

A study of inventory management techniques applied by organized retailers' and its effect on customer satisfaction and retailer's financial performance with special reference to Bhopal and Indore City

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ABSTRACT: Inventory management is a very important aspect as it not only affects the Retailer's financial performance but also the customer satisfaction. As it is obvious that properly managed stocks attracts large number of customers and this results in good sale. Improper stocking not only causes a negative impact on retailer's sale, but also causes severe dissatisfaction amongst customers while going for shopping. The aim of this paper is to study the role of Inventory management techniques in increasing the customer's footfalls, satisfaction and Retailer's sale. The study is descriptive in nature and a self-designed questionnaire was used to collect the primary insight. In an on street questionnaire, the retailers and consumers were asked their opinion about Inventory management techniques. Present study is an attempt to explore the issues related to the parameters mentioned above.

KEYWORDS: Customer satisfaction, Inventory management, inventory management techniques, Retailers, Retailer's margin.

1 INTRODUCTION

Presently space management and inventory management is a challenge for the organized as well as unorganized retailers. In India, rapid urbanization, industrialization, liberalization, privatization, globalization, insurance and loan facilities etc. are some of the important factors, which accelerate the growth of organized retailing in particular. Over the last 3-4 years, the Indian consumer market has seen a significant growth in the number of organized shopping centers popularly known as "Malls". India has witnessed speedy advances in the field of information technology, education, transportation and communication and this causes a sense of freedom in the minds of Indian people. Nowadays, consumers not only seeks ease at their doorstep for regular purchases, but also are willing to travel elite destinations for valuable items. They are becoming relatively less price sensitive than in the past, this is because of the rise in the throwaway income level, now the consumers are ready to spend generously on personal needs, leading a propensity to consumer rather than to save. It ultimately increases the loads in roads and malls. When a customer enters in a mall he/she observes every thing minutely and after satisfying himself/herself, he/she makes purchase decisions. Once making a decision if the customer does not find the required thing in its place he feels highly dissatisfied and returns back without any purchases. Different inventory management techniques help retailers in overcoming to that. As, Indore and Bhopal cities are growing very fast and the affordability and availability of malls are increasing day by day, the problem of space management due to improper inventory management is shooting up and thus causing problem to both the retailer and consumer, which ultimately makes impact on the retailer's sale or profit.

The purpose of this study is to find the role of inventory management techniques in the increase/decrease of satisfaction level of shoppers while shopping and increase/decrease in retailer's financial performance. In particular, this research is focused on three questions i) Does eliminating inventory management problem will increase the shoppers' satisfaction? ii) Does eliminating inventory management problem will increase the profitability of retailer's? iii) What will be the best inventory management technique to overcome the problem for them?

This study is based on investigating the problems with present inventory management practices and describes how to develop the optimal inventory management program in a particular situation to increase the customer's satisfaction and retailer's margin of profit by increased foot-falls.

The remainder of this paper is organized as follows. First, a short overview of previous research findings on responses to inventory management measures is given. Next, attention is paid to the adopted research approach and data collection. The analyses of responses and preferences and the results are described in the next section. The paper ends with conclusions.

2 LITERATURE REVIEW

Present research is based on the need of designing and developing a good inventory management system which can help retailers and customers to place and find the required product with an ease and improve the financial performance of the outlet. Retailers are often using computer based retail planograms to ease their work of inventory control. We position this research in two ways. First, we discuss the literature on why inventory management is critical for a store's performance. Next, we will try to discuss our study in the light of past research on measuring store performance and then other relevant studies. In doing so, we provide a brief review of the literature on methods used for assessing/forecasting sales performance in retail outlets. This is important for our framework also enables retailers to generate an estimate of performance measurement.

Research and observation reveals that planograms, particularly computer-based planograms, are one of the most significant aspects used to improve the financial performance of a retail outlet and can also be used for inventory control and vendor relation improvement (Levy and Weitz, 1992; Yang and Chen, 1999). However, generating planograms is a difficult and time-consuming process because the simplest form of planogram problem is already a multi-knapsack problem, a well-known NP-Hard problem (Martello and Toth, 1990a) which is very complicated to solve. The difficulty is further increased when we consider other produces, such as fresh food, clothing and frozen food. This is due to their special display requirements and the fact that they do not use normal shelf fitments. Currently, producing planograms is largely a manual process (there is software assistance available (e.g. Galaxxi, Spaceman) but most are drag-and drop procedures or semi-automated processes which involve significant human interaction) and the shelf space allocation is mainly based on some simple rules.

