4-1973

An Exploration of Numerous Customer Characteristics Associated with Impulse Purchasing Behavior

Ira J. Jager

AN EXPLORATION OF NUMEROUS CUSTOMER CHARACTERISTICS ASSOCIATED WITH IMPULSE PURCHASING BEHAVIOR

by

Ira J. Jager

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Degree of Master of Arts

Western Michigan University
Kalamazoo, Michigan
April 1973

ACKNOWLEDGEMENTS

I wish to express my sincere gratitude to Dr. Frank Fatzinger for the great help and understanding he so willingly gave me during all phases of this paper. I also wish to acknowledge Dr. Richard Schmidt and Dr. Bradley Huitema for all their advice and suggestions which helped in the development of this project. Special thanks goes to my wife Joan, for her endless help, understanding, and support.

Ira J. Jager

TABLE OF CONTENTS

INTRODUCTION

The term "impulse buying behavior" evokes different connotations to different researchers. It is for this reason that it is difficult to formulate a universal definition for all research in the field. Engel, Kollat, and Blackwell (1968) list some of the definitions given to impulse purchasing by those who have done research in this field:

(1) "An impulse purchase is an unplanned spur of the moment decision to purchase a product."
(2) "An impulse purchase is a logical and efficient way of making purchase decisions since by waiting until one is in the store to finalize purchase intentions, a more comprehensive and realistic evaluation of purchase alternatives can often be made."
(3) "There is no such thing as an impulse purchase. Rather, there are four types of unplanned purchases: (1) Pure impulse is a novelty or escape type purchase which breaks a normal buying pattern; (2) Reminder impulse occurs when a shopper sees an item or recalls an advertisement or other information and remembers that the stock at home is low or exhausted; (3) Suggestion impulse purchasing occurs when a shopper sees a product for the first time and visualizes a need for it; and (4) Planned impulse purchasing takes place when the shopper makes specific decisions on the basis of price specials, coupon offers and the like."
(4) "Shoppers are questioned upon entering the store as to what they plan to purchase and records are made of what they do in fact purchase. Those items purchased but not mentioned during the first interview are impulse purchases."

(5) "Impulse purchasing is the difference in purchases between a sample of customers reporting actual purchases (exposed to in-store stimuli) and another sample of customers reporting what they anticipated buying while sitting in their living rooms (not exposed to in-store stimuli)."

(6) "Impulse purchasing is the difference in a store's sales volume during weeks in which a holiday occurred with the week immediately following during which a holiday did not occur."

Kollat and Willett (1969) feel that this lack of consensus concerning the definition of impulse purchasing has a very negative affect on the ability to compare findings and accumulate information about what type of behavior impulse purchasing constitutes. It is this author's opinion that although there is this problem of numerous definitions for the same behavior, it is still possible for the concept of impulse purchasing behavior to be a valuable tool for making marketing decisions.

The definition each researcher used when he set out to measure impulse purchasing behavior was dictated by the methodology employed. E.I. du Pont De Nemours and Company (1965) concerned itself with measuring the degree of impulse buying associated with different products and product categories available to the consumer in the supermarket. As the shoppers entered the store, they were asked by trained interviewers what they intended to buy. All of these items were written down and then the customer was asked what brand of each item he or she planned to buy. After the

shoppers had finished their purchasing, the interviewers again made a list of items. This second list included only those items actually purchased. An impulse item was then defined as any item appearing on the second list (actual purchases) that did not appear on the first list (planned purchases). The results of this study showed that 49.9% of all the purchases were made on an unplanned basis.

Stern (1962) was also concerned with different rates of impulse buying associated with various product categories. Unlike the Du Pont study, he was more concerned with the influence of product variables such as price, need, product life, mass distribution, self service, mass advertising, prominent store display, size, and ease of storage. His conclusions were that an item is more likely to be unplanned if the price is low, it there is only marginal need for it, if it is readily available, if it is of a self service nature, if it is widely advertised, if it is prominently displayed, if it has a short life, if it is small and lightweight and if it is easy to store. Stern sums up his thoughts on why an item will be an impulse purchase rather than a planned purchase in the following paragraph:

> "When the act of buying requires a relatively heavy expenditure of money, time, physical effort or mental effort then the buying becomes more difficult and the

> purchase is subjected to more thoughtful consideration and planning. Conversely, when buying is easy - that is, when the expenditure of money, time, physical effort or mental effort is small - there is a greater likelihood that the purchase will be an impulse purchase."

Other researchers such as Clover (1950), and West (1951) have concerned themselves with impulse purchasing for a different reason. They were interested in studying the rates of impulse purchasing exhibited in different types of stores. The first study sought data on whether sales lost during the weeks in which one-day closings occurred were made up during the following week. It was assumed that the more important impulse purchasing was to a store, the less likely it would be to make up its sales the following week. Since the results showed that in an overwhelming majority of the stores, lost sales during a week with a closing were not made up the next week, Clover advised that the retailer follow a policy of making it as easy as possible for consumers to make purchases. Unlike the first study which used sales volume as an indicator of impulse purchasing, West (1951) used an interviewing technique very similar to that used in the Du Pont (1965) study. The four types of retail outlets used were food stores, drug stores, variety stores, and department stores. The results showed that the percentage of all sales which were impulse purchases were as follows: food stores 43.5%, variety stores 41.5%, department stores 33.6% and drug stores 26.6%.

In almost all of the previously noted studies, the customer was usually neglected, but this was not the case in the study by Kollat and Willett (1967). They were concerned in their study with determining the degree to which customers differ in their susceptibility to unplanned purchasing and with discovering what customer characteristics are associated with differential susceptibility to unplanned purchasing. The interviewing method was the same as that used in the Du Pont (1965) study, but an additional control group was added which did not experience interviewing before making their purchases. This was done to see if the entry interview had any affect on the purchasing behavior. They concluded that the overall affect was negligible. Kollat and Willett divided their findings into three major kinds of variables: (a) variables that are not related to unplanned purchasing and do not affect it; (b) variables that are related to but do not affect unplanned purchasing; and (c) variables that are related to and affect unplanned purchasing. Education of the household head, income of the household, occupation of the household head and size of the shopping party were found not to be associated with unplanned purchasing. Number of people living in the household, sex of shopper, number of shopping trips made per week, day of week, and time of day were found to be related to unplanned purchasing but did not affect it. These variables are related to unplanned purchasing because they influence

the amount of items bought, however, they do not have a causal affect on the rate of unplanned purchasing. Positive findings were that: (a) generally, the percentage of unplanned purchasing increases irregularly as the length of marriage increases; (b) there is generally more unplanned purchasing during major shopping trips; and (c) when a large number of items is purchased those shoppers with a list make a smaller percentage of unplanned purchases.

