Shopaholics -
An Exploratory Study

By

S. Ramesh Kumar
Janat Shah
Nitin Singh*

January 2000

Please address all correspondence to:

Prof. S. Ramesh Kumar
Associate Professor, Marketing Area/
Prof. Janat Shah
Associate Professor, Production & Operations Management Area/
Indian Institute of Management
Bannerghatta Road
Bangalore – 560 076
India
Fax: (080) 6644050

*Nitin Singh is a Doctoral student in the Production & Operations Management Area

Copies of the Working Papers may be obtained from the FPM & Research Office

Acknowledgement

We are thankful to IIM-Bangalore for sponsoring this project.

We would like to thank Nilgiris Departmental Store for permitting us to gather data.

Mr Srikumar (who is currently with TELCO) helped us out with the data collection and we would like to mention that he took up this work because of his inherent interest in the project more than anything else.

Table of Contents

The Concept

A close observation paid to large departmental stores/supermarkets (at least in metros) would show consumers carrying a variety of items (generally non-durables) at home. This variety could include several products which were originally not on the shopping list of consumers.

This raises certain interesting dimensions:

- Do the shoppers buy because they are motivated by brand communication?
- Do they buy because of psychological discomfort?
- Do they buy because of certain promotional offers?
- Do they buy to derive gratification out of these shopping experiences?

Apart from the well-known applications of consumer behavior (decision-making, brand loyalty and brand image assessment), studying "SHOPAHOLICS" could involve several interesting applications of concepts concerned with consumer behavior. A study of this nature calls for data on the monitoring of shopping behavior of consumers, factors which motivate consumers shopping in large stores, influence of "non-shopping" factors (the ones which are not directly connected with shopping for either products or brands), mood of consumers, priority given to "shopping rituals" during experience and the demographics and psychographics of consumers (what kind of consumers are shopaholics).

How could the concept help marketers:

Studying shopaholics could be very useful to large retailers who deal with a diverse variety of products. With the competitive pressures increasing in retailing, shopaholics could provide a retailer a long term base of consumers who may develop stores locality over a period of time.

Retailers could look for patterns of consumption and collect primary data from consumers who visit retail outlets on how they plan their shopping and the general shopping items in the list. This could enable the retailer to ensure the presence of shopaholics among customers groups visiting the retail store. Once the presence of this group is established, the next step is to determine what kinds of items these shoppers buy "outside" their planned lists and how often they buy these items. A typical shopaholic exhibits a consistent tendency to accumulate purchases over a time period - he/she buys more number of units than required or buys products which may rarely use once he/she reaches home. While it may relatively be an easy job to get a list of items that have not been there on the original list' of shoppers, it is difficult to get information on why these shoppers indulge in these kinds of behavior. Two aspects assume importance at this stage - one how could the marketer probe into these reasons and two how could such findings be made use of in a meaningful manner. Regarding the exploration of motives connected with shopping behavior, it would not be possible to cover every consumer visiting a store. There is a need to select few groups of customers and use qualitative techniques to ascertain why consumers indulge in shopping during certain emotional situations.

Objectives of the Study

To explore the presence of shopaholic behavior to analyze the following aspects:

i) impact of shopping experience on the purchase

ii) impact of store ambiance on the purchase

iii) impact of shopping plan offer on the purchase

Methodology

As the study was confined to Bangalore, Nilgiri (a departmental store was chosen) as a store which could be used for collecting information about shoppers. As the objective was to explore just the presence of the new concept convenience sampling was chosen.

A questionnaire method (Appendix 1 with interview) was used to collect information about the shopaholic behavior of shoppers at Nilgiris. Information was collected from one hundred shoppers. Content analysis, chi-square tests and regression analysis were applied to analyze the information.

Content Analysis

Initially content analysis is done to quantify the variables. Content analysis is a method of studying and analyzing communications in a systematic, objective and quantitative manner to measure variables. The instrument contains items that do not have scales. Therefore, it becomes imperative to perform a content analysis and take the communications that the respondents have produced. These responses are codified and numeric values are assigned to each specific response to an item. The code-book attached as appendix 2 displays the quantification of variables. Further, it is found that most of the responses are put into the binary class. It is found that variables pertaining to most of the items in the instrument are categorical and only four variables are found to be continuous. The quantification is done based on the categorization approach.

Hypotheses

1) It is expected that if a person spends higher amount of time in the shop, he would make higher amount of purchase

2) It is expected that if a person spends higher amount of time in the shop, he would exceed his purchase limit as per the original plan i.e. large the time in the shop the larger would be magnitude of the exceed in the plan.

3) This excess purchase may depend upon the time spent in the shop and the average value of the purchase of the customer.

4) It is expected that if a person makes larger number of visits to the department store in a month then he would not exceed his purchase limit i.e. larger the number of visits the lesser would be magnitude of the exceed in the plan

5) People who make more of unplanned visits may tend to visit specific department stores

6) People visit specific department stores even if it is far away from their homes. This is based on the premise that people tend to frequent stores, which provide them a nice shopping experience

7) People who plan a list of purchase beforehand do not adhere to their plan

8) Customers who visit the stores for ambience exceed their purchase limit

9) Customers who enjoy their visits to the stores make unplanned purchase

10) Customers who visit the stores for ambience tend to make unplanned purchases.