Dr. Girish K. Nair (2013), in his research paper on **An Analysis on Customer Perception towards Service Quality Variables in Selected Organized Retail Outlets**, tried to study the customer perception on Retailer's Service Quality variables with an aim to identify the dimensions that organized retailers offers the customers. An analysis of the various retail service quality variables was done to understand the relationship between them. The study also tries to explore the factor that attracts the customers towards the organized retail sector in the capital city of Kerala, (Trivandrum). His study reveals that perception of service quality is influenced by the various natures among various customers, even some of the general factors like Personal interaction, Physical aspects (space Management) are the dimensions on which customer perception remains constant and common to the entire customer on a popular basis. So the retail outlets have to frame their own strategies in order to attract the customers on a longer basis.

In **An Empirical Study of Customer Expectation and Perception in Organised Retail Sector**, research study by Dharmesh Motwani (2012), In his research he tried to identify the difference between expectation & perception of organized retail sector customers with the help of renowned model of service quality i.e. Parasuraman's et al (1988) SERVQUAL model. In the findings he concluded that there is a significant gap between expectation and perception in terms of Space management, Quality of services, Empathy etc.

In **Changing Consumer Preferences From Unorganized Retailing Towards Organized Retailing**, a research article by Urvashi Gupta, in this she tried to analyze the factors which influence consumers to prefer organized retailing over unorganized retailing and vice-versa, identify the problems faced by consumers from organized as well as unorganized retail outlets and identify the demographic profile of the customers visiting organized retail outlets and unorganized retail outlets. In her study she finds that, majority of the consumers are visiting organized formats for variety, easy availability, cleanliness with additional facility of entertainment for children and convenient parking facility and restaurant etc. In case of unorganized outlets immediacy of the store, credit and bargaining facility balance the tilt. Unlike higher age groups who

prefer to visit Kirana stores, the younger generation has more inclination towards organized retail. Families with annual income less than 4.0 Lakh and having a single bread earner prefer shopping with nearby mom-n-pop stores. Customers with higher qualification were found to be more attracted towards organized retail outlets.

In **Consumer behavior towards organised retail stores A study at selected outlets at Andhra Pradesh**, Research Article by Dr.K.Raji Reddy et. Al. (2012), studied the behavior of customers in organized retail stores in A.P. In this they determine which kinds of customers exist; select which ones they are best off trying to serve and, finally, implement our segmentation by optimizing our products/services for that segment and communicating that they had made the choice to distinguish themselves that way. They found that the convenience and personalized service offered by the unorganized sector holds its future in good stead for the future. Organized retail of late has seen a tremendous boom and is attracting more people to the malls. Interestingly, market pressures from India's burgeoning consumer class and their growing demand have already started to spur agricultural reform and increased investment in India's "farm to retail" field by the private sector. It seems that India's growing consumer market might be taking on a life of its own.

In **Factors Involved in Retailer's Decision to Allocate Shelf Space to Private and National Brand and its Impact on Sales**, a research by Hasim Zameer et.al. (2012), the researchers tried to understand the retailer's factors decision in terms of shelf allocation to private and national brands and its impact on sales. They also identified that image building and private label shelf space majorly contributing which bargaining power is least contributing factor. As the shelf space is important for the retailer, in the same way, shelf space is important for the manufacturers of national brands. To sell out the national brand, manufacturer needs retailer's shelf space. Manufacturer gives premium amount to the retailer to get the appropriate shelf space for its brands. Further, image building of each selected city is different from each other. Bargaining power is also not similar in all cities.

In **Shelf Space Allocation: A Critical Review and a Model with Price Changes and Adjustable Shelf Heights** a research by Mehmet E. COSKUN (2012), tried to critically review the existing literature of shelf space allocation optimization models and solution techniques. Then, proposed a comprehensive model for shelf space allocation for a product category. In this new model with an objective to maximize the retailer's daily gross profits he tried to emphasize that demand not only as a function of the space allocated to a product, in terms of the number of display facings, but also as a function of vertical product location in a shelf section and price sensitivity. Stack ability of the products is also considered and products can be stacked depending on their package. Further, he tried to show numerically that, price changes and adjustable shelf spaces can have major impacts on the retailer's profits.

In **On Shelf Availability in Retailing: A Literature Review and Conceptual Framework**, An Honors Thesis by Kristie Jean Spielmaker(2012), University of Arkansas, the researcher studied the importance of OSA and found that it is a key performance indicator, also, it has a great impact on customer loyalty and retailer's profit. This thesis/paper tries to identify the drivers of poor OSA performance through a three step process. First, a inclusive literature review was performed to identify the drivers of OOS (out-of-stock) addressed in existing literature. Second, interviews with industry professionals discovered potential drivers of poor OSA performance that have been explored at an industry level. Finally, the two lists were examined against each other and the possible drivers identified.

OBJECTIVES OF THE STUDY

1. To find out the shopping satisfaction of shoppers and retailers of Bhopal and Indore
2. To find out customers and Retailers opinion about different Inventory Management Techniques.
3. To find out whether the change in Techniques will increase the number of shoppers on weekends/holidays or not.
4. To find out the problems of the customers from the adopted Inventory Management Techniques by the Retailers.
5. To find out the problems of the Retailers due to adopted or accustomed techniques
6. To study the relationship between adopted method of Inventory control and customer footfall as well as Retailer's margin.
7. To reach out solutions for the problems of customers.