Kollat and Willett point up one very important factor which may cause measures of impuse purchasing to be distorted. They refer to this factor as the customer-commitment hypothesis. By this they mean that differences between purchase intentions and actual purchases are caused by incomplete measures of purchase intentions. This occurs when the customer is unable to spend the time necessary to recite all purchase intentions, or when the customer who is shopping without a list is asked to remember all the items he or she intends to purchase. It may also occur when the customer knows what he or she will purchase but is unable to verbalize this intention for the interviewer.

Many people in the marketing field feel that exposure to in-store stimuli triggers all unplanned purchasing, but this is not consistent with the findings of Kollat and Willett (1969). They found that exposure to in-store stimuli triggers some of the unplanned purchasing, but by no means all of it. It is their opinion that the rate of unplanned

purchasing is caused by "the type of stimulation technique, the product that is being promoted, and the customer who selectively exposed himself to, and selectively perceives, the promotional stimuli."

A study undertaken by Mass Retailing Institute (1971) broke a tradition in the study of impulse buying behavior. Almost all of the studies up to this point were conducted in a supermarket setting. This study, in cooperation with the Du Pont Company Consumer Products Division, focused on consumer buying habits in self-service general merchandise stores. The information obtained was concerned mostly with who shops in these stores, what they liked and disliked about these stores, and what their shopping behavior was in these stores. To obtain the desired information, each of the shoppers in the study was interviewed after their shopping had been completed. There was no interview done before the shopping took place. The major finding concerning impulse buying was that 56% of all the shoppers made at least one unplanned purchase.

The present study was a desire to combine the measurement of unplanned purchasing in a self-service general merchandise store with customer characteristics associated with differential susceptibility to unplanned purchasing as studied by Kollat and Willett (1967). Unlike the previous studies, the classification of purchases was broken down into three categories. The first purchase category

was planned purchase. This was any item which the S said they specifically planned to purchase when they entered the store. The second category, semiplanned purchase, was any item which the S said they remembered they needed while they were shopping. The third category, unplanned purchase, was any item which the S said they bought only because they came across it while they were shopping. The items in this category were neither planned before entering the store nor remembered while shopping.

The major objective of this study was to be able to formulate a profile of customer characteristics which are most likely associated with impulse buying behavior. Information of this nature could be of valuable assistance to a store owner trying to increase sales. This profile could help him to make decisions on whom to gear his advertising toward. This information could also be used to determine how to arrange stock in a store so that those people who do more impulse buying come in contact with certain items that are more frequently bought on impulse.

METHOD

Subjects

The Ss were 200 shoppers in a self-service general merchandise store. They ranged in age from 17 years to over 60. Of the total, 47 were men, 105 were women, and 48 were husband and wife shopping together. There were 33 single Ss and 167 married Ss. In order to be included in the study, the S had to make at least one purchase. Any shopper with over twelve items was excluded as a S, because of time limitations and possible shopper inconvenience.

Setting

This study was done in the Turn Style store located next to the Maple Hill Mall in Oshtemo, Michigan. Data were collected from October 18, 1972 to October 24, 1972. The location of the Turn Style store is such, that a shopper can enter the Jewel food store adjacent to it, without having to go outside. The Ss responses were tallied in the morning, afternoon, and evening so that a better cross section of all shoppers could be obtained. This was also the reason why S responses were collected during each day of the week.

Procedure

Each of the Ss was approached by this researcher as they waited on line to pay for their purchases. They were told that this was a study of impulse buying behavior, be-

ing conducted by a graduate student at Western Michigan University, who had nothing to do with the management of the Turn Style store. Those shoppers who said they could spare a few minutes to participate in the study were then given a questionnaire to fill out (see Appendix A). This questionnaire included items such as sex, age, marital status, educational level, and number of children. These variables were needed in order to construct an impulse buyer profile. This profile would outline the characteristics most prevalent in shoppers who buy on impulse.

After the Ss filled out this first part of the questionnaire, they were told that the next thing to be done was to break down their purchases into three categories. Each S was then asked which items they specifically planned to purchase when they entered the store (planned purchase). Then each S was asked which items they purchased because they remembered they needed them while shopping (semiplanned purchases). Finally, each S was asked which items they purchased only because they came across them while shopping (unplanned purchases). Items in this last category were neither planned by the shopper before entering the store, nor did the shopper remember she needed the item while shopping.

Each item purchased was tallied by the researcher according to article and price. The departments in the store were broken down into 10 major categories for an easier

assessment of the data. In certain instances when duplicate items were purchased, the items were listed as one, but the total cost of the duplicate items was listed in the price column. A record was also kept of which purchases were on sale and which were not.

In an attempt to avoid problems encountered in earlier research, only one post-shopping interview with the shopper was conducted. Pollay (1968), in a paper criticizing the methodology employed by Kollat and Willett (1967), pointed out two of the sources of bias caused by their interviewing procedure. Pollay felt that the questioning of shoppers about purchase intentions was the first source of bias. He argued that by forcing the shopper to recite their intentions, Kollat and Willett were actually committing the shopper to fulfill these intentions. The shopper would feel that he is disappointing the interviewer if he doesn't make all the purchases he listed earlier. The other source of bias was the awareness on the part of the shopper that their purchases would be tallied at the check-out counter. Pollay felt that because of this, the shoppers would be more likely to change their purchase behavior so that more status purchases would be made. By using only a check-out interview, the problem of shopper inability to give complete purchase intentions would also be eliminated.

RESULTS

Chi Square analyses were run comparing each item in Column A with each item in Column B.

Column A-Shopper Variables	Column B-Purchase Variables
Sex of shopper	# of planned purchases
Age of shopper	# of semiplanned purchases
Marital Status	# of unplanned purchases
# of years married	Total # of purchases
# of children	Cost of planned purchases
# of children living at home	Cost of semiplanned purchases
Last time in Turn Style	Cost of unplanned purchases
Shopped in Jewel	Total cost all purchases
Used shopping list	# of sale items purchased
Method of payment	# of nonsale items purchased
Educational level	

Table 1 lists all of the Chi Square analyses run. Of the 110 analyses run, 38 proved to contain significant differences at .05 (24 of these were significant at .01). A separate table for each significant Chi Square analysis is found in Appendix B.

