PRESCRIPTION PATRONAGE MOTIVATION

by

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Contents

Tables

INTRODUCTION

The purpose of this study is to attempt to gain some insight into the various factors that influence patients to have their prescriptions filled in one particular pharmacy in preference to another. These factors were identified as patronage motives by Professor M. T. Copeland who defined them as:

> the reason or incentive for a buyer to trade with a particular firm in preference to patronizing other firms which offer similar commodities.[1]

In this study the buyer is the physician's patient with a prescription to be filled. The firms in question are all of the pharmacies in which the patient might purchase this prescription. As they all offer a similar commodity the patient's choice of a particular pharmacy hinges upon one or several of the various patronage motives.

Problems and Progress

The field of motivational and consumer research has come a long way since Copeland's investigation of patronage motives. Many practitioners of motivational research have emerged using techniques borrowed from the behavioral sciences. Some of the more conventional market researchers have not completely accepted the results claimed by some of these techniques. Much controversy has consequently arisen and more research is needed to resolve the differences and furnish a common ground for the understanding of consumer motivation.

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1 Melvin T. Copeland, Principles of Merchandising, Chicago and N.Y., A. W. Shaw, 1927, p. 208.

Some progress in this direction has been made. It is becoming evident that the concept of the "economic man", the all rational consumer, is somewhat fallacious. More attention is now being directed toward the human or non-rational determinants of consumer behavior.[2]

It is believed that people are inherently gregarious, natural and willing members of many different groups. The family, the neighborhood, and the community are examples of only three such groups.[3] Similarities found within these groups suggest that much of man's behavior is a function of the learning that accompanies group membership.[4] J. B. Watson, a founder of behavioristic psychology, believed that we bring little into this world except the power to absorb our native culture through exposure and conditioning. Our preferences and skills result from this learning process.[5]

This points to a solution of the problem of understanding, prediction, and control of consumer behavior by an analysis of the individual and his environmental situation. In analysing the individual one is concerned with factors such as his likes, dislikes, opinions, attitudes, habits, education, and the like.

2 Joseph W. Newman, "Looking Around", Harvard Business Review, XXXIII, 1, pp. 135-136.

3 "People: What's Behind Their Choices - in Buying, in Working", Business Week, August 14, 1954, p. 56.

4 Eugene and Ruth Hartley, Fundamentals of Social Psychology, N. Y., Knopf, 1958, p. 211.

5 Wroe Alderson, Marketing Behavior and Executive Action, Homewood, Ill., Irwin, 1957, p. 165.

Interest is centered upon the social relationships in his environment; e. g., family, etc., his economic circumstances, and some of the details of the immediate situation which may influence the prediction of his behavior.[6]

Current Need of Consumer Studies

Retailing will need to devote an increasing amount of attention to motivation and other marketing studies because of more discerning customers and increased competition. Stores will need more precise information concerning the factors which determine patronage and why customers feel more at home in one store than another. Only in this way will they be able to focus their efforts sharply upon the part of the market they will attempt to claim as their own.[7]

The institutional loyalty of the consumer is probably lower today than at almost anytime in the past.[8] Consumers have discovered that others can perform the marketing functions customarily associated with the retailer.

This condition is especially applicable to pharmacy and the situation in which the profession finds itself. Retail pharmacy and the drug industry have received much adverse publicity concerning 'high profits' claimed to be disproportionate with the

6 Douglas McGregor, "Motives As a Tool of Market Research", Harvard Business Review, XIX, 1, pp. 45-46.

7 Wroe Alderson, op. cit., p. 183.

8 E. J. Kelley and William Lazar, Managerial Marketing: Perspectives and Viewpoints, Homewood, Ill., Irwin, 1958, p. 340.

value of their services to society. Such publicity invites competition from sources outside of retail pharmacy. The inclusion of prescription departments in supermarkets, department stores, dispensing of prescriptions by physician's office girls, and the offering of out-patient prescription service by hospitals are exemplary.

Retail pharmacy must give more attention to the wants of its customers if it wishes to maintain the traditional channels of drug distribution. This study points to a step in that direction.

METHODOLOGY

Research Design

This is a quantitative descriptive study of a sample of prescription customers in Madison, Wisconsin. Pertinent information concerned with each individual and his environment was extracted from this sample. This information was placed into predesignated categories and transformed into averages or relatives for cross classification. Where applicable, tests of statistical significance were administered to confirm the tendencies between two relationships.

This design was selected so that a large number of prescription customers with different personal characteristics and environmental situations could be studied. When finally grouped on the basis of certain similarities the individual customer loses his identity and the resultant should approximate the average of that group. This procedure also permits the use of measures of statistical significance on observed differences thereby guarding against the drawing of unwarranted conclusions. It is recognized that this design does not lend itself to proof of cause and effect. It will, however, give more evidence to the existing relationships between pharmacy patronage and the variables under study than would information from just a few select individuals.

Data Collection Methods.

All of the data presented in this study were collected by the survey method. The survey method consists of gathering data

by asking questions. In this study it involved a series of personal interviews conducted by the author.