LIMITATIONS OF THE STUDY

1. This study is conducted only in Bhopal and Indore city.
2. Getting information from the respondents was quite difficult.
3. The opinions of the respondents may be biased.

HYPOTHESES

- A. There is no significant difference in the satisfaction level of the customer's/shopper's and retailer's of two cities in the terms of adopted inventory management techniques.
- B. There is no significant relationship between applied inventory management techniques and retailer's profitability in two different cities.

3 RESEARCH METHODOLOGY

The design of proposed research is exploratory, which is used primarily for gaining insights and ideas about the research problem and the variables and issues associated with those problems. For research purpose the questionnaires are developed for primary data collection and secondary is collected from books, journals and net surfing.

3.1 SAMPLE SIZE

Sample size of 200 respondents including Retailer & Customer (w.r.t. age, sex, employment) from two different cities has been taken. The detail of each city with sample size is given in table 3.1. The questionnaires were distributed to the retailers as well as customers.

Table 3.1 (market area & sample size)

Bhopal City	Area	Sample
Bhopal	Retailers	100
	Customers	100
Indore	Retailers	100
	Customers	100

3.2 TOOLS

This is a survey work to find out the relationship between inventory management techniques adopted by retailers and satisfaction of customers, also, to find out the relationship between inventory management techniques and retailers margin. Questionnaire is developed based on 5point likert scale. It is divided into three sections. First segment describes the shopper's/retailer's profile information. Second segment is constructed on the variables used to analyze the shopper's/retailer's decision. In 5 point likert scale, 1 is used as "strongly disagree" and 5 as "strongly agree". Third segment based on open end questions, to get the more flexible view of the retailer/shopper. Due consideration and care was taken while framing the questionnaire so as to avoid any ambiguity. Data is collected from primary and secondary sources.

3.2.1 PRIMARY DATA

Primary data is collected from retailers through observation, interviews as well as questionnaires. Questionnaire being a quick source of information is used as a tool. Through the interviews, more in-depth information is collected from retailers and shoppers. Observation method is used to analyze the customer footfalls in retail outlet.

3.2.2 SECONDARY DATA

Secondary data is gathered in order to find the alternative solution of prevailing problem at the Bhopal and Indore city, several books, journals, reports, maps, articles and periodicals including World Wide Web was referred.

3.2.3 TESTS

According to the identified factor, the focus was on customer satisfaction and retailer's margin and their related factors were the variables of Inventory management techniques adopted by retailers of different market. The data which was collected by questionnaires is processed through SPSS. In the first phase the frequencies were calculated for the general information. For the analysis of data mean comparisons were used, independent sample t-test along with p-value was used to compare the results. These entire tests are applied on collected data to get the results of the research. Also co relational studies were made.

