somewhat pleasant experience in itself, well, this is one area where the Germans are far behind other peoples" (Lord, 1996, p. 238). Needless to say, customer service and the consumer interest held especially low priority in formerly communist East Germany, and many ingrained attitudes and behaviors are likely to persist in these states for quite some time.

As early as the 1960s and 1970s, survey data showed that a majority of Germans were unhappy with restricted shopping hours (Noelle-Neumann, 1981). There are strong indications that German consumers today are becoming increasingly dissatisfied with other aspects of their service environment. Public opinion polls conducted in 1990 and 1994 showed a dramatic decline in satisfaction with the German healthcare system (Blendon et al., 1995). The Emnid Institute, interviewing 33,000 respondents between May and August 1996, found that customer satisfaction had

dropped to its lowest level since 1992. Germany's trains, post offices, telephone company (Deutsche Telekom), and department stores received the greatest criticism, and almost all of the 39 fields surveyed received low ratings for the quality of technical advice, friendliness, reliability, and availability. Travel and financial services provided the only bright spots since respondents were highly satisfied with the service quality of these industries (TWIG, 1996).

Together, anecdotal and research evidence suggest that, objectively, much customer service is worse in Germany than in the United States and that Germans are becoming less satisfied with the quality of service they receive. However, comparisons of perceived service quality between the two nations should take into account both different service settings and different expectation levels. In a 1994 study, for example, more German than American respondents rated their postal service as fair or poor, but, on the other hand, the Germans expressed more favorable attitudes toward their courts, public schools, and healthcare system (Blendon et al., 1995). In the case of health care, Germans reported poorer service than Americans on a number of different items, especially waiting time in doctor's offices (Donelan et al., 1996), but because they had somewhat lower expectations about the efficacy of modern medicine in curing illness (Blendon et al., 1995), their overall satisfaction was higher. Thus, in addition to developing a methodology to utilize SERVQUAL internationally, this research investigates substantive differences in expectations and outcomes, as well as ratings of service attributes, across five different settings in Germany and the United States.

## 3. Research methods

A five-page, self-administered questionnaire consisting of SERVQUAL, selected items from SERVPERF, and demographic variables was developed in English. Alternative versions obtained service quality ratings for banks, medical care, retail clothing stores, postal facilities, and restaurants. The wording of some items had to be adjusted slightly for some settings (e.g., customers were referred to as "patients" in the medical care questionnaire). The first draft of the translation was made by a marketing professor in Germany, and was then checked for accuracy by a German language professor in the U.S. The only noteworthy problems with conceptual equivalence arose in the response categories for education and income levels. The German educational system has both vocational as well as academic high schools, and Germans tend to think in terms of their net monthly income after taxes, whereas Americans think in terms of their yearly gross income.

Students from Johann Wolfgang Goethe University and California State University, Long Beach collected data in the greater Frankfurt area and in Southern California. Questionnaires were distributed to fellow students, friends, relatives, coworkers, and others on an opportunistic basis.

However, the quota sample of 575 Germans and 455 Americans included age categories roughly proportional to their incidence in each nation's population. The average age of the German respondents was 42; that of the Americans was 41. The German sample was 49% female and 51% male; the American sample was 50% female and 49% male. Both groups were well educated. Nearly 30% of the Germans had a university diploma (a 5-year degree program), while 25% of the Americans were college graduates and an additional 18% had some postgraduate work or degree. Approximately 200 respondents rated each of the five service settings.

Through factor analysis utilizing Varimax rotation, the 22-item scale in the questionnaire (measured by a 7-point scale from *Strongly disagree* to *Strongly agree*) was pared to 13 items to achieve sufficient comparability across the German and American samples, and to provide adequate discriminant validity. The original 22-item, five-factor solution developed by SERVQUAL's authors yielded poor discriminant validity, both across and within the two samples. Other authors have reported problems with the discriminant validity of SERVQUAL (Babakus and Boller, 1992; Carman, 1990; Cronin and Taylor, 1992; Teas, 1993). Parasuraman et al. (1994) suggest oblique rotation in which correlation between factors is allowed, but the oblique solutions obtained with the American and German samples were less comparable than those obtained with Varimax rotation.