Analyses of the results showed the sex of the shopper to be a significant factor when compared with the number of unplanned purchases, total number of purchases, cost of planned purchases, cost of unplanned purchases, total cost of all purchases, number of sale items purchased and number of nonsale items purchased. None of the other

Table 1

List Of All Chi Square Combinations Run

Variables	df	Obtained X^2
Sex vs Planned Purchases	4	5.693
Sex vs # Semiplanned Purchases	2	3.873
Sex vs # Unplanned Purchases	4	29.636**
Sex vs Total # Purchases	6	36.292**
Sex vs Cost Planned	6	14.080*
Sex vs Cost Semiplanned	6	4.625
Sex vs Cost Unplanned	6	48.441**
Sex vs Total Cost	6	29.163**
Sex vs # Sale Items	4	15.024**
Sex vs # Nonsale Items	6	12.768*
Age vs # Planned	6	10.204
Age vs # Semiplanned	3	2.538
Age vs # Unplanned	6	11.503
Age vs Total #	9	15.414
Age vs Cost Planned	9	12.450
Age vs Cost Semiplanned	9	3.830
Age vs Cost Unplanned	9	13.850
Age vs Total Cost	9	14.515
Age vs # Sale Items	6	24.323**
Age vs # Nonsale Items	9	9.052
Marital Status vs # Planned	2	3.451
Marital Status vs # Semiplanned	1	0.000
Marital Status vs # Unplanned	2	9.278**
Marital Status vs Total #	3	11.872**
Marital Status vs Cost Planned	3	2.941
Marital Status vs Cost Semiplanned	3	3.538
Marital Status vs Cost Unplanned	3	12.924**
Marital Status vs Total Cost	3	13.424**
Marital Status vs # Sale Items	2	12.287**
Marital Status vs # Nonsale Items	3	3.761
Years Married vs # Planned	6	8.772
Years Married vs # Semiplanned	3	4.137
Years Married vs # Unplanned	6	6.771
Years Married vs Total #	9	15.230
Years Married vs Cost Planned	9	11.483
Years Married vs Cost Semiplanned	9	2.618
Years Married vs Cost Unplanned	9	10.123
Years Married vs Total Cost	9	13.201
Years Married vs # Sale Items	6	19.343**
Years Married vs # Nonsale Items	3	3.761
# Children vs # Planned	6	15.360*
# Children vs # Semiplanned	3	1.864
# Children vs # Unplanned	6	12.332
# Children vs Total #	9	28.880**
# Children vs Cost Planned	9	13.630
# Children vs Cost Semiplanned	9	6.675

* Significant at .05
** Significant at .01

Table 1 Continued

Variables	df	Obtained X^2
# Children vs Cost Unplanned	9	26.377**
# Children vs Total Cost	9	21.335*
# Children vs # Sale Items	6	12.471
# Children vs # Nonsale Items	9	12.902
# Children at Home vs # Planned	6	12.872*
# Children at Home vs # Semiplanned	3	1.691
# Children at Home vs # Unplanned	6	16.609*
# Children at Home vs Total #	9	25.796**
# Children at Home vs Cost Plan.	9	17.503*
# Children at Home vs Cost Semi.	9	14.318
# Children at Home vs Cost Unplan.	9	21.839**
# Children at Home vs Total Cost	9	14.874
# Children at Home vs # Sale	6	11.269
# Children at Home vs # Nonsale	9	12.276
Last in Store vs # Planned	4	0.914
Last in Store vs # Semiplanned	2	2.509
Last in Store vs # Unplanned	4	2.985
Last in Store vs Total #	6	4.917
Last in Store vs Cost Planned	6	7.098
Last in Store vs Cost Semiplanned	6	4.544
Last in Store vs Cost Unplanned	6	2.210
Last in Store vs Total Cost	6	7.944
Last in Store vs # Sale Items	4	4.211
Last in Store vs # Nonsale Items	6	7.576
Shopped Jewel vs # Planned	2	0.559
Shopped Jewel vs # Semiplanned	1	1.946
Shopped Jewel vs # Unplanned	2	3.901
Shopped Jewel vs Total #	3	1.787
Shopped Jewel vs Cost Planned	3	0.516
Shopped Jewel vs Cost Semiplan.	3	4.815
Shopped Jewel vs Cost Unplanned	3	7.402
Shopped Jewel vs Total Cost	3	2.844
Shopped Jewel vs # Sale Items	2	4.505
Shopped Jewel vs # Nonsale Items	3	4.448
List vs # Planned	2	31.893**
List vs # Semiplanned	1	0.151
List vs # Unplanned	2	8.198*
List vs Total #	3	10.013*
List vs Cost Planned	3	10.470*
List vs Cost Semiplanned	3	2.469
List vs Cost Unplanned	3	2.952
List vs Total Cost	3	4.732
List vs # Sale Items	2	13.761**
List vs # Nonsale Items	3	11.011*
Paid With vs # Planned	4	12.454*
Paid With vs # Semiplanned	2	5.376
Paid With vs # Unplanned	4	10.562*

Table 1 Continued

Variables	df	Obtained X^2
Paid With vs Total #	6	27.753**
Paid With vs Cost Planned	6	22.237**
Paid With vs Cost Semiplanned	6	20.569**
Paid With vs Cost Unplanned	6	12.930*
Paid With vs Total Cost	6	23.254**
Paid With vs # Sale Items	4	17.392**
Paid With vs # Nonsale Items	6	17.624**
Education vs # Planned	6	4.051
Education vs # Semiplanned	3	5.335
Education vs # Unplanned	6	6.123
Education vs Total Cost	9	10.172
Education vs Cost Planned	9	4.775
Education vs Cost Semiplanned	9	6.392
Education vs Cost Unplanned	9	12.760
Education vs Total Cost	9	13.630
Education vs # Sale Items	6	2.086
Education vs # Nonsale Items	9	7.969

Chi Square analyses, with sex of the shopper as a variable, proved to be significant.

Of the ten Chi Square analyses run, with the age of the shopper as a variable, the only significant one was that which compared this factor with the number of sale items purchased. All other analyses, with the age of the shopper as a variable, were not significant.

Chi Square analyses showed marital status to be a significant factor when compared with the number of unplanned purchases, total number of items purchased, cost of unplanned purchases, total cost of all purchases, and number of sale items purchased. None of the other analyses, with marital status as a variable, were found to be significant.

The number of years the shopper was married was significant only when compared to the number of sale items purchased. All other analyses proved to be nonsignificant.

Chi Square analyses showed number of children to be a significant factor when compared to the number of planned purchases, total number of items purchased, cost of unplanned purchases, and total cost of all items purchased. None of the other Chi Square analyses, with number of children as a variable, were significant.