4 DATA ANALYSIS, PRESENTATION AND INTERPRETATION

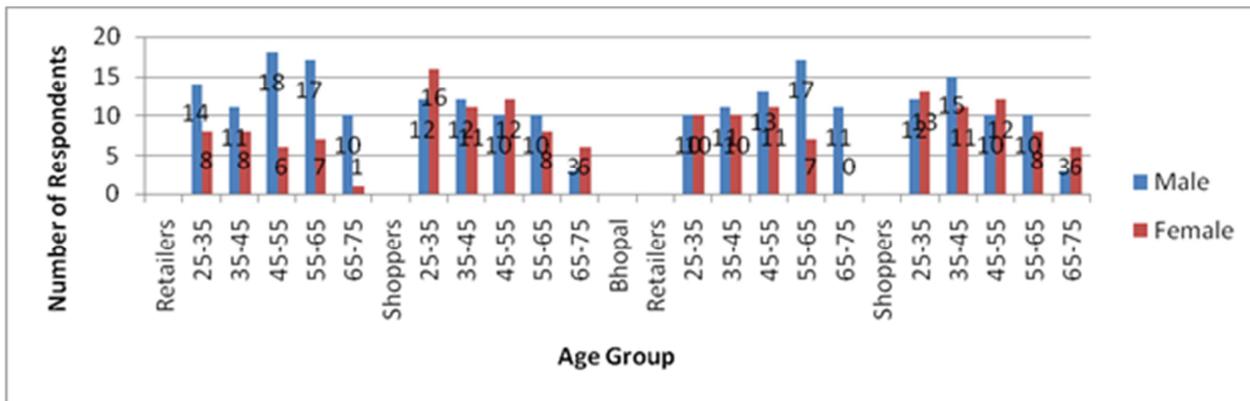


Fig. 1. Frequency distribution of age group and gender of respondents

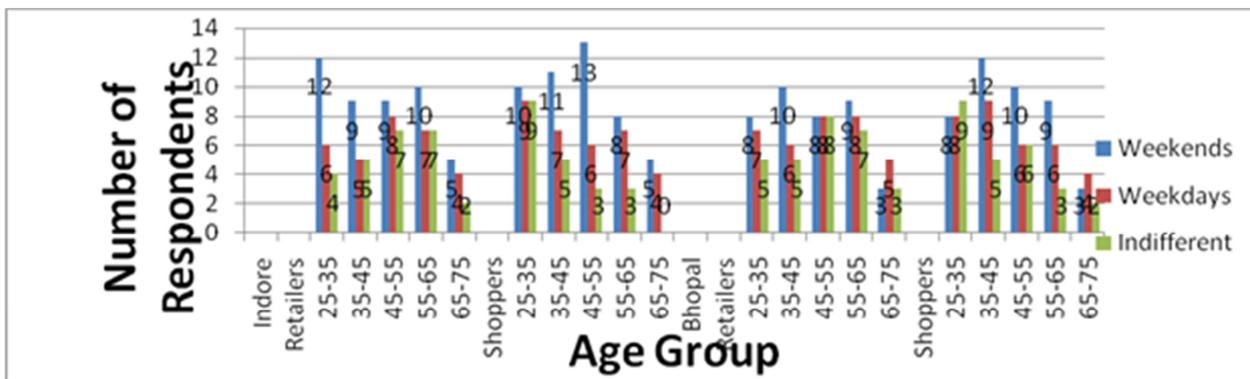


Fig. 2. Frequency distribution of age group and preference for shopping days

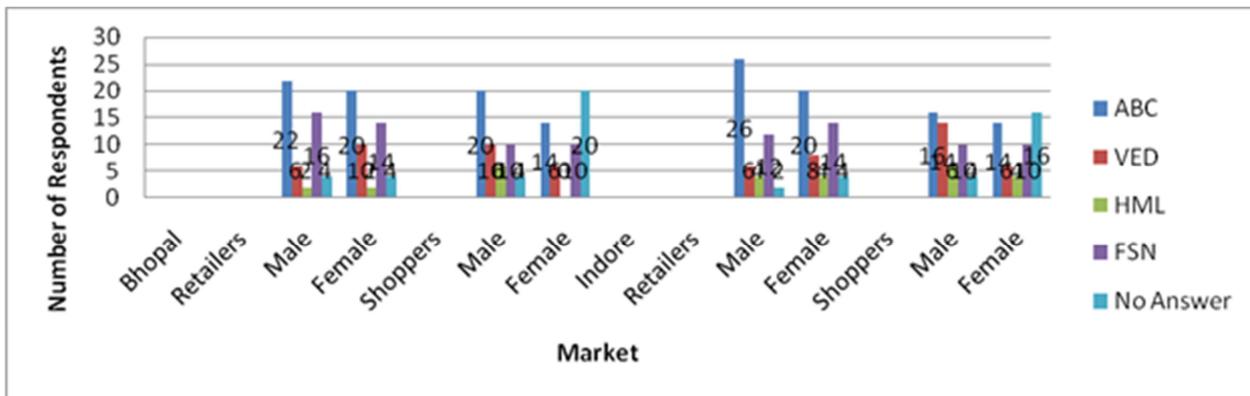


Fig. 3. Frequency distribution of gender and knowledge of Inventory Management Techniques

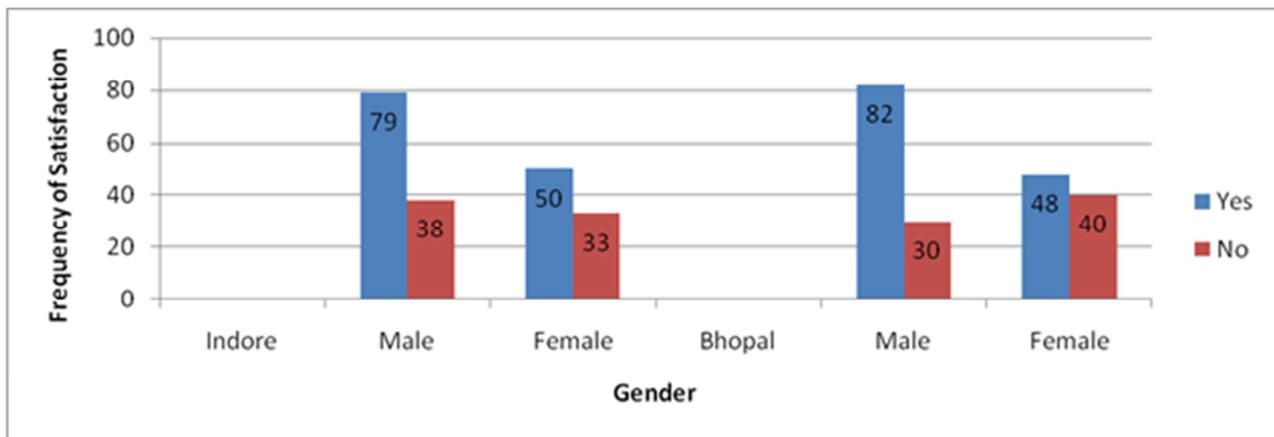


Fig. 4. Frequency distribution of gender and their satisfaction towards incorporated inventory management techniques