The cross-cultural context of this research raised further comparability issues. During debriefing, for instance, the

Table 1
SERVQUAL items used in analysis with Cronbach's α and factor loading scores (in parentheses)

*Reliability* α=.87
My [service type] performs the service right the first time. (.80)
When my [service type] promises to do something by a certain time, it does so. (.80)
My [service type] provides its services at the time it promises to do so. (.80)

*Responsiveness* α=.83
The personnel at my [service type] give you prompt service. (.77)
The personnel at my [service type] are never too busy to respond to your requests. (.71)

*Empathy* α=.91
My [service type] has your best interests at heart. (.82)
The personnel of my [service type] understand your specific needs. (.77)
The personnel at my [service type] give you personal attention. (.69)

*Assurance* α=.86
You feel safe in your visits to my [service type]. (.81)
The personnel at my [service type] have the knowledge to answer your questions. (.56)
The behavior of personnel at my [service type] instills confidence in customers. (.54)

*Tangibles* α=.75
My [service type] has modern-looking equipment. (.91)
My [service type's] physical appearance is visually appealing. (.85)

students who had collected the German data stated that the SERVQUAL question regarding pamphlets and other materials (one aspect of tangibles) was not relevant in most of the German service settings investigated. Another item from SERVQUAL, concerning the convenience of store hours, was irrelevant in differentiating service responsiveness in Germany where store hours are determined by law. Despite these difficulties, each of SERVQUAL's original five factors remained in the final analysis. Reliability, empathy, and assurance were all measured by three items, while responsiveness and tangibles were measured by two items each (see Table 1). The dependent variable, overall service quality, consisted of two summary items: "The quality of my [service setting] is: (Very poor = 1 to Excellent = 7)" and "My feelings toward my [service setting's] services can best be described as: (Very unsatisfied = 1 to Very satisfied = 7)." While SERVPERF's authors, Cronin and Taylor (1992), assert that these items represent two different constructs, service quality and customer satisfaction, Parasuraman et al. (1994) provide evidence that the two items are both measures of service quality. Our empirical results support their contention, as the two items are correlated in the present study at .87, and Cronbach's $\alpha$ is .93.

## 4. Findings

### 4.1. Service expectations and outcomes

Table 2 compares German and American service expectations and outcomes across the five settings. The German respondents had lower expectations than their American counterparts for each setting and lower perceived outcomes in three of the five settings. The two exceptions were medical care and restaurants where the Germans reported slightly higher outcome scores. Both groups had their

Table 2
German and American service expectations and outcomes by service setting

| Setting | Expectations | N | Outcomes | N |
|---|---|---|---|---|
| *Germans* | | | | |
| Banks | 76.9 | 132 | 66.4 | 130 |
| Medical | 70.7 | 105 | 66.0 | 100 |
| Retail | 74.1 | 114 | 66.3 | 113 |
| Postal | 74.1 | 119 | 52.5 | 118 |
| Restaurant | 70.9 | 101 | 68.2 | 97 |
| Total | 76.1 | 571 | 63.7 | 558 |
| | | | | |
| *Americans* | | | | |
| Banks | 80.9 | 105 | 70.0 | 107 |
| Medical | 80.2 | 103 | 65.4 | 102 |
| Retail | 79.5 | 75 | 66.8 | 71 |
| Postal | 80.1 | 86 | 64.1 | 82 |
| Restaurant | 75.4 | 81 | 67.9 | 80 |
| Total | 79.4 | 450 | 67.9 | 442 |

Expectation and outcome scores are the sum of the 13 SERVQUAL items (Strongly agree = 7). For both expectations and outcomes, difference by nation and by service setting are significant, P < .01.