A structured questionnaire[1] was utilized so that comparatively uniform treatment would be accorded all respondents. Before its use this questionnaire was subjected to a critical evaluation by the Pharmacy Administration seminar. Suggestions from this group resulted in several major revisions. It was then pretested in the field on twenty-five prescription customers widely dispersed over the city. This pretest resulted in minor changes in the wording of the questionnaire.

A certain degree of flexibility was necessary because of the diverse nature of the respondents. A free answer question was included to provide this leeway. Each respondent was probed by the interviewer until his responses were exhausted. This probing procedure was partially standardized in an attempt to eliminate interviewer bias. The approach to this question, however, was controlled by the interviewer and gauged to the sophistication of the respondent. The flexibility at this point enabled the interviewer to obtain more meaningful responses from individuals with varying degrees of cooperativeness.

The replies were recorded briefly while the interview was in progress and amplified, where necessary, immediately upon termination of the interview. All of the replies were recorded by the interviewer except those of the graded response question and the classification data at the end of the interview. The

1 Appendix, I.

respondent checked these himself on an answer sheet that was provided. The alternatives in the graded response question were rotated to neutralize position bias.

The interviews usually lasted from ten to fifteen minutes but if the respondent was very articulate it continued for as long as thirty minutes. An average of about twenty minutes per interview, including travel time, was established for the whole survey. The interviewer's route was prescheduled so that travel time was reduced to a minimum.[2]

There are several reasons why personal interviews were preferred to other methods of gathering primary data. Foremost is the fact that information on consumers' patronage motives is difficult to obtain. This difficulty would be compounded by using mail questionnaires or telephone interviews. The difficulty is minimized by the personal interview which makes possible the solicitation of a more detailed response. The classification data obtained by this method are also probably more accurate as the interviewer, by observation, could eliminate gross misrepresenations by the respondent of factors such as age. This would be difficult to control if the data were gathered by the above mentioned alternative methods.

Sampling

The sample for this study was selected from a universe consisting of all the individuals in the city of Madison who have had a prescription filled within six months of the interview date.

2 Appendix II, Example of Interviewer's Route Schedule.

All of the interviews were conducted between February 17 and April 9, 1959. Consequently the universe was not stable but was changing each day during the interviewing. The author believes this fluctuation to be insignificant and it is mentioned only to indicate awareness of the fact. The six month limitation for inclusion of sample members was set so that the customers could remember more clearly the circumstances surrounding the patronage of a particular pharmacy.

A non-probability directed-route sample was chosen. This type of sample uses geographic units that may or may not be selected by probability methods. While working within these units the interviewer has no discretion in the selection of respondents.[3]

The sample size was arbitrarily set at two hundred prescription customers. The sample was selected so that the respondents would be distributed throughout the city in proportion to the population density. The 1958 census by wards of persons 21 years old and over[4] was used to determine the population density and a prorata portion of the sample was drawn from each ward. (Refer to Table I.) This age group was used because the study was primarily concerned with purchasing decisions made in the market place. It was assumed that the majority of these decisions would be made by adults

3 Semon T. T., Cohen R., Richmond S. B., Stock J. S., "Sampling in Marketing Research", The Journal of Marketing, Vol. XXIII, No. 3, p. 268.

4 Madison's Population 1958 Report, City Plan Commission, Madison, Wisconsin, March 1959, p. 20.

Table I

Number of Interviews Per Ward

Ward	Population 21 years old and over	Per cent of total in each ward	Number of interviews required per ward
1	3,767	4.69	9
2	4,120	5.12	10
3	2,964	3.69	7
4	2,740	3.41	7
5	6,809*	8.47	17
6	3,964	4.93	10
7	4,327	5.38	11
8	5,838	7.26	14
9	3,894	4.84	10
10	3,399	4.23	8
11	3,267	4.06	8
12	2,206	2.74	5
13	4,035	5.02	10
14	3,277	4.08	8
15	2,918	3.63	7
16	2,846	3.54	7
17	2,168	2.69	6
18	6,611	8.24	16
19	5,049	6.28	13
20	4,585	5.70	11
21	1,532	1.90	4
TOTALS	80,316	100.00	200

*Does not include 2,714 located on U. W. campus.

A map of the city[5] was divided into wards. The City Planning Commission was consulted for the proper ward placement of recent city annexations. This detailed map was utilized in the selection procedure explained below.

It was decided to select only one respondent from any given block in a ward. The number of respondents required in a ward determined the number of blocks to be selected in that ward. The blocks in each ward were numbered serially and use was made of a table of randon numbers[6] to select the required number of blocks. Twice as many blocks as necessary were selected from each ward. This allowed for the occurence of vacant blocks and blocks located in business districts.

To select the individual respondents the interviewer first chose the house or apartment on the southwest corner of the first block selected. After a few standard introductory remarks the interviewer would inquire as to when the last prescription was filled for the respondent or a member of his family. The interview was continued if a prescription had been purchased by a member of the family within six months of the interview date. Otherwise it was politely terminated.