11) Customers make unplanned purchases when they are influenced by their moods

12) Customers who would be interested in spending the extra money in the store would like to spend more time in the store

13) Customers make unplanned purchases if they are influenced by the products that catch their attention

Description of the variables

Majority of the variables under study are binary variables. Refer to Appendix 2 for the code list and Appendix 3 for a description of the variables

Analysis

The research questions and the data reveal that one can do an analysis based on the descriptive statistics of the data to draw inferences. Correlation analysis & multiple regression are employed for continuous variables to ascertain the relationship between the variables in some cases. Test of independence is employed for the categorical variables. Since most of the variables are categorical we find that test of independence is applicable in majority of the cases. Distance correlations procedure is used to test the association in case of continuous variables. The distance correlations procedure computes the correlation coefficient, with its significance level while sense of the correlation coefficient measures how variables or rank orders are related. A scatterplot is used to see whether the association is linear. Two variables can be perfectly related, but if the relationship is not linear, Pearson's correlation coefficient is not an appropriate statistic for measuring their association. Therefore the type of relation is observed initially and then a suitable correlation coefficient is obtained for testing the strength and the sense of relationship.

Regression Analysis

Linear Regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable. In this case, we have tried to predict a excess purchase made by the customer (the dependent variable) from independent variables: time spent in the store and the average value of the purchase. With linear regression, one can model the relationship of these variables.

Chi-square tests

Tests the hypothesis that the row and column variables are independent, without indicating strength or direction of the relationship. The chi-square Test procedure tabulates the variables and computes a chi-square statistic. This test compares the observed and expected frequencies and provides a chi square statistic which can be tested

for significance. If this statistic is found to be significant then we can say that the two variables are independent.

Assumptions for the chi square tests do not require assumptions about the shape of the underlying distribution. The data are assumed to be a random sample. However, the expected frequencies for each category should be at least 1. We find that some of the variables in the instrument may be subjected to the chi square tests.

Percentile Values are used in some cases. These are values of a quantitative variable that divide the ordered data into groups so that a certain percentage is above and another percentage is below. These values are used in conjunction with descriptive statistics to find if the customers can be categorized in discrete groups.

Reliability analysis

Reliability analysis allows you to study the properties of measurement scales and the items that make them up. The Reliability Analysis procedure calculates a number of commonly used measures of scale reliability and also provides information about the relationships between individual items in the scale. Interclass correlation coefficients can be used to compute inter-rater reliability estimates. For instance one can use reliability analysis to determine the extent to which the items in the questionnaire are related to each other. One gets an overall index of the repeatability or internal consistency of the scale as a whole.

Alpha (Cronbach) is a model of internal consistency, based on the average inter-item correlation.

Discussion of the results

Discussion of the variables and an examination of the hypotheses reveal that the data can be analyzed by a combination of using descriptive statistics of the data and performing

correlation analysis and tests for independence in most cases. The basis of these tests is discussed in the previous sections. In this section, we present the analysis of findings as it pertains to each hypothesis. Each hypothesis is subjected to a specific test depending upon the suitability and then findings are presented. These findings report whether the hypotheses are supported by the tests or not. Subsequently, the respective results are analyzed and reasons are accounted for which may have resulted in the acceptance or the rejection of the hypotheses.

1) It is expected that if a person spends higher amount of time in the shop, he would make higher amount of purchase. To capture this phenomenon, correlation analysis is done between the variables v4b and v11. These are continuous variables and lend themselves to the correlation analysis. Table 1 displays the descriptive statistics and proximity matrix pertaining to the variable v4b and v11. It is found that the correlation coefficient is 0.311, which is significant at 95% confidence level. The coefficient denotes a positive correlation between the time spent in the shop and the amount of purchase made in the shop. However, the coefficient is low and so the correlation is weak. This indicates that it would be desirable for the shop owner to make the customer spend more time in the shop. Making the visit of the customer more enjoyable in terms of improving the ambience of the shop and increasing the interaction level of the customer and the salesperson may achieve this.

2) It is expected that if a person spends higher amount of time in the shop, he would exceed his purchase limit as per the original plan i.e. larger the time in the shop the larger would be magnitude of the exceed in the plan. To capture this phenomenon, correlation analysis is done between variables v9 and v11. Again, these are continuous variables and lend themselves to correlation analysis. Table 2 displays the descriptive statistics and proximity matrix pertaining to the variable v9 and v11. It is found that the correlation coefficient is 0.669, which is significant at 95% confidence level. The coefficient denotes a positive relation between the time spent in the shop and the value by which the customer exceed the original plan. The coefficient is moderately strong indicating that there is a strong relationship between the two

variables. This analysis signifies that the customer makes some unplanned purchases in the shop when he/she spends more time in the shop. In fact, this result is supported by the result obtained in (1) above. The compatibility between the two results further strengthens the point that there are more chances of a customer exceeding his/her original plan if he/she spends more time in the shop. This raises an important issue: "why should customer exceed the planned budget if he/she spends more time in the shop." In this case, the customer may buy a product that may not be really required by him/her. This indicates that the customer is prompted by something, which is not sheer necessity. The result points to the fact that the customer is affected by variables like the ambience of the shop, the enjoyment he/she obtains from shopping and the status of his/her mood.