Table 3
German and American expectations and outcomes by SERVQUAL factor

| Factor | Expectation | Outcomes | Difference (%) |
|---|---|---|---|
| *Germans* | | | |
| Reliability | 18.0 | 15.5 | − 14 |
| Empathy | 17.6 | 14.2 | − 19 |
| Responsiveness | 10.8 | 9.5 | − 12 |
| Assurance | 17.8 | 20.9 | + 17 |
| Tangibles | 9.4 | 9.0 | − 4 |
| | | | |
| *Americans* | | | |
| Reliability | 19.1 | 15.7 | − 18 |
| Empathy | 18.3 | 14.9 | − 19 |
| Responsiveness | 12.8 | 10.1 | − 21 |
| Assurance | 18.9 | 20.9 | + 10 |
| Tangibles | 10.6 | 10.2 | − 4 |

Differences are expressed as percentages because reliability, empathy, and assurance were measured by three items, while responsiveness and tangibles were measured by two items.

highest service expectations for banks. The lowest expectation for the Germans was for medical care followed closely by restaurants, while the lowest expectation for the Americans was for restaurants. For both groups, the difference between expectations and outcomes was greatest for postal service and smallest for restaurant service. Germans were particularly dissatisfied with their postal services, which cost three times as much as in the U.S., and rated them very low on all five service attributes.

The differences between German and American service expectations and perceived outcomes by SERVQUAL factor are shown in Table 3. For reliability and responsiveness, the negative differences were smaller for the German respondents indicating slightly greater satisfaction with these factors than for the Americans. For empathy and tangibles, on the other hand, the Germans were slightly more dissatisfied than the Americans. In the case of assurance, both groups, and especially the Germans, expressed satisfaction in that what they received exceeded their expectations. Overall, the Americans were most dissatisfied with responsiveness, while the Germans showed the greatest service disappointment with the empathy dimension.

Compared to Berry et al.'s (1993) findings, our respondents, both Americans and Germans, were generally less satisfied with the service they received, except on the assurance dimension. While the respondents in Berry et al. (1993) were most disappointed with reliability, the Americans in our study were most critical of responsiveness. However, in the earlier SERVQUAL study, respondents were almost as dissatisfied with responsiveness and empathy as they were with reliability. Thus, the differences between the SERVQUAL findings and those from the U.S. subsample of our study are minor when considering the relative level of disappointment with service quality, again with the exception of the positive findings on the assurance dimension. Differences between the SERVQUAL authors' findings and those in our U.S. sample might be due to the paring down of the scale from the original 22 items to 13.

Table 4
Respondents' percentage importance ratings of SERVQUAL dimensions

| Dimension | Germans and Americans (%) | Germans (%) | Americans (%) | SERVQUAL findings (%) |
|---|---|---|---|---|
| Reliability | 27 | 25 | 29 | 32 |
| Empathy | 21 | 23 | 18 | 16 |
| Responsiveness | 19 | 17 | 20 | 22 |
| Assurance | 18 | 18 | 17 | 19 |
| Tangibles | 16 | 16 | 17 | 11 |
| Total | 101[a] | 99[a] | 101[a] | 100 |

[a] Differences from 100 due to rounding.

An additional source of discrepancy between the two studies may be because our respondents reported on their own, particular service provider, which allowed for a greater diversity of companies to be included in the sample compared to the five "well-known" service providers studied by the SERVQUAL authors. Moreover, those five large providers may provide better service on average than do other service companies.

### 4.2. Predicting respondents' ratings of the importance of each of five service dimensions

Following earlier SERVQUAL research, respondents were asked to allocate 100 points among the five service dimensions to reflect their degree of perceived importance. Table 4 displays the German and U.S. findings alongside the SERVQUAL results. As in the SERVQUAL studies, both Germans and Americans believed that reliability was the most important dimension of their service. The American findings closely mirrored those of the SERVQUAL authors, except for the fact that reliability appears to be somewhat less important, and tangibles somewhat more. Further investigation of the data suggests that this difference is largely because of the inclusion of retail clothing stores, postal facilities, and restaurants in the sample, all services for which American respondents preferred somewhat less reliability and somewhat more in the way of tangibles compared to banking and medical services. German and American scores in our study are quite comparable, except that the German respondents traded off some reliability and responsiveness points for empathy.