If the interview was not continued the interviewer proceeded clockwise around the block to the second

5 City Purchasing Department, City-County Building, Madison, Wisconsin, dated 1959.

6 Fisher R. A. and Yates F., Statistical Tables for Biological, Agricultural and Medical Research, London and Edinburgh, Oliver and Boyd Ltd., 1943, pp. 90-95.

apartment in the building. This same procedure was followed for not-at-homes and refusals. Either the next house in a clockwise direction around the block or the next higher numbered apartment was selected until a valid sample member was reached. For the second interview in a ward the interviewer started with the second house from the southwest corner, for the third interview he started with the third house, etc. No call backs were made unless specifically requested by a respondent who was busy at the time the interviewer called.

This selection procedure was rigidly adhered to when possible. Due to the nature of the city's layout, however, not all blocks are rectangular or set perpendicular to a north and south axis. In such cases it was left to the interviewer to select the most southwest point and proceed.

There are no exact characteristics of the universe available which could be superimposed upon the sample to determine if it is representative. Several approximate measures have been applied, however, and it appears that the sample is typical of Madison prescription customers.[7]

Limitations

The personal interview has many advantages but also several weaknesses. Probably the most significant of these is the bias of the interviewer.

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7 Appendix III, Detailed sample characteristics and their comparisons with other data that indicate a representative sample.

The nature of the subject matter under study is such that the respondent must consciously try to evaluate his own feelings, motives, and psychological drives. This ability to analyse oneself has been questioned. Assuming that the respondent is able to overcome this he may then rationalize and give socially acceptable answers. This is especially probable if he fears that by revealing his true motives he may in some way degrade himself in the eyes of the interviewer.

This rationalization is not an insurmountable barrier to the truth about patronage motives. It has been reported that rationalization is not universal or uniform and that attitudes are not always nor fully rationalized. Attitudes are in some measure true opinions independently reached and the relative importance of patronage motives may be indicated by the attitudes expressed.[8]

Question 2.(d) in the questionnaire was an attempt to determine if the respondent or another person actually chose the pharmacy in which the last prescription was filled. The author does not feel that valid results were obtained by the use of this question. The tendency was not apparent in the pretest but during the main study answers were very vague, general, and believed to be, on the whole, unreliable. Answers such as "We selected it" or "We have always gone there" were common responses to this question.

8 Blankertz D. F., "Motivation and Rationalization in Retail Buying", Public Opinion Quarterly, Vol. XIII, No. 4, p. 663.

The extent to which one may generalize from the results cannot be determined statistically. As the actual characteristics of the universe are unknown one must be cautious in any generalizations. The author believes that if care is exercised the results would be applicable within the city of Madison. Because it is a somewhat atypical city generalizations should be made with caution.

ANALYSIS OF FINDINGS

Explanation of Terms

Before discussing the results of the study a few definitions are in order. This will establish a common denominator to interpret the results and guard against misunderstandings by the reader.

The pharmacies discussed in this study have been classed as traditional, chain, or professional. A chain pharmacy refers to one that is a member of a chain store system composed of more than ten stores. At the time of this study there was only one such system in the relevant market area. Professional pharmacies are those in which 50% or more of their gross sales are derived from prescriptions. The remaining pharmacies are considered to be the traditional type.

The respondent was asked: "In which drug store or pharmacy was this last prescription filled?" In this way the name of the pharmacy was obtained and it was placed into one of the above three classes.

The reasons for patronage givenin answer to the open end question varied to some extent with most respondents. This created the task of interpreting what each individual actually meant. After considering the objectives of the study and results of the pretest, four main categories were established in which to group these heterogeneous data. They were:

1. Personnel factors
2. Service
3. Location
4. Price

These terms require some explanation to clarify what was included under each. A sample of the answers classified within each category will serve to illustrate their general character. Classified as personnel factors were answers such as:

"I like the owner."

"I know the pharmacist there."

"They are nice to do business with."

"They know the customers."

"The pharmacist takes time to talk with us."

Webster[1] defines the word "service" as: "Performance of labor for the benefit of another, or at another's command." Answers included under this category were as follows:

"They have fast delivery service."

"We can charge things there."

"They are open longer hours."

"He mailed my prescription to me while I was on vacation in Arizona."

The answers classified under location followed this general pattern:

"It is close to our home." (referring to the pharmacy)

1 Webster's New Collegiate Dictionary, G. C. Merriam, Springfield, Mass., 1956, p. 773.

"The drug store is right on the way home."

"It's near our Doctor's office."

"It's close to where I work."

Comments with regard to price were directed to the fact that he believed that the patronized pharmacy had lower prescription prices than other pharmacies accessible to him.

The above verbatim responses are not all inclusive. These ideas were expressed in a variety of ways but the above examples should give the reader the flavor of the answers included in each category.

Reference will be made to controllable and non-controllable patronage motive factors. Those considered controllable may be manipulated to some degree by the pharmacy management to adapt to the existing situation. Non-controllable factors are less flexible in their application.

Patronage Motives Derived From Free Answer With Intensive Probing

The pharmacy is considered an outlet for many convenience goods. However we are concerned with the prescription, the raison d 'etre for a pharmacy. This is a distinctive product tailored for each patient. A prescription must be afforded special attention and cannot be considered a convenience item as are so many of the pharmacy's products.

