

To Identify The Prominent Factors Of Shopping Mall Behavior: A Factor Analysis Approach

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INTRODUCTION

The word 'retail' means to sell or to be sold directly to individuals. Retailing, one of the largest sectors in the global economy, is going through a transition phase in India. For a long time, the corner grocery store was the only choice available to the consumer, especially in the urban areas. This is slowly giving way to international formats of retailing. The traditional food and grocery segment has seen the emergence of supermarkets/grocery chains, convenience stores and fast-food chains. But the organized retail business accounts for only about 4% of the total retail trade in India. It means that a whopping 96% market is yet to be tapped. Organized retail in India is a booming business, yet it is in its nascent stage. The trends in India are going to set benchmarks for the whole world. One can visualize the scenario when Indian organized retail would be a mature market, yet the Government seems to have woken up to this reality a little late. Retail is India's largest industry sector, and arguably the one with the highest impact on the population. It is the country's largest source of employment after agriculture, has the deepest penetration into rural India, and generates more than 10 percent of India's GDP. However, retailing in India has so far, been mostly in the hands of small disorganized entrepreneurs. It is also India's least evolved industries. In fact, it is not even considered a real industry. The industry suffers from lack of management talent, poor access to capital, unfavorable regulation and denial of access to best practices. The Indian retail industry is only now beginning to evolve in line with the transformation that has swept other large economies. Fifty years of restricting the consumer goods industry, a national mindset which favored denial over indulgence, and a fractured supply chain for agricultural products have all contributed to prevent the development of modern systems based on economies of scale and consumer preferences. As far as this research is concerned, it is investigating the prominent factors of shopping mall buying behavior relating to quality, time saving and price. Quality is conformance to customer requirements. Some factors identified relating to quality such as consumers enjoy at a shopping mall because of better environment there, consumers buy branded products with satisfaction and quality of the product is good. Retailers know that the image and presentation of the store have a significant impact on the perceived quality of products, there does not have to be real differences in products sold at different stores. Managing customer perceptions become important part of quality. Consumers always enjoy shopping at shopping malls. They expect quality service and products from shopping malls. It is the responsibility of the retailer to provide good environment there. Good customer service means more than sales staff being nice and attentive to the customer. The customer will not be happy unless the goods required are available. Management has to make sure that customers can buy quality products of their choice. Buyers know that they usually get good quality products at shopping malls. Second main factor was time saving, as we know that today's consumers are very busy. Most of the buyers are professionals with high purchasing power. They do not have enough time to buy products and services from different places i.e. they want to buy products from one place that is why they also buy vegetables from the shopping mall. The third factor that came out from this research is price. Customers feel that at a shopping mall, durable products are cheaper than what is sold at traditional shops. From this study, it was found that consumers do not buy costly products and prefer to buy discounted products. Customers are interested in bargain pricing. The retailer is expected to charge a low price and offer a wide range of assortments. Discount stores are expected to provide relatively limited range at lower prices. Specialist shops are expected to provide a comprehensive range of products. Offers of quality or low price, full service or limited service are all signals that customers pick up and use in deciding where to shop.

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REVIEW OF LITERATURE

There is no dearth of literature on shopping mall buying behavior. Researchers from all parts of the world have tried to analyze the shopping malls, their significance, usage, limitations, challenges etc. from different angles.

Sprott, David E. and Terence A. Shimp (2004), used product sampling to augment the perceived quality of store brands, *“Two experiments test the ability of in-store sampling to enhance a store brand's perceived quality (Study 1) and whether such an outcome is contingent on quality level (Study 2). Study 1 revealed for two distinct grocery products that the perceived quality of store brands benefitted significantly when participants tried these brands prior to judging their quality, but that no such benefit accrued to national brands. Study 2 found that sampling enhanced quality perceptions of a store brand only when the brand was of high (vs. low) quality.”*

Implications for retailers' store brand practices are discussed and suggestions for additional research are offered.

