

AN ANALYSIS OF THE RETAIL FLORAL INDUSTRY
IN THE STATE OF KANSAS

by

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INTRODUCTION

One of the greatest needs of American business managers has been the availability of adequate, accurate, and current market information as a basis for decision-making. As production capacity has continued to expand, increased pressure has been placed upon management. This pressure has induced management to develop new and larger markets. However, management's weakest sphere of information has concerned the markets in which they operate.

An improved understanding of commercial floriculture and ornamental horticulture has required the consideration of marketing as integrated with, and inseparable from, production. Information concerning the retail structure of the floral industry in the West North Central sector of the United States has been extremely deficient. This need for marketing information has created an increased use of marketing research as a useful aid in competitive merchandising.

The primary purpose for this particular piece of marketing research generated from the fact that very little statistical information concerning the retail floral industry was available for the state of Kansas. This lack of accurate background material has impeded the progress of marketing studies within this state.

The objectives of the study were to provide: (1) a broad, general description of the nature of the retail floral industry in the state of Kansas, and (2) an analysis of specific business management practices followed by Kansas retail florists.

This information is essential to the growth and development of the floral industry in this region of the United States. Future marketing studies in the state of Kansas cannot be conducted effectively until this basic information has been assimilated. Other states, especially those in the Northeast and New England regions, have been the leaders in floral marketing research primarily because basic market information concerning the floriculture industry was available.

REVIEW OF LITERATURE

History of Marketing Research

Marketing research has been defined as, "the gathering, recording, and analyzing of all facts concerning problems relating to the transfer and sale of goods and services from the producer to the ultimate consumer (16)."

Maynard and Beckman (20), Stanton (25), and Boyd and Westfall (5) have reconciled that all marketing activities permeate the entire "present-day" economy. Maynard and Beckman concluded that without exception all products produced and consumed were directly or indirectly affected by marketing processes.

Stanton (25) stated that "modern" marketing and marketing research were established shortly after World War I. Prior to this time emphasis was placed on the expansion of production facilities because demand exceeded product supply. Blankenship and Doyle (3) have described marketing research as a new innovation that was first evinced after World War II. Howard (15) has also stated that marketing research was a new science. He stated that it was introduced as a science after 1946.

Kohls (17) and Maynard and Beckman (20) have organized some of the concepts concerning the growth and development of marketing research. They wrote that very little effort had been made to develop marketing research and marketing programs during the latter part of the nineteenth century and the first two decades of the twentieth. Heady (14) stated

that over-production besieged the nation after the 1920's, and this induced the development of marketing research.

History of United States Census and Market Surveys

An important advancement in the expansion of marketing research was the recognition of the need for comprehensive market statistics (20). This need was perceived during the late 1940's when quantitative and qualitative marketing information was required for market expansion.

The first United States population census was taken in 1790, and the first Census of Agriculture was initiated in 1865 (33). These early censuses were incomplete, and a more comprehensive census was developed. The first Census of Business was completed by the Bureau of Census in 1929. This census provided the first reliable marketing information on a national basis (15, 13). The Censuses of Business conducted in 1933, 1935, 1940, and 1948 were the result of special congressional appropriations. In 1948 Congress appropriated funds providing for a Census of Business every five years.

Special censuses of horticultural crops have been conducted sporadically since 1890, the most accurate being conducted in 1959 (32). The Horticultural Census of 1959 included wholesale producers of cut flowers, flowering plants, foliage plants, bedding plants, nursery products, bulb crops, and flower seed crops. This census did not include the retail sales value of these crops, but the retail values are available in the annual Statistical Abstracts of the United States (35).

The Government and Marketing Research

After World War II, Congress recognized the need for marketing research and passed the Research and Marketing Act of 1946 (17, 18). The need for this bill resulted from overproduction created from improved technology and production capacity during the war years. It has been the consensus of many economists and marketing researchers, that the Federal Government ranks second only to the ultimate consumer as an external factor influencing marketing activities (25).

Most government programs have been of significant value. The Federal Government has sponsored marketing research programs when private industry was unwilling or unable to do so. The Federal Government has also been active in the regulation of marketing activities and unfair trade practices (25, 17). Thomas (26) stated that continued emphasis on scientific marketing research from governmental agencies can be expected.

Marketing Research in Floriculture

Bennett (2) concluded that flower purchases throughout the United States were based primarily on traditional custom and habit. Fossum (10) and Voigt (38) have reported that the demand for flowers and other related floral products was relatively inelastic. The United States Bureau of Census (31) reported that the gross volume of floriculture and ornamental horticultural products passing through marketing channels in 1939, amounted to 254 million. In 1949, just ten years later, the gross volume passing through those same channels amounted to 678 million dollars. The existing

channels of distribution were not able to handle this tremendous increase in volume. Thus the use of marketing research as a merchandising aid was vitally necessary. Good market information provides the florist with a factual basis for analysis and decision-making. Some information can be accumulated by experience, but critical information required for successful competition must be actively pursued (38).

Marketing research was slow to establish itself as a part of the floricultural industry. The most significant era of expansion has been since 1946. Since then, the marketing of commercial floral products has not been slighted in research endeavors to establish new merchandising channels for agricultural products (9, 27).

The pioneers of floricultural marketing research have, for the most part, been affiliates of the federal and state governments. The Federal Government has been instrumental in initiating several large research projects in floricultural marketing. Many land-grant universities also have been involved in the marketing research activities of the floral industry, and reports have been made available from most of these research studies (9). Most floricultural marketing research has been conducted in the New England, Middle Atlantic, and East North Central regions of the United States (11).

Several state and local trade associations have been instrumental in sponsoring horticultural marketing research, but they have worked in conjunction with agricultural colleges within their state (19). Private industry has made some contributions to marketing research in floriculture

(4, 39). Most of these programs have been conducted with a large cross-section of the nation's florists.

Kansas is included in the West North Central Region of the United States. Very little floral marketing research has been conducted in this region. Florists in this region rely on marketing information assembled in other regions of the nation. Powell (22) reported that Minnesota and Iowa have most actively pursued floral marketing studies in the West North Central Region.

The retail florist has traditionally acted as the main representative of the floriculture industry to the general public. For years he has been the customary retail outlet involved in the distribution of floral products; this has placed him in a very strategic position within the floral industry. Under past and present marketing conditions, the prosperity of all growers and wholesalers of floral products has been almost entirely dependent upon the success of the retail florist (7). One can see that we must concern ourselves with the role of the retail florist, and the role of other retailers of horticultural specialty crops, as these retailers represent the "life" of all other organizations involved in the marketing structure of floral products.