Evidence from Table II supports the above statement if we assume an equal weight for all responses. This indicates that, in the study group, personnel factors and service were responsible for a greater portion of the pharmacy prescription patronage than

Table II

'Reasons' For Patronage By All Respondents

Reason	Number of Persons Citing Each Reason	Percent of 200 Persons	Percent of All Reasons Cited
Location	132	66.0	41.8
Personnel Factors	85	42.5	26.9
Service	76	38.0	24.0
Price	23	11.5	7.3
Total	316		100.0

was location. The difference is statistically significant as is shown below.

Percent of all Reasons

Personnel Factors and Service	Location	Diff.	T^2
50.9%	41.8%	9.1	2.3

Location was the largest single contributor to pharmacy prescription patronage. For all practical purposes we must consider this factor as uncontrollable[3] whereas personnel and service are subject to some degree of immediate control.

This is important to the individual pharmacy owner or manager because it indicates that the greatest proportion of his prescription business is subject to a certain degree of control. Limitations imposed by location may be overcome to some extent by active public relations and services offered the consumer.

Price was not given as a major determinant of prescription patronage. This is not surprising due to the nature of the product and lack of consumer knowledge on prescription prices.

2 $T = \frac{\text{sample statistic - other statistic}}{\text{estimated std. error of the diff. between the two statistics.}}$ The T value is interpolated into an appropriate probability distribution table in order to determine the exact probability of the occurence of the observed differences as a result of chance. In this study a T value of 1.96 is required to indicate a significant difference. This means that the observed difference would occur in only 5 out of 100 cases due to chance or sampling error. With a T value of 2.3 we would expect this difference to occur due to chance or sampling error in only 215 cases out of 10,000.

3 Except over the long run during which time the phammacy may relocate.

Patronage Motives Attributed to Others

The answers to the graded response[4] question in Table III illustrate this same general tendency only in sharper relief.

With this information one tends to hypothesize that these are the underlying patronage motives of the respondent. Some of these motives may have been partially repressed in the free answer question. Those that made the respondent appear most unlike the mythical "economic man" would probably be especially subject to this repression. The respondent now finds that he can express these "socially unacceptable attitudes" as belonging to persons other than himself and he does so without damage to his sensitive ego.

This is expected to have occurred to some degree but to most objectively interpret the data one must also consider several other variables. Most important was the possibility of a greater tendency towards rationalization. This may have resulted from the increased suggestability operating upon the respondent as he read the alternatives on the answer sheet. The nature of the interviewing situation may have also been a confounding variable.

The respondents indicated the belief that confidence in the pharmacist would be the most important criterion used by others in selecting a pharmacy in which to have their prescriptions filled. This factor alone was selected by a significantly greater percentage of total respondents than was location.

4 The points on the scale were designated Very Important, Important, and Not Important. This scale was limited to three points to minimize respondent confusion.

Table III

'Reasons' Rated "Very Important" in Inducing Others to Patronize a Particular Pharmacy

Reason	Number of Persons Rating Each Reason	Percent of 200 Persons	Percent of all Reasons
Confidence in the Pharmacist	136	68.0	22.7
Convenient Location	112	56.0	18.7
Clean and Attractive Store	79	39.5	13.2
Personality of Pharmacist	67	33.5	11.2
Delivery Service	65	32.5	10.8
Price	61	30.5	10.2
Recommended by Doctor	50	25.0	8.4
Credit	29	13.5	4.8
Total	599		100.0

Percent of 200 Respondents

Confidence in the Pharmacist	Location	Diff.	T
68	56	12	2.45

The responses in Table III were all rated as "Very Important" on the same scales and were equally weighted. It is probably more valid to assign equal weights to these responses than to the replies of the free answer question. Individual differences are certain to have occurred with regard to the concept of importance but this is indeterminable.

Table III suggests that nearly two-thirds (62.7%)[5] of a pharmacy's prescription patronage is determined by controllable factors.

Some Patients' Views of Interprofessional Relations

The 8.4% of total patronage attributed to physicians' recommendations is also not completely uncontrollable if the pharmacist is adroit in interprofessional relations. This area, however, should be approached with caution. Recommended by a doctor as a pharmacy patronage motive was rated "Not Important" or "No Opinion" by 34.5% of all respondents against 25% who rated it "Very Important". A few of the many comments volunteered by the respondents will be cited to illustrate the negative connotation apparently carried by the suggestion of a physician recommending a particular pharmacy.

5 This total is the sum of the relatives of confidence in the Pharmacist, Clean and Attractive Store, Personality of Pharmacist, Delivery Service, and Credit.

Interview 1A, 13th Ward:
"If you have confidence in the doctor it may be okay but if he told me to go there all of the time I would be suspicious."

Interview 44B, 11th Ward:
"Our doctor doesn't dare recommend a pharmacist."

Interview 25A, 19th Ward:
"The doctor gets a 'cut' on the prescription if he recommends a drug store."

The basis and extent of these feelings are unknown.

Inconsistency on Price

The mention of price by 30.5% of the respondents as a "Very Important" criteria with which others choose a pharmacy requires an explanation. Only 11.5% indicated in the free answer question that price was a reason for their patronage. This difference is statistically significant.