Kleijnen, Mirella, Ko de Ruyter and Martin Wetzels (2007), provide an assessment of value creation in mobile service delivery and the moderating role of time consciousness. This study focuses on the perceived utilitarian value of a new service delivery mode, the mobile channel. The authors develop a framework that incorporates three mode-specific benefits - time convenience, user control, and service compatibility - as well as two costs - perceived risk and cognitive effort as - antecedents of perceived value. Because of the pervasiveness of time criticality as a value-added characteristic of the mobile channel, they also investigate the moderating influence of consumers' time consciousness. They empirically investigate the model using mobile brokerage services as an illustrative application. The results reveal that the identified antecedents, with the exception of service compatibility, have a strong impact on mobile channel value perceptions, which in turn influence behavioral intentions. The authors also find that time consciousness moderates the aforementioned relationships.

Krishna, Aradhna, Richard Briesch, Donald R. Lehmann and Hong Yuan (2002), conducted a meta-analysis of the impact of price presentation on perceived savings. Pricing is one of the most crucial determinants of sales. Besides the actual price, how the price offering is presented to consumers also affects consumer evaluation of the product offering. Many studies focus on *“price framing,”* i.e., how the offer is communicated to the consumer- is the offered price given along with a reference price; is the reference price plausible, is a price deal communicated in dollar or percentage terms. Other studies focus on *“situational effects,”* e.g., is the evaluation for a national brand or a private brand, is it within a discount store or a specialty store. In this article, a meta-analysis of 20 published articles in marketing examines the effects of price frames and situations on perceived savings. The results reveal many features that significantly influence perceived savings. For instance, while both the percent of deal and the amount of deal positively influence perceived deal savings, deal percent has more impact. Further, the presence of a regular price as an external reference price enhances the offer value of large plausible deals and implausible deals, but not of small plausible deals. Thus, high value deals should announce the regular price, but not low value deals. Overall, the results have several useful insights for designing promotions.

Blair, Edward A., Judy Harris and Kent B. Monroe (2002) have analyzed the effects of shopping information on consumer's responses to comparative price claims. A discount may be defined by the location in which, and frame by which, it is communicated. Discount framing, particularly the differences between cents-off and percentage-off discounts, has been widely studied. Discount location (e.g., proximate to or distal from regular price info) has received considerably less attention. They employed the proximity-compatibility principle and tenets of human memory to demonstrate that discount framing (cents-off, percentage-off, and revised price) and discount location (proximal, distal) interact to differentially affect both the immediate value and the persistence of consumers' price estimates. The implications of these results for retailers and manufacturers are highlighted in the discussion.

RESEARCH DESIGN AND METHODS

This research study was undertaken with the aim of identifying prominent factors for shopping mall consumer behaviour. Both primary and secondary data has been used in the study. Primary data was collected from Lucknow, using structured questionnaire. 157 customers were selected from this city for the purpose of data collection using judgment and convenience sampling. 24 pre - selected statements using 5 point Likert scale was used to identify the prominent factors. Factor analysis using SPSS software was applied to determine the significant factors.

RESPONDENTS' PROFILE

Table 1: Respondents' Profile

Demographic Variables	Frequency	Percent
Education:		
Intermediate	04	02.50%
Graduation	27	17.20%
Post graduation	45	28.70%
Professionals	21	51.60%
Occupation:		
Govt. job	38	24.20%
Private job	08	05.10%
Self-employed	07	04.50%
Unemployed	09	05.70%
Students	95	60.50%
Age In Years		
16-25	112	71.30%
26-35	12	07.60%
36-45	06	03.80%
46-55	19	12.10%
Above 56	08	05.10%
Gender:		
Male	98	62.4%
Female	59	37.6%
Income:		
Below ₹ 10,000	16	10.2%
₹ 10,001- ₹ 20,000	43	27.4%
₹ 20,001- ₹ 30,000	43	27.4%
Above ₹ 30,000	55	35.0%