Number of planned purchases, number of unplanned purchases, total number of items purchased, cost of planned purchases and cost of unplanned purchases were found to be

significant when compared with the number of children living at home. Chi Square analyses for the other combinations were not significant.

None of the analyses run with the last time the shopper was in Turn Style as a factor proved to be significant. From the X^2 values in Table 1, it can be seen that none of these analyses proved to even approach significance. Planning to shop in Jewel, or having shopped in Jewel also proved to be a nonsignificant shopper variable.

The number of planned purchases, number of unplanned purchases, total number of items purchased, cost of planned purchases, number of sale items purchased, and number of nonsale items purchased were all found to be significant when compared with the use of a shopping list. Chi Square analyses were nonsignificant for the other purchase variables compared with the use of a list.

The method of payment, (cash, check, or credit card), was found to be the shopper variable most often significant when compared to the purchase variables. Chi Square analyses showed method of payment to be a significant factor when paired with the number of planned purchases, number of unplanned purchases, total number of items purchased, cost of planned purchases, cost of semiplanned purchases, cost of unplanned purchases, total cost of all items purchased, number of sale items purchased, and number of nonsale items purchased. Only when the method of payment was

compared to the number of semiplanned purchases were the results nonsignificant.

None of the Chi Square analyses with education of the shopper as a variable proved to be significant at the .05 level.

A number of comparisons were investigated which sought to combine two shopper variables with the purchase breakdown variable of impulse purchase cost. The observations cited here, are only a product of the direct examination of the frequencies of data given by the 200 Ss. No formal statistical analysis was performed on these data, therefore the results are merely trends in the information collected. The value of these observations is also questionable due to the small frequencies obtained in several of the categories. Further research with a larger sample would make these observations more meaningful.

Women shopping alone, and husbands and wives shopping together without a list, have a tendency to spend more money for impulse items than those who shop with a list. The use of a shopping list did not appear to affect the amount men spent on impulse items. There was no difference in the amount of money spent on impulse items when single and married men were compared. Married women did, however, spend more than single women on impulse purchases. Having shopped in Jewel Supermarket made no difference in the impulse purchasing of men, but women did spend slightly

more on impulse items. The payment of purchases by cash, check, or credit card appeared to have no bearing on the impulse purchasing behavior differences of either men or women. Table 2 summarizes the frequencies used to determine the above trends.

Due to the fact that there were 110 Chi Square analyses run, one would expect to get several that were significant by chance alone. This researcher feels that this is a possibility, but he feels that this factor would have been of greater importance if there had not been as many significant results found.

The final area of data investigated was concerned with the departments in the store where the greatest proportion of impulse purchasing was taking place. Table 3 summarizes the results of this investigation. The results show that the greatest percentage of impulse purchasing takes place in the clothing (34.20%), toy (16.87%), and candy and photo (16.63%) departments.

A tally of all the responses given by the 200 Ss is found in Table 4. Frequency of response to each question and the accompanying percentages are given for each possible response category.

Table 2

Response Frequencies For Cost
Of Impulse Purchases

Single Men		Married Men	
0-$2.99	16	0-$2.99	26
$3-$5.99	0	$3-$5.99	1
$6-$8.99	1	$6-$8.99	1
$9 plus	0	$9 plus	2

List-Men		No List-Men	
0-$2.99	7	0-$2.99	35
$3-$5.99	0	$3-$5.99	0
$6-$8.99	0	$6-$8.99	2
$9 plus	0	$9 plus	3

Single Women		Married Women	
0-$2.99	14	0-$2.99	61
$3-$5.99	0	$3-$5.99	19
$6-$8.99	1	$6-$8.99	5
$9 plus	1	$9 plus	4

List-Women		No List Women	
0-$2.99	21	0-$2.99	53
$3-$5.99	4	$3-$5.99	16
$6-$8.99	1	$6-$8.99	5
$9 plus	1	$9 plus	4

Husband & Wife-List		Husband & Wife-No List	
0-$2.99	4	0-$2.99	10
$3-$5.99	4	$3-$5.99	11
$6-$8.99	1	$6-$8.99	4
$9 plus	1	$9 plus	13

Women-Shopped in Jewel Yes		Women-Shopped in Jewel No	
0-$2.99	39	0-$2.99	36
$3-$5.99	12	$3-$5.99	7
$6-$8.99	5	$6-$8.99	1
$9 plus	3	$9 plus	2

Table 2 Continued

Men-Shopped in Jewel Yes		Men-Shopped in Jewel No	
0-$2.99	8	0-$2.99	34
$3-$5.99	0	$3-$5.99	1
$6-$8.99	0	$6-$8.99	2
$9 plus	0	$9 plus	2

Women-Paid With Cash		Women-Paid With Check		Women-Paid With Credit Card	
0-$2.99	38	0-$2.99	32	0-$2.99	4
$3-$5.99	15	$3-$5.99	5	$3-$5.99	0
$6-$8.99	2	$6-$8.99	3	$6-$8.99	1
$9 plus	2	$9 plus	3	$9 plus	0

Men-Paid With Cash		Men-Paid With Check		Men-Paid With Credit Card	
0-$2.99	30	0-$2.99	10	0-$2.99	2
$3-$5.99	1	$3-$5.99	0	$3-$5.99	0
$6-$8.99	2	$6-$8.99	0	$6-$8.99	0
$9 plus	2	$9 plus	0	$9-plus	0

Table 3

Breakdown of Impulse Purchases
by Department

Department	# impulse items	cost impulse items	% of all $ impulse sales
Clothing	54	$238.56	34.20
Health and Beauty	84	$80.79	11.58
Domestics	16	$63.20	9.05
Toys	50	$117.77	16.87
Hardware	6	$10.11	1.42
Sporting Goods	3	$8.32	1.20
Housewares	21	$31.88	4.56
Candy and Photo	94	$116.13	16.63
Auto Supplies	16	$18.42	2.63
Appliance	1	$12.99	1.86
Total	345	$698.17	100.00