Percent of 200 Respondents

Price-Free Answer	Price-Graded Response	Diff.	T
11.5	30.5	19.0	3.96

The interviewer gained the impression that very few respondents had an objective knowledge of drug prices. The respondents' unsolicited comments were recorded as they answered the graded response question. They usually followed this pattern:

Interview 41A, 11th Ward:
"Isn't the price the same all over?"

Interview 84B, 7th Ward:
"If the prescription helps, price means nothing."

Interview 80B, 7th Ward:
"Haven't thought about price before."

Interview 108B, 18th Ward:
"Aren't prescription prices all on a scale, the same everywhere?"

The few persons with seemingly objective information on prescription prices felt strongly enough about it to mention the fact in both the free answer and graded response question. It is unlikely, therefore, that any of the increased "price" response in the graded response question is due to aided recall. The explanation for this phenomenon probably hinges upon a combination of projection and rationalization.

Summary

The members of the study group have again indicated that the major portion of their pharmacy prescription patronage is governed by personnel factors and services. The contributions to patronage by physicians' recommendations and price are difficult to assess because of the problematical nature of the two factors. Irrespective of these problems, the pharmacy manager need not assume a passive attitude with regard to promotion of his prescription department. The study group indicates that over half of this patronage is susceptible to some degree of control. Over the long run he will be directly responsible for the financial success of his pharmacy, depending upon how successfully he exercises this control.

Customer Loyalty

A measure of prescription customer loyalty was obtained by asking the respondent whether he had purchased this last prescription in the same pharmacy where most of his family's prescriptions were filled. Almost three-fourths (74.5%) of all respondents answered this question in the affirmative. Another

6% of all respondents (12 persons) indicated that they usually have their prescriptions filled at a particular pharmacy, but due to circumstances present at the time, their last prescription was filled elsewhere.

Four members of this group patronized a different pharmacy for their last prescription because it was a late hour and their regular pharmacy was closed. The remaining eight professed regular patronage at a particular pharmacy and yet failed to go there with their last prescription for a variety of reasons. Their location near another pharmacy at the moment seemed the dominant factor in attracting their patronage. It is likely that only four members of this group of twelve are actually loyal to any particular pharmacy.

In pursuing the question of customer loyalty further, it was determined that only 48.5% of all respondents purchase their other drug store merchandise in the same pharmacy in which their last prescription was filled. Of the 74.5% of all respondents who have most of their prescriptions filled in the same pharmacy, 65.1% indicated that they also purchase their other drug store merchandise there.

This suggests that if a particular pharmacy builds a growing loyal core of prescription customers, its sales in related items will also probably increase. Here is a further justification for attempting to understand the behavior of the prescription customer.

Male vs. Female

Over 80% of the respondents were females. This was due primarily to the hours available to the author for interviewing. This disproportionate number of females may have resulted in emotionally biased data if it is, in fact, true that females react less rationally than males.

Table IV indicates a possible tendency for females in the sample to be more influenced by personnel factors and service than the males. Location received the largest response from both males and females but it appeared less important to the females than to the males. This may, however, be a function of "natural female tendency" to talk more, thus enlarging the base from which the relatives are computed. The females averaged 1.67 patronage motives to the free answer question. The males were less articulate and averaged only 1.19 reasons.

There are no significant differences between the male and female responses to the free answer question. The extremes in subsample sizes preclude this possibility. The graded response question exhibited similar relationships as is noted in Table V. Again the differences are accentuated but should be viewed with caution because of the small size of the male subsamples.

The female response followed the general pattern of the whole study group. They rated "location" first in the free answer question. This position was relinquished to "confidence in the pharmacist" in the graded response question and "location" was relegated to second place. It is interesting to note that "location

Table IV

'Reasons' For Patronage by Male and Female

	Female (N = 163)			Male (N = 37)		
	Number of Persons Citing Each Reason	Percent of 163 Persons	Percent of all Reasons Cited	Number of Persons Citing Each Reason	Percent of 37 Persons	Percent of all Reasons Cited
Location	109	67.0	40.2	23	62.2	52.3
Personnel Factors	74	44.8	26.9	11	29.8	25.0
Service	67	41.1	24.7	9	24.4	20.4
Price	22	13.5	8.2	1	2.7	2.3
Totals	272		100.0	44		100.0

Table V

'Reasons' Rated "Very Important" by Male and Female in Inducing Others to Patronize a Particular Pharmacy

Reason	Female (N = 163)			Male (N = 37)		
	Number of Persons Rating Each Reason	Percent of 163 Persons	Percent of all Reasons	Number of Persons Rating Each Reason	Percent of 37 Persons	Percent of all Reasons
Confidence in the Pharmacist	118	72.4	23.3	18	48.6	19.8
Convenient Location	93	57.1	18.3	19	51.4	20.8
Clean and Attractive Store	69	42.3	13.6	10	27.0	11.0
Personality of the Pharmacist	57	35.0	11.2	10	27.0	11.0
Delivery Service	57	35.0	11.2	8	21.6	8.8
Price	53	32.5	10.4	8	21.6	8.8
Recommended by Doctor	41	25.2	8.1	9	24.3	9.9
Credit	20	12.3	3.9	9	24.3	9.9
Total	508		100.0	91		100.0

did not relinquish its relative position in the male subsample. This may be an illustration of the female's privilege to change her mind or it may indicate an inherent difference in the motivations of the sexes. A more extensive study with larger samples is suggested before attempting to draw any reliable conclusions.