The profiles of respondents are as follows: **Education:** Intermediate-2.5%, Graduates-17.2%, Post graduates-28.7%, Professionals-51.6%. **Occupation:** Govt. job-24.2%, Private job-5.1%, Self-employed-4.5%, Unemployed-5.7%, Students-60.5%. **Age:** 16-25 years- 71.3%, 26-35 years- 7.6%, 36-45 years- 3.8%, 46-55 years-12.1% and above 56 years - 5.1%, **Gender:** Male -62.4% and Female- 37.6%, **Income:** Less than ₹10,000 p.m.- 10.2%, ₹ 10,001-₹ 20,000 p.m.- 27.4%, ₹ 21,000- ₹ 30,000 p.m.- 27.4%, & Above ₹ 30,000 - 35%.

ANALYSIS AND DISCUSSION

To get an idea of prominent factors for shopping mall behaviour, the following 24 pre-decided statements have been used:

The above mentioned statements having five point Likert scales were subjected to factor analysis. Before the application of factor analysis, the following five techniques were also used for the analysis of data:

(i) Correlation Matrix: The correlation matrices was computed and examined. Correlation matrix was constructed using primary data, which has been presented in Table 3 . The correlation matrix revealed that there is a strong positive correlation between the statements no. 1, 2 &13. These statements were considered appropriate for factor analysis procedure.

(ii) Anti-Image Correlation Matrix: Anti correlation matrix was constructed and presented in Table 4. This matrix shows that partial correlations among the statements are low - for example anti- image correlation of Statement 1 with

Table 2: Statements On Shopping Malls

Code	Statements
1	I always enjoy at the shopping mall.
2	Wide ranges of products are available at shopping malls.
3	I want to be sure before I purchase anything.
4	I want to experiment while buying new products.
5	Usually, I want to buy products of daily use.
6	Durable products are cheaper at shopping malls than at traditional stores.
7	I do not bother about price.
8	I want to buy the discounted products.
9	I always buy something when I go to the shopping mall.
10	I do not buy costly products.
11	Working environment is superb at the shopping malls.
12	Generally, I visit shopping malls with my friends.
13	Quality of products are good at shopping malls.
14	Usually, I buy branded products at shopping malls.
15	Salespersons help us to buy the products.
16	Electronics goods have good quality at the shopping malls.
17	I avail after sales services at shopping malls.
18	I can change my products easily at shopping malls.
19	I always take food products from shopping malls.
20	I watch movies at shopping malls.
21	Shopping Malls are spacious.
22	It is easy to find items at shopping malls.
23	I always bargain for the products I purchase.
24	I can save my time to buy the products.

respect to statements 1 to 24 are 0.742, -0.36, 0.027, 0.033, -0.09, -0.01, -0.04, 0.127, -0.07, -0.11, -0.10, -0.22, -0.16, 0.103, -0.01, -0.14, 0.104, 0.025, 0.009, -0.19, 0.039, 0.137, -0.10, and -0.08 . Similarly, most of the off diagonal elements are small, indicating that real factors exist in the data, which is necessary for factor analysis.

(iii) Kaiser- Meyer-Olkin Measure of Sampling Adequacy (MSA) : Kaiser Meyer Olkin measure of sampling adequacy focuses on the diagonal elements of partial correlation matrix. From Table 3, it is clear that all of the diagonal elements of partial correlation matrix were sufficiently high for factor analysis. The values of diagonal elements of partial correlation matrix from statement no. 1 to 24 are as follows: 0.742, 0.636, 0.579, 0.611, 0.622, 0.608, 0.501, 0.543, 0.608, 0.429, 0.743, 0.680, 0.807, 0.727, 0.751, 0.761, 0.577, 0.660, 0.702, 0.744, 0.733, 0.512, 0.645 and 0.682.

