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# Consumer Perceptions and Expectations of Garden Center Product and Service Quality<sup>1</sup>

Jay T. Hudson<sup>2</sup>, Bridget K. Behe<sup>3</sup>, Harry G. Ponder<sup>4</sup>, and William E. Barrick<sup>5</sup>

*Alabama Agricultural Experiment Station and Department of Horticulture  
Auburn University, AL 36849*

## Abstract

We compared consumers' product and service quality perceptions and expectations from five traditional garden centers (TGC) and three non-traditional garden center outlets (NTO) in Charlotte, NC. Customers from both outlets had similar expectations of service and product quality. However, TGCs better met customer expectations with higher perceptions scores and smaller gap scores. Service quality gaps were the difference between customer perceptions and expectations. Gaps were identified for both outlets on four of five service quality dimensions and for the single product quality dimension. TGC and NTO customers ranked assurance and responsiveness as the most important service quality dimensions. Empathy was more important than reliability to TGC customers but their importance was reversed for NTO customers. Both customer groups ranked tangibles as the least important service quality dimension and retailers did not have a gap on this dimension.

**Index words:** survey, marketing.

## Significance to the Nursery Industry

As the product mix between traditional garden centers (TGC) and non-traditional garden center outlets (NTO) becomes more similar, a retailer's ability to differentiate his outlet from competitors will increasingly come from the quality of services offered. Assessing retail product and service quality can be crucial in the development of a marketing strategy. Identifying important service quality dimensions and the perceived level of product and service quality can indicate to retailers weaknesses that need to be improved and strengths on which the retailer could capitalize. This research provides retailers with information on how consumers perceive and evaluate two different kinds of retail garden center outlets. Customers of TGC and NTO had similar product and service quality expectations. This was surprising in light of obvious differences in marketing strategies. However, TGC customers perceived a higher level of product and service quality from their retailer when compared to NTO customers. Product and service quality gaps were identified for both types of retailers, yet TGC had smaller service quality gaps, indicating a relative advantage. Both kinds of customers rated assurance, the ability of employees to convey trust and knowledge, as the most important service quality dimension; however, outlets did not meet customer expectations. Responsiveness was the second most important dimension and another area where customer expectations were not met. Both kinds of customers rated tangibles as the least important dimension and the only dimension where no service quality gap was identified.

## Introduction

TGCs dominance in the retail landscape horticulture industry is eroding. Competition from NTOs such as home centers, hardware stores, and mass merchandisers has captured a significant portion of the TGC's sales. From 1972 to 1977, retail garden center sales grew 129%, whereas from 1977 to 1982 sales grew 81%, and from 1982 to 1987 sales grew 88% (11). Then, sales from 1987 to 1992 slowed to 17%. The trend for these five-year periods showed a substantial decrease in sales after dramatic growth. Recent reports show that 32% of American households made a landscape product and/or service purchase from a traditional garden center, compared to 21% from a hardware store, 26% from a mass-merchandiser, and 16% from a home center (3). Home centers were the only store category that showed a net increase in the percentage of households making a purchase from them in the last five years. Voigt suggested that attention to costs and customers will be priorities for everyone as non-traditional outlets continue to make inroads with traditional markets (11).

One strategy that could potentially help a business achieve a competitive advantage is delivering high quality customer service. Whiteley reported that customers are five times more likely to switch vendors due to perceived service problems than for price or product quality concerns (13). Henkoff suggested that the key to delivering excellent quality service begins by finding, training, and keeping the best service workers (4). He reported that one-fourth of all service employees had no health insurance, and 40% earned less than \$14,764 per year, the official poverty level for a family of four. He further noted that companies often call on employees to perform monotonous, rigidly scripted tasks, all the while exhorting them to smile brightly and tell customers to have a nice day. Clearly, employees are a key link in the chain between business image and customer perceptions.

One method for assessing service quality is SERVQUAL, which was developed by Zeithaml, Parsuraman, and Berry (15). SERVQUAL is a survey which consists of 22 pairs of questions, half of which measure expectations and half of which measure perceptions of service quality. Questions are asked using a five-point Likert scale where 1 = 'strongly disagree' and 5 = 'strongly agree.' Expectations are what con-

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<sup>2</sup>Graduate Research Assistant.