3) It might be desirable at this stage to capture the magnitude of the excess purchase made by the customer. This excess purchase may depend upon the time spent in the shop and the average value of the purchase of the customer. A linear regression is run with v9 as dependent variable and v4b and v11 as the independent variables. Table 3 shows the statistics related to the linear regression. It is found that the value of R^2 is 0.63 indicating that the dependent variable is moderately explained by the independent variables. The B values have a positive impact on the excess purchase. However, the t values for the constant and the variable v4b are not significant. Therefore, the statistical significance does not exist. Therefore, subsequent analysis is done on the same quantity variables using the descriptive statistics in (). However, the results of the regression do indicate that the excess purchase is dependent upon the average value of the purchase and the time spent by the customer. Also, the direction of the relation is found to be positive.

4) It is expected that if a person makes larger number of visits to the department store in a month then he would not exceed his purchase limit i.e. larger the number of visits the lesser would be magnitude of the exceed in the plan. To capture this phenomenon, correlation analysis is done between variables v1 and v9. Again, these are quantity

variables and lend themselves to correlation analysis. Table 4 displays the descriptive statistics and proximity matrix pertaining to the variable v1 and v9. It is found that the correlation coefficient is -0.178, which is significant at 95% confidence level. The coefficient denotes a negative relation between the number of visits to the shop and the value by which the customer exceeds the original plan. The coefficient is low indicating that there is a weak relationship between the two variables. However, the result is intuitive and points to the fact that the customers who come to the shop often are less likely to exceed the original plan. The customers who come to the shop less number of times would tend to make purchases that do not fit their plan. This may be attributed to the fact that they have not outlined their requirements specifically. Alternatively, they might be influenced by the factors like ambience, shopping experience etc.

5) People who make more of unplanned visits may tend to visit specific department stores. This is based on the assumption that a person may like a particular department store and so may like to go to that store often. He/she might be visiting the store just for the sake of a shopping experience. To test this hypothesis analysis is done on the variables v2 and v3. These are categorical variables. Hence we perform a chi square test on these two variables in order to find out whether the variables are dependent or not. Table 5 displays the chi square statistic for these two variables. It is found that this statistic is not significant at 95% confidence level. This result supports the hypothesis that people who tend visit to specific department store are more likely to make unplanned visits. This, in turn, indicates that customer visit the stores in order to have a nice shopping experience. In other words, the visit is not based on a specific requirement but more on a need to have a gratification by doing some shopping. And this gratification is obtainable through the ambience of the store, interaction with the salesperson etc.

6) People visit specific department stores even if it is far away from their homes. This is based on the premise that people tend to frequent stores, which provide them a nice shopping experience. Observation of the descriptive statistics pertaining to variable

v5 provides an insight into this phenomenon. Table 6 displays the descriptive statistics of v5. It is observed that 45 customers intend to visit a store even if it is far away from their respective homes. A test for independence is carried out on the same variable with expected value equal to the value of the variable in each case. This test yields a chi square statistic of 1 which is not significant at the 95% confidence level. Hence, it can not be said that people visit a specific store even if it is far away from their respective homes.

7) People who plan a list of purchase beforehand do not adhere to their plan. To test this hypothesis, a comparison of means is done for the variables v6 and v7. Table 7 displays the descriptive statistics of these variables. It is found that about 73% of the people plan their purchases in advance but only 53% adhere to the plan. This shows that customers may not adhere to their plan which, in turn, indicates that the customers are swayed by certain factors that force them to buy something additional or a product that they have not planned for earlier. This purchase may be based on the mood of the customer or some factor like the ambience of the store.

8) Customers who visit the stores for ambience exceed their purchase limit. The relationship between the variables v16 and v9 is tested to capture this phenomenon. V9 is a continuous variable whereas v16 is categorical variable. V9 gives the value of the excess purchase. Descriptive statistics of this variable in table 8 reveal that the mean excess in purchase is 173.36. If it is found that the customer who exceeds the mean purchase and also visits the store for the ambience then it can be said that he/she is really influenced by the ambience and is, therefore, exceeding the purchase limit. Transformation is done on the variable v9 for this purpose. A new variable v9v9 is generated using the following operation:

If v9 >= 173.36 then v9v9 = 1

Chi square test is done for the test of independence between the variables v9v9 and v16. Table 9 gives the chi square statistic, which is equal to 18. This value is not

significant at 95% confidence level. Therefore it can be suggested that customers who visit the stores for ambience tend to exceed their purchase limit.

Chi square tests were also done to test the hypotheses:

a) Customers who enjoy their visits to the stores make unplanned purchase.
b) Customers who visit the stores for ambience tend to make unplanned purchases
c) Customers make unplanned purchases when they are influenced by their moods
d) Customers who would be interested in spending the extra money in the store would like to spend more time in the store

9) Customers who enjoy their visits to the stores make unplanned purchase. A test for independence is done between the variables v7 and v15. Table 10 displays the results of the test for independence. The chi square statistic of 12 is not significant at the 95% confidence level. This shows that the two variables are not independent and so it can be said that customers who enjoy their visits tend to make more of unplanned purchases.

10) Customers who visit the stores for ambience tend to make unplanned purchases. A test for independence is done between the variables v7 and v16. Table 11 displays the results of the test for independence. A chi-square statistic of 21is not significant at the 95% confidence level. This indicates that customers who make unplanned purchases are influenced by the ambience of the store.

