AUTO REPAIR SERVICE PROVIDER PERCEPTIONS OF CONSUMERS' ATTITUDES: SATISFACTION, QUALITY, AND SELECTION CRITERIA

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A mail survey of Sacramento, California, auto repair service providers elicited information on perceptions of consumer satisfaction, service quality for 10 types of service providers including auto repair services, and the importance ratings of 12 choice criteria for the selection of an auto repair service provider. The two most important selection criteria for auto repair providers and as perceived for consumers by auto repair providers were "reputation/recommendation" and "consumer's previous experience with provider."

INTRODUCTION

Service industries in the United States have been the fastest growing business this decade. Estimates released by the U. S. Bureau of Labor Statistics (1987) show that by the year 2000, one-fourth of all the jobs will be in the service sector. The auto repair and services sector, for example, has gone from 600,000 jobs in 1970 to well over 1.2 million jobs in 1987 (up 112%), far exceeding the forecasters estimates of 1.1 million jobs in 1990 (U.S. Bureau of the Census 1989; Moskal 1985; U.S. News & World Report 1980). There are numerous factors contributing to the growth in employment in the auto repair and services industry including technological advances in the automobile manufacturing industry, tougher state requirements for automobile inspection, and safety enforcement and emission standards. In addition, economic factors such as the 1982 recession, high interest rates, and five year automobile financing have played a role in forcing consumers to become budget minded. This has also resulted in consumers now keeping their automobiles for longer periods with the average today being 7 years versus 5 years. Now more than ever, consumers need to know more about auto repair and services available to them before they select an auto repair service provider.

Although consumers are fairly sophisticated, have high expectations, and are not willing to settle for substandard services, many of them have little knowledge of what is under the hood of their automobiles. According to the National Highway and Traffic Administration 40 percent of the auto repairs in the United States are unnecessary and cost consumers approximately $20 billion each year (U. S. Department of Transportation 1981). Some states, such as California, have adopted legislation to protect consumers. The California Automotive Repair Act of 1971, for example, requires auto repair shops to register with the State Department of Consumer Affairs and, they must post a sign informing consumers of their rights (Bureau of Automotive Repair 1988). Consumers, however, should make a conscious effort and acquire some knowledge of their automobile's operating parts, such as by reading their car manual or attending car care clinics. There appears to be little information available to guide the consumer in the selection process for an auto repair service provider. Consumers would like to have additional information describing available options prior to selecting an auto mechanic or an automotive repair shop (Brown 1985). Schutz and Judge (1986) studied selection criteria for choosing 16 occupational service providers including auto repair services. They reported that consumers do take a more active role in selecting certain service providers and, as a result they experience a higher degree of service satisfaction. Other research on consumer satisfaction and dissatisfaction has focused primarily on health and legal services or on sets of services selected by the investigators (Hill 1986; Quelch and Ash 1981; Schutz, Diaz-Knauf and Judge 1987; Schutz and Judge 1983).

The increase in the demand for services in the 1980s resulted not only in a growth spurt for various sectors of the service industry but has also brought about intense competition among service providers, including auto repair and services. For example, today consumers may select from three types of auto repair service providers currently available in the marketplace, such as independent, dealership, or a chain/ specialty (i.e., TuneUp Masters, Sears, Aamco, etc.). This has resulted in the adoption of marketing and advertising strategies nationwide by auto repair and service shops as a means of survival. It is also important to determine how auto service providers view the quality of their own activities as well as how they perceive the satisfaction of consumers (in relation to actual consumer views) in order to develop a strategy for satisfying the consumer and thus improving the likelihood of customer satisfaction and loyalty.

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The purpose of this study was to gather data from auto repair service providers in Sacramento, California, eliciting their opinions on the overall quality of services and their perceptions of consumer satisfaction for 10 selected services, as well as to determine the importance of 12 selection criteria for auto service providers. And, also to compare these data to data collected from a consumer survey conducted in the same area.

