A Factor Analysis On '*Customer's Perception Attributes*' -Visiting Shopping Malls With Special Reference To Inorbit Mall In Pune City

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Abstract: **The present study investigates and evaluates 'perception characteristics' which affects consumer buying behaviour during shopping in malls in Pune city. A questionnaire was developed and distributed to Inorbit customers using convenience sampling technique. The total sample consists of 77 respondents. Data was analyzed by using factor analysis in SPSS version 17.0. The study provides evidence and an insight on various variables used for analysis and reveals that music, air condition, lighting and food choice have given more significance by Pune customers during shopping in the mall.**

Key Words: Perception, Customers, Retailing, Shopping.

Introduction

Customer perception is gathering information through our senses, which are seeing, hearing, touching, tasting, smelling and sensing[1]. Through these senses we can perceive things, events or relations. But as there are so many different stimuli only a small portion of them are noticed and an even smaller amount can really reach our attention. And that's where it is necessary to talk about the difference between Sensation and perception[2]. Although the distinction between sensation and perception is not that easy as it was believed in former times, a rough distinction can be made[3].

Sensation is the immediate response of our sensory receptors to such basic stimuli as light, colour, etc. Perception is the process by which these stimuli are selected, organized and interpreted[4].

When talking about perception we always have to keep in mind that we perceive the world not as it is, but as we think it is. That means that there are innumerable perceived worlds out there. This statement is based on the fact that every human being relates the observed world to its past experiences, its values, etc. Perception is more than just gathering information about a certain event at a certain time. It involves, recognizing stimuli, processing and storing them. The major challenge for the marketer is to identify the target customer and to find out, how this customer perceives the world[5]. That will help to adjust all marketing activities to the target customer. A marketing concept is that encompasses a customer's impression, awareness and/or consciousness about a company or its offerings. Customer perception is typically affected by advertising, reviews, public relations, social media, personal experiences and other channels[6].

The success of a business depends upon its ability to attract and retain customers that are willing to purchase goods and services at prices that are profitable to the company. Consumer perception describes how customers and potential customers view a company and its products and services[7].

Consumer perception is important to businesses since it can influence consumer behavior, which ultimately affects the profitability of a business. Many businesses spend large amounts of resources to influence consumer perceptions.

Consumer perceptions can determine the success or failure of a business[8]. For example, if a certain restaurant has a reputation as being the best pizza place in town, the general consumer perception in the town might be that you should to go the restaurant if you want a good pizza. This sentiment could strongly influence the pizza shop's ability to make profit. On the other hand, if consumers have negative views about company it could seriously hamper revenue success.

Objective of study

1. To understand the perception of the customer with respect to infrastructure, ambience, presence of different brand, quality and range of products, pricing, entertainment, quality of food court, quality of HR, general liking, signage and merchandise of the mall.

2. To understand the demographic details of customer.

Research Methodology

Research Design & Sampling design: This research study is of descriptive nature and has used the quantitative research method. A convenience sample is employed for sampling method. The sample size has been consisting of 156 respondents. Design the data collection instrument and identify the right data collection method: The close-ended questionnaire was developed from standard questions of relevant literature as a research instrument. For collecting data, researcher has conducted schedule interviews with the help of developed questionnaire. However, secondary data has been collected with the help of print media like books, magazines, research articles on Google scholars and such other websites, related company literature. Data analysis technique: The statistical Package for the Social Sciences Program (SPSS) version 19.0 was used in this study for all the statistical assessments. The data set was screened and examined for incorrect data entry, missing values, normality and outliers. In this study, descriptive statistics are first employed and then factor analysis is carried out by the researcher.

Data Analysis and interpretation

The breakdown of the respondent's demographic characteristics is shown in Table 1. The majority of the respondents are below the age of 30 years (62.18%). Sixty percent of respondents are single and more than fifty percent of the respondents are of service class. Almost sixty percent of respondents reported 'Family's Monthly Income' more than INR 30,001.