Analysis By Type of Pharmacy

A decided trend is perceptible when the results are classified by type of pharmacy. Table VI illustrates that "personnel" and "service" considerations motivate a greater proportion of traditional pharmacy prescription customers than chain prescription customers. The prescription customers of chain pharmacies referred to "personnel" and "service" factors only about half as often as did the customers of the traditional pharmacies.

"Price" did not seem to be a major motivating factor for either the traditional or chain prescription customers. The chain customers did, however, mention price slightly more often than customers of traditional pharmacies. This possibly reflects an expected lower price in chains resulting from their volume buying.

Although location appears prominently in both types, it accounts for more than half of the patronage of the chain store customers in the sample. Only about a third of the patronage of the traditional pharmacy customers seems attributable to location.

"Service" dominated as the prescription patronage motive for professional pharmacies. "Price" also assumed more importance than in the other two types. This increased importance of price

Table VI

'Reasons' For Patronage by Prescription Customers of Different Types of Pharmacies

Reason for Patronage	Traditional (N = 89)			Chain (N = 70)			Professional (N = 41)		
	Number of Persons Citing Each Reason	Percent of 89 Persons	Percent of all Reasons	Number of Persons Citing Each Reason	Percent of 70 Persons	Percent of all Reason	Number of Persons Citing Each Reason	Percent of 41 Person	Percent of all Reasons
Personnel Factors	54	60.7	35.0	19	27.2	18.8	12	29.3	19.7
Location	56	63.0	36.4	58	82.9	57.5	18	43.9	29.5
Service	37	46.9	24.0	17	24.3	16.8	22	53.6	36.1
Price	7	7.9	4.6	7	10.0	6.9	9	21.9	14.7
Total	154		100.0	101		100.0	61		100.0

may possibly be only a manifestation of the local market. One professional pharmacy is very active in service and price competition and this may partially explain the results. Personnel factors as a patronage motive is equivalent to that of chain pharmacies relative to traditional stores. Location received the lowest recognition compared to chain and traditional pharmacies.

Location was the single dominant prescription patronage motive for both traditional and chain pharmacies in the free answer question. In Table VII one may observe that it dropped from this dominant position for traditional pharmacies but was retained by the chains. This is very suggestive that location is the primary patronage motive of the chain store prescription customers in the study group. Location received the least recognition by the customers of professional pharmacies as a prescription patronage motive. When compared to the other patronage motives for professional pharmacies, location also fell from second in prominence in the free answer question to fifth in prominence in the graded response question.

Both "credit" and"physician's recommendation" were rated compartively unimportant by customers of all three types of pharmacies. Customers of professional pharmacies again accentuated the importance of price and delivery service.

"Personality of the pharmacist" is rated high by the prescription customers of traditional pharmacies. The "friendly neighborhood druggist" has apparently made some impression on this group.

Table VII

'Reasons' Rated "Very Important" by Prescription Cusomters of Different Types of Pharmacies in Inducing Others to Patronize a Particular Pharmacy

	Traditional (N = 89)			Chain (N = 70)			Professional (N =41		
Reason	Number of Persons Rating Each Reason	Percent of 89 Persons	Percent of all Reasons	Number of Persons Rating Each Reason	Percent of 70 Persons	Percent of all Reasons	Number of Persons Rating Each Reason	Percent of 41 Persons	Percent of all Reasons
Confidence in the Pharmacist	67	75.4	23.4	42	60.0	22.7	27	65.9	22.1
Convenient Location	50	56.2	17.5	48	68.6	25.9	14	34.2	11.5
Clean and Attractive Store	39	43.8	13.6	20	28.6	10.8	20	48.8	16.4
Personality of the Pharmacist	41	46.1	14.3	16	22.8	8.7	10	24.4	8.2
Delivery Service	30	33.7	10.5	16	24.3	9.2	19	46.4	15.6
Price	27	30.8	9.5	17	24.3	9.2	17	41.5	13.9
Recommended by Doctor	22	24.7	7.7	19	27.2	10.2	9	21.9	7.4
Credit	10	18.0	3.5	7	10.0	3.8	6	14.6	4.9
Total	286		100.0	185		100.0	122		100.0

Customers of both chain and professional pharmacies do not seem greatly concerned with the factor of personality. This is not unexpected because of the nature of these two types of pharmacies. Chain pharmacies are usually situated in high traffic areas. They receive a large transient clientele and are therefore impersonal in nature. The pharmacist is seldom seen or spoken to by the patients in many professional pharmacies. With their necessary high prescription volume he is usually too preoccupied for "small talk" with the customers. The only personal contact the customer may have is with a non-professional clerk or the transaction may be completed by telephone and the prescription delivered.

A greater proportion of professional pharmacy prescription customers rated "Clean and Attractive Store" a "Very Important" factor in inducing patronage. This factor received comparatively less recognition by the customers of traditional and chain pharmacies respectively. The atmosphere created by the pharmacy's appearance very likely influences customer confidence and patronage.