MATERIALS AND METHODS

A mail survey of 500 Sacramento, California auto repair service providers was conducted during June/July 1985 using the California Department of Consumer Affairs Bureau of Automotive Repair membership list as the sampling frame and a systematic random sampling procedure. The data were collected using a three-wave mailing technique as follows: first, a letter and questionnaire were mailed to each auto repair entity in the sample; second, a reminder postcard was sent one week after the first mailing; and third, another letter and questionnaire were sent three weeks after the initial mailing to those auto repair service providers from whom no response had been received (Dillman 1978). Forty-five percent of 473 deliverable questionnaires were completed and returned by using this mailing method. The six page questionnaire required approximately 30 minutes to complete. Cross-tabulations of 69 selected variables by week of return did not indicate any statistically significant monotonic trend differences over time; evidence that there is minimal non-responder bias. This is based on the assumption that non-responders most closely resemble in their answers those individuals who return their questionnaires late in the survey. In addition, for homogeneous groups this level of response is considered appropriate with regards to non-response bias (Leslie 1972).

Questions were asked concerning service quality and the service transaction, and information was requested on general attitudes towards consumer services including quality, cost and government regulations. Ten categories of service providers were listed, and respondents were asked to provide ratings on consumer satisfaction and on the quality of the service. Types of services included repair of goods, personal, professional and home repair. A list of 12 characteristics used by consumers to select a service provider was included, and auto repair service providers were asked to provide importance ratings for each criterion for auto repair services on a scale of 1 "not important" to 10 "very important." The respondents were also asked to indicate their perceptions of consumers' ratings for each criterion. After examining the distribution of importance values, the 10 point scale was collapsed to 5 points to better approximate normality and the values were recoded (Nie 1975; and SPSSX User's Guide 1988). For example, 1 and 2 were recoded to 1 and so on. A series of statements characterizing consumer attitudes toward five aspects of auto repair services were measured on a 5 point Likert type scale.

Demographic information was requested from each respondent, and information on specialization, clientele, business size, etc. was requested for each respondent's auto repair service shop.

RESULTS AND DISCUSSION

Characteristics of the Auto Repair Service Shops

The general characteristics of the auto repair services are given in Table 1.

TABLE 1. Characteristics of sample of California auto repair service shops.

	f	%
Type of Services Provided		
Wide range	101	48.3
Specialized	108	51.7
	209	
Years in Business		
1-10 years	74	35.4
11 years or more	135	64.5
	209	
Years in Current Locale		
1-10 years	143	69.1
11 years or longer	64	30.9
	207	
Affiliation		
Independent	168	80.0
Member of chain, group or firm	42	20.0
	210	
Yearly Service Transactions by Chain, Group or Firm		
<100-250 service transactions	15	8.7
251-1,000 service transactions	39	22.6
>1,000 service transactions	100	68.5
	154	
Gross Business Income for Independent Owned Shops		
Less than $74,999	45	28.6
$75,000-224,999	64	40.8
$225,000+	48	30.6
	157	

General Information

The questionnaire completed by the respondents contained 69 items assessing opinions on consumer satisfaction, overall quality of service, 10 types of service providers including auto repair, consumer selection criteria, consumer and auto repair provider attitudes, and demographic characteristics. Fifty-eight percent of the sample rate quality of general consumer services available in the marketplace as "good" or "very good" (Table 2). Twenty-nine percent of the respondents believe that overall quality of services over the last ten years has "stayed the same," 36 percent "increased", and 35 percent "decreased." Cost of services was viewed as "high" by 49 percent of those surveyed. Forty-three percent of respondents are satisfied with the current level of government regulation for auto repair services, 46 percent said they would like "less," and 10 percent see the need for "more" regulation (Table 2). Respondents were not asked to provide additional comments or to elaborate on this question, so we are unable to determine what aspect of regulation is considered too little or excessive.

TABLE 2. General attitudes toward consumer services.