### 4.3. Relationship between ratings of service dimensions and overall ratings of service quality

Table 4 only shows what consumers *say* they want. To determine underlying preferences and beliefs, overall level of satisfaction must be related to ratings of the actual performance level of service on the five dimensions. While Parasuraman et al. (1994) argue that the performance–expectations model may prove to be better than the performance alone model in predicting service quality, they concede that research to date generally suggests that performance is the best predictor of service quality. In order to

investigate these relationships, regressions were run utilizing each of the five-factor scores (for the perceived performance outcomes only) as predictors of overall service quality. Measures of multicollinearity, including variance inflation factors and conditioning indices, were well within acceptable ranges for all regression equations submitted for analysis. Large sample size and paring items down to those that allowed for discrimination mitigated the potential difficulties that could have been caused by multicollinearity. Utilizing the 13-item, five-factor solution, the percentage of variance in overall service quality explained in the German sample was 56%, while in the American sample it was 69%. Given that SERVQUAL was developed in the U.S., it is not surprising that the scale does a somewhat better job predicting overall satisfaction in the American sample. Nevertheless, the five factors do explain over half of the variance in service quality ratings in the German sample, suggesting that the scale can be useful in German service contexts. Moreover, each of the five attributes was significantly related to overall service quality across all five settings in the German sample ($P < .05$).

The percentage of variance of overall service quality for the Germans was best explained in restaurants (64%) and least well explained in banking (33%). The percentage of variance explained for the other three German settings was 57% for medical care, 59% for retail clothing, and 51% for postal services. Perhaps in the banking area, specific attributes of the service offering, such as interest rates and account fees are more important to Germans in their rating of overall service quality than are ancillary services. Also, German banking is undergoing more rapid changes than the other sectors, including the introduction of telephone, electronic, and personal advisory services. This turbulence may be affecting respondent judgments in a way not measured by

Table 5
Explained variance in overall service quality *

| | Overall | Germans | Americans |
|---|---|---|---|
| Reliability | .35 | .33 | .37 |
| Empathy | .42 | .42 | .42 |
| Responsiveness | .41 | .42 | .40 |
| Assurance | .28 | .26 | .32 |
| Tangibles | .24 | .23 | .27 |

* All partial β's are significant at $P < .01$.

SERVQUAL's five attributes. The comparable percentages of variance explained for the Americans were 59% for banks, 74% for medical care, 74% for retail clothing, 43% for postal service, and 74% for restaurants. American perceptions of postal service may be colored by the widespread disdain for government institutions, an attitude cluster that is not measured by the SERVQUAL items.

Table 5 reveals how well respondents' ratings of each of the five SERVQUAL factors — reliability, empathy, responsiveness, assurance, and tangibles — explains their judgments of overall service quality. In contrast to the importance ratings American respondents gave the dimensions in Table 4, which suggest that reliability is their most important factor in judging services, empathy is the factor most strongly related to overall satisfaction, with responsiveness a close second. The American result is mirrored in the German subsample, with empathy and responsiveness equally related to judgments of overall quality, and reliability a more distant third than in the U.S. subsample.

The amount of variance in overall quality explained in each of the five settings by each of the five factors is illustrated in Table 6. There were several noteworthy differences between the two countries in terms of how the five factors contributed to perceptions of overall service quality.

• Assurance more strongly predicted American ratings of overall bank service quality, whereas tangibles had more explanatory power for the Germans.

• Responsiveness more strongly predicted German than American ratings of medical services, while empathy and reliability more strongly predicted American than German ratings. Other research has shown that, compared to Americans, Germans feel they wait too long for routine physician care (Donelan et al., 1996). Thus, Germans value more responsive medical service.

• Responsiveness and tangibles were more strongly related to the overall quality ratings of postal service for Americans than for Germans.