BACKGROUND TO THE RETAIL INDUSTRY

Characteristics of the Floral Industry as Related to the Retail Industry in its Entirety

In 1962, the 1.8 million retail establishments in the United States had a gross retail sales volume of 235 billion dollars (29). Retail sales had almost doubled since 1950 when approximately the same number of retail establishments grossed 131 billion dollars (26). In contrast, there were 13,565 retail florists in 1950. These florists grossed 375 million dollars. The number of retail floral establishments increased to 19,801 in 1963, and their gross retail sales volume increased to 780 million dollars. This increment represented a 108 percent increase in gross retail volume (22).

Most retail floral establishments are independently owned and operated. This is characteristic of the entire retail industry. In 1960, eighty-nine percent of all retail establishments in the United States were independently owned. These retail establishments accounted for only 66 percent of the gross retail sales volume. Eleven percent of the retail establishments, representing the larger retailers, accounted for the remaining 34 percent of the gross retail volume (26). Ninety percent of the retail floral establishments were independently owned in 1960; however, no information is available regarding sales volume distribution (10). Approximately 85 percent of the retail florists, as compared to 82 percent of all retail establishments combined, had an annual sales volume less than 50,000 dollars in 1960 (4).

Harold Barger stated that the average operating expenses for all retail establishments was 27 percent of their gross retail volume. The operating expenses of wholesalers averaged 12 percent of the gross wholesale volume (1). These figures are based on data collected in 1955. Proportionally higher retailing costs have been attributed to the retailers' direct contact with the ultimate consumer and lower volume of sales. In contrast to the wholesaling or manufacturing, consumers of retail products have traditionally demanded more services.

Table 1. Typical operating expenses and net profit margins for selected retail businesses (percentages of net sales)

Type of business	Percent operating expense	Percent net profit (before taxes--after owners salary)
Grocery	14.5	1.5
Dry Goods and General Merchandise	27.5	1.9
Drug	30.5	5.3
Jewelry	40.7	3.7
Florist	44.1	3.3

Source: Dun and Bradstreet, Inc., New York, 1959.

The operating costs of retail florists, while being much greater, fluctuated proportionately with those of other retail establishments.

A multitude of factors have contributed to the high operating costs for retail florists. Some of the most significant are-

1. Most retail establishments distribute manufactured products, but the retail florist must manufacture and/or arrange a large percentage of the products sold. This single factor greatly increases expenses, as it requires the employment of skilled designers in addition to a regular sales force.

2. Product perishability has induced a high operating expense ratio for the retail florist. Florists must provide refrigerated storage and delivery facilities to avoid excessive losses due to shrinkage. These services have been expected from retail florists and must be offered if time, place, and form utilities are to be successfully provided.
3. The seasonal nature of retail floral sales has contributed to high operating costs. Retail florists have not developed a significant and consistent demand for flowers for decorative purposes in the home. The traditional demand for floral products has been the result of long established customs, which have been dependent upon funerals, holidays, weddings, illnesses, births, and social functions.

The seasonal dollar volume of retail floral sales usually has been the lowest in late summer and early fall. Retail sales for the three winter months have normally averaged 25 percent higher than summer sales. Increased winter sales have been attributed to the traditional holiday demand.
4. Finally, retail florists have not kept credit policies current. Florists generally extend credit "free of charge" until the bill has been paid. This factor when left uncontrolled forces florists to operate on a day-to-day basis. Thus they forego benefits from cash discounts offered by wholesalers.

Neither people nor income are distributed evenly throughout the United States. An area, roughly outlined by the Ohio River on the south and the Mississippi River on the west, comprises the great mass of the retail market. In this area, which is approximately one-eighth of the total area of the United States, there are concentrated over two-fifths of the total population and one-half of the total income (9).

During the past several decades, this mass market has progressively moved westward. The Pacific Coast Region has contributed significantly to this westward movement. Since the turn of the century, the population of the United States has more than doubled. Since 1929, the purchasing power of the consumer also has been increasing steadily.

The United States Census Bureau reported that the purchasing power of incomes received has increased an average of 1 1/4 percent annually.

The fact that both the population and its purchasing power have been increasing is an important factor, as it tends to signify an expanding market for most retail products. However, this market has not been expanding proportionately and, as stated before, growth has not been uniform throughout the United States. In 1960, the United States Census Bureau pointed out that the Pacific, West South Central, and the Mountain States had developed most rapidly during the previous decade.

Fossum (1948) indicated that floral sales followed the national income; however, sales did not increase in the same proportion as disposable income increased. He also found that flower prices lagged far behind those of other retail commodities and definitely did not follow the disposable income index (10). This research indicated that flowers are purchased as the need arises, and they are purchased as a necessity rather than a luxury (21).

90 percent of the United States average as compared to 109 percent for the East North Central Region and 91 percent for the Mountain Region.

In 1958, the 1,272 florists of this region grossed 50 million dollars. In 1963, the United States Department of Agriculture reported that 1,278 florists grossed 57 million dollars (22). The 14.4 percent increase in gross retail volume is significant; however, it represented the lowest regional increase in the United States during this five-year period (Table 3).

The total number of floral establishments in this region has remained relatively constant. Kansas, Minnesota, and Iowa were the only states that showed a decrease in floral establishments in 1963 (22). Even though the floral industry has not attracted new merchants to this region, the existing merchants have become larger and more progressive. In 1958, the florists in this region grossed 18.9 percent more dollar volume per retail establishment than the average florist in the United States. In 1963, the retail florists in the West North Central Region led the nation in dollar volume per retail floral establishment. However, they ranked ninth in gross retail volume increases from 1958 to 1963 (22). The nine geographic market regions of the United States, their rank in terms of gross retail volume increases, and the average volume per retail establishment for each region are listed in Table 3 below.



Fig. 1. Map of the United States designating the nine geographic market regions.

Table 3. An analysis of the regional retail floral business in the United States

Region	Gross volume increase 1958-1963 (percent)	Retail volume per floral establishment
I South Atlantic	33.6	\$35,395
II Mountain	32.7	43,463
III New England	29.9	39,523
IV Pacific	22.3	44,680
V East North Central	19.9	42,621
VI East South Central	19.7	30,981
VII West South Central	16.8	33,055
VIII Middle Atlantic	15.7	41,308
IX West North Central	14.4	45,342

Source: United States Department of Agriculture Economic Research Service, 1965.

As indicated in Table 4 below, all states in the West North Central Region have not contributed equally to the growth of the retail floral market.

One should not be misled by the percentages by which the total sales volume has apparently increased. The U. S. Department of Commerce reported that between the years 1958 and 1963 the purchasing power of the consumer dollar decreased by 6 percent (35). After allowing for these inflationary trends, the corrected increase in gross retail volume was Kansas +7%, Minnesota +3%, Iowa +21%, Missouri +8%, Nebraska +9%, N. Dakota +37%, and S. Dakota -1%.