Overall Quality of Consumer Services

Very Good	7.8%
Good	50.5%
Fair	37.7%
Poor	3.9%
N = 204	

Quality of Services Over the Last 10 Years

Increased	35.6%
Stayed the Same	29.3%
Decreased	35.1%
N = 208	

Cost of Services to Consumer

Extremely High	13.5%
High	48.8%
Average	35.3%
Low	2.4%
N = 207	

Future Government Regulation of Auto Repair Service Providers Qualifications

More Regulation	10.2%
Same Regulation	43.7%
Less Regulation	46.1%
N = 206	

Perceptions of Consumer Satisfaction

Auto repair service providers were asked to rate 10 types of service providers including auto repair on their opinion of how satisfied consumers were with the services. There is considerable variation in the ratings for both perceived consumer "satisfaction" and "dissatisfaction" among the 10 services (Table 3). Auto repair service providers believe that consumers are "most satisfied" with barber/beautician, dentist, and dry cleaners (96.7, 92.0, and 91.5 percent "satisfied," respectively), and "least satisfied" with real estate and legal services (59.0 and 50.6 percent "satisfied," respectively). Among the repair services listed, auto repair ranked the lowest with 68.4 percent of auto repair service provider respondents indicating perceived consumer satisfaction. These results are similar to actual consumer evaluations reported in an earlier study among Sacramento area residents (Schutz and Casey 1982) and for the general California population for the same services (Schutz 1979) (Table 4).

Among the repair service groups, auto repair service providers do not enjoy a good public image. This can be attributed, in part, to mechanics and repair shops who conveniently misdiagnose the problem, overcharge for repairs and/or for work not performed, and use low quality replacement parts. There are also unskilled mechanics that contribute to this problem. Auto repair service providers, for the most part, correctly assess consumer satisfaction with the services they provide (Table 4). Sixty-eight percent of responding auto service providers considered consumers as "satisfied" or "somewhat satisfied" with auto repair services (Table 4). These ratings are very similar to those reported by Schutz and Casey (1982) where 65.6 percent of Sacramento area consumers rated auto repair services as "satisfactory" or "somewhat satisfactory." Thus, auto repair providers have a realistic view of how their services are viewed by consumers.

TABLE 3. Consumer satisfaction/dissatisfaction as perceived by auto repair providers for 10 surveyed services.

Service Category	Satisfied Total %	Satisfied Rank	Dissatisfied Total %	Dissatisfied Rank	N
Auto Repair	68.4	8	31.5	3	203
Barber/Beautician	96.7	1	3.2	10	186
Dentist	92.0	2	8.0	9	187
Dry Cleaner	91.5	3	8.5	8	176
House Painter	78.8	4	21.2	7	170
Lawyer	50.6	10	49.4	1	176
Pest Control	76.3	6	23.7	5	173
Physician	77.5	5	22.5	6	183
Plumber	70.9	7	29.1	4	172
Real Estate	59.0	9	41.0	2	178

TABLE 4. Satisfaction ratings of 3 respondent groups for 10 services.

Service Category	Sacramento Area Auto Repair Providers Perception of Consumer Satisfaction[a]	Sacramento Area Residents[b]	California General Population[c]
Auto Repair	68.4	65.6	74.9
Barber/Beautician	96.7	92.8	92.3
Dentist	92.0	94.5	89.8
Dry Cleaner[d]	91.5	93.3	-
House Painter[d]	78.8	79.6	-
Lawyer	50.6	77.5	78.7
Pest Control	76.3	73.6	80.5
Physician	77.5	90.5	88.9
Plumber[d]	70.9	81.0	-
Real Estate	59.0	69.3	78.4

[a]Percent "satisfied" and "somewhat satisfied."
[b]Schutz and Casey, 1982.
[c]Schutz, 1979.
[d]Service not included in the 1979 study.