(iv) Test The Sampling Adequacy: Test of sampling adequacy was then performed. Sum of the values of diagonal elements of partial correlation matrix from statement no. 1 to 24 ($0.742 + 0.636 + 0.579 + 0.611 + 0.622 + 0.608 + 0.501 + 0.543 + 0.608 + 0.429 + 0.743 + 0.680 + 0.807 + 0.727 + 0.751 + 0.761 + 0.577 + 0.660 + 0.702 + 0.744 + 0.733 + 0.512 + 0.645 + 0.682$)/24 was 0.633. This shows that statements are good enough for sampling.

(v) Bartlett's Test of Sphericity: Bartlett's Test of Sphericity (Table No 5) was also conducted to check the overall significance of the correlation matrices. The value of Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.674. The test value of Bartlett's Test of Sphericity was significant and it is indicating that correlation matrix is not an identity matrix. A scree plot (Figure 1) is a plot of the Eigen values against the number of factors in order of extraction. 8 factors came out from the 24 variables of scree plot, whose Eigen value is greater than 1, but for this study, the researcher got only 3 factors. The shape of the plot is used to determine the number of factors. The plot has a distinct break between the steep slope of factors, with large Eigen values and a gradual trailing off associated with the rest of the factors.

Table 3: Correlation Matrix

Correlation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1.00	.437	.109	.053	.133	.126	.063	.094	.100	.110	.282	.317	.398	.122	.206	.346	.006	.139	.a211	.367	.157	-.07	.180	.280
2	.437	1.00	.254	.176	.222	.036	-.09	.132	-.04	.007	.198	.070	.137	.093	.222	.153	.002	.005	.119	.221	.053	.012	-.02	.152
3	.109	.254	1.00	.196	.251	.016	-.26	.053	.004	.093	-.05	-.02	.024	.043	.122	.115	.056	.023	.035	.151	.133	.024	.067	.119
4	.053	.176	.196	1.00	.160	-.02	.014	.151	.071	.006	.019	.133	-.03	-.06	.031	.091	.158	-.03	.078	.002	.095	.169	.128	.077
5	.133	.222	.251	.160	1.00	.128	.060	.027	.132	.000	.103	-.12	-.10	.064	.100	.163	.091	-.10	-.06	.094	.024	.249	.100	.043
6	.126	.036	.016	-.02	.128	1.00	.185	.057	.161	.107	.013	.070	.125	.130	.128	.344	.126	.006	.170	.154	.095	.136	.033	.009
7	.063	-.09	-.26	.014	.060	.185	1.00	-.05	.233	-.04	.078	.090	.129	.023	.047	.047	.166	.051	.060	-.03	.043	.107	.077	.149
8	.094	.132	.053	.151	.027	.057	-.05	1.00	.180	.242	.098	.211	.071	.005	.052	.184	.065	.009	.115	.080	.049	.035	.196	.226
9	.100	-.04	.00	.071	.132	.161	.233	.180	1.00	.081	.089	.006	.066	.170	.102	.237	.041	.200	-.03	.000	.138	.066	.165	.129
10	.110	.007	.093	-.00	.000	.107	-.04	.242	.081	1.00	.098	.018	.159	.070	.085	.034	.002	.065	.093	.073	-.03	.018	-.06	-.05
11	.282	.198	-.05	.019	.103	.013	.078	.098	.089	.098	1.00	.093	.223	.104	.190	.240	.162	.155	.216	.216	.216	.083	.104	.117
12	.317	.070	-.02	.133	-.12	.070	.090	.211	.006	.018	.093	1.00	.253	.118	.079	.225	.039	.155	.363	.076	.177	-.08	.307	.129
13	.398	.137	.024	-.03	-.10	.125	.129	.071	.066	.159	.223	.253	1.00	.175	.220	.241	.047	.255	.249	.423	.237	.005	.174	.302
14	.122	.093	.043	-.06	.064	.130	.023	.005	.170	.070	.104	.118	.175	1.00	.221	.286	.036	.155	.148	.241	.111	.008	.053	.104
15	.206	.222	.122	.031	.100	.128	.047	.052	.102	.085	.190	.079	.220	.221	1.00	.231	.134	.097	.032	.264	.196	.263	.231	.043
16	.346	.153	.115	.091	.163	.344	.047	.184	.237	.034	.240	.225	.241	.286	.231	1.00	.263	.050	.131	.283	.159	.007	.179	.265
17	.006	.002	.056	.158	.091	.126	.166	.065	.041	-.00	.162	.039	.047	.036	.134	.263	1.00	-.08	.087	.080	-.05	.063	.047	.079
18	.139	.005	.023	-.03	-.10	-.00	.051	.009	.200	.065	.155	.155	.255	.155	.097	.050	-.08	1.00	.185	.224	.196	-.05	.193	.029
19	.211	.119	.035	.078	-.06	.170	.060	.115	.038	.093	.216	.363	.249	.148	.032	.131	.087	.185	1.00	.177	.036	-.02	.183	.156
20	.367	.221	.151	.002	.094	.154	-.03	.080	.000	.073	.216	.076	.423	.241	.264	.283	.080	.224	.177	1.00	.173	.093	.022	.181
21	.157	.053	.133	.095	.024	.095	.043	.049	.138	-.03	.083	.177	.237	.111	.196	.159	-.05	.196	.036	.173	1.00	.043	.386	.192
22	-.07	.012	.024	.169	.249	.136	.107	.035	.066	.018	.104	-.08	.005	.008	.263	.007	.063	-.05	-.02	.093	.043	1.00	.181	-.10
23	.18	-.02	.067	.128	.100	.033	.077	.196	.165	-.06	.117	.307	.174	.053	.231	.179	.047	.193	.183	.022	.386	.181	1.00	.240
24	.280	.152	.119	.077	.043	-.00	.149	.226	.129	-.05	.206	.129	.302	.104	.043	.265	.079	.029	.156	.181	.192	-.10	.240	1.00