Table 4. Floral market trends in the west north central region of the United States

State	Number of florists		Percent change from 1958-63	Gross retail volume in millions of dollars		Percent change from 1958-63
	1963	1958		1963	1958	
Kansas	223	247	-10	8,462	7,495	+13
Minnesota	199	207	- 4	12,379	11,328	+ 9
Iowa	244	255	- 8	9,590	7,579	+27
Missouri	408	404	+1	18,756	16,436	+14
Nebraska	131	130	+1	5,824	5,072	+15
N. Dakota	32	20	+60	1,598	1,119	+43
S. Dakota	41	39	+ 5	1,339	1,280	+ 5

Source: United States Department of Agriculture Economic Research Service, 1965.

PROCEDURES

Organization of the Marketing Survey

Survey questionnaire. The survey questionnaire was composed of fourteen carefully selected questions. Only those questions pertinent to the purpose of the survey were used. The attribute of these questions was based on marketing surveys conducted by Fossum (10), Dewerth, Sorenson, and Odom (7), and Voigt (38). The psychological response and participant attitude of each question was carefully analyzed and pre-tested. Boyd and Westfall's procedures for research survey design and control were used (5).

Sample design. All known active florists in Kansas were given equal opportunity for participation. The survey was conducted according to the randomized sampling techniques cited by Snedecor (24) and Boyd and Westfall (5). The target population was composed of 229 active retail florists. Seventy-two florists representing 31.4 percent of this population were randomly selected to participate in the marketing survey. Snedecor (24) and others have stated that 7 to 10 percent of the total population is sufficient for conducting marketing surveys of this nature. Cochran (6) stated that the total size of the sample population (n) is more important than a fixed sampling percentage. When the sampling fraction ($\frac{n}{N}$) is low, the size of the target population has no direct effect on the standard error of the sample population mean.

Population stratification. The participating florists were placed into four major strata. The size of the metropolitan area in which the

florists operated their retail business was used as a basis for stratification. Procedures for population stratification were taken from Boyd and Westfall (5), Dewater, Sorenson, and Odom (7), and Fossum (10). The objective of population stratification was to reduce the total population to several homogeneous strata. This procedure made it possible for the researcher to formulate more reliable hypotheses about the population. Correlations of specific characteristics among population strata are also more conclusive when this procedure is used.

Table 5. Stratification of participating florists on basis of city population

Stratum	Population of metropolitan area	Sample size (participating florists)	Total population of florists
A	50,000 plus	13	48
B	15,000-49,999	9	36
C	5,000-14,999	19	54
D	4,999 or less	<u>31</u>	<u>91</u>
Totals		72	229

Analysis of data. The four population strata were used consistently. All survey characteristics were analyzed accordingly. Several survey characteristics were analyzed statistically, using the chi-square analysis. This analysis enabled the researcher to determine if a significant difference existed for a particular survey characteristic between the strata (5, 24). This test for significance was used only where the author determined it meaningful.

Other survey characteristics were analyzed by the use of summary statistics and percentages (5). Summary statistical measurements were used to denote the stratum and the population. Of these measures of central tendency, the arithmetic mean and median were used most frequently. Percentages were used where the author considered them to be most valuable in data analysis. Percentages represent a special kind of ratio. They are of significant value when two or more series are being compared. Under these circumstances, whole numbers are less meaningful.

Fig. 2. Survey Questionnaire

Stratum Classification	Florist Number
1. Number of years in florist business _____	
2. Is this operation a family operation? _____	
3. Was past generation (father and mother) in florist business? _____	
4. Number of employees (a) skilled (designers, etc.) _____ (b) semi-skilled _____ (c) part-time _____	
5. Do you own or rent this shop? _____	
6. Credit policies: (a) extend credit "free of charge" until bill is paid _____ (b) have service or interest credit charge on bills not paid within 30-60 days _____	
7. Promotion: (a) have a definite advertising and promotion plan; certain percent of sales _____ (b) no definite plan _____	
8. Estimated square feet of sales and display area _____	
9. Number of delivery vehicles: (a) normally _____ (b) on holidays _____	
10. Where flowers are purchased (percent): (a) local growers _____ (b) area wholesalers _____ (c) direct shipment (usually out-of-state) _____	
11. Customer classification (estimate percentage): (a) individual _____ (b) commercial _____	
12. Estimated "plus" sales through wire service membership _____	

13. Estimated sales distribution (percent):

- (a) telephone _____
- (b) personal selection _____
- (c) standing order _____

14. Type of sales (percent):

- (a) cash _____
- (b) credit _____

NOTE: Record all pertinent information derived from personal interviews with the florists.

RESULTS AND DISCUSSION

Number of Years in Business

There was no significant difference between florist classification (population strata) and the number of years in business (Table 6). Floral shop operators in Group D were in business fewer years than those of Groups A, B, and C. Florists in Groups B, C, and D were typically in business less than 10 years or more than 20 years. Of these, the florists in Group B and C were in business the longest. Characteristically, florists in Group A had been in business from 10 to 20 years. Twenty-nine percent of the entire sample population had been in business less than 10 years, thirty-eight percent from 10 to 20 years, and thirty-one percent more than 20 years.

Table 6. Relationship between years in business and population strata-- (expressed in percent of total)

Number of years in business	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Less than 10	23.07	11.11	26.32	38.71
10 - 20	53.84	33.33	36.84	35.48
More than 20	23.07	55.56	36.84	25.81

Chi-square .05, 6 d.f.
M thousands

Table 7. Average years in business of entire sample population--
(expressed in percent of total)

Number of years in business	Percentages
Less than 10	29.3
10 - 20	38.8
More than 20	31.9

The fact that the florists in Group D had not been in business as long as the others is very misleading. Further study revealed that they actually had been affiliated with the floral industry an average of eighteen years. However, the majority of these florists only recently had taken over the family business from their parents (see Table 6).

Florists in Groups B and C were typically progressive, well-established businesses. Many were prominent personalities in the floral industry. Many had started floral establishments in small towns and only recently had moved into larger, more populated metropolitan area.¹

Florists in Group A were very progressive businessmen. Seventy-five percent of the florists in Group A were trained in business administration and floral design. All florists in this group attributed success to their business-like mode of operation, not their past experience in the floral industry. Most of these florists had been in business 10 to 20 years, indicating that they started shortly after World War II. Twenty-three percent of the florists in this group were

¹Information derived from personal interviews.

members of past-generation florist families. They had either inherited the business or were financed by their family (past generation florists).

In a 1963 retail survey of Oklahoma florists, MacIrving and Payne (19) found that the florists surveyed had been in business an average of 17.7 years. They reported, thirty-two percent of the Oklahoma florists had been in business less than 10 years, thirty-six percent from 10 to 20 years, and thirty percent more than 20 years. Although the results of the Oklahoma survey proportionately resemble those found in this survey, no meaningful correlation can be postulated. Survey design and population stratification were entirely different.