CONCLUSIONS AND RECOMMENDATIONS

The comparative importance of several factors that seem to influence prescription patronage has been reported. In so doing the primary objective of this study was accomplished.

One may draw the following conclusions with reference to the study group. "Convenient location" was generally the most prominent single patronage motivating factor. The degree of this prominence varied by type of pharmacy and two extremes were noted. In the chain pharmacies "location" appears to be the foremost prescription patronage determinant whereas in professional pharmacies it assumed a much lesser role.

In most cases a combination of "personnel factors" and "service" seems to motivate the majority of prescription patronage. This is especially true of traditional pharmacies where more emphasis is placed upon personal contact and knowledge of one's customers. The customers of professional pharmacies indicated that "service" is responsible for much of their patronage. To the extent that these two factors, personnel and service, are controllable and can be influenced by the pharmacist, so too can the prescription volume of a particular pharmacy. The most practical approach to asserting this control is by rendering courteous professional service mixed with a sincere personal interest in the customers and their problems.

A more extensive study of prescription patronage motivation is indicated. This should be designed to remove any peculiarities unique to a single market area. Such a study should produce an understanding of prescription patronage motivation factors which would have a broader general application.

APPENDIX I

Good (afternoon / morning) (Madam / Sir) (name if available). My name is Dick Ohvall. I am a graduate student at the University of Wisconsin. We are conducting a survey in Madison and I have a few questions to ask you. The first one is:

1. How many members of your family (husband, wife and children) are living here?

   _____

2. (a) When was the last prescription filled for yourself or a member of your family?

   _____

   (If answer is more than 6 months ago terminate interview)

   (b) Which member of your family? _____

   (c) In which drug store or pharmacy was this last prescription filled? _____ Name of Store

   (d) Who selected the pharmacy in which this prescription was filled?

   _____ Respondent

   _____ Other

   If "Respondent" continue with 3(a). If "Other" request to continue interview with person who selected the pharmacy asking 3(a). If "Other" and person not available continue with 3(b).

3. (a) What were your reasons---

   (b) What do you believe were the reasons---

   for having this last prescription filled in this particular store?
   (Free answer with probe "Any other reason(s)?, " "Is there anything else that you especially like about this store?," etc.)

4. Is this the drug store or pharmacy where most of your family's prescriptions are filled?

____Yes

____No

If "Yes" ask:

5. Do you buy your other drug store merchandise at this same pharmacy?

____Yes

____No

(Proceed to QUESTION 8)

If "No" ask:

6. Do you have a particular drug store or pharmacy where most of your family's prescriptions are filled?

____Yes

____No

(If "Yes" proceed to QUESTION 7)

(If "No" proceed to QUESTION 8)

7. (a) What is the name of this store?

_____Name of Store

(b) Why are most of your family's prescriptions filled in this store? (Free answer with probe "Any other reason(s)?," "Is there anything else that you especially like about this store?," etc.)

(c) Do you buy your other drug store merchanise in this same pharmacy?

____Yes

____No

(d) What were the reasons for NOT having your last prescription filled there? "Free answer with probe "Any other reason(s)?", "Anything else?", etc.)
SKIP IF OBVIOUS

8. HAND RESPONDENT CLIP BOARD WITH ANSWERS TO QUESTIONS 8 AND 9. Here is a sheet listing a number of reasons that may influence your friends or other people in choosing a drug store to have their prescriptions filled. Would you please take your time and check whether you think each reason is "Very Important", "Important", or "Not Important", to these people?

9. Finally we come to the last question. Immediately under the list you have just completed you will find groups under AGE, EDUCATION, and YEARLY FAMILY INCOME. In order that we may properly classify our information would you kindly check each group in which you are included?

Sex of respondent: Female____

Male____

Address of respondent:_____

Date of interview:_____

REASONS	Very Important	Important	Not Important	No Opinion
Recommended by doctor	____	____	____	____
Convenient location	____	____	____	____
Confidence in the pharmacist	____	____	____	____
Price	____	____	____	____
Clean and attractive store	____	____	____	____
Delivery service	____	____	____	____
Credit	____	____	____	____
Personality of pharmacist	____	____	____	____
_____ (Other - Please specify)	____	____	____	____

In order that we may properly classify our information would you kindly check each group in which you are included?

YOUR AGE

Group (A) under 20 ____

Group (B) 20-29 ____

Group (C) 30-39 ____

Group (D) 40-49 ____

Group (E) over 50 ____

YOUR EDUCATION (grades completed)

Group (A) under 8 ____

Group (B) 8 - 10 ____

Group (C) 11- 12 ____

Group (D) under 4 years College ____

Group (E) college graduate ____

YEARLY FAMILY INCOME

Group (A) under 2500 ____

Group (B) 2500 - 4999 ____

Group (C) 5000 - 7499 ____

Group (D) 7500 -10,000 ____

Group (E) over 10,000 ____

REASONS	Very Important	Important	Not Important	No Opinion
Credit	____	____	____	____
Personality of pharmacist	____	____	____	____
Recommended by doctor	____	____	____	____
Convenient location	____	____	____	____
Confidence in the pharmacist	____	____	____	____
Price	____	____	____	____
Clean and attractive store	____	____	____	____
Delivery service	____	____	____	____
_____ (Other - Please specify)	____	____	____	____

In order that we may properly classify our information would you kindly check each group in which you are included?