Table 1: Demographic Characteristics of Respondents

Sr. No.	Characteristics	Category	Frequency	%
1	Age	Less than 30	97	62.18
		30 to 40	51	32.69
		more than 40	8	5.13
2	Marital Status	Single	95	60.90
		Married	61	39.10
3	Occupation	Student	72	46.20
		Service	82	52.60
		Business/Professionals	2	1.30
4	Family's Monthly Income	Less than 10,000	4	2.60
		10,000 to 20,000	10	6.40
		20,001 to 30,000	32	20.50
		30,001 to 40,000	44	28.20
		40,001 and above	66	42.3

The Table 2 shows the table of data structure. 60.9% of the variance communalities before and after. The associated with question 1 is common, or communalities in the column labelled shared, variance. Extraction reflect the common variance in the

Table 2: Communalities

	Initial	Extraction
Layout	1.000	.609
Music	1.000	.872
Air-condition	1.000	.666
Lighting	1.000	.549
Presence	1.000	.486
Quality	1.000	.627
Range	1.000	.557
Price	1.000	.457
Food Choice	1.000	.861
Food Quality	1.000	.558
hygiene	1.000	.708
Food Range	1.000	.655
Service Speed	1.000	.557
Seating Space	1.000	.562
Ent Choice	1.000	.471
Ent Ease Of Getting	1.000	.698
Tickets Pricing	1.000	.505
Signages	1.000	.698
Merchandising	1.000	.457

Table 2: Communalities

	Initial	Extraction
Pricing Design	1.000	.618

Extraction Method: Principal Component Analysis.

Table 3, labeled Total Variance Explained lists the eigenvalues associated with each factor before extraction, after extraction and after rotation. Before extraction, it has identified 20 linear componetnts within the data set. The eigenvalues associated with each factor represent the variance explained by that particular linear component and the table also dispalys the eigenvalue in terms of the percentage of variance explained (factor 1 explains 12.52% of total variance). It should be clear that the first few factors explain relatively large amounts of variance (especially component 1) whereas subsequent factors explain only small amount of variance. The table extracts all factors with eigenvalues greater than 1, which leaves us with seven components, where 60.85 % of cummulative variance is displayed. In the final part of the table, the eigenvalues of the factors after ratation are displayed. Rotation has the effect of optimizing the factor structure and one concequence for these data is that the relative importance of the six factors is equalize. Before rotation, factor 1 accounted for considerably more variance than the remaining six (12.52% compared to 10.47, 9.36, 8.86 7.17, 6.55 and 5.89 respectively), however after extraction it accounts for only 10.72% of variance (compared to 9.69, 9.18, 8.60, 8.23, 7.66 and 6.73 respectively).

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.504	12.520	12.520	2.504	12.520	12.520	2.145	10.726	10.726
2	2.095	10.477	22.997	2.095	10.477	22.997	1.939	9.695	20.421
3	1.872	9.362	32.359	1.872	9.362	32.359	1.837	9.185	29.606
4	1.772	8.860	41.219	1.772	8.860	41.219	1.722	8.608	38.213
5	1.436	7.179	48.398	1.436	7.179	48.398	1.647	8.236	46.450
6	1.311	6.556	54.954	1.311	6.556	54.954	1.533	7.665	54.115
7	1.180	5.898	60.852	1.180	5.898	60.852	1.348	6.738	60.852
8	.996	4.981	65.833						
9	.918	4.590	70.423						
10	.855	4.274	74.697						

11	.821	4.106	78.802							
12	.701	3.503	82.305							
13	.667	3.335	85.641							
14	.602	3.009	88.650							
15	.565	2.823	91.472							
16	.477	2.386	93.859							
17	.393	1.966	95.824							
18	.386	1.931	97.755							
19	.294	1.471	99.226							
20	.155	.774	100.000							

Extraction Method: Principal Component Analysis.
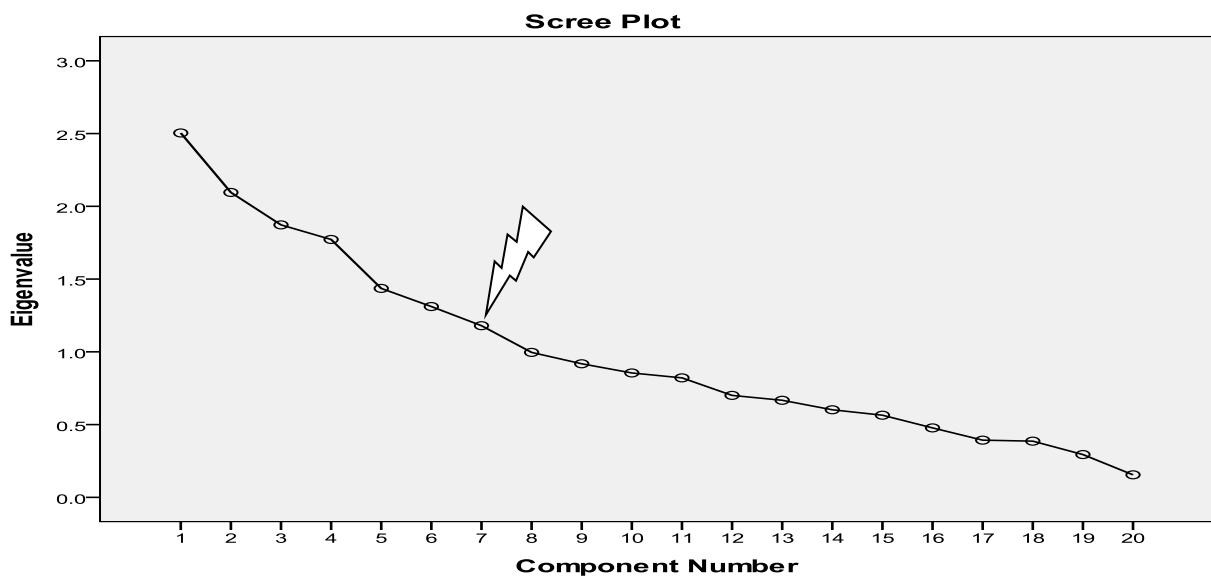
The scree plot is shown above with a thunderbolt indicating the point of inflextion on the curve. This curve is difficult to interprete because the curve begin to tail off after three factors, but there is another drop after seven factors before a stable plateau is reached. Therefor, it is justified to retain seven factors.