Mode of Operation

The survey response to mode of operation, family or non-family, was significantly influenced by the metropolitan classification of the florists (Table 8). Florists in Groups A, B, and C tended to be less dependent on family labor than florists in Group D. Florists in Group C utilized less family labor than any other group.

Table 8. Relationship between population strata and mode of operation--
(expressed in percent of total)

Family operation response	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Yes	53.85	55.55	42.11	87.10
No	46.15	44.45	57.89	12.90

Chi-square .05, 3 d.f.

M = thousands

Florists in Group D depended significantly on family labor. These florists utilized the labor utility of the spouse, children, and parents (past-generation florists). A portentous amount of labor was required by florists in this group primarily because their businesses were highly diversified. Most of these florists operated greenhouses and garden centers in addition to retailing commercial floral products. Family labor was utilized primarily because of tradition, availability, and dependability. The cost of employing additional labor was not necessarily the determining factor. The socio-economic influence of the family unit seemed to be the most important factor considered by these florists when analyzing their labor requirements.

Florists in Groups A and B were the next largest users of family labor. This was primarily because they represented the larger businesses and the spouse frequently was employed as an assistant shop manager, the manager of a branch shop, or even as a bookkeeper. Further study revealed sixty-four percent of the florists in these two groups capitalized on the labor utility of their respective spouse.

Florists in Group C utilized the least family labor. These florists owned and operated establishments that economically utilized the manager's labor, plus one skilled designer. Most florists in this group were not diversified and large amounts of family labor were not required.²

²Information derived from personal interviews.

Family Background in the Floral Industry

There was no significant difference recorded between florist classification (population strata) and the families past affiliation with the floral industry (Table 9). Florists in Group D were inclined to have parental heritage within the floral industry. Group A was composed primarily of florists who were new to the industry.

Table 9. Relationship between population strata and family background in floral industry--(expressed in percent of total)

Response (family background)	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Yes	23.08	11.11	15.79	38.71
No	76.92	88.89	84.21	61.29

Chi-square .05, 3 d.f.

M = thousands

Even though statistically significant differences did not exist between population strata and family heritage, pertinent trends were present (Tables 8 and 9). The small, diversified floral businesses found in Group D were characteristically family operations. The business operation usually has been up-graded and improved as each new generation assumed management, but obsolete business practices still permeated the entire operation.³

³Information derived from personal interviews.

Seventy-six percent of the florists in Group A had not been associated with the floral industry in the past. They were trained primarily in business administration and accounting. Some were simply innovators interested in merchandising floral products. Twenty-three percent of the florists in Group A were associated with the floral industry in the past. Many of these florists had taken over the business from their parents. Their retail shops were typically large and well-established.

Number of Employees per Retail Establishment

The average number of employees per retail establishment varied considerably (Table 10). Florists in Groups A and B consistently employed more personnel than florists in Groups C and D. Florists in Group B utilized more skilled and part-time employees than those of any other group. Florists in Group A placed greater emphasis on semi-skilled employees.

Table 10. Relationship between population strata and number of employees--
(expressed in average numerical values)

Type of employees	Group A (over 50 M)	Group B (50 - 15M)	Group C (15 - 5M)	Group D (Less than 5 M)
Skilled	2.8	3.4	2.7	1.7
Semi-skilled	2.2	2.0	1.7	1.2
Part-time	2.5	2.6	1.9	1.9
Total	7.5	8.0	6.3	4.8

M = thousands

Some of the data in Table 10 is misleading. Further study indicated the florists in Group A employed more semi-skilled employees on job training programs. These employees were of the caliber and background that they could be trained and eventually utilized as skilled personnel. Most semi-skilled employees lacked training from an accredited floral design school or college retail floriculture program. One could postulate that florists in Group A were allocating their capital utilities more efficiently.

The florists in Group B were inclined to employ more skilled employees than florists in other groups. However, florists in Groups A, B, and C extensively used skilled and part-time employees.

Florists in Group D utilized fewer total employees than florists in Groups A, B, and C. In many instances the florists in Group D had a greater labor requirement because of the diversified nature of their businesses. Family labor was not included in this part of the survey, and much of the labor required by florists in this group was derived from the family unit (refer to Table 8).

The average number of full-time employees per shop for all florists combined was 3.68. Sales personnel was hired only in the larger floral establishments. In most of the floral shops in Groups C and D, the designers and management handled the retail selling.

MacIrving and Payne (19) found the average number of full-time employees per retail shop was 3.19 for Oklahoma florists. Havas (13) stated that small florists show the least inclination to provide training

for employees or to employ skilled personnel. Havas found that small floral establishments (less than \$50,000 annual gross volume) were operated as family units, thus fewer employees were needed.

Form of Occupancy

There was no significant difference recorded between the form of occupancy and population strata (Table 11). Florists in all population strata were inclined to own their retail establishments. Florists in larger population areas (Groups A, B, and C) tended to place greater emphasis on renting than florists in Group D. Eighty-seven percent of the florists in Group D owned their retail establishments, while only sixty-two percent of the florists in Groups A, B, and C owned their retail shops.

Table 11. Relationship between form of occupancy and population strata--
(expressed in percent of total)

Occupancy Classification	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Own establishment	69.23	55.56	63.16	87.10
Rent establishment	30.77	44.44	36.84	12.90

Chi-square .05, 3 d.f.

M = thousands

Bodette (4) found that florists in larger metropolitan areas, grossing \$125,000 or more, were inclined to rent their retail shops. His survey was based on dollar volume stratification. Kansas florists in the second largest metropolitan areas showed the strongest inclination

towards renting their business establishments. The Kansas survey was based on population strata.

As previously shown in Table 9, twenty-three percent of the Kansas florists in Group A had a family background in the floral business. One can postulate that this factor has had a subtle influence on the mode of occupancy. These well-established florists were inclined to own their shops and remain in the same general location for many years. Fewer Kansas florists in the second largest metropolitan stratum had family backgrounds in the industry (Table 9), and thus were more inclined to rent. Generally, florists in Groups A, B, and C showed a greater inclination to rent. This was probably related to the high property values and tax assessments in larger metropolitan areas. The lack of family support and family influence was also a major factor that induced florists in Groups B and C to rent their retail establishments.

Kansas florists located in smaller towns tend to own their businesses. Table 9 shows that thirty-eight percent of these florists had family backgrounds in the floral industry. Table 8 shows that eighty-seven percent of the florists in Group D indicated that their business was a family operation. Correlation of these two characteristics tends to offer a possible explanation why eighty-seven percent of the florists in Group D own their business establishments.

Type of Credit Policies

A significant difference was recorded between population strata and the type of credit policy initiated (Table 12). Florists in Groups A and B were inclined to have more rigid credit policies. Florists in Groups C and D characteristically did not have credit policies and no credit charges were made regardless of the state of delinquency.