<sup>3</sup>Associate Professor.

<sup>4</sup>Professor.

<sup>5</sup>Affiliate Professor, Vice President and Director of Gardens, Callaway Gardens, Pine Mountain, GA 31822.

sumers would expect from an ideal retailer. Perceptions are what consumers felt they got from shopping in their outlet. The level of service quality is defined as the difference between customer perceptions and expectations. A negative service quality gap meant the retailer was not meeting customer expectations. A positive service quality gap meant the retailer exceeded customers' expectations.

SERVQUAL was divided into five dimensions of service quality by factor analysis: tangibles, reliability, responsiveness, assurance, and empathy (15). The tangibles dimension was measured with four questions relating to the appearance of physical facilities, equipment, personnel, and communication materials. Reliability, measured with five questions, was the retailer's ability to perform the promised service dependably and accurately. Responsiveness, measured with four questions, was the willingness to help customers and provide prompt service. The four assurance questions measured the knowledge and courtesy of employees and their ability to convey trust and confidence. Empathy, measured with five questions, was defined as the caring, individualized attention the firm provides its customers.

The SERVQUAL methodology has been used extensively in other industries (2, 5, 7, 10, 14). Becker adapted the SERVQUAL methodology to identify service quality gaps for traditional and non-traditional florists in Texas (1). He found similar expectations and different perceptions on the five service quality dimensions, with retail florists having a competitive advantage with more narrow service quality gaps. Our objective was to adapt SERVQUAL to define consumers' product and service quality perceptions and expectations of traditional and non-traditional retail garden centers.

## Materials and Methods

Waldrop reported that good test markets typify the U.S. population and are reasonable locations for consumer behavior investigations (11). The top three U.S. test markets having demographics most closely matching the U.S. average were: Detroit, Michigan; St. Louis, Missouri-Illinois; and Charlotte-Gastonia-Rock Hill, North Carolina-South Carolina (8). Since Charlotte was the closest of these three test markets (450 miles), it was selected.

TGCs were defined as free-standing primarily horticultural retailers offering a full line of products and services, which could include landscape services and delivery. NTOs were defined as a component of a mass-merchandising op-

eration whose product mix was primarily non-horticultural products and offered few or no horticultural services.

Original SERVQUAL questions were reworded to reflect services found in garden centers. In addition to the refined SERVQUAL questions, eight product-specific questions were added to measure product quality perceptions. Similar to Becker (1), we asked consumers to allocate a total of 100 points among the five dimensions of service quality based on the dimensions' relative importance to them.

Consumers were asked to report how many times they purchased plants from any garden center and their average spending. Participants were also asked how many times they had purchased plants from the particular garden center where the survey was obtained and again their average spending. Demographic questions, including year of birth, gender, income level, and family status, were asked at the end of the questionnaire.

TGCs in the test market were selected based on the suggestions of the Mecklenburg County Extension office. Six TGCs were initially selected, but one was dropped after a low customer count in the first weekend of distribution. Each TGC was visited in February, 1995, to request participation. Copies of the survey and protocol were given to managers. NTOs were solicited through corporate headquarters; the cooperating chain had three stores in the market area. Retailers were geographically distributed around Charlotte and varied in duration of business operation and sales area size (Table 1).

Surveys were distributed on March 31 and April 1, 28, and 29, 1995. Shoppers in the retail outlets were approached by a university student and offered a survey form with a business-reply envelope shown protruding from the center. Each participant was told about the survey and how it could be completed at home, informed of consent to participate, and shown the business-reply, postage-free envelope provided for ease of mailing.

In the first weekend of distribution, 1,465 surveys were distributed among eight outlets, with 518 distributed in TGCs and 947 distributed in NTOs. A total of 2,164 surveys was distributed among seven outlets in the second weekend, with 606 distributed in TGCs and 1,558 given in NTOs. All surveys returned to Auburn University were checked for usability and completeness. Data were analyzed using PC-SAS 6.08 (9).