GENERAL CHARACTERISTICS OF CUSTOMERS

The findings show that majority of the respondents (50%) had known the supermarkets existence for more than three years while a substantial proportion (35%) had known the supermarkets for between 1-2 years, percent (15%) had known the entity for less than one year. Greater part of the customers indicated that they had shopped for more than three years while 30% and 18% had shopped for between 1-2 years and less than 1 year respectively. This was clearly supported by length of time they had known the supermarket. The key driver to shop at the specific supermarket was also investigated. From the analysis the researcher established that service quality (70%) of the mall, variety of products accessible (91%) and quality of products existing (91%), and reasonable pricing (53%) were the key factors considered by most of the respondents as being the key motivators for shopping at the supermarket. However other factors such as family influence (36%), closeness to the bus terminals (28%), parking space (39.8%) and prestige (36.7%) were motivators for choosing the supermarket/mall. The respondents were also requested to specify if they were aware of the level of services they estimated from the supermarkets and from their responses an awesome majority (90%) indicated that they were aware of the level of service they expected and demanded from their shopping outlet. Respondents rating of the quality of services existing by the supermarket of their choice were also analyzed. From the response, 34% rated the quality of services to be very good. Fifty percent (50%), 7%, 5% and 4% rated the service quality receives as good, average, poor and very poor respectively. This was a clear indication that majority of the respondents were satisfied with quality of services received from their supermarket.

GENERAL CHARACTERISTIC OF MANAGEMENT STAFF

From the findings, it is evident that most of the respondents (65%) had attained college level education while 25% and 10% had attained secondary and university level education. Experience of management staff working in supermarkets/malls had been evaluated and from the results, over 40% had worked for more than 6 years while 35% and 25% had worked for the supermarket for between 2-5 years and less than 1 year respectively. Hundred questionnaires for supervisors and managers of both the cities selected for the study were received, eighty questionnaires (40%) from both the cities were received from food stuff, hardware and utensil sections while 45% were received from the electronic, utensils and general merchandize and rest from others. The responses adequately represent all sections giving it a wider view of a shopping experience and perspective for the study.

ANALYSIS OF IMPORTANT FACTORS

During the research several factors had been supplemented in the questionnaire and analyzed. After analysis it has been observed that, an adopted inventory management technique by the retailers plays an important role in customer satisfaction as well as in retailer's margin. For each factor, frequency response is taken from the respondents of Indore and Bhopal.

Table 1.1. Customer's satisfaction with the Retailer's adopted inventory management techniques.

Status	Indore				Total		Bhopal				Total	
	Retailers		Shoppers				Retailers		Shoppers			
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Strongly Disagree	04	4	10	10	14	7	32	32	16	16	48	24
Disagree	20	20	16	16	36	18	24	24	30	30	54	27
Neutral	10	10	12	12	22	11	14	14	20	20	34	17
Agree	50	50	42	42	92	46	22	22	16	16	38	19
Strongly Agree	16	16	20	20	36	18	08	8	18	18	26	13
Total	100	100	100	100	200	100	100	100	50	100	200	100

From table 1, it is clear that out of 400 respondents from both the market 32.5 % agrees that inventory management techniques is an important factor for shopping satisfaction, while 15.5 % were strongly agreed and 18 % were disagree to it.

GROUP STATISTICS

Inventory Management Techniques	Respondents	N	Mean	S.D.	Std. Error Mean
	Indore	200	4.666667	1.751111	0.124133
	Bhopal	200	3.6	1.66	0.117674

RESULT

Pooled (equal variances)	
t-value	6.2515
degrees of freedom	398
two-tailed p-value	< 0.0001
95% confidence intervals	
upper	1.402
lower	0.7312

The two samples are significantly different and also the result depicts that two tailed p value is less than 0.0001 which in further is less than the alpha value 0.05. Thus causes the rejection of null hypothesis. Also, the mean value depicts that recognition of inventory management techniques for shopping satisfaction is less in Bhopal as compared to Indore.