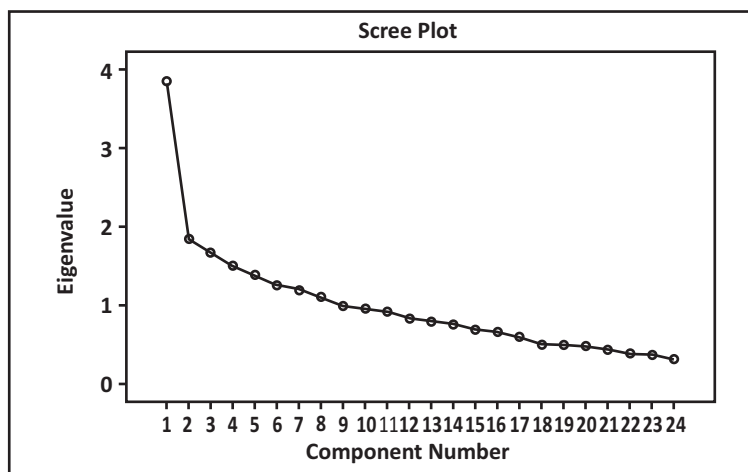
Table 4: Anti-image Correlation Matrix

Anti-image Correl'n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	.742	-.36	.02	.033	-.09	-.01	-.04	.127	-.07	-.11	-.10	-.22	-.16	.10	-.01	-.14	.10	.025	.009	-.19	.039	.137	-.10	-.08
2	-.36	.636	-.15	-.14	-.13	-.06	.063	-.15	.108	.129	-.09	.060	.001	-.05	-.17	.052	.062	.013	-.06	.023	.000	.026	.173	-.02
3	.027	-.15	.579	-.12	-.21	.005	.278	.067	-.03	-.12	.170	.033	.022	.028	-.06	-.02	-.07	-.05	-.04	-.05	-.09	.023	-.08	-.13
4	.033	-.14	-.12	.611	-.05	.103	-.02	-.06	-.06	.001	.056	-.12	.065	.099	.066	-.04	-.14	.014	-.05	.022	-.08	-.17	.007	-.01
5	-.09	-.13	-.21	-.05	.622	-.05	-.10	.031	-.07	.002	-.07	.127	.166	-.05	.069	-.07	.007	.105	.075	-.06	.039	-.18	-.12	.027
6	-.01	.006	.005	.103	-.05	.608	-.16	.008	-.07	-.08	.138	.026	-.01	.010	.006	-.30	-.02	.065	-.18	-.04	-.09	-.11	.067	.121
7	-.04	.063	.278	-.02	-.10	-.16	.501	.119	-.19	.036	.013	-.08	-.08	.026	-.03	.113	-.17	-.04	-.01	.095	-.01	-.08	.049	-.18
8	.127	-.15	.067	-.06	.031	.008	.119	.543	-.17	-.28	.003	-.18	.069	.094	.037	-.07	-.02	.056	.002	-.08	.059	-.02	-.13	-.20
9	-.07	.108	.003	-.06	-.07	-.07	-.19	-.17	.608	-.03	-.01	.133	.023	-.13	-.02	-.14	.041	-.21	.101	.129	-.04	.009	-.03	-.03
10	-.11	.129	-.12	.001	.002	-.08	.036	-.28	-.03	.429	-.08	.065	-.15	-.05	-.06	.074	.024	-.02	-.05	.067	.039	.005	.125	.145
11	-.10	-.09	.170	.056	-.07	.138	.013	.003	-.01	-.08	.743	.050	-.02	.028	-.06	-.12	-.13	-.11	-.15	-.02	-.02	-.11	.023	-.10