The Table 4 labeled shows the Component Matrix before rotation. This matrix contains the loading of each variable onto each factor. As calculated that all loading less than 0.4 be suppressed in the output and so there are blank spaces for many of the loadings.

Table 4: Component Matrix

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**

Table 4: Component Matrix

	Component						
	1	2	3	4	5	6	7
Layout		.442	.414				
Music	.684	.545					
Air-condition	.555						
Lighting	.477						
Presence					.537		
Quality		-.495					
Range			.487				
Price							
Food Choice	.689	.455					
Food Quality				.451			
hygiene		-.502	.458		-.486		
Food Range				.501			
Service Speed							
Seating Space				-.468			
Ent Choice				-.427		.471	
Ent Ease Of Getting					-.513		.631
Tickets Pricing			-.503				
Signages		.401		.515		.452	
Merchandising		-.425					
Pricing Design				.514			

Extraction Method: Principal Component Analysis.

a. 7 components extracted.

The Table 5 labeled Rotated Component Matrix contains the same information as the component matrix is calculated after rotation. Factor loadings less than 0.4 have not been displayed because researcher has asked these loading to be suppressed.

Component 1: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the highest explained variance of 10.72%. Three out of twenty variables load on significantly to this component, which includes layout, music and food choice.

Component 2: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the second highest explained variance of 9.69%. Three out of twenty variables load on significantly to this component, which includes air-condition, lighting and hygiene.

Component 3: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the third highest explained variance of 9.18%. Four out of twenty variables load on significantly to this component,

which includes quality, range, merchandising and pricing design.

Component 4: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the fourth highest explained variance of 8.60%. Four out of twenty variables load on significantly to this component, which includes range, food range, entertainment choice and tickets pricing.

Component 5: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the fifth highest explained variance of 8.23%. Four out of twenty variables load on significantly to this component,

which includes range, food range, entertainment choice and tickets pricing.

Component 6: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the sixth highest explained variance of 7.66%. Three out of twenty variables load on significantly to this component, which includes presence, price and seating space.

Component 7: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the seventh highest explained variance of 8.60%. Two out of twenty variables load on significantly to this component, which includes service speed and entertainments ease of getting.
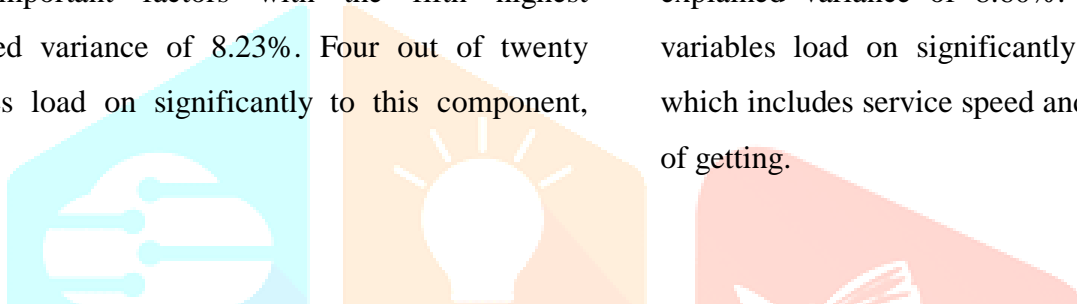
Table 5: Rotated Component Matrix

|	Component						
	1	2	3	4	5	6	7
Layout	.458				.540		
Music	.921						
Air-condition		.760					
Lighting		.683					
Presence						.601	
Quality			.581				
Range			-.475	.475			
Price						.574	
Food Choice	.921						
Food Quality					.672		
hygiene		.648					
Food Range				.725			
Service Speed							.640
Seating Space						.585	
Ent Choice				-.494			
Ent Ease Of Getting							.804
Tickets Pricing				-.614			
Signages					.715		
Merchandising			.611				
Pricing Design			.723				

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Following 'Component Plot in Rotated Space' diagram is representation of rotated component matrix.