11) For some customers, the purchase of an article affects their moods. If it is found that this phenomenon is getting translated into unplanned purchase from the customer's side then it can be said that the customer's mood is forcing him/her to make unplanned purchases. To test this hypothesis, a test for independence is done between the variables v7 and 17. Table 12 displays the results of the test for independence. The chi square statistic of 28 is not significant at the 95% confidence level. This

shows that the two variables are not independent. Thus this hypothesis is supported by the results.

12) Customers who would be interested in spending the extra money in the store would like to spend more time in the store. To test this hypothesis, a test for independence is done between the variables v12 and v13. Table 13 displays the results of the test for independence. The chi square statistic for the two variables is not significant at the 95% confidence level. This hypothesis is also not supported by the results. This implies that the customer wishes to spend extra money in the store because he/she likes being in the store. For the customer, the stay in the store is enjoyable and so he does not mind spending extra money and time in the store.

13) Customers may buy products because such products catch the attention of the customer. If this phenomenon is found to be true then it may be said that the customers may make unplanned purchases and are therefore influenced by the products. Descriptive statistics of variable v10 in table 14 reveal that 63.5 % of the customers tend to buy products because such products catch the attention of the customer.

14) A psychographic profile of the customers is also generated by means of frequency tabulation as reflected in figure 1. For this purpose, the continuous variables v1, v4b, v9 and v11 are used. This tabulation allows us to ascertain as to what is the distribution of the respondents in terms of visits to the store, average value of purchase, excess purchase and time spent in the store. It is observed from variable v1 that majority of the customers are infrequent visitors. Only a few customers visit almost on a daily basis. Similar observation is made for the variable v4b too. However, the frequency tabulation of variable v9 reveals that mostly the customers tend to cross their purchase limit. The histogram plotted for variable v11 shows that customers, in general, do not stay in the store for more than 2 hours.

Managerial Implications

The results throw certain implications, which may be summarized as under:

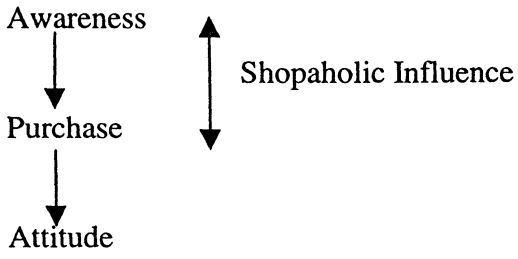
It is observed that customers are influenced by certain factors that are termed in this study as factors relating to "shopaholics". For instance, it was found that customers who enjoy shopping and ambience in the store tend to make unplanned purchases. Additionally, it was found that the same category of customers tends to spend more time in the store. Analysis of findings has also reported that customers who tend to spend more time in the store are more likely to exceed their purchase limit. The section on discussion of the results reports similar key findings. These imply that the manager may use the factors pertaining to "shopaholics" in influencing the customer in making the purchase. The customer is not always prompted by the need to buy a product. He is affected by environment, display of the product, mood and a nice shopping experience. These may be tapped by the decision-maker to make the shopping experience more enjoyable for the customer. For instance, contemporary music being played at the background would generate a nice ambience in the store. Similarly, a nice and cool atmosphere in the store would be another way of lifting the spirits of the customer. Improving the interface between the customer and the salesperson is another way of making the customer enjoy the shopping experience. To summarize, it is not just that interaction between the customer and the store is on a *quid pro quo* basis. The transaction is affected by factors that would make customer's experience in the store a memorable one. The decision-maker may devise his policy considering these observations.

As the investigations involved fast moving consumer goods (FMCG) which are generally low-involvement products, the study suggests that influencing shopaholic behaviour could probably shift the focus of marketing strategies from communication to "in-store shopaholic" strategies. FMCG brands rely heavily on "high-visibility" campaigns and the `in-store' alternative could be explored to investigate a cost-saving option from the viewpoint of marketers of FMCG goods. A part of the budget could be devoted to "in-store" retail ambience especially if the retail outlets are fully owned by a company. For

instance companies like Hindustan Lever, Godrej and Johnson and Johnson could open up exclusive FMCG retail outlets selectively across the country and provide a "shopaholic" thrust. This would also incidentally contribute to the image of the brands marketed.

From the viewpoint of stores like Nilgiris which also deal with private brands (apart from national brands), investing in "shopaholic strategies" would be useful in promoting private label brands which may not be able to afford huge advertising budgets.

Both these suggestions follow the involvement model of Krugman (as given in fig. 2)



Limitations of the study

The analysis of findings is done primarily on the basis of descriptive statistics related to each variable and tests of independence for the variables under consideration for the hypotheses. Chi square tests are employed for tests of independence because they do not require an underlying assumption regarding the distribution of the variable. However, these tests do not tell anything about the strength of relationship. Nor do these tests tell us anything about the direction of relationship. Correlation analysis would yield these results but correlation analysis should be done for the continuous variables.

Multiple regression analysis was done on three variables to get a predictor equation for the amount of excess purchase made by the customers. However, the t value for the constant and the variable is not significant. The results are reported based on the strength

of the predictive power of the regression coefficients. More meaningful results can be obtained for a larger sample size and testing the normality assumptions of the data.