Table 12. Relationship between population strata and type of credit policies initiated--(expressed in percent of total)

Type of credit policy	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Credit free until bill paid	38.46	22.22	68.42	83.87
Credit charge on past-due bills	61.54	77.78	31.58	16.13

Chi-square .05, 3 d.f.
M = thousands

In a nationwide survey, Havas (13) reported that ninety-five percent of the florists in the United States offered customer credit. Of these, sixty-four percent did not have credit charges. Credit was simply extended free until the bill was paid. The remaining thirty-six percent had a definite credit policy. These florists usually imposed a credit charge sixty days after the date of billing.

Seventy-seven percent of the Kansas florists in Group B imposed credit charges. This group imposed the most rigid credit policies.

Sixty-one percent of the florists in Group A imposed credit charges. In a recent floral survey (1962), Bodette reported florists in Group A having the most rigid credit policies and Group B ranking second; however, his survey was based on dollar volume stratification instead of population stratification. In general, most research work has concluded that florists in the upper two strata are more progressive in their credit policies.

Florists in Groups C and D were significantly more lax in their credit policies. Seventy-nine percent of the florists in these two groups did not impose credit charges. Family influence and past experience contributed greatly to their present credit policies (Table 8). Most of the florists in Groups C and D were located in smaller communities where much of the retail business was conducted on a "good-will" basis. Many of these florists considered credit charges detrimental to this "good-will" relationship.⁴

Types of Product Promotion Programs

There was no significant difference between population strata and product promotion programming (Table 13). Florists in larger metropolitan areas were more incisive about initiating and maintaining definite product promotion programs. Florists in smaller population centers reported that they did very little product promotion planning. It was found that only thirty-five percent of the florists in Kansas had definite, pre-planned product promotion programs.

⁴Information derived from personal interviews.

Table 13. Relationship between population strata and product promotion programs--(expressed in percent of total)

Promotion plan policies	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Definite plan	53.85	44.44	42.11	22.58
No definite plan	46.15	55.56	57.89	77.42

Chi-square .05, 3 d.f.
M = thousands

Approximately ninety-five percent of the florists in Kansas advertised at least once during the year. Havas (13) reported that seventy-five percent of the nation's florists advertised in a paid media one or more times a year.

Sixty-five percent of the Kansas florists surveyed reported they did not have a definite, pre-planned product promotion program. However, most of these florists indicated that they advertised periodically throughout the year. Further study revealed these florists employed their advertising resources during holiday seasons when trade would have been heavy irrespective of money spent on advertising. Early (9) also stated that florists who advertised sporadically tended to employ their advertising resources during seasons of high demand.

Florists in Group D were inclined to place the least emphasis on product promotion and advertising. These florists were often the only floral retailers in the community. Much of their business depended upon personalized service and past reputation. Wire-service sales also contributed greatly to their gross retail volume (Table 18).

Florists in Group A placed the most emphasis on product promotion programs. The most common plan used was 3 to 5 percent of gross sales. Advertising and other forms of product promotion were considered valuable merchandising aids by most of these florists. Florists in this group lacked personal contact with the consuming public, and there were many competing florists in the same population area.

Square Feet of Sales and Display Area

A significant difference existed between the population strata and the total square feet of sales and display area per retail shop (Table 14). Florists in Group A characteristically designated a very large portion of their retail shops as sales and display areas. Florists in Group D typically placed less emphasis on sales and display areas for the promotion of their floral products.

Table 14. Relationship between population strata and total square feet of sales and display area--(expressed in percent of total)

Amount of sales and display area	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Less than 1000 square feet	23.08	44.44	63.16	77.42
More than 1000 square feet	76.92	55.56	36.84	22.58

Chi-square .05, 3 d.f.

M = thousands

Florists in Group A designated large portions of their retail shops as sales and display areas. Most of these florists considered this floor space wisely utilized. They considered these areas effective in product promotion (see Table 13). Florists in this group were usually located in large metropolitan areas. They did not have a monopoly on the floral trade, and vigorous competition between florists existed. Thus these florists used their display areas to induce browsing and increase impulse sales.

Florists in Group B also placed much emphasis on large sales and display areas. Frequently they devoted a large portion of their display area to novelty items, china, silverware, and animated interior decorations.

Florists in Groups C and D characteristically devoted less than 1,000 square feet to sales and display areas. These florists were located in smaller population areas, and they were often the only retail florists in the area. Florists in these two groups typically placed less emphasis on all forms of advertising and promotion (see Table 13).

Number of Delivery Vehicles per Retail Establishment

Florists in Group A typically owned or leased more delivery vehicles than florists in Groups B, C, or D. Florists in Groups B and D operated fewer delivery vehicles than florists of other population strata. Holiday demand increased the need for delivery equipment of all florists. Florists in Group D were affected least by holiday demand.

Table 15. Relationship between population strata and number of delivery vehicles used--(expressed in average numerical values)

Number of delivery vehicles used	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Normal use	2.00	1.22	1.73	1.29
Used during holidays	3.92	2.77	3.00	1.67

M=thousands

Florists in Group A normally operated 2.0 delivery vehicles. During holiday seasons this number increased to an average of 3.92 vehicles. This information differs from that found by Bodette (4). Bodette found that florists in the largest dollar volume stratum operated an average of 4.0 delivery vehicles. Bodette did not distinguish between normal and holiday vehicle usage. Because seasonal differences were accounted for, the author considers the data of the Kansas survey more accurate. Florists in Group A would be expected to operate more delivery vehicles because of their high volume of sales and the large metropolitan area serviced.

Except during holiday seasons, florists in Group B normally operate fewer delivery vehicles than florists in Group D. Florists in Group C consistently operated more delivery vehicles than either Group B or Group D. This difference is highly significant. The difference could be due to the classification of sales (Table 17), the type of operation (Table 8), the size and density of the consumer population, or interaction of all these factors.

Normally florists in Groups C and D are located in smaller cities and service larger areas because of the sparse consumer population. Florists in these two groups offer more personalized service and are inclined to make many special deliveries at any time during the day.⁵ Their diversified business practices also induced the need for more delivery equipment. Florists in Group C were especially dependent upon personalized service and consumer image for their floral sales. Therefore, they were more inclined to cater to the customer's demands. Immediate delivery represents one of the most common of these consumer demands (13).

Florists in Group B require fewer delivery vehicles because they typically are not diversified. Their consumer population is concentrated into a smaller area and delivery is usually made according to a pre-determined schedule. The most common practice of florists in this group was one morning and one afternoon delivery.

Wholesale Purchasing Procedures of Retail Florists

There was no significant difference between population strata and the point of floral purchases (Table 16). Florists in all population strata purchased most flowers from area wholesalers. Florists in Groups A and D also relied heavily on local growers. Florists in Groups B and C depended primarily upon direct shipments for all flowers not purchased from area wholesalers.