DESCRIPTIVE ANALYSIS

For descriptive analysis several related factors of the main variables are considered. Interpretation of various related factors is mentioned below:

GROUP STATISTICS

	Respondents	N	Mean	S.D.	Std. Error Mean
Service quality is good	Indore	200	3.84	0.796	0.064
	Bhopal	200	2.96	1.192	0.097
Got the things without too much difficulty i.e. properly arranged	Indore	200	3.58	0.987	0.080
	Bhopal	200	3.15	1.323	0.108
Overall condition of the Display area	Indore	200	3.62	1.27	0.1036
	Bhopal	200	2.91	0.987	0.0805
Processing time taken by retailers	Indore	200	3.13	1.198	0.0978
	Bhopal	200	2.83	1.070	0.0873
Cost of displayed product	Indore	200	3.64	1.038	0.0847
	Bhopal	200	2.80	1.143	0.0933
Ambience of display area	Indore	200	3.67	0.854	0.0697
	Bhopal	200	2.87	1.243	0.1014
Waiting time to get the Required product	Indore	200	3.60	1.153	0.0941
	Bhopal	200	3.13	1.082	0.0883
Direction signage for stored product	Indore	200	3.62	0.924	0.0754
	Bhopal	200	2.83	1.083	0.0884
Customer orientation	Indore	200	3.44	1.222	0.0997
	Bhopal	200	3.20	1.109	0.0909
Wide variety of available product	Indore	200	2.91	1.126	0.0919
	Bhopal	200	2.89	0.950	0.0775

In descriptive analysis various related factors are considered for comparing the results Indore and Bhopal. Group statistics has Inventory management techniques and related issues like Service quality, overall condition, Processing time, cost, Ambience, waiting time, ease in getting things, direction signage, Customer orientation, Wide variety of available product. After comparing the mean value it is evident that ease in getting things easily, waiting time, and customer orientation for shopping satisfaction is almost equal in the respondents of both Indore as well as Bhopal. But for other factors the mean values had significant deviations which show that the recognition for these factors varies in different areas.

RESULTS FOR POOLED (EQUAL VARIANCES) AND TWO INDEPENDENT SAMPLES

	t-value	d.f.	Two tailed p value	Confidence interval	upper	lower	Remark
Service quality is good	7.8475	298	< 0.0001	95%	1.1007	0.6593	The two samples are significantly different
Got the things without too much difficulty i.e. properly arranged	3.189	298	0.0016	95%	0.6954	0.1646	The two samples are significantly different.
Overall condition of the Display area	5.4063	298	< 0.0001	95%	0.9684	0.4516	The two samples are significantly different.
Processing time taken by retailers	2.2874	298	0.0229	95%	0.5581	0.0419	The two samples are significantly different
Cost of displayed product	6.6632	298	< 0.0001	95%	1.0881	0.5919	The two samples are significantly different
Ambience of display area	6.4969	298	< 0.0001	95%	1.0423	0.5577	The two samples are significantly different
Waiting time to get the Required product	3.6405	298	0.0003	95%	0.7241	.2159	The two samples are significantly different
Direction signage for stored product	6.7964	298	< 0.0001	95%	1.0187	0.5613	The two samples are significantly different
Customer orientation	1.7812	298	0.0759	95%	0.5052	- 0.0252	The two samples are not significantly different.
Wide variety of available product	0.1663	298	0.8681	95%	0.2567	- 0.2167	The two samples are not significantly different.

If we check the p-values of customer orientation and the wide variety of available product we find that these values (i.e. 0.0759 & 0.8681) are greater than alpha value (0.05). This shows that these two factors do not differ significantly in both the New Bhopal and Old Bhopal. While other factors differs significantly as the p-values are less than alpha value (0.05).

Table 2.1. Showing Retailers' financial performance towards applied inventory management techniques

Status	Indore		Bhopal	
	Retailers		Retailers	
	Freq.	%	Freq	%
Strongly Disagree	04	4	32	32
Disagree	20	20	24	24
Neutral	10	10	14	14
Agree	50	50	22	22
Strongly Agree	16	16	08	8
Total	100	100	100	100

From table 2, it is evident that out of 200 retailers' response from both the market, 36 % agrees that adopted inventory management techniques is an important factor for retailer's financial performance, while 12 % were strongly agreed and 22 % were disagreed to it.

GROUP STATISTICS

Accessibility to the market	Respondents	N	Mean	S.D.	Std. Error Mean
	Indore	100	2.36	1.6008	0.1134
	Bhopal	100	1.67	1.5044	0.1067

RESULT

Pooled (equal variances)	
t-value	3.141
degrees of freedom	198
two-tailed p-value	0.0019
95% confidence intervals	
upper	1.1232
lower	0.2568

The two samples are significantly different and also the result depicts that two tailed p value is less than the alpha value 0.05. Thus causes the rejection of the null hypothesis. Also, the mean value depicts that recognition of inventory management techniques for retailer's financial performance is less in Bhopal as compared to Indore.

PEARSON'S CORRELATION TESTS

Table 2.2: Pearson Correlation between of Inventory Management Techniques use and Retailers' financial performance

		Use of Inventory Management Techniques	Retailers' financial performance
Use of Inventory Management Techniques	Pearson Correlation	1	0.325
	Sig.(2-tailed)		0.007
	N	200	200
Retailers' financial performance	Pearson Correlation	0.325	1
	Sig.(2-tailed)	0.007	
	N	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient for the relationship between use of Inventory Management Techniques and Retailers' financial performance founds to be $r = 0.325$, ($N = 200$) and p value less than 0.0001 indicating a significant positive correlation of medium strength (According to Cohen, correlation coefficients in the order of .10 are "small," those of .30 are "medium," and those of .50 are "large" in terms of magnitude of effect sizes).