Table 4

Tally of Responses to Questionnaire

Variable	# of Responses	Percentage
Sex:		
Male	47	23.5
Female	105	52.5
Husband and Wife	48	24.0
Age:		
10-29 years	89	44.5
30-39 years	46	23.0
40-49 years	41	20.5
50 plus	24	12.0
Marital Status:		
Single	33	16.5
Married	167	83.5
# of Years Married:		
0-9 years	92	46.0
10-19 years	47	23.5
20-29 years	42	21.0
30 plus	19	9.5
# of Children:		
0 or 1	80	40.0
2	62	31.0
3	37	18.5
4 or more	21	10.5
# of Children at Home:		
0 or 1	115	57.5
2	55	27.5
3	21	10.5
4 or more	9	4.5
Last Time in Store:		
1 week ago	104	52.0
2 weeks ago	49	24.5
3 weeks or more	47	23.5
Shopped at Jewel Food Store:		
Yes	99	49.5
No	101	50.5
Used Shopping List:		
Yes	45	22.5
No	155	77.5
Method of Payment:		
Cash	104	52.0
Check	82	41.5
Credit Card	14	6.5
Educational Level:		
H.S. unfinished	15	7.5
H.S. finished	76	38.0
College unfinished	69	34.5
College finished	40	20.0

N=200 for each variable

DISCUSSION

Sex of Shopper

When the sex of the shopper was compared with the purchase breakdown variables, the results showed that the husband and wife shopping together purchased more items, and spent more money than either the men or women shopping alone. Of particular interest to this researcher was the fact that the husband and wife shopping together purchased more impulse items and spent more money for them than did the men or women shopping alone. This greater amount of impulse purchasing done by the husband and wife jointly, was most likely a direct result of the fact that they also made more total purchases, and spent more for them than either the men or women shopping alone. A retailer knowing this should try to make it more attractive for the husband to shop with his wife, thus increasing the probability that impulse purchasing would take place. Store advertisements should include items which the husband would be interested in, as well as items which the wife might want to purchase.

Age of Shopper

The only analysis which was significant in this group was the one comparing the age of the shopper with the number of sale items purchased. Those Ss from age 30-49 were found to be the ones who bought the most sale items. A possible explanation for this would be that these years

are usually the ones where the income of the family is the highest. These people are the ones who are able to go out and purchase an item without worrying about the money they are spending. Those people in the lower and higher age groups usually have smaller incomes, so they only make purchases which they specifically need. Therefore they would be less likely to be tempted to purchase items just because they are on sale.

Marital Status

Analyses of Chi Square results showed that the Ss who were married made more impulse and total purchases than the single Ss. They also spent more money on the impulse items and more money overall than did the single Ss. More sale items were also purchased by the married Ss. It is probable that more items were purchased and more money was spent by married people, because they were making purchases for more than one person. The problem arises, however, since the results show that there was only a significant difference in the number and cost of the impulse items purchased, but not in the planned and semiplanned purchase categories. The argument that the married shopper is buying for more than one person, does not hold up here, since if this were the case, there would also be a difference in at least the planned category as well.

Number of Years Married

The comparison of number of years married with the

number of sale items purchased was the only analysis which was significant in this group. It was found that those Ss married from 10-29 years purchased more sale items than either those married under 10 years or those married over 30 years. As with the age factor, this could merely be a reflection of the amount of money the S had to spend or needed to spend. Those married under 10 years are just getting started in life, so there is usually a tight budget, while those married over 30 years are more settled and possibly saving towards the retirement years.

Number of Children

Analyses of the results concerned with the number of children, showed that the total number and cost of items increased as the number of children increased. This is an expected result because the more people the shopper is buying for the more items must be purchased. The result that more planned items were purchased as the number of children increased is explained in the same manner. Impulse purchasing was also found to increase as the number of children increased. When compared to the number of impulse purchases, the Chi Square value just missed being significant at .05, but the analysis with the cost of the impulse purchases was significant at .01.

Number of Children Living at Home

The planned, unplanned, and total number of items purchased increased as the number of children living at

home increased. These Ss also spent more money on planned and unplanned purchases than those Ss with fewer children living at home. It is reasonable to assume that as the number of children the shopper has at home increases, the necessity of making more purchases to satisfy their needs also increases. It is this researcher's observation that a good deal of the unplanned purchasing which took place was directly affected by the number of children along on the shopping trip. These data were not systematically recorded and no statistical analysis was done. However, this researcher believes this could be the major reason why the amount of impulse purchasing increased as the number of children increased.

Last Shopped in Turn Style

Analyses of these results showed that the amount of time that has passed since the S was last in the store has no bearing whatsoever on their purchasing behavior. For this particular store, this would seem to indicate that there is not a significant number of shoppers who come in each week only to buy those items which are on sale. If this were not the case, then there would have been significant results in the analyses with the number of sale items purchased and the number of planned items purchased.

Shopped in Jewel

Having shopped in Jewel or planning to shop in Jewel

made no difference in the purchasing behavior of the shoppers in Turn Style according to the results found in this study.

Use of a Shopping List

According to the Chi Square analyses of results, those Ss with a list purchased more planned items, paid more for these planned items, and made more purchases overall than those Ss who shopped without a list. A greater number of unplanned purchases were made by the Ss who shopped without a list. Any item written down on a list would be classified as a planned purchase if the purchase was made. Therefore, the results showing that those Ss with a list made more planned purchases would have to be the only logically acceptable result. An unknown percentage of those shoppers without a list, may have only been in the store to look around. Since they had no purchase intentions, any purchase they made was more likely to be an impulse purchase than those made by a S with a list.

Method of Payment

When the method of payment was compared with the purchase breakdown variables it was found that more planned items, more unplanned items, and more total items were purchased by those Ss using a credit card than by those using a check or cash. Those who paid with check did buy more than those using cash. The planned, unplanned, and total cost was also greater when the S used a credit

card. When it came to cost of semiplanned purchases the results varied. When a check was used, the cost of semiplanned purchases was greater than when either a credit card or cash was used. More sale items were purchased by those who used a check, and more nonsale items were purchased by those who used a credit card. These results would seem to indicate to the retailer that he should make it as easy as possible for the shoppers to pay for their purchases with a check or credit card. Turn Style has instituted a new service to prevent delays at the checkout counter when purchases are paid for by check. It is also their policy to accept many of the major credit cards. This researcher feels that the management of Turn Style should look into the feasibility of issuing their own credit cards which would make it even easier for the shopper to pay for his purchases.

Education of The Shopper

The education of the shopper was included in the questionnaire as an indirect method of measuring the income of the family. All of the results concerned with the educational level of the shopper proved to be nonsignificant. It is impossible to determine whether the economic level of the family was in reality a nonsignificant factor in the purchasing behavior, or if the results were caused by the instrument employed to measure the family income.