Missing value analysis reveals that many items have not been responded to. This observation is reflected in table 15. This limitation does not allow a comprehensive analysis and reduces the sample size. Reliability analysis was done to measure the internal consistency of the instrument. Table 16 provides the details pertaining to the reliability analysis. This analysis is important because it ensures internal validity. Cronbach alpha was used to measure the internal consistency ratio. However, this value was found to be too low.

An examination of the results indicates that there is an impact of the factors pertaining to "shopaholics" on the behavior of the customers. To gather more insights into this phenomenon and to derive more meaningful and valid results, it would be desirable at this stage to evolve a more comprehensive instrument that would contain the items with discrete scales to capture the responses. This would allow more meaningful quantification of the variables and ensure rigorous analysis.

References

1. David London and Albert J. Bella Bitta "Consumer Behaviour - Concepts and Applications", Tata McGraw Hill, New York, 1998.
2. S. Ramesh Kumar "Marketing Nuggets - Conceptual Dimensions in Marketing", Vikas, New Delhi, 1998.
3. J.C. Mowen "Beyond Consumer Decision Making", Journal of Consumer Marketing, Winter 1988, pp. 15-25.
4. S.J. Hoch "Low-involvement Learning", Journal of Consumer Research, Sept. 1992, pp. 212-25.
5. Menon and B.E. Kahn "The Impact of Context on Variety Seeking in Product Choice", Journal of Consumer Research, Dec. 1995, pp. 285-95.
6. A programme on "Shopaholics" by British Broadcasting Corporation, London.
7. Fred N. Kerlinger "Foundations of Behavioral Research", Hardcourt Brace College Publishers, New York, 1995.
8. J. Johnston "Econometric Methods", McGraw Hill, Tokyo, 1960.

Appendix 1 - Questionnaire Formulation / Interview

The following aspects were investigated through an interview with each shopper. A questionnaire drawn from the following aspects was also used with some respondents.

1. Whether the respondent is a frequent visitor to departmental stores (any departmental stores)
2. What kinds of items do respondents buy at departmental stores.
3. Does the respondent frequent any specific departmental store? If so why?
4. Is the visit always a planned one or sometimes planned?
5. While the respondent shops does he make a list of items he plans to buy?
6. What is the average purchase the respondent is likely to make during a single visit?
7. How many times during a month the respondent visits departmental store?
8. Does the respondent always stick to his original plan of purchase?
9. What other categories (other than the planned ones) does a respondent buy when he "oversteps" his purchase plan?
10. By what value (in monetary terms) does the respondent exceed the purchase when he "oversteps" his purchase plan?
11. If the visit is unplanned, what makes the respondent visit a departmental store?
12. Does the respondent visit a departmental store to "release"? (from everyday purchases of life)?
13. Does the respondent buy certain items after being impressed by the display of those items?
14. How much time does the respondent spend in the departmental store (on an average during a single visit?
15. Does the respondent enjoy his visits to departmental stores?
16. Does the respondent feel he/she ought to spend more time in a departmental store whenever he/she visits one?
17. Does the respondent connect his moods (happy/sad) to buying any items in a departmental store?
18. If so what are the usual product categories bought by the respondent?

19. If more time is given to the respondent for shopping, would he/she like to spend more time in a departmental store?
20. If more money is given to the respondent would he/she be interested in spending the extra money in a departmental store?
21. What category of products would the respondent like to buy in a departmental store with the extra-money he/she may be given?
22. If the same products which the respondent shops for is available for a lesser price in a smaller store near his/her home, would the respondent still buy these products in a departmental store?
23. What is the maximum distance the respondent may be willing to travel to shop in a departmental store?
24. Does the respondent visit a departmental store because of the ambience and he/she finds in the store?
25. Does the respondent buy more number of units of a product just because he/she is shopping in a departmental store?

Personal details

Income range :

Qualification :

No. of members in the household :

Occupation :

Appendix 2 - Code list

Question no.	Variable name	Data	
1	v1	Value	
2	v2	Yes=1	No=0
3	v3	Yes=1	No=0
4 (first part)	v4a	Type of product	
4 (second part)	v4b	Value	
5	v5	Yes=1	No=0
6	v6	Yes=1	No=0
7	v7	Yes=1	No=0
8	v8	Type of product	
9	v9	Value	
10	v10	Yes=1	No=0
11	v11	Value	
12	v12	Yes=1	No=0
13	v13	Yes=1	No=0
14	v14	Type of products	
15	v15	Yes=1	No=0
16	v16	Yes=1	No=0
17	v17	Yes=1	No=0
18	v18	Type of products	
Type of products			
Cosmetics/toiletries/health products			
Food items			
Groceries & household articles			
Stationary			
Others			

Appendix 3 – Description of the variables

S. No.	Variable	Variable type	Description
1	V11	Continuous	Amount of time spent in the store
2	V4b	Continuous	Amount of purchase made in the store
3	V9	Continuous	Excess purchase made in the store i.e. over and above what was originally planned
4	V1	Continuous	Number of visits to the store in a month
5	V2	Binary	Unplanned visits
6	V3	Binary	Visit to a specific store
7	V5	Binary	Visit to a specific store even it is far away from the respondent's residence
8	V6	Binary	Plan a list of purchase beforehand
9	V7	Binary	Adherence to the list of purchase made
10	V16	Binary	Visit to the store for the ambience
11	V15	Binary	Visits to the store are enjoyable
12	V12	Binary	Inclination to spend extra money in the store
13	V13	Binary	Inclination to spend more time in the store
14	V10	Binary	Inclination to buy a product if it catches the attention of the respondent