⁵Information derived from personal interviews.

Table 16. Relationship between population strata and purchase point of flowers--(expressed in percent of total)

Classification of purchase	Group	Group	Group	Group
	A (over 50 M)	B (50 - 15 M)	C (15 - 5 M)	D (Less than 5 M)
Chi-square	.05, 6 d.f.			
M = thousands				

Florists in all four population strata purchased the major portion of their flowers from area wholesalers because these wholesalers offered a dependable source. Area wholesalers effectively provided the time and place utility demanded by florists. Florists in Group A depended secondly on local growers primarily because these growers are usually located around large metropolitan areas. Florists in Group D grew many of the flowers they sold. This explains the fact that twenty-six percent of the florists in Group D stated that they relied secondly on local growers for their fresh floral products.

Florists in Groups B and C made most of their additional floral purchases in the form of direct shipments. This trend existed primarily because few growers were located in population centers this size. These population centers were too small to support a dependable source of fresh flowers.⁶

⁶ Information derived from personal interviews.

Classification of Customer Accounts

There was no significant difference recorded between population strata and customer account classification (Table 17). Florists in Group D characteristically accounted for a smaller percentage of commercial accounts than florists in Groups C, B, or A. Florists in Group A handled more commercial accounts than florists of any other population strata.

Table 17. Relationship between population strata and the type of customer accounts--(expressed as percent of total)

Customer account classification	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Individual accounts	78.4	82.1	83.5	85.7
Commercial accounts	21.6	17.9	16.5	14.3

Chi-square .05, 3 d.f.
M = thousands

Mode of operation, family background, and population strata all influence the type of consumer accounts sought by florists (see Tables 8 and 9). Florists in smaller population centers cater to personalized individual accounts. These florists had little opportunity to handle large commercial accounts. Florists in larger population centers actively pursued commercial accounts. Many of these florists were attracted by the high profits and consistency of commercial accounts. Almost one-fourth of the total sales of florists in Group A were derived

from commercial accounts. Most commercial accounts were obtained from banks, large businesses, and similar institutions.

Sales Derived from Wire Organization Membership

There was no significant difference recorded between population strata and the benefit derived from membership in a national "flowers-by-wire" trade organization (Table 18). Florists in larger metropolitan areas were inclined to benefit less from such organizational membership. Florists in smaller population areas depended heavily upon sales derived from organizational membership.

Table 18. Relationship between population strata and benefit derived from membership in a national "flowers-by-wire" organization--(expressed in percent of total)

Sales attributed to wire organization membership	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Less than 10 percent	46.15	33.33	15.79	9.68
10-20 percent	23.08	44.44	47.37	38.71
More than 20 percent	30.77	22.23	36.84	51.61

Chi-square .05, 6 d.f.

M = thousands

Above percentages based upon "sales-filled" figures.

Forty-six percent of the florists in Group A reported that wire-service membership accounted for less than ten percent of their gross volume. These florists depended upon their own product promotion programs for the major portion of their gross sales volume (see Table 13).

Approximately forty-five percent of the florists in Groups B and C attributed ten to twenty percent of their gross volume to sales derived from wire organization membership. Sales derived from organizational membership comprised more than twenty percent of the gross sales volume for florists in Group D. Florists in Group D filled many more wire orders than they sent. Florists in this population strata were inclined to have fewer product promotion programs. They were characteristically less aggressive in the promotion of their floral products (Table 13).

Distribution and Classification of Floral Sales

There was no significant difference recorded between population strata and sales distribution (Table 19). The sales volume of florists in all population strata was distributed with extraordinary uniformity.

Table 19. Relationship between population strata and sales media--
(expressed as percent of total sales)

Sales media	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Telephone sales	66	74	66	65
Personal selection sales	31	24	31	33
Standing-order sales	3	2	3	2

Chi-square .05, 6 d.f.
M = thousands

Table 20. Sales classification--(expressed as percent of total sales)

Sales Classification	Group A (over 50 M)	Group B (50 - 15 M)	Group C (15 - 5 M)	Group D (Less than 5 M)
Cash sales	26	20	24	30
Credit sales	74	80	76	70

M = thousands

Florists in all four population strata attributed approximately sixty-eight percent of their gross volume to sales conducted by telephone. These florists attributed thirty percent of their gross volume to personal selection and approximately three percent of their sales were classified as standing-order sales. One would expect florists in Group A to have a greater percentage of sales attributed to personal selection and standing-orders, because florists in this group devote more of their resources to product promotion, sales and display areas, and soliciting commercial accounts (see Tables 13 and 17). It may appear that the florists in Group A have not received optimum benefit from their resource allocations. One must remember that these florists apply their respective sales distribution percentages to a much greater gross volume figure, thus their actual dollar benefit is much greater.

The distribution of sales was subdivided into two major classifications, cash and credit. This classification varied considerably among population strata. Florists in Groups A, B, and C conducted more credit sales than florists in Group D. Florists in Group D had many small sales that were classified as "cash and carry." One must remember that while

florists in the larger population strata conducted more credit sales, they also initiated the most rigid credit policies. The lax credit policies of florists in Group D may have forced florists in that group to operate on a cash basis (see Table 12).

SUMMARY

The 229 retail florists in Kansas accounted for approximately 1.1 percent of the gross retail floral volume of the United States in 1963. The total number of retail florists in Kansas has declined during the past decade, but the gross retail volume conducted by these florists has been increasing steadily. The average gross retail volume per establishment in Kansas is \$37,946.

Kansas retail florists typically have been in business from ten to twenty years. Twenty-nine percent of the florists surveyed had been in business less than ten years, thirty-nine percent had been in business from ten to twenty years, and thirty-two percent had been in business more than twenty years.

Approximately sixty-two percent of the florists surveyed operated a family-type business. Twenty-two percent of all florists surveyed indicated that they had a family background in the retail floral industry. These two characteristics were most predominate in the smaller population strata.

The average number of full-time employees per retail establishment was 3.68. Florists in larger population strata employed more personnel than florists in small population areas. Florists in small population strata depended on family resources for most of their labor requirements.

Sixty-nine percent of the florists surveyed owned their retail establishments. Florists in large population strata were inclined to rent their shops, while florists in the smallest population strata

tended to own their shops.

Florists were very lax in their credit policies. Florists in all population strata attributed approximately three-fourths of their gross retail volume to credit sales. However, only forty-seven percent of these florists imposed a credit charge on delinquent accounts. Florists in the two largest population strata had the most rigid credit policies.

The product promotion programs of most retail florists were not current with present market demands. Only forty-one percent of the florists surveyed had definite, pre-planned promotion programs. Florists in large population strata promoted their products most aggressively.