Service quality dimension scores for perceptions and expectations were calculated by averaging individual responses to questions in each dimension. A service quality gap score was calculated for individual respondents by subtracting expectations from perceptions scores for each survey dimension. A positive gap indicated the retailer exceeded customer expectations. A negative gap indicated the retailer fell short of consumer expectations. Perception, expectation, and gap scores for each service quality dimension were calculated for each respondent by averaging responses to the questions or dimensions. An overall measure of service quality was calculated by averaging dimension perception scores and subtracting expectation scores.

## Results and Discussion

TGC customers returned 242 of the 1124 distributed surveys (21.5% response rate). Only 13.6% of the NTO customers responded as 342 of 2505 distributed surveys were returned.

**Table 1.** Indoor sales area size and years in operation for three non-traditional garden center outlets (NTO) and five traditional garden center outlets (TGC) in Charlotte, NC, chosen to participate in a consumer assessment of service quality dimensions.

Type of outlet	Outlet	Meter <sup>2</sup>	Age
NTO	#1	1940.12	3 yrs.
	#2	1178.25	2 yrs.
	#3	1652.60	2 yrs.
TGC	#1	14163.53	25 yrs.
	#2	1114.80	10 yrs.
	#3	4046.72	3 yrs.
	#4	5427.96	5 yrs.
	#5	2976.52	8 yrs.

**Table 2. Relative importance ratings and rankings of five SERVQUAL dimensions by traditional garden center (TGC) and non-traditional garden center outlet (NTO) customers.**

Dimension	TGC		NTO	
	Points <sup>z</sup>	Rank <sup>y</sup>	Points <sup>z</sup>	Rank <sup>y</sup>
Assurance	25.6	1	25.5	1
Responsiveness	24.3	2	23.9	2
Empathy	20.5	3	18.6	4
Reliability	17.5	4	17.3	3
Tangibles	12.1	5	14.7	5

<sup>z</sup>Average points for all participants.

<sup>y</sup>Significant difference using Wilcoxon Rank-Sum test with  $p \leq 0.05$ .

There were no differences in mean age (48 years), years of education (15.5), number of household members (2–3), gender distribution (73% female), and marital status of TGC and NTO customers. TGC customers had a 5% higher household income (\$45,686) when compared to NTO customers (\$43,504). Customers were quite similar demographically, with only a difference observed on one of six demographic variables.

Of the five dimensions, both TGC and NTO customers ranked assurance and responsiveness as most important and the physical appearance of equipment, personnel, and printed materials as least important (Table 2). TGC customers valued caring, individualized attention more than NTO customers did. These findings suggest that employee knowledge and trust were relatively more important to both groups than the physical condition of facilities.

NTO and TGC customers had similar expectations of their respective retailers but consistently lower perceptions of assurance (Table 3). This service quality gap was nearly three times as large for NTO customers compared to TGC customers, suggesting that TGCs were better at meeting cus-

tomers expectations and have a potential strength or advantage in this service quality dimension. Niemiera et al. reported that technical knowledge, or assurance in the SERVQUAL survey, was clearly an important service the garden center should provide (6).

NTO customers had a higher expectation of responsiveness when compared to TGC customers yet, TGC customers had a higher perception score (Table 3). The responsiveness gap was more than twice as large for NTOs as the gap calculated for TGCs.

A higher perception score was calculated for TGC customers compared to NTO customers, and an empathy gap was identified for both (Table 3). The TGC customer had only 1/4 the gap calculated for the NTO customer. NTO and TGC customers had similar expectations on the empathy items but had lower perceptions except for convenient operating hours (data not shown).

TGC and NTO customers had similar expectations for reliability, yet TGC customers had a higher perception score. Customers perceived a reliability gap, but the gap for TGCs was one-third less. NTO customers had similar or higher expectations for all questions except showing an interest in solving problems, yet they consistently had lower perceptions on all reliability questions (data not shown). Becker showed that reliability was the most important service quality dimension for florist and supermarket floral department customers (1).

NTO customers had higher expectation of tangibles than TGC customers (Table 3). Tangibles was the only dimension where expectations were met by either retail outlet. This was the only dimension for which NTO customers had higher perceptions than TGC customers.