There are several reasons for the high incidence of

impulse purchasing that took place in the clothing, toy, and candy and photo departments. The high percentage of impulse purchasing in the candy and photo departments (16.63%), was most likely caused by the fact that this study was done during the period right before Halloween. Many of the displays around the checkout counters contained candy, so therefore the shopper came into contact with these items more frequently than others. As for the toy department (16.87%), as stated before, many of the Ss with small children along bought them a little toy or game to keep them quiet while they were shopping. The large percentage of all impulse purchases made in the clothing department (34.20%), was apparently the result of several factors. During the period of time this study was conducted there were numerous sales of clothing items which attracted many shoppers. Another factor was that for ease of data collection, all clothing purchases were combined regardless of whom the items were bought for. The third contributing factor was the display of many new clothing styles for the approaching winter season.

Due to limitations of time and resources, this study is by no means an exhaustive exploration of all the variables which combine to determine impulse purchasing behavior. If there were no limitations, this researcher would have liked to have used a larger sample taken from several stores over a longer period of time. In addition, the problem of small

frequencies when variables are combined would be overcome with a larger sample. The design of this study was such, that only situation specific descriptive results were obtained. With more extensive research it would be possible to obtain results which could be applied in a more general sense.

SUMMARY

This study was conducted with the objective of formulating a profile of customer characteristics most often found among those shoppers who buy on impulse.

A questionnaire method was employed to collect the information from the Ss, as they waited to pay for their purchases. Each of the 200 Ss was asked to tell this researcher which of their purchases were planned, semiplanned, and unplanned. The three classifications of purchases were defined for each S so they could place each item purchased into the appropriate category.

Analyses comparing each of the 11 shopper variables with each of the 10 purchase breakdown variables were performed. These Chi Square tests of significance revealed differences in 38 of the 110 tests. Husbands and wives shopping together were found to make more impulse purchases than either men or women shopping alone. Married shoppers made more impulse purchases than single shoppers. Impulse purchasing increased as the number of children, and number of children living at home increased. The amount of impulse purchasing was greater among those customers who shopped without a list. Finally, the shoppers who paid for their purchases with either a check or a credit card made more impulse purchases than those shoppers who paid for their purchases with cash.

The age of the shoppers, the number of years the

shopper was married, the last time the shopper was in the store, whether or not they shopped in the adjacent Jewel Supermarket, and the education of the shopper were found to have no significant influence on the impulse purchasing behavior.

REFERENCES

Barnard, Kurt, Consumer Buying Patterns in Self-Servise General Merchandise Store. Mass Retailing Institute, 1971.

Consumer Buying Habits Studies, E.I. du Pont De Nemours and Company, 1965.

Clover, Vernon T., Relative Importance of Impulse-Buying in Retail Stores. Journal of Marketing 15 (July 1950), 66-70.

Engel, James F., Kollat, David T., and Blackwell, Roger D., Consumer Behavior. New York: Holt, Rinehart, and Winston, Inc., 1968. 491-492.

Kollat, David T., & Willett, Ronald P., Customer Impulse Purchasing Behavior. Journal of Marketing Researh, 4 (February 1967), 21-31.

Kollat, David T., & Willett, Ronald P., Is Impulse Purchasing Really a Useful Concept for Marketing Decisions. Journal of Marketing, 33 (January 1969), 79-83.

Pollay, Richard W., Customer Impulse Purchasing Behavior: A Reexamination. Journal of Marketing Research, 5 (August 1968), 323-325.

Stern, Hawkins, The Significance of Impulse Buying Today. Journal of Marketing, 26 (April 1962), 59-62.

West, C. John, Results of Two Years of Study Into Impulse Buying. Journal of Marketing, 15 (January 1951), 362-363.

Appendix A

Impulse Buying Questionnaire

Male _____ Female _____ Husband and Wife _____

Age: 10-19 _____ 40-49 _____
20-29 _____ 50-59 _____
30-39 _____ 60 plus _____

Single _____ Married _____

Number of years married _____

Number of children _____

Number of children living at home _____

When did you last shop in this store? During the last week ___
During last 2 weeks ___
During last 3 weeks ___
Over 3 weeks ago ___

Did you shop or are you planning to shop at Jewel today?
Yes ___
No ___

Was a shopping list used? Yes _____ No _____

Purchases were paid for with Cash ___ Check ___ Credit Card ___

Education level attained:
High School unfinished ____ College unfinished ____
High School finished ____ College finished ____

Purchase Breakdown:
# of planned purchases _____ Cost of planned purchases ____
semiplanned purchases ____ Cost semiplanned purchases____
unplanned purchases _____ Cost unplanned purchases ____
Total # of purchases _____ Total cost of purchases ____

Number of sale items purchased _____

Number nonsale items purchased _____

Appendix A Continued

Purchase Breakdown

Clothing:	Sale	P	I	S	Sporting Goods:	Sale	P	I	S
Health and Beauty:	Sale	P	I	S	Housewares:	Sale	P	I	S
Domestics:	Sale	P	I	S	Candy and Photo:	Sale	P	I	S
Toys:	Sale	P	I	S	Auto:	Sale	P	I	S
Hardware:	Sale	P	I	S	Appliance:	Sale	P	I	S

APPENDIX B

Chi Square Analyses Tables

Chi Square Analysis for # of Unplanned Items vs Sex of Shopper

Across Variable- # of Unplanned Items

With

Down Variable- Sex of Shopper

	0-2 items	3-5 items	6-8 items	Total
Male	44	3	0	47
Female	87	17	1	105
Husband & Wife	24	23	1	48
Total	155	43	2	200

Chi Square = 29.636

Degrees of Freedom = 4

Significant at .01

Chi Square Analysis for
Total # of Items vs
Sex of Shopper

Across Variable- Total # of Items

With

Down Variable- Sex of Shopper

	0-2 items	3-5 items	6-8 items	9 Or more	Total
Male	6	29	11	1	47
Female	5	51	43	6	105
Husband & Wife	1	11	23	13	48
Total	12	91	77	20	200

Chi Square = 36.292

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Cost of Planned Items
vs Sex of Shopper

Across Variable- Cost of Planned Items

With

Down Variable- Sex of Shopper

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Male	18	7	10	12	47
Female	35	31	24	15	105
Husband & Wife	8	12	11	17	48
Total	61	50	45	44	200

Chi Square = 14.080

Degrees of Freedom = 6

Significant at .05

Chi Square Analysis for
Cost Unplanned Items
vs Sex of Shopper

Across Variable- Cost of Unplanned Purchases

With

Down Variable- Sex of Shopper

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Male	42	1	2	2	47
Female	75	19	6	5	105
Husband & Wife	14	15	5	14	48
Total	131	35	13	21	200

Chi Square = 48.441

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Total Cost vs Sex
of Shopper