Florists were inclined to devote less than one-thousand square feet of floor space to sales and display areas. Sixty-four percent of the florists in the two largest population strata devoted more than one-thousand square feet as "sales and display." These florists used this area as a product promotion device.

Floral delivery vehicles were used extensively by florists in all population strata. Florists normally operated an average of 1.56 delivery vehicles. During holiday seasons the average number of delivery vehicles used was 2.68.

Purchasing procedures of the retail florists surveyed did not differ significantly. Florists purchased approximately sixteen percent of their floral products from local growers, fifty-nine percent from area wholesalers, and approximately twenty-five percent from direct shipments.

Florists attributed eighty-three percent of their gross retail volume to individual customer accounts. Only seventeen percent of their gross volume was attributed to commercial accounts. The commercial accounts were most actively pursued by florists in the largest population strata.

All florists indicated that they had benefited from membership in a national "flowers-by-wire" organization. Fifty-two percent of the florists in the smallest population strata attributed more than twenty percent of their gross retail volume to sales derived from wire organization membership. Florists in the larger population strata benefited much less from wire-order sales.

Telephone sales accounted for approximately two-thirds of the retail sales transactions for all florists. Sales attributed to personal selection accounted for almost one-third of the retail sales transactions, and standing order sales accounted for only three percent of the total sales volume. These trends were true regardless of the population strata in which the florist was located.

BIBLIOGRAPHY

1. Barger, Harold.
Distributions place in the American economy since 1869.
Princeton University Press, New Jersey, p. 60. 1955.
2. Bennett, W. J.
Marketing cut flowers in retail food stores. Massachusetts
Flower Growers Magazine, 87:1-6. 1964.
3. Blankenship, A. B., and Doyle, J. B.
Marketing management. American Management Association,
New York, pp. 1-18. 1965.
4. Bodette, J. L.
Profit and expense survey of FTD florists. Florist Telegraph
Delivery Association, Michigan, 19p. 1962.
5. Boyd, H. W. and Westfall, Ralph.
Marketing research. Richard Irwin Inc., Illinois, 791 p. 1964.
6. Cochran, W. G.
Sampling techniques. Second edition. John Wiley and Sons
Inc., New York, 413 p. 1963.
7. Dewerth, A. F., Sorenson, H. B., and Odom, R. E.
Marketing and business management practices of Texas retail
florists. Agr. Exp. Sta. Bul., Texas A. and M. University,
14p. 1960.
8. Dun and Bradstreet.
Operating ratios for forty-one lines of retail trade. Dun and
Bradstreet, New York, 1959.
9. Early, J. W.
The sale of flowers...preference factors and merchandising
methods. University of Pennsylvania Publ., 25p. 1965.
10. Fossum, M. T.
Flower prices vs. other commodities. New York Flower Growers
Bul. 11:1, pp. 3-5. 1946.
11. Goodrich, D. C. and Jarvesoo, Elmar.
Marketing floricultural products in the northeast. Cornell
University Bul. 978, New York, 31 p. 1963.

12. Harper, F. A.
Retailers stake in national prosperity. Farm Econ. Report, Washington, 146:3731-3734. 1945.
13. Havas, Nick.
Profile of the retail floral industry. United States Dept. of Agr. Marketing Research Report 741, Washington, 27 p. 1964.
14. Heady, E. O.
Economics of agricultural production and resource use. Prentice-Hall Inc., New Jersey, 850 p. 1964.
15. Howard, J. A.
Marketing management; analysis and planning. Richard Irwin Inc., Illinois, pp. 3-18. 1963.
16. Journal of Marketing.
Report of the definition committee. Journal of Marketing, 12:210. 1948.
17. Kohls, R. L.
Marketing of agricultural products. Second edition. MacMillan Co., New York, 424 p. 1961.
18. Lockley, L. J.
Notes on the history of marketing research. Journal of Marketing, 14:733-736. 1960.
19. MacIrving and Payne, R. N.
A survey of certain aspects of the retail florists business in Oklahoma. Oklahoma State University Publ., 44p. 1963.
20. Maynard, H. H. and Beckman, T. N.
Principles of marketing. Fifth edition. Ronald Press, New York, 792 p. 1952.
21. Post, Kenneth.
Florists crop production and marketing. Second edition. Orange Judd Publ. Co., New York, pp. 1-8. 1959.
22. Powell, J. V.
Trends in the retail floral industry. United States Dept. of Agr. Washington, Agr. Econ. Research Publ., 5 p. 1963.
23. Small Marketers Aids.
Trade regulations and small business. Small Business Administration, Washington, Annual 6, pp. 9-16. 1964.

24. Snedecor, G. W.
Statistical methods. Fifth edition. Iowa State University Press, Ames, pp. 1-101. 1956.
25. Stanton, W. I.
Fundamentals of marketing. McGraw-Hill Co., N. Y., 754p. 1964.
26. Thomas, St. Claire.
What we have learned in the first decade of real marketing. Sales Management, Nov., 44p. 1960.
27. Trotter, W. K.
Problems in marketing florist crops. Cornell University Agr. Econ. Publ. 983, New York, pp. 51-52. 1955.
28. Twedt, D. W.
A survey of marketing research. American Marketing Association, Illinois, 1963.
29. United States Bureau of the Census.
Annual retail trade report. United States Dept. of Commerce, Washington, 22p. 1959.
30. _____.
Annual retail trade report. United States Dept. of Commerce, Washington, 20 p. 1961.
31. _____.
Census of horticultural specialties. United States Dept. of Commerce, Washington, 5:1, 761 p. 1949.
32. _____.
Census of horticultural specialties. United States Dept. of Commerce, Washington, 5:1, 575 p. 1959.
33. _____.
History and growth of the United States census. United States Dept. of Commerce, Washington, Document 194, 967 p. 1900.
34. _____.
Statistical abstract of the United States. United States Dept. of Commerce, Washington, 1040 p. 1958.
35. _____.
Statistical abstract of the United States. United States Dept. of Commerce, Washington, 1047 p. 1965.

36. United States Bureau of the Census.
The census of distribution of agricultural commodities. United States Dept. of Commerce, Washington, vol. 4, ch. 7, 43 p. 1930.
37. _____.
The census of distribution of agricultural commodities. United States Dept. of Commerce, Washington, vol. 4, ch. 10, 16 p. 1930.
38. Voigt, A. O.
Flower marketing information. University of Pennsylvania Bul., Philadelphia, May, 1965.
39. Wolfgraun, R. C.
Retail floral marketing. Michigan State Florist Publ. 405, Lansing, pp. 18-20. 1964.