Service Quality

Table 5 presents rating results assessing the quality of the ten services studied and shows that, in general, auto repair service providers generally are satisfied with the quality of services available in the marketplace. Fifty-three percent believe that auto repair service providers provide average quality service and, 33.3 percent in the "high" to "very high" category (Table 5). Sixty-three percent rated the quality of service provided by dentists as "high" to "very high." Physicians and barbers/ beauticians received 46.7 and 46.0 percent, respectively in the "high" to "very high" category. Lawyers and house painters ratings were 19.3 and 18.2 percent, respectively in the "high" to " very high" category.

TABLE 5. Quality ratings of 10 services by auto repair providers.

Service Category	High %	Very High %	Average %	Poor %	Very Poor %	N[a]
Auto repair	10.4	22.9	52.7	10.4	3.5	201
Barber/ Beautician	6.5	39.5	52.4	1.1	.5	185
Dentist	15.1	48.1	31.9	4.9	0.0	185
Dry Cleaner	6.3	25.7	60.6	5.7	1.7	175
House Painter	4.1	14.1	71.2	7.6	2.9	170
Lawyer	4.0	15.3	44.9	21.6	14.2	176
Pest Control	5.3	20.0	61.8	7.6	5.3	170
Physician	15.0	31.7	42.2	6.1	5.0	180
Plumber	6.5	21.8	59.4	10.0	2.4	170
Real Estate	4.0	19.3	47.2	18.8	10.8	176

Scale: 1 = Very Poor through 5 = Very High
[a]Totals may differ due to missing values.

Spearman rank order correlation (rho) was performed to determine whether there is a relationship between the overall quality of services and perceived consumer satisfaction for 10 types of service providers including auto repair. Results show that there is a very strong positive relationship (rho = +.87) between overall quality of service as perceived by auto repair providers and perceived consumer satisfaction as reported by auto service providers. This is a logical result assuming that the providers believe that overall quality of service results in consumer satisfaction with that service.

Thirty-two percent of the auto repair service providers perceived consumers are dissatisfied with auto repair service providers, and 53 percent felt that the quality of service they were providing was "average." Therefore, these results appear to indicate that consumers are perceived as being somewhat dissatisfied with "average" service provided by automotive repair technicians.

Selection Criteria

Mean importance ratings on a five point scale of the 12 criteria for selecting an auto repair service provider range from 3.0 to 4.7, for auto repair providers and perceived consumer ratings range from 3.1 to 4.7 (Table 6). The majority of the respondents (84 percent) rated reputation/ recommendation as "very important" when selecting an auto repair service provider, and 79 percent said consumers felt likewise, which is in agreement with actual consumer judgments from an earlier study (78.5 percent Schutz and Casey 1982). Seventy-seven percent of respondents indicated that a consumer's previous experience with a provider was "very important", and 74 percent said consumers also felt the same way; however such importance is considerably higher than consumer ratings (55.2 percent). Friendliness was rated "very important" by 72 percent of the auto repair providers and ranked third for importance among the 12 criteria by both providers and as perceived by consumers. According to the earlier consumer study, 55 percent of Sacramento consumers felt that friendly service was the most important criteria for selecting an auto repair service provider. Thus auto repair providers are overestimating the importance of "friendliness" in selecting auto services. Credit availability was the least important criterion to auto repair technicians in the selection of an auto repair service provider; only 14.9 percent of the respondents indicating "very important." On the other hand, the auto repair providers perceived and actual consumer ratings of this criterion were considerably higher with 27.7 and 31.1 percent, respectively indicating "very important."

Price was rated "very important" by 32.3 percent of the auto repair providers. Perceived consumer ratings for this criterion were somewhat higher at 53.9 percent. It is obvious that auto repair providers realize that price is certainly viewed in a different manner from the consumer perspective. This finding is confirmed by Schutz and Casey (1982) with 55.9 percent of the respondents rating price as "very important." Auto repair providers overestimate the importance of "location" and "consumers previous experience with provider" and underestimate the importance of "qualification/training" and "office/equipment."