12	-.22	.060	.033	-.12	.127	.026	-.08	-.18	.133	.065	.050	.680	-.08	-.07	2E-5	-.11	.019	-.03	-.25	.101	-.06	.083	-.16	.108
13	-.16	.001	.022	.065	.166	-.14	-.08	.069	.023	-.15	-.02	-.08	.807	.007	-.06	-.02	.009	-.10	-.06	-.26	-.09	-.04	-.02	-.18
14	.103	-.05	.028	.099	-.05	.010	.026	.094	-.13	-.05	.028	-.07	.007	.727	-.13	-.18	.031	-.05	-.09	-.12	-.02	.035	.048	-.04
15	-.01	-.17	-.06	.066	.069	.006	-.03	.037	-.02	-.06	-.06	2E-5	-.06	-.13	.751	-.06	-.09	.008	.101	-.10	-.06	-.21	-.16	.095
16	-.14	.052	-.02	-.04	-.07	-.30	.113	-.07	-.14	.074	-.12	-.11	-.02	-.18	-.06	.761	-.20	.061	.077	-.08	.001	.096	-.02	-.11
17	.104	.062	-.07	-.14	.007	-.02	-.17	-.02	.041	.024	-.13	.019	.009	.031	-.09	-.20	.577	.103	-.04	-.04	.115	.045	-.02	.017
18	.025	.013	-.05	.014	.105	.065	-.04	.056	-.21	-.02	-.11	-.03	-.10	-.05	.008	.061	.103	.66	-.09	-.17	-.06	.098	-.14	.129
19	.009	-.06	-.04	-.05	.075	-.18	-.01	.002	.101	-.05	-.15	-.25	-.06	-.09	.101	.077	-.04	-.09	.702	-.06	.122	.018	-.12	-.06
20	-.19	.023	-.05	.022	-.06	-.04	.095	-.08	.129	.067	-.02	.101	-.26	-.12	-.10	-.08	-.04	-.17	-.06	.744	-.08	-.12	.183	-.03
21	.039	.000	-.09	-.08	.039	-.09	-.01	.059	-.04	.039	-.02	-.06	-.09	-.02	-.06	.001	.115	-.06	.122	-.08	.733	.047	-.29	-.06
22	.137	.026	.023	-.17	-.18	-.11	-.08	-.02	.009	.005	-.11	.083	-.04	.035	-.21	.096	.045	.098	.018	-.12	.047	.512	-.18	.143
23	-.10	.173	-.08	.007	-.12	.067	.049	-.13	-.03	.125	.023	-.16	-.02	.048	-.16	-.02	-.02	-.14	-.12	.183	-.29	-.18	.645	-.14
24	-.08	-.02	-.13	-.01	.027	.121	-.18	-.20	-.03	.145	-.10	.108	-.18	-.04	.095	-.11	.017	.129	-.06	-.03	-.06	.143	-.14	.682