Appendix 4

Table 1

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
V4B	940.4878	1080.2742	82
V11	.7697	1.3913	98

Proximities

Case Processing Summary

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
80	80.0%	20	20.0%	100	100.0%

Proximity Matrix

	Correlation between Vectors of Values	
	V4B	V11
V4B		.311
V11	.311	

This is a similarity matrix

Table 2

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
V11	.7697	1.3913	98
V9	173.9459	195.9563	37

Proximities

Case Processing Summary

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
36	36.0%	64	64.0%	100	100.0%

Proximity Matrix

	Correlation between Vectors of Values	
	V11	V9
V11		.669
V9	.669	

This is a similarity matrix

Table 3

Regression

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	V11, V4B[a]		Enter

a. All requested variables entered.

b. Dependent Variable: V9

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794[a]	.630	.604	126.9069

a. Predictors: (Constant), V11, V4B

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	768087.315	2	384043.658	23.846	.000[a]
	Residual	450949.781	28	16105.349		
	Total	1219037.10	30			

a. Predictors: (Constant), V11, V4B

b. Dependent Variable: V9

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.795	35.533		.388	.701
	V4B	8.688E-03	.017	.059	.498	.623
	V11	265.278	40.864	.776	6.492	.000

a. Dependent Variable: V9

Table 4

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
V9	173.9459	195.9563	37
V1	4.5376	6.2285	93

Proximities

Case Processing Summary

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
35	35.0%	65	65.0%	100	100.0%

Proximity Matrix

	Correlation between Vectors of Values	
	V9	V1
V9		-.178
V1	-.178	

This is a similarity matrix

Table 5
Table 5

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	chi square	Mean	Std. Deviation
V2V3	75	.00	1.00	31.00	.4133	.4957
Valid N (listwise)	75					

Table 6

Chi-Square Test

Frequencies

V5

	Observed N	Expected N	Residual
.00	55	50.0	5.0
1.00	45	50.0	-5.0
Total	100		

Test Statistics

	V5
Chi-Square[a]	1.000
df	1
Asymp. Sig.	.317

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.

Table 7

Means

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
V7 * V6	80	80.0%	20	20.0%	100	100.0%

Report

V7

V6	Mean	N	Std. Deviation
.00	.1429	7	.3780
1.00	.5753	73	.4977
Total	.5375	80	.5017

Table 8

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
V9	37	.00	1000.00	6436.00	173.9459	195.9563
Valid N (listwise)	37					

Table 9

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	chi square	Mean	Std. Deviation
V16V16	24	.00	1.00	18.00	.7500	.4423
Valid N (listwise)	24					

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
V2V5	45	.00	1.00	16.00	.3556	.4841
Valid N (listwise)	45					

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
V6	100	.00	1.00	76.00	.7600	.4292
V7	80	.00	1.00	43.00	.5375	.5017
Valid N (listwise)	80					

Table 10

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	chi square	Mean	Std. Deviation
V7V15	42	.00	1.00	12.00	.2857	.4572
Valid N (listwise)	42					

Table 11

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
V7V16	40	.00	1.00	21.00	.5250	.5057
Valid N (listwise)	40					

Table 12

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	chi square	Mean
V7V17	40	.00	1.00	28.00	.7000
Valid N (listwise)	40				

Table 13

Chi-Square Test

Frequencies

V12

	Observed N	Expected N	Residual
.00	77	49.5	27.5
1.00	22	49.5	-27.5
Total	99		

V13

	Observed N	Expected N	Residual
.00	65	47.5	17.5
1.00	30	47.5	-17.5
Total	95		

Test Statistics

	V12	V13
Chi-Square[a,b]	30.556	12.895
df	1	1
Asymp. Sig.	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 49.5.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 47.5.

Table 14

Frequencies

Statistics

V10

N	Valid	96
	Missing	4

V10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	35	35.0	36.5	36.5
	1.00	61	61.0	63.5	100.0
	Total	96	96.0	100.0	
Missing	System	4	4.0		
Total		100	100.0		