Table 6
Percentage of variance in overall service quality explained by different factors across five settings *

|  | Banks | Medical | Retail | Postal | Restaurant |
|---|---|---|---|---|---|
| *Germans* | | | | | |
| Reliability | .28 | .30 | .41 | .48 | .29 |
| Empathy | .39 | .28 | .35 | .39 | .58 |
| Responsiveness | .37 | .66 | .34 | .28 | .39 |
| Assurance | .21 | .31 | .28 | .21 | .40 |
| Tangibles | .22 | .15 | .15 | .27 | .32 |
| | | | | | |
| *Americans* | | | | | |
| Reliability | .34 | .41 | .33 | .45 | .29 |
| Empathy | .41 | .50 | .34 | .43 | .48 |
| Responsiveness | .42 | .37 | .44 | .44 | .36 |
| Assurance | .31 | .22 | .37 | .26 | .37 |
| Tangibles | .14 | .23 | .41 | .38 | .24 |

* All partial β's are significant at $P < .05$.

• While both Americans and Germans strongly related empathy to overall quality in restaurants, for Germans this factor was especially important.

• In retail clothing, the American respondents' ratings of responsiveness and assurance were more strongly correlated to overall service quality ratings than were the ratings of Germans. Most strikingly, Americans' ratings of tangibles in retail clothing were 2.5 times more strongly related to overall quality than were those of Germans.

## 5. Research significance and limitations

Comparative research makes at least two contributions to services marketing. First, it allows service concepts to be tested internationally. SERVQUAL and SERVPERF were developed within a strictly U.S. context that is not necessarily generalizable. While the present findings suggest that SERVQUAL/SERVPERF offer useful information in a German context, they also suggest that some factor or factors important to German consumers may not be measured by SERVQUAL. In other countries, services researchers may need to conduct exploratory research in order to determine services items that may need to be added to the SERVQUAL/SERVPERF format. However, SERVQUAL, when pared down to the attributes, which made the samples comparable and the factors discriminable, did an excellent job predicting service quality assessments in the German settings investigated, suggesting that the items may be a good place to start in assessing service quality internationally.

Second, by comparing the strength of the relationship between each of the five factors and overall service quality, research can determine the relative importance of reliability, empathy, responsiveness, assurance, and tangibles across cultures and perhaps even for different target markets within a culture. Managers seeking to transplant a service should be able to determine, through surveys of target customers for a particular business setting, where and how they are likely to misunderstand the foreign culture by comparing the response of their American customers with those in the country they would like to enter.

Our findings suggest some specific cautions for U.S. firms seeking to enter the German market. Clothing retailers should realize that tangibles like facility appearance and personnel are not nearly as important to German consumers as they are to Americans, while restaurant franchisers should not underestimate the degree to which Germans value service employee empathy like caring and individualized attention. On the other hand, service niches may exist for improving performance attributes on which Germans feel under served. For instance, Germans appear to value and desire more empathy and responsiveness than they are presently receiving from many of their service providers.

Because this study employed nonprobability sampling, the differences uncovered need to be validated by other

studies. In addition, a German tendency to be more critical than Americans has been detected in other research (Witkowski and Kellner, 1998), suggesting the possibility of either a negative/pessimistic response bias on the part of the Germans, or a positive/optimistic one on the part of the Americans. Nevertheless, the findings are largely consistent with much other evidence indicating that Americans expect and receive more service than do Germans. Moreover, the findings are roughly consistent with those of SERVQUAL's authors, with the small differences that did arise between this data and prior SERVQUAL findings being traceable in part to the particular service settings investigated. Proprietary studies should include measures of price and product quality, which together with service quality may predict overall consumer satisfaction (Parasuraman et al., 1994). Establishing linkages between service quality, behavioral intentions, and profit is also necessary (Zeithaml et al., 1996).

Further research must tie the differences between Americans and Germans observed in responses to SERVQUAL to wider cultural features. Developing a broader theoretical basis for the differential responses to services characteristics will lead to more generalizable results. Moreover, additional possible service attributes should be developed and tested internationally, especially in settings where SERVQUAL's factors explain relatively little variance in customers' overall ratings of service quality. These dimensions, in turn, may help U.S. service providers more thoroughly understand customers' ratings of service quality in the domestic market.

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