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.0.674
Bartlett's Test of Sphericity	Approx. Chi-Square 654.673
	Degree of freedom 276.000
	Sig. .000

Figure 1 : Scree Plot



PRINCIPAL COMPONENT ANALYSIS: UNROTATED FACTOR MATRIX

Principal Component analysis was performed to extract the factors with unrotated factor matrix.

Table 6 : Principal Component Analysis/Unrotated Factor Matrix

Statements	Factor-1	Factor-2	Factor-3	Communalities
1	.648	-.070	-.295	.584
2	.403	.309	-.510	.582
3	.225	.442	-.428	.602
4	.193	.386	.013	.487
5	.204	.676	.050	.535
6	.323	.142	.313	.574
7	.165	-.109	.635	.606
8	.323	.059	.009	.639
9	.297	.080	.485	.681
10	.174	-.002	-.113	.704
11	.462	-.011	-.005	.535
12	.446	-.383	.013	.638
13	.601	-.345	-.094	.545
14	.385	-.062	.028	.426
15	.467	.237	.061	.493
16	.614	.135	.112	.633
17	.219	.258	.261	.451
18	.330	-.395	.026	.468
19	.426	-.302	-.075	.546
20	.557	.002	-.275	.542
21	.418	-.083	.114	.570
22	.126	.475	.337	.710
23	.452	-.053	.299	.664
24	.472	-.102	-.028	.596

3 factors came out of 24 statements related to Quality, Time and Price components. 0. 648 is a factor loading and it indicates correlation between statement no.1 and factor-1. Similarly -.070and -.295 are the value of correlations

between statement no.1 and factor-2 and factor-3 respectively. Communalities were also determined using sum of square of factor loading of the statement no. 1 i.e. $(0.648 \times 0.648) + (-0.070 \times -0.070) + (-0.295 \times -0.295) = 0.584$. Same procedure was applied to get the communalities for statement no.2 to 24. From Table no. 6, statement no.1, 13 and 20 were found to be highly correlated for factor-1. Similarly, statement no. 3, 5 and 22 were highly correlated for factor-2 and statement no. 7 and 9 were highly correlated with factor-3.

EXPLANATION OF VARIANCE

Total variance has been explained by Table no. 7.

Table 7: Explanation of Variance

Factors	Initial Eigen value			Extraction Sums of Squared Loading		
	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative %
1	3.848	16.035	16.035	3.848	16.035	16.035
2	1.847	7.695	23.729	1.847	7.695	23.729
3	1.675	6.977	30.707	1.675	6.977	30.707
4	1.501	6.252	36.959	1.501	6.252	36.959
5	1.384	5.769	42.728	1.384	5.769	42.728
6	1.253	5.221	47.949	1.253	5.221	47.949
7	1.195	4.981	52.930	1.195	4.981	52.930
8	1.109	4.621	57.550	1.109	4.621	57.550
9	.994	4.143	61.693			
10	.955	3.978	65.671			
11	.912	3.802	69.473			
12	.832	3.469	72.941			
13	.788	3.285	76.227			
14	.756	3.148	79.375			
15	.685	2.856	82.231			
16	.668	2.783	85.014			
17	.601	2.505	87.519			
18	.504	2.098	89.617			
19	.496	2.068	91.685			
20	.481	2.005	93.690			
21	.434	1.806	95.496			
22	.390	1.627	97.123			
23	.374	1.559	98.682			
24	.316	1.318	100.000			