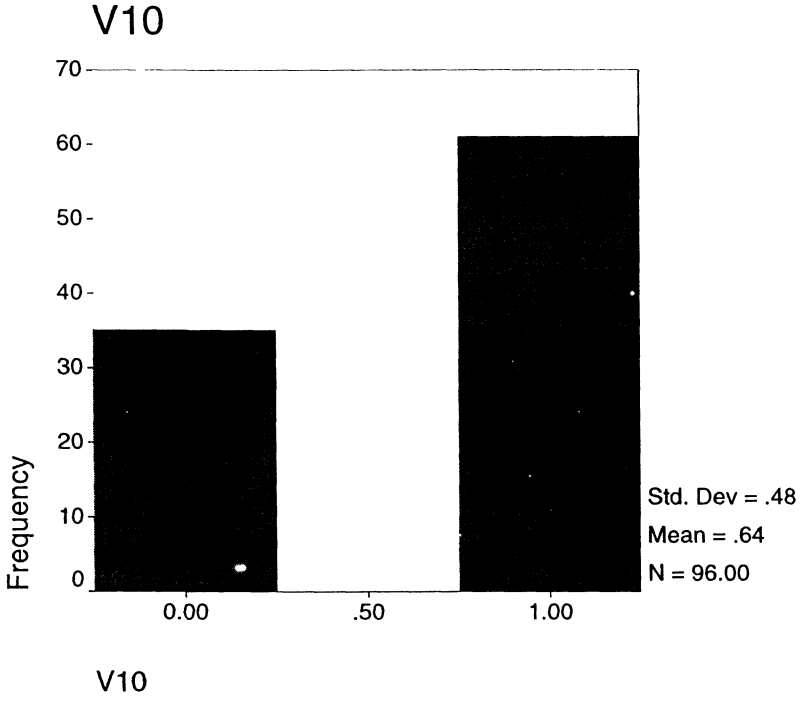


Table 15

MVA

Univariate Statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes[a]	
				Count	Percent	Low	High
V1	93	4.5376	6.2285	7	7.0	0	10
V4B	82	940.4878	1080.2742	18	18.0	0	2
V9	37	173.9459	195.9563	63	63.0	0	4
V11	98	.7697	1.3913	2	2.0	0	10
V2	99			1	1.0		
V3	100			0	.0		
V4AA	96			4	4.0		
V4AB	96			4	4.0		
V4AC	95			5	5.0		
V4AD	95			5	5.0		
V4AE	95			5	5.0		
V5	100			0	.0		
V6	100			0	.0		
V7	80			20	20.0		
V8A	25			75	75.0		
V8B	22			78	78.0		
V8C	22			78	78.0		
V8D	22			78	78.0		
V8E	24			76	76.0		
V10	96			4	4.0		
V12	99			1	1.0		
V13	95			5	5.0		
V14A	21			79	79.0		
V14B	21			79	79.0		
V14C	21			79	79.0		
V14D	21			79	79.0		
V14E	20			80	80.0		
V15	99			1	1.0		
V16	97			3	3.0		
V17	92			8	8.0		

a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

Table 16

Reliability

```
****** Method 1 (space saver) will be used for this analysis ******
```