Across Variable- Total Cost of All Items

With

Down Variable- Sex of Shopper

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Male	6	10	12	19	47
Female	2	25	33	45	105
Husband & Wife	1	4	5	38	48
Total	9	39	50	102	200

Chi Square = 29.163

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Sale Items vs
Sex of Shopper

Across Variable- # of Sale Items

With

Down Variable- Sex of Shopper

	0-2 items	3-5 items	6-8 items	Total
Male	38	8	1	47
Female	56	45	4	105
Husband & Wife	21	25	2	48
Total	115	78	7	200

Chi Square = 15.024

Degrees of Freedom = 4

Significant at .01

Chi Square Analysis for
Nonsale Items vs
Sex of Shopper

Across Variable- # Nonsale Items

With

Down Variable- Sex of Shopper

	0-2 items	3-5 items	6-8 items	9 plus	Total
Male	21	22	4	0	47
Female	49	46	9	1	105
Husband & Wife	11	28	6	3	48
Total	81	96	19	4	200

Chi Square = 12.768

Degrees of Freedom = 6

Significant at .05

Chi Square Analysis for
Sale Items vs
Age of Shopper

Across Variable- # of Sale Items

With

Down Variable- Age of Shopper

	0-2 items	3-5 items	6-8 items	Total
10-29	63	26	0	89
30-39	16	29	2	47
40-49	20	17	3	40
50 plus	16	6	2	24
Total	115	78	7	200

Chi Square = 24.323

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Unplanned Items vs
Marital Status

Across Variable- # of Unplanned Purchases

With

Down Variable- Marital Status of Shopper

	0-2 items	3-5 items	6-8 items	Total
Single	31	1	1	33
Married	124	42	1	167
Total	155	43	2	200

Chi Square = 9.278

Degrees of Freedom = 2

Significant at .01

Chi Square Analysis for
Total # Items vs
Marital Status

Across Variable- Total # of Items Purchased

With

Down Variable- Marital Status of Shopper

	0-2 items	3-5 items	6-8 items	9 plus	Total
Single	3	23	6	1	33
Married	9	68	71	19	167
Total	12	91	77	20	200

Chi Square = 11.872

Degrees of Freedom = 3

Significant at .01

Chi Square Analysis for
Cost Unplanned Items
vs Marital Status

Across Variable- Cost Unplanned Items

With

Down Variable- Marital Status of Shopper

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Single	30	0	2	1	33
Married	101	35	11	20	167
Total	131	35	13	21	200

Chi Square = 12.924

Degrees of Freedom = 3

Significant at .01

Chi Square Analysis for
Total Cost of Items
vs Marital Status

Across Variable- Total Cost of all Items

With

Down Variable- Marital Status of Shopper

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Single	4	11	9	9	33
Married	5	28	41	93	167
Total	9	39	50	102	200

Chi Square = 13.424

Degrees of Freedom = 3

Significant at .01

Chi Square Analysis for
Sale Items vs
Marital Status

Across Variable- # Sale Items

With

Down Variable- Marital Status of Shopper

	0-2 items	3-5 items	6-8 items	Total
Single	28	5	0	33
Married	87	73	7	167
Total	115	78	7	200

Chi Square = 12.287

Degrees of Freedom = 2

Significant at .01

Chi Square Analysis for
Sale Items vs
Years Married

Across Variable- # Sale Items

With

Down Variable- # Years Married

	0-2 items	3-5 items	6-8 items	Total
0-9 years	64	27	1	92
10-19 years	18	27	2	47
20-29 years	19	20	3	42
30 plus	14	4	1	19
Total	115	78	7	200

Chi Square = 19.343

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Planned Items vs
of Children

Across Variable- # of Planned Items Purchased

With

Down Variable- # of Children

	0-2 items	3-5 items	6-8 items	Total
0 or 1	45	33	2	80
2	22	36	4	62
3	10	22	5	37
4 or more	9	9	3	21
Total	86	100	14	200

Chi Square = 15.360

Degrees of Freedom = 6

Significant at .05

Chi Square Analysis for
Total # Items vs
# of Children

Across Variable- Total # of Items Purchased

With

Down Variable- # of Children

	0-2 items	3-5 items	6-8 items	9 plus	Total
0 or 1	6	49	22	3	80
2	3	23	29	7	62
3	0	14	19	4	37
4 or more	3	5	7	6	21
Total	12	91	77	20	200

Chi Square = 28.880

Degrees of Freedom = 9

Significant at .01

Chi Square Analysis for
Cost Unplanned Items
vs # of Children

Across Variable- Cost Unplanned Items

With

Down Variable- # of Children

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
0 or 1	62	10	4	4	80
2	40	9	5	8	62
3	21	10	4	2	37
4 or more	8	6	0	7	21
Total	131	35	13	21	200

Chi Square = 26.377

Degrees of Freedom = 9

Significant at .01

Chi Square Analysis for
Total Cost of Items
vs # of Children

Across Variable- Total Cost of Items

With

Down Variable- # of Children

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
0 or 1	7	22	20	31	80
2	0	10	19	33	62
3	0	6	8	23	37
4 or more	2	1	3	15	21
Total	9	39	50	102	200

Chi Square = 21.335

Degrees of Freedom = 9

Significant at .05

Chi Square Analysis for
Planned Items vs
Children at Home

Across Variable- # Planned Items Purchased

With

Down Variable- # Children at Home

	0-2 items	3-5 items	6-8 items	Total
0 or 1	60	49	6	115
2	18	33	4	55
3	5	14	2	21
4 or more	3	4	2	9
Total	86	100	14	200

Chi Square = 12.872

Degrees of Freedom = 6

Significant at .05

Chi Square Analysis for
Unplanned Items vs
Children at Home

Across Variable- # Unplanned Items Purchased

With

Down Variable- # Children Living at Home

	0-2 items	3-5 items	6-8 items	Total
0 or 1	94	20	1	115
2	41	14	0	55
3	17	3	1	21
4 or more	3	6	0	9
Total	155	43	2	200

Chi Square = 16.609

Degrees of Freedom = 6

Significant at .05

Chi Square Analysis for
Total # Items vs #
Children at Home

Across Variable- Total # Items Purchased

With

Down Variable- Number of Children Living at Home

	0-2 items	3-5 items	6-8 items	9 plus	Total
0 or 1	9	63	36	7	115
2	3	17	29	6	55
3	0	9	9	3	21
4 Or more	0	2	3	4	9
Total	12	91	77	20	200