Component Plot in Rotated Space
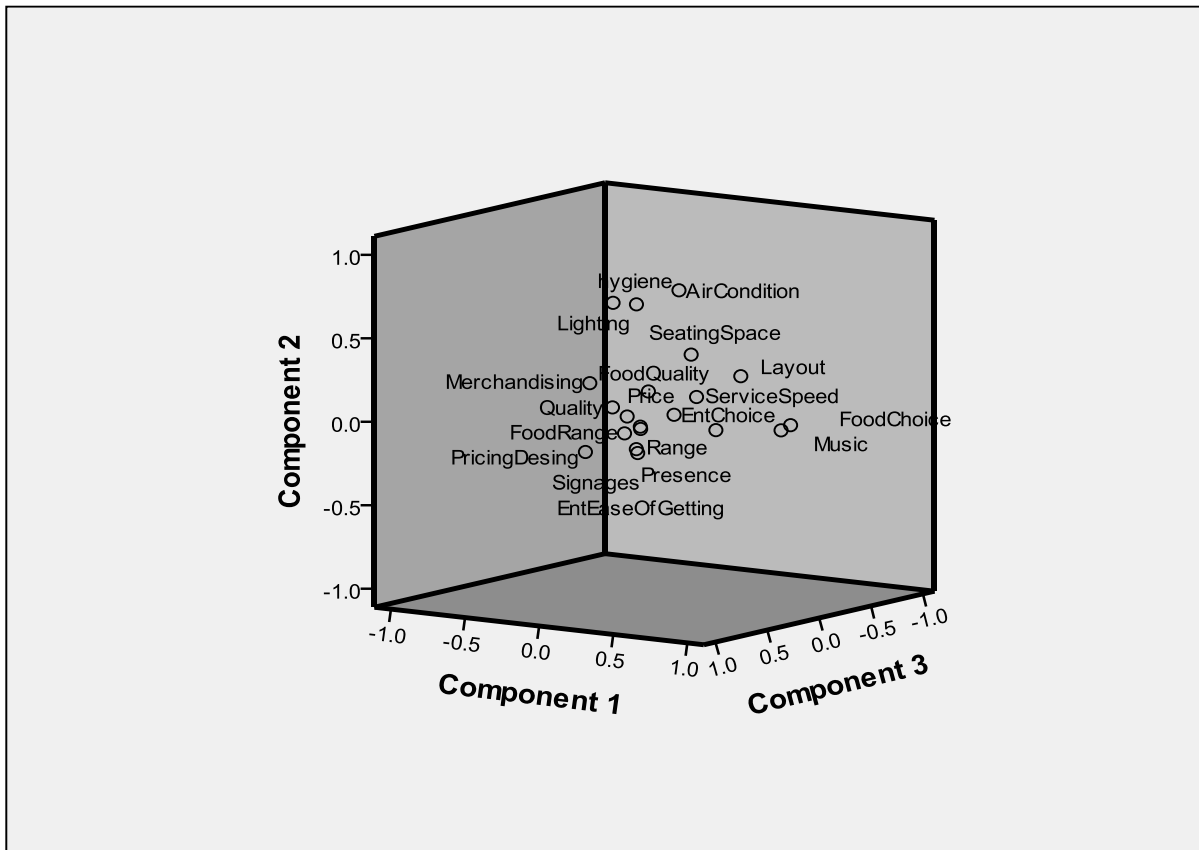
Findings

Related to this research there are lots of facts that we haven't come through the beginning and at the end we have just come up with the new findings. The required objective of this research is to know what can be done to satisfy the customer requirement frequenting the Inorbit Mall.

The Findings are:

- Customer frequenting Inorbit mall mainly consist of family.

- Majority of people are not happy with choice of brands, ranges of product.

- People are not happy with the variety of choice in the food court due to absence of international agency fast food joint.

- Customers frequenting mostly consist of Higher Middle Class.

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