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

* * * Warning * * * Zero variance items

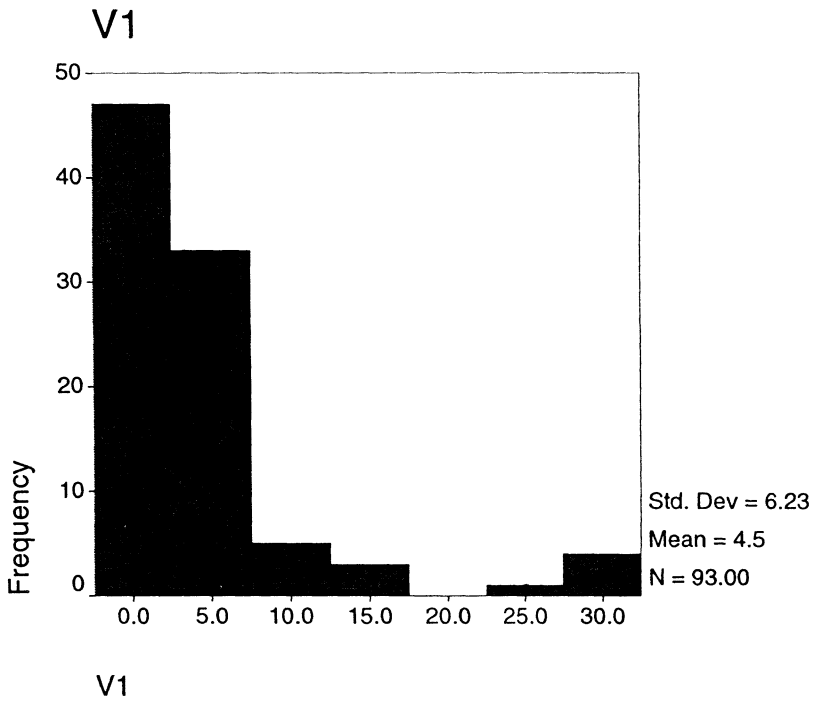
Reliability Coefficients

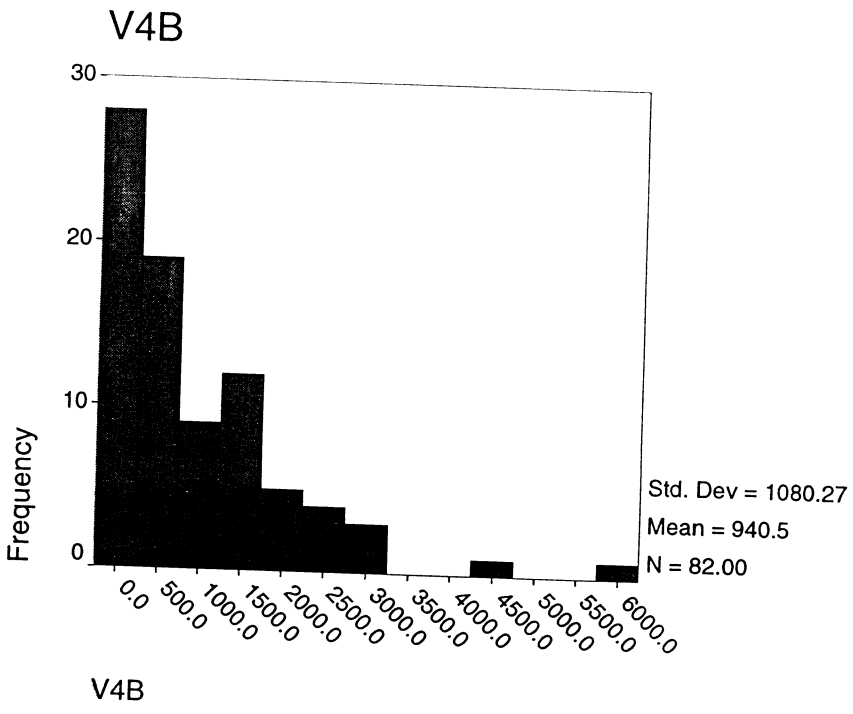
N of Cases = 5.0 N of Items = 35

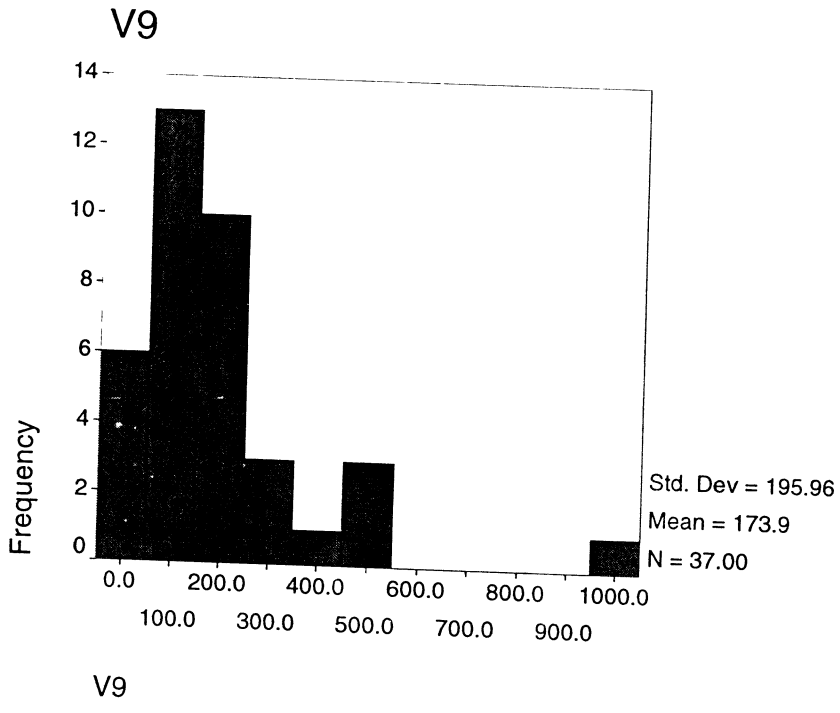
Alpha = -.0580

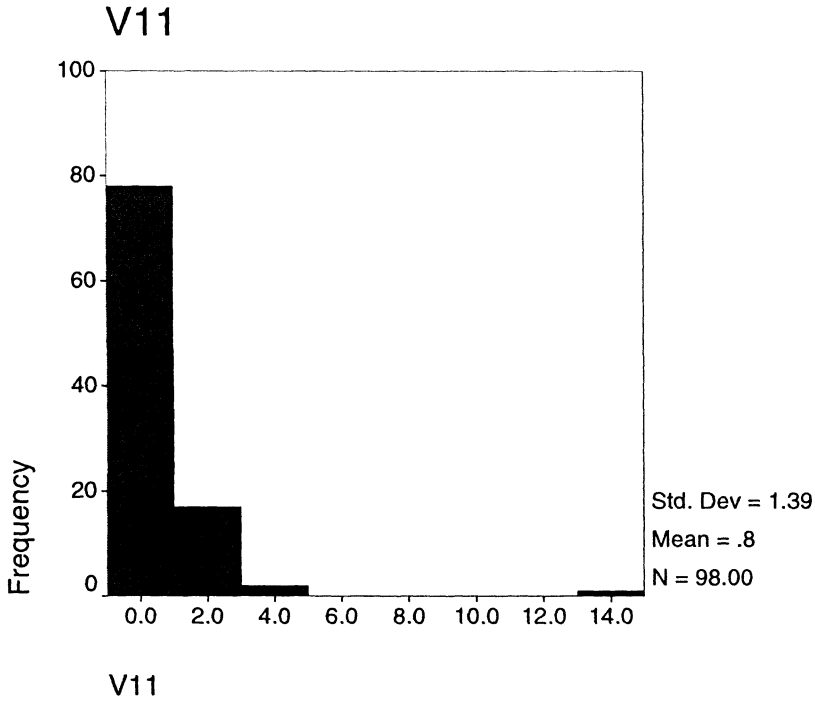
figure 1

Histogram




V4B
30
20
10
0
Frequency
0.0
500.0
1000.0
1500.0
2000.0
2500.0
3000.0
3500.0
4000.0
4500.0
5000.0
5500.0
6000.0
Std. Dev = 1080.27
Mean = 940.5
N = 82.00
V4B


V9
14
12
10
8
6
4
2
0
Frequency
0.0
100.0
200.0
300.0
400.0
500.0
600.0
700.0
800.0
900.0
1000.0
Std. Dev = 195.96
Mean = 173.9
N = 37.00
V9


V11
100
80
60
40
20
0
Frequency
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Std. Dev = 1.39
Mean = .8
N = 98.00
V11