USE OF INVENTORY MANAGEMENT TECHNIQUE

The adopted inventory management techniques by management staff was analyzed in the study. From the study it was found that ABC technique is being adopted by majority of the retailers' (42%), VED (15%), HML (5%), FSN (37%) and One percent was with no answer. This indicates that every retailer is using some or other inventory management technique. As for material requirement planning and display of products in the shelf 99% admitted that they had used these or at least one technique.

EFFECTS OF INVENTORY MANAGEMENT TECHNIQUE TO THE CUSTOMER SERVICE DELIVERY

The management staff of supermarket/mall was then requested to specify that if there is a relationship between inventory management techniques and customer service delivery time. From the responses, it is clear that 98% indicated positive link. Only 2% do not think so.

EXTENT TO WHICH INVENTORY MANAGEMENT TECHNIQUE AFFECTS CUSTOMER SERVICE DELIVERY

From the responses it was found out that 47% perceived that there is a large extent and some extent to a relationship between Inventory management technique use and customer service delivery. Forty two percent (42%) recognized that Inventory management Techniques use and customer service delivery were related to a very large extent while only one percent responded on the less and none options respectively.

EFFECTS OF INVENTORY MANAGEMENT TECHNIQUE ON SERVICE DELIVERY

The responses indicated that (98.5%) agreed that use of Inventory management technique resulted in faster processing of customer orders while 1.5% was undecided and strongly agreed of the influence. On its consequence on correct record keeping, 48% agreed while 51.0% strongly agreed. In relation to better stock monitoring, all of the respondents were positive and responded in agreement with 87.8% agreeing and 12.2% strongly agreed. Reduction of queues because of the use of Inventory management technique received 83.7%, 8.2% and 8.2% who agreed, strongly agreed and undecided. The contribution of Inventory management technique on faster product introduction, 51% strongly agreed, 46.9% agreed and 2% were undecided. As to whether it results in cost savings 8.2% were undecided and equally agreed, while 83.7% strongly agreed. On better service delivery, majority (69.4%) strongly agreed while 6.1%, 14.3% and 10.2% disagreed, agreed and undecided respectively. Inventory management technique contribution to ensuring high product availability received 4.1%, 46.9% and 49.0% as disagree, undecided and agree respectively. 93.9% of the respondents acknowledged that Inventory management technique translated into provision of a wider variety of goods maintained by the supermarket while 4.1% strongly agreed and 2.0% were undecided. The same trend was also identified with reduction in stock out costs where 4.1% were undecided, 59.2% agreed and 36.7% strongly agreed. Reduction in demand uncertainty as a result of using Inventory management technique received response of 2.0% for disagreement, 6.1% for undecided, 34.7% for agree and 57.1% for strongly agree As for accurate ordering the respondents were mainly in agreement where 2.0% were undecided while 83.7% agreed and 14.3% strongly agreed. The overall effect Inventory management technique in improving stock management the same trend was evident where 2.0% were undecided, 46.9% agreed and 51.0% strongly agreed.

5 CONCLUSION

As it is evident that customer is now a day's king of the market and his/her/their satisfaction is the most important factor in every type/set-up of business, whether it is organized or unorganized retail sector, whether it is small, medium or large scale business etc. Due to many changes in the lifestyle, purchasing power, easy loan through banks etc, there is a shift in the satisfaction level of customer's expectations. They evaluate every small detail thoroughly and, inventory management technique is an important factor which affects the shopping behavior and retailer's margin. Retailer's financial performance or profitability is very much dependent on the customer satisfaction and to attain this they are trying very hard using innovative or traditional inventory management techniques. In this study, various variables are considered to determine the level of shopping satisfaction among shoppers of Indore and Bhopal city.

From the findings, it can be concluded that the use of inventory management techniques in the supermarkets has been effective in customer service delivery and other factors important for satisfaction, thus making the shopping experience more satisfactory for the customer. Inventory management techniques like the ABC, VED, HML, FSN, and other have been greatly used. With the help of these techniques, the supermarkets have been able to offer better service to their customers such as quick order processing, better stock monitoring, accurate and automatic ordering, improved stock management, wide product variety, faster product introductions and reduced queues.

The study also concludes that use of inventory management techniques has significant influence on Retailers' financial performance the use of Inventory management Techniques, which have contributed to shortened lead-time, supplier flexibility and thus faster provision of products to consumers increasing service delivery. Training all staff on the use of electronic inventory systems as well as better service delivery, listening to customers complaints, suggestions keenly, organize refresher courses for managers, and supervisors are necessary to increase the effectiveness of service delivery. Quality of service has also been impacted by the use of Inventory management Techniques. The Inventory management Techniques has led to accuracy of service delivery, increase responsiveness to consumers' needs, increased reliability and greater problem solving, improving on the quality of service delivery thus better customer service delivery.