Product quality assessment was very similar to the service quality assessment. NTO and TGC customers had similar product expectations, but TGCs had higher perception scores. A product quality gap was identified for both types of retailers; however, the gap was substantially larger for NTO cus-

**Table 3. Summary of mean expectations, perceptions, and gap scores on combined items comprising the five SERVQUAL dimensions and one product quality dimension for traditional garden center (TGC) and non-traditional garden center outlet (NTO) customers.**

Dimension	Mean expectations		Mean perceptions		Mean gap	
	TGC	NTO	TGC	NTO	TGC	NTO
Assurance	4.63	4.63	4.30	3.61	-0.33	-1.02
	P = 0.5498		P = 0.0001*		P = 0.0001*	
Responsiveness	4.57	4.65	4.12	3.50	-0.45	-1.15
	P = 0.0200*		P = 0.0001*		P = 0.0001*	
Reliability	4.72	4.72	4.06	3.79	-0.66	-0.93
	P = 0.4465		P = 0.0001*		P = 0.0001*	
Empathy	4.42	4.39	4.14	3.57	-0.28	-0.82
	P = 0.7129		P = 0.0001*		P = 0.0001*	
Tangibles	3.59	3.86	3.67	3.91	0.08	0.05
	P = 0.0001*		P = 0.0001*		P = 0.2108	
Product	4.49	4.53	3.86	3.52	-0.63	-1.01
	P = 0.0979		P = 0.0001*		P = 0.0001*	
SERVQUAL	4.40	4.47	4.03	3.65	-0.37	-0.82
	P = 0.0218*		P = 0.0001*			

\*Significant at  $\alpha \leq 0.05$  using Wilcoxon Rank-Sum test.

tomers. NTO customers had similar product expectations for six of eight items and higher expectations on two additional product quality items (data not shown). However, TGC customers had higher perceptions on all product quality items except plant guarantees.

NTO and TGC customers had similar expectations on 15 of 22 service quality questions, a clear majority. TGC customers had higher expectations only on the retailer's showing interest in solving the customer's problems. On the remaining six questions, NTO customers had higher expectations. This finding was surprising in that TGCs are specialty retailers who market diverse product lines. We could hypothesize that a higher level of service quality would be expected of specialty retailers because they chose to broaden their product and service mix in comparison with a more generalist type of retailer, who may offer more limited products and services. The similar expectations of service quality from both these retailers increases their direct competition and adds pressure to better differentiate their operations from others.

Even though expectations were similar, perceptions were markedly different between TGC and NTO customers. Perceptions were similar for only five of 22 questions. TGC customers had higher perceptions of service quality than NTO customers on 14 of 22 items. NTO customers had higher service quality perceptions for only three questions: modern equipment and visually appealing printed materials (both tangibles questions) and convenient operating hours (an empathy question).

Because expectations were similar and perceptions were not, gaps in service quality were determined. Gaps were more numerous and larger for NTOs than for TGCs, clearly giving a competitive advantage to TGCs in service quality. However, gaps were evident for both types of retailers.

Of the eight product quality questions, NTOs and TGCs were similar on six. NTO customers had higher expectations for product guarantees and clearly marked prices. However, product quality perceptions questions were different when the two groups were compared. TGC customers had higher perceptions of product quality on all questions except product guarantees, showing a consistent advantage in product quality for TGCs.

If TGCs want to narrow the greatest advantage NTOs have, they should focus on improving the quality of equipment and printed materials, and making operating hours more convenient. NTO customers had higher expectations and perceptions for product guarantees than did TGC customers. NTOs need to improve their customers' perceptions of assurance and empathy. Product and service differentiation are

important, but employees should be the primary focus for non-traditional garden centers.

This research demonstrated that customers of NTOs and TGCs have very similar expectations of service quality from their respective retailers. However, TGCs clearly better met customer expectations. Both types of retail outlets had significant product and service quality gaps. Narrowing product and service quality gaps by focusing first on the largest gaps can be a substantial component of a marketing strategy to improve competitiveness.

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