YOUR AGE

Group (A) under 20 ____
Group (B) 20-29 ____
Group (C) 30-39 ____
Group (D) 40-49 ____
Group (E) over 50 ____

YOUR EDUCATION (grades completed)

Group (A) under 8 ____
Group (B) 8 - 10 ____
Group (C)11 - 12 ____
Group (D) under 4 yrs. College ____
Group (E) college graduate ____

YEARLY FAMILY INCOME

Group (A) under 2500 ____
Group (B) 2500 - 4999 ____
Group (C) 5000 - 7499 ____
Group (D) 7500 - 10,000 ____
Group (E) over 10,000 ____

APPENDIX II

ROUTE SCHEDULE - WARD 15

7 Interviews Required

68 Numbered Blocks in the Ward

The following is a section of the table of randon numbers utilized for this ward.

(1)	(2)		(3)	(4)		(5)		(6)
23	32	71	43	40	94	55	93	46
		(7)						
84	91	27	20	73	44	59	92	77
29	51	43*	11	69	33			

*This number was skipped because it had already been chosen.

Preferred Route

Block Number	House Number
55	5
43	3
40	4
46	6
27	7
23	1
32	2

The first seven two digit numbers under 68 in the above table of random numbers designate the blocks in ward 15 from which the respondents were selected. The underlined numbers denote the extra blocks selected. No vacant blocks or business areas were encountered in this ward so it was not necessary to use them.

The blocks were all numbered on a map of the area and a preferred route followed to minimize the traveling distance within each ward.

APPENDIX III

DETAILED SAMPLE CHARACTERISTICS

Age

Table 1: Respondents by Age

Age Group in Years	Number of Respondents	Percent of all Respondents
Under 20	3	1.5
20 - 29	56	28.0
30 - 39	68	34.0
40 - 49	36	18.0
Over 50	37	18.5
Total	200	100.0

Table 1 shows that the age distribution of the sample is skewed in the direction of the lower age groups. Nearly two-thirds (62%) of the sample ranged from 20 to 39 years of age. The 1950 census data[1] for the Madison Standard Metropolitan Area (Dane County) places 51% of all persons over 20 years of age in this range.

The median[2] age of sample members was 36.03 years. The median age for Dane County in 1950 for all persons 20 years old and older was 31.31 years.

Most of the interviewing was done between the hours of 9:00 A. M. and 6:00 P. M. Those persons most likely to be home at that time probably have young children and therefore fall into

1 "Detailed Characteristics of Wisconsin", U. S. Census of Population, 1950, U. S. Government Printing Office, 1952, p. 135.

2 Fredrick C. Mills, Introduction to Statistics, N. Y., Holt, 1956, p. 96.

the age group between 20 and 39 years. This is believed to be the reason for the concentration of respondents in this range.

Education

Table 2. Respondents by Years of School Completed

Number of Years Completed	Number of Respondents	Percent of all Respondents
Under 8	7	3.5
8 - 10	29	14.5
11 - 12	91	45.5
Under 4 yrs. of college	40	20.0
College graduate	33	16.5
Total	200	100.0

In 1950 the median number of years of school completed by persons 25 years old and over was 12.1 in Dane County.[3] The sample data on education resulted in a median of 12.4 years.

The distribution of respondents is skewed towards a high educational level. This was expected because of the generally higher educational level in the market area studied. Another influencing factor may be that the highly educated are more cooperative towards an academic effort of this nature. Those in the lower education groups may not understand such a study and therefore refuse to cooperate.

3 "Detailed Characteristics of Wisconsin", U. S. Census of Population, 1950, U. S. Government Printing Office, 1952, p. 154.

Income

Table 3. Respondents by Annual Family Income

Income Class	Number of Respondents	Percent of all Respondents
Under $2500	17	8.5
$2500 - $4999	54	27.0
5000 - 7499	90	45.0
7500 -10,000	26	13.0
Over 10,000	13	6.5
Total	200	100.0

This distribution is skewed towards the lower income groups. The median income for this distribution is $5,582.50. Madison's average net effective buying income per family in 1954 was $7,915.[4] This average could be expected to be higher than the median because of the distorting effect of a few very high incomes relative to those in the median range. With the data at hand we cannot determine the extent of this distortion.

4 Madison's Economic Factors - A 1958 Report, Madison, Wisconsin, City Plan Commission, 1958, p. 6.

Family Size

Table 4: Respondents by Family Size

Family Size (Number of Persons)	Number of Respondents
1	3
2	34
3	40
4	48
5	28
6	25
7	9
8	6
9	4
10	3
Total	200

The average family size of this distribution is 4.25 persons. The average population per dwelling unit in Madison is 3.61 persons.[5] This average may or may not be synonymous with the family size defined by this study as husband, wife, and children only.

One might assume that the average family size of the universe should be larger than that of the city. It would not be unrealistic to expect larger families to have more prescriptions filled than smaller families.

5 Madison's Population - A 1958 Report, Madison, Wisconsin City Plan Commission, 1959, p. 13.