Chi Square = 25.796

Degrees of Freedom = 9

Significant at .01

Chi Square Analysis for
Cost Planned Items vs
Children at Home

Across Variable- Cost Planned Purchases

With

Down Variable- # Children Living at Home

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
0 or 1	42	32	20	21	115
2	13	14	15	13	55
3	6	4	6	5	21
4 or more	0	0	4	5	9
Total	61	50	45	44	200

Chi Square = 17.503

Degrees of Freedom = 9

Significant at .05

Chi Square Analysis for
Cost Unplanned Items vs
Children at Home

Across Variable- Cost Unplanned Purchases

With

Down Variable- # Children Living at Home

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
0 or 1	81	16	10	8	115
2	33	11	3	8	55
3	15	5	0	1	21
4 or more	2	3	0	4	9
Total	131	35	13	21	200

Chi Square = 21.839

Degrees of Freedom = 9

Significant at .01

Chi Square Analysis for
Planned Items vs Use
Of Shopping List

Across Variable- # Planned Items Purchased

With

Down Variable- Use of Shopping List

	0-2 items	3-5 items	6-8 items	Total
Yes	5	31	9	45
No	81	69	5	155
Total	86	100	14	200

Chi Square = 31.893

Degrees of Freedom = 2

Significant at .01

Chi Square Analysis for
# of Unplanned Items vs
Use of Shopping List

Across Variable- # Unplanned Purchases

With

Down Variable- Use of a Shopping List

	0-2 items	3-5 items	6-8 items	Total
Yes	41	3	1	45
No	114	40	1	155
Total	155	43	2	200

Chi Square = 8.198

Degrees of Freedom = 2

Significant at .05

Chi Square Analysis for
Total # of Items vs
Use of Shopping List

Across Variable- Total # of Items Purchased

With

Down Variable- Use of a Shopping List

	0-2 items	3-5 items	6-8 items	9 plus	Total
Yes	1	13	24	7	45
No	11	78	53	13	155
Total	12	91	77	20	200

Chi Square = 10.013

Degrees of Freedom = 3

Significant at .05

Chi Square Analysis for
Cost Planned Items vs
Use of Shopping List

Across Variable- Cost Planned Purchases

With

Down Variable- Use of Shopping List

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Yes	5	15	12	13	45
No	56	35	33	31	155
Total	61	50	45	44	200

Chi Square = 10.470

Degrees of Freedom = 3

Significant at .05

Chi Square Analysis for
Sale Items vs
Use of List

Across Variable- # Sale Items Purchased

With

Down Variable- Use of a Shopping List

	0-2 items	3-5 items	6-8 items	Total
Yes	16	25	4	45
No	99	53	3	155
Total	115	78	7	200

Chi Square = 13.761

Degrees of Freedom = 2

Significant at .01

Chi Square Analysis for
Nonsale Items vs
Use of List

Across Variable- # Nonsale Items Purchased

With

Down Variable- Use of a Shopping List

	0-2 items	3-5 items	6-8 items	9 plus	Total
Yes	25	12	7	1	45
No	56	84	12	3	155
Total	81	96	19	4	200

Chi Square = 11.011

Degrees of Freedom = 3

Significant at .05

Chi Square Analysis for
Planned Items vs
Method of Payment

Across Variable- # Planned Items Purchased

With

Down Variable- Method of Payment

	0-2 items	3-5 items	6-8 items	Total
Cash	56	42	6	104
Check	26	48	8	82
Credit Card	4	10	0	14
Total	86	100	14	200

Chi Square = 12.454

Degrees of Freedom = 4

Significant at .05

Chi Square Analysis for
Unplanned Items vs
Method of Payment

Across Variable- # Unplanned Purchases

With

Down Variable- Method of Payment

	0-2 items	3-5 items	6-8 items	Total
Cash	86	17	1	104
Check	61	21	0	82
Credit Card	8	5	1	14
Total	155	43	2	200

Chi Square = 10.562

Degrees of Freedom = 4

Significant at .05

Chi Square Analysis for
Total # of Items vs
Method of Payment

Across Variable- Total # of Items Purchased

With

Down Variable- Method of Payment

	0-2 items	3-5 items	6-8 items	9 plus	Total
Cash	10	56	37	1	104
Check	2	30	35	15	82
Credit Card	0	5	5	4	14
Total	12	91	77	20	200

Chi Square = 27.753

Degrees of Freedom = 6

Significant .01

Chi Square Analysis for
Cost Planned Items vs
Method of Payment

Across Variable- Cost of Planned Purchases

With

Down Variable- Method of Payment

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Cash	46	22	20	16	104
Check	14	25	21	22	82
Credit Card	1	3	4	6	14
Total	61	50	45	44	200

Chi Square = 22.237

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Cost Semiplanned Items
Method of Payment

Across Variable- Cost Semiplanned Purchases

With

Down Variable- Method of Payment

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Cash	97	2	2	3	104
Check	63	12	7	0	82
Credit Card	11	2	0	1	14
Total	171	16	9	4	200

Chi Square = 20.569

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
Cost Unplanned Items vs
Method of Payment

Across Variable- Cost Unplanned Purchases

With

Down Variable- Method of Payment

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Cash	72	20	6	6	104
Check	52	14	6	10	82
Credit Card	7	1	1	5	14
Total	131	35	13	21	200

Chi Square = 12.930

Degrees of Freedom = 6

Significant at .05

Chi Square Analysis for
Total Cost of Items vs
Method of Payment

Across Variable- Total Cost of All Purchases

With

Down Variable- Method of Payment

	0-$2.99	$3-$5.99	$6-$8.99	$9 plus	Total
Cash	9	27	28	40	104
Check	0	11	21	50	82
Credit Card	0	1	1	12	14
Total	9	39	50	102	200

Chi Square = 23.254

Degrees of Freedom = 6

Significant at .01

Chi Square Analysis for
# of Sale Items vs
Method of Payment

Across Variable- # Sale Items Purchased

With

Down Variable- Method of Payment

	0-2 items	3-5 items	6-8 items	Total
Cash	71	32	1	104
Check	34	42	6	82
Credit Card	10	4	0	14
Total	115	78	7	200

Chi Square = 17.392

Degrees of Freedom = 4

Significant at .01

Chi Square Analysis for
Nonsale Items vs
Method of Payment

Across Variable- # Nonsale Items Purchased

With

Down Variable- Method of Payment

	0-2 items	3-5 items	6-8 items	9 plus	Total
Cash	46	46	11	1	104
Check	34	41	6	1	82
Credit Card	1	9	2	2	14
Total	81	96	19	4	200

Chi Square = 17.624

Degrees of Freedom = 6

Significant at .01