Further we can say that if the shopping satisfaction factors will be improved there will be overall satisfaction among the shoppers. The relationship between various factors of shopping satisfaction with the overall satisfaction shows that there is less positive overall satisfaction in the shoppers.

REFERENCES

- [1] Anton, J 1996, *Customer Relationship Management: Making hard Decisions With Soft Numbers*, Upper Saddle River: Prentice Hall.
- [2] Atkinson, C. (2005, May 9). Today's inventory management. *Inventory Management Review*. Retrieved March 20, 2007, from <http://www.inventorymanagementreview.org/2005/05/>
- [3] Bellack, J. (2004). Why plagiarism matters. *Journal of Nursing Education*, 43(12):527.
- [4] Blanchard, D. (2007). The perfect order. *Industry Week*, 256(1): 24A.
- [5] Bolton, RN & Drew, JH 1991, A Multistage Model of Customers' Assessments of Service.
- [6] Burke, R 2005, "Retail Shoppability: A measure of the World's Best stores" in *Future Retail Now: 40 of the World's Best Stores*, Retail Industry Leader's Association, pp.206-219.
- [7] Ciavolino, E & Dahlgaard, JJ 2007, "Customer satisfaction modeling and analysis: A case study", *Journal of Total Quality Management*, Vol.18, No.5, pp 545-554.
- [8] Fox, E.J., Metters, R. & Semple, J. (2006). Optimal inventory policy with two suppliers. *Operations Research*, 54(2): 389-397.
- [9] Gavin, D A 1987, "Competing on the eight dimensions of quality", Nov-Dec 1987
- [10] Gomez, MI, McLaughlin, EW & Wittink, DR 2004, "Customer satisfaction and retail sales performance :an empirical investigation", *Journal of retailing*, Vol 80, pp 265-278.
- [11] <http://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=1098&context=jekem>
- [12] <http://digitalcommons.kennesaw.edu/jekem/vol4/iss1/10/>
- [13] http://www.academia.edu/5306143/Changing_Consumer_Preferences_From_Unorganized_Retailing_Towards_Organized_Retailing_A_Study_in_Jammu_Journal_of_Emerging_Knowledge_on_Emerging_Markndon_Changing_Consumer_Preferences_From_Unorganized_Retailing_Towards_Organized_Retailing
- [14] <http://en.wikipedia.org/wiki?curid=34798126>
- [15] Hokanson, S 1995, "The deeper You analyse, The more you satisfy customers", *Marketing news* January 2nd, pp 16 as cited in Singh,H 2006, "The Importance of Customer Satisfaction in relation to customer loyalty and retention", UCTI.WP-06-06,May 2006, Kuala Lumpur, Malaysia
- [16] Katz, K, Larzon, B, Larson, R 1991, "Prescription for the waiting in line blues, entertains, enlighten and engage", *Sloan Management Reviews*, Vol. 32, pp 44-53.
- [17] Kim, B., Park, K., 1997. Studying patterns of consumer's grocery shopping trip. *Journal of Retailing* 73, 501-517.
- [18] Kotler, P 2000, *Marketing Management 10 (ed)*, New Jersey: Prentice Hall. Kumar, R 1996,
- [19] *Research Methodology- A Step by Step Guide for Beginners*, London, Sage.
- [20] Mehrabian, Albert, and Russell, James A.: *An Approach to Environmental Psychology*, MIT Press, Cambridge, MA. 1974
- [21] Messinger, P.R., Narasimhan, Ch., 1998. A model of retail formats based on consumers' economizing on shopping time. *Marketing Science* 16, 1-23.
- [22] Patton, M.Q. (2002). *Qualitative research and evaluation methods (2nd ed)*. Thousand Oaks, CA: Sage Publications.
- [23] Sinigaglia, N., 1997. *Measuring Retail Units Efficiency: A Technical Approach*. Doctoral Dissertation, CREER, FUCAM, Mons.
- [24] Sirohi, N., McLaughlin, E., Wittink, D., 1998. A model of consumer perceptions and store loyalty intentions for a supermarket retailer. *Journal of Retailing* 74, 223-245.
- [25] Walters, R.G., Bommer, W., 1996. Measuring the impact of product and promotion-related factors on product category price elasticities. *Journal of Business Research* 36, 203-216.
- [26] Walters, R.G., Mac Kenzie, S.B., 1988. A structural equations analysis of the impact of price promotions on store performance. *Journal of Marketing Research* 25, 51-63.
- [27] Zeithaml, V.A., 1985. The new demographics and market fragmentation. *Journal of Marketing* 49, 64-75.