Consumer and Auto Repair Service Provider Attitudes

Auto repair providers were asked a series of attitudinal questions about the relationship between consumers and auto repair service providers. Forty-nine percent of the respondents "agree" that there is too little information available for consumers to make a good choice of an auto repair service provider. A preponderance of respondents feel that there is great variability of competence among auto repair service providers (90.3 percent "agree"). Seventy-three percent "agree" that consumers have difficulty recognizing the type of repair service that they need. Over half (73.9 percent) "agree" that consumers seem to be at ease in complaining to them when dissatisfied with the auto repairs and services provided, while only 16.4 percent "disagree."

Table 6. Mean importances of 12 selection critera reported by Sacramento consumers, auto repair providers and as perceived for consumers by auto repair providers. Percentage of respondent groups indicating that the criteria is "very important."

	Sacramento[a,b] Consumer Very Important			Auto Repair[b] Provider Very Important			Perceived[b] Consumer Very Important		
Criteria	%	$\bar{X}$	N[c]	%	$\bar{X}$	N[c]	%	$\bar{X}$	N[c]
Location	24.8	3.3	359	41.2	4.0	199	42.4	4.1	191
Range of Service	55.5	4.1	353	30.5	3.8	197	33.2	3.9	190
Ease of Obtaining Appointment	51.4	4.2	356	44.2	4.1	197	53.1	4.3	192
Promptness	58.7	4.3	351	61.4	4.4	197	63.9	4.4	191
Office/Equipment	28.3	2.9	339	15.0	3.2	193	13.0	3.1	184
Friendly	55.1	4.0	356	71.9	4.6	199	68.4	4.5	193
Reputation/ Recommendation	78.5	4.6	368	83.9	4.7	199	78.6	4.7	192
Price	55.9	3.9	358	32.3	4.0	198	53.9	4.4	193
Consumer's Previous Experience with Provider	55.2	4.1	346	77.3	4.7	198	74.3	4.6	191
Qualifications/ Training	73.8	4.7	359	64.1	4.5	198	46.4	4.1	192
Credit	31.1	2.8	341	14.9	3.0	194	27.7	3.5	188
Complaint Handling	55.9	3.8	340	59.2	4.3	196	56.5	4.3	191

[a]Schutz and Casey, 1982.
[b]Scale: 1 = Very Unimportant through 5 = Very Important
[c]Totals may differ due to missing values.

IMPLICATIONS

It is apparent from our results that auto service providers have a realistic view of their quality and consumer satisfaction with their services with a perception of about 30 percent of consumers dissatisfied with the service. There is clearly some room for improvement. However, it will not be easy to accomplish considering factors of cost, technician training, quality control problems of the manufacturers, and the vast uncertainty of driver behavior.

Examination of the results on criteria of selection importance indicate several implications. First, the fact that the auto repair provider considers location more important than the consumer can be interpreted to mean that the consumer is more willing than providers perceive to travel away from their local area in order to obtain quality service. Providers could consider trying to reach individuals in neighboring areas with a message emphasizing those criteria that are important to consumers, such as recommendations from satisfied customers. Second, consumers are more influenced by "qualifications" than the auto providers believe, even though they think it is important themselves. This should encourage providers to display evidence of qualifications conspicuously and perhaps give customers a chance to talk to repair people to help build a competency image. Third, consumers seem to be more impressed with the "office/equipment" (although at a relatively low level) than is the opinion of the auto repair provider. This might give an opportunity to improve satisfaction by more closely monitoring office-customer interactions and by allowing them to enter the shop to see what equipment is actually available. Fourth, and related to the last implication, is the fact that "range of service" is considered more important to customers than is apparent to auto repair providers. Advertising the type and range of services offered and/or adding to the services provided might be a way of increasing the likelihood that the consumer would select that provider. Fifth, it appears that although being friendly is desirable, it is less important to the consumer than auto repair providers believe. Perhaps consumers consider the auto service provider more like a doctor in that they want confidence and quality, not just friendliness. Finally, the fact that previous experience with the provider is less important to the consumer than the provider may lead to more tolerance by the consumer of an occasional unsatisfactory experience.

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