APPENDIX

APPENDIX TABLES

Table 21. Chi-square analysis for relationship between years in business and population strata--(expressed in chi-square values)

Number of years in business	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Less than 10 years	3.79	2.63	5.54	9.04	21
10-20 years	5.05	3.50	7.39	12.06	28
More than 20 years	4.16	2.87	6.07	9.90	23
Total	13	9	19	31	72

Chi-square .05, 6 d.f.
M = thousands

Table 22. Chi-square analysis for relationship between population strata and mode of operation--(expressed in chi-square values)

Family operation response	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Family	8.49	5.88	12.40	20.24	47
Non-family	4.51	3.12	6.60	10.76	25
Total	13	9	19	31	72

Chi-square .05, 3 d.f.
M = thousands

Table 23. Chi-square analysis for relationship between population strata and family background in floral industry--
(expressed in chi-square values)

Response (Family background)	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Yes	3.43	2.37	5.01	8.18	19
No	9.57	6.63	13.99	22.82	53
Total	13	9	19	31	72

Chi-square .05, 3 d.f.
M = thousands

Table 24. Chi-square analysis for relationship between form of occupancy and population strata--(expressed in chi-square values)

Occupancy classification	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Own establishment	9.57	6.63	13.99	22.82	53
Rent establishment	3.43	2.37	5.01	8.18	19
Total	13	9	19	31	72

Chi-square .05, 3 d.f.
M = thousands

Table 25. Chi-square analysis for relationship between population strata and type of credit policies initiated--
(expressed in chi-square values)

Type of credit policy	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Credit free until bill paid	8.31	5.75	12.14	19.81	46
Credit charge on past-due bills	4.69	3.25	6.86	11.19	26
Total	13	9	19	31	72

Chi-square .05, 3 d.f.
M = thousands

Table 26. Chi-square analysis for relationship between population strata and product promotion programs--
(expressed in chi-square values)

Promotion plan policies	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Definite plan	4.69	3.25	6.86	11.19	26
No definite plan	8.31	5.75	12.14	19.81	46
Total	13	9	19	31	72

Chi-square .05, 3 d.f.
M = thousands

Table 27. Chi-square analysis for relationship between population strata and total square feet of sales and display area--
(expressed in chi-square values)

Amount of sales and display area	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Less than 1000 square feet	7.76	5.38	11.35	18.51	43
More than 1000 square feet	5.24	3.62	7.65	12.49	29
Total	13	9	19	31	72

Chi-square .05, 3 d.f.

M = thousands

Table 28. Chi-square analysis for relationship between population strata and purchase point of flowers--
(expressed in chi-square values)

Classification of purchase	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Local growers	2.89	2.00	4.22	6.89	16
Area wholesalers	7.22	5.00	10.56	17.22	40
Direct shipment	2.89	2.00	4.22	6.89	16
Total	13	9	19	31	72

Chi-square .05, 6 d.f.

M = thousands

Table 29. Chi-square analysis for relationship between population strata and type of customer accounts-- (expressed in chi-square values)

Customer account classification	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Individual accounts	10.87	5.85	15.88	23.40	56
Commercial accounts	2.13	1.15	3.12	4.60	11
Total	13	7	19	28	67

Chi-square .05, 3 d.f.
M = thousands

Table 30. Chi-square analysis for relationship between population strata and benefit derived from membership in a national "flowers-by-wire" organization-- (expressed in chi-square values)

Sales attributed to wire organization membership	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Less than 10 percent	2.71	1.87	3.96	6.46	15
10-20 percent	5.05	3.50	7.39	12.05	28
More than 20 percent	5.24	3.63	7.65	12.49	29
Total	13	9	19	31	72

Chi-square .05, 6 d.f.
M = thousands

Table 31. Chi-square analysis for relationship between population strata and sales distribution--(expressed as chi-square values)

Sales distribution	Group A (over 50 M)	Group B (50-15 M)	Group C (15-5 M)	Group D (Less than 5 M)	Total
Telephone sales	8.36	5.79	12.21	18.64	45
Personal selection sales	3.71	2.57	5.43	8.29	20
Standing-order sales	.93	.64	1.36	2.07	5
Total	13	9	19	29	70

Chi-square .05, 6 d.f.

M = thousands

AN ANALYSIS OF THE RETAIL FLORAL INDUSTRY
IN THE STATE OF KANSAS

by

GLENN HERMAN SULLIVAN

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The demand for fresh floral products has not kept pace with production during the past two decades. Traditional forms of demand no longer consume the floral products produced. This induced management to seek new markets for these products. Effective market expansion requires the accumulation of pertinent market information. Thus marketing research is a necessary innovation in the floriculture industry.

Market research studies are slowly permeating the floriculture industry. No market research studies have been conducted in Kansas, and consequently very little factual information has been made available concerning the floral market structure in this state. Future market research cannot be conducted until this information has been accumulated. The primary objective of this research survey was to make a detailed analysis of the existing business practices in the retail floral industry of Kansas.

Random sampling procedures (24) were employed to select a sample population of seventy-two retail florists from a target population of 229. The sample population was stratified into four groups; the size of the city in which these florists operated was used as a basis for stratification. The four groups were: Group A (city population over 50,000), Group B (49,999-15,000), Group C (14,999-5,000), and Group D (city population less than 4,999).

All florists in the sample population were contacted and requested to complete a survey questionnaire. The survey questionnaire was composed of fourteen carefully selected questions. All questions were pre-tested and analyzed for psychological response. The data accumulated were analyzed

via procedures cited by Snedecor (24), Boyd and Westfall (5), and Cochran (6).

The results showed that Kansas florists had typically been in the floral business from ten to twenty years. Approximately sixty-two percent of these florists operated a family-type business. Twenty-two percent of the florists surveyed indicated that they had a family background in the floral industry.

Kansas florists employed an average of 3.68 full-time employees per retail shop. These florists normally operated 1.56 delivery vehicles. Traditional holiday demand increased the average number of delivery vehicles used to 2.68.

Sixty-nine percent of the florists surveyed owned their retail floral shops. Florists in large metropolitan areas were most inclined to rent their retail shops.

Florists in all population areas attributed approximately three-fourths of their gross retail volume to credit sales. Most of these florists had very lax credit policies; forty-seven percent of these florists imposed credit charges on delinquent accounts.

Only forty-one percent of the florists surveyed had a definite, pre-planned product promotion program. Florists typically allocated less than one thousand square feet of floor space for sales and display purposes.

Florists were inclined to purchase most of their fresh floral products from area wholesalers. Commercial accounts represented

approximately seventeen percent of the gross retail volume for florists surveyed. Individual customer accounts represented the major portion of the retail sales.

Telephone sales accounted for approximately two-thirds of the total retail sales transactions. Floral orders derived from personal selection accounted for almost one-third of the retail sales transactions.

All florists in the sample indicated that they benefited from membership in a national "flowers-by-wire" organization. Fifty-two percent of the florists in small cities attributed more than twenty percent of their gross sales volume to "wire" orders.