In the present research, the researchers selected 3 Eigen values. Eigen value of factor-1 calculated through sum of square factor loading of statements no.1 to 24 was 3.848. Similarly, Eigen vales for factor-2 and factor-3 were found to be 1.847 and 1.675 respectively. After this, variance for factor-1, 2 and 3 was found to be 16.035, 7.695 and 6.977 respectively. The percentage of total variance used as an index to determine how well the total factor solution accounts as percentage of total variations for consumers was found to be 30.707 %. It was a pretty good bargain, because the researchers were able to economize on the number of variables (from 24 statements, the researchers reduced them to 3 underlying factors), while the researchers lost only 69.297 percent of the information for young professionals. The percentages of variance explained by factor-1 to factor-3 for consumers were 16.035, 7.695 and 6.977, respectively. Three factors extracted from the 24 statements were retained.

PRINCIPAL COMPONENT ANALYSIS: VARIMAX ROTATION MATRIX

Now principal component analysis with Varimax rotation was applied.

Table 8: Principal Component Analysis: Varimax Rotation Matrix

Statements	Factor-1	Factor-2	Factor-3	Communalities
1	.713	.128	.153	.584
2	.636	-.055	-.025	.582
3	.140	.175	.143	.602
4	.030	.250	-.119	.487
5	.206	.078	.173	.535
6	-.067	-.051	.710	.574
7	.062	.117	.143	.606
8	.095	.164	-.009	.639
9	.001	.379	.322	.681
10	.059	-.229	.102	.704
11	.610	-.020	-.063	.535
12	.106	.323	.101	.638
13	.532	.183	.183	.545
14	.152	.098	.571	.426
15	.301	.209	.247	.493
16	.312	.162	.659	.633
17	.078	-.133	.314	.451
18	.168	.361	.031	.468
19	.213	.029	.135	.546
20	.567	.014	.311	.542
21	.098	.708	.123	.570
22	-.026	.123	-.030	.710
23	.040	.754	-.015	.664
24	.490	.348	.033	.596

It is clear from the above matrix that the factor loading is different from unrotated matrix, but the communalities are the same. In this case, statements no. 1, 14, 11, 16 and 13 have high positive correlations for factor-1. It means that statements no. 1, 14, 11, 16 and 13 can be clubbed into a new factor. Similarly, statement no. 21 & 23 and statement no.6, 14 and 18 have positive correlations with factor-2 and 3 respectively and also can be clubbed into new factors.

EXPLANATION OF VARIANCE

Total variance has been explained by Table 9.

Table 9: Total Variance Explained (Rotation)

Factors	Initial Eigen value			Rotation Sums of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.848	16.035	16.035	2.528	10.533	10.533
2	1.847	7.695	23.729	1.931	8.047	18.580
3	1.675	6.977	30.707	1.828	7.615	26.195

Total variance is explained with rotation, the Eigen values are different for factor-1, 2 & 3 in comparison to previous unrotated matrix. The Eigen values for factor-1, 2 & 3 are 2.528, 1.931 and 1.828 respectively. Percentages of variance for factor-1, 2 & 3 are 10.533, 8.047 and 7.615 respectively. It indicates that three factors extracted from 24 statements

have cumulative percentages up to 26.195% of the total variance. This is a pretty good bargain, because the researchers were able to economize on the number of variables (from 24 statements, the statements were reduced into 3 underlying factors).

CRITERIA FOR SIGNIFICANT FACTOR LOADING

Now the role of factor loadings becomes important for interpretation of the factors. Factor loading represents a correlation between statement no.1 and factor-1. The criteria given by **J. Hair**, where factor loadings based on sample size are taken as the basis for decision about significant factor loading was adopted. This research had 157 respondents as sample, a factor loading of 0.530 has been considered significant. The fourteen statements no. 2, 3, 4, 5, 7, 8, 9, 12, 15, 17, 18, 19, 20, & 22 - *"Wide ranges of products are available at the shopping mall"* (0.140), *"I want to experiment while buying new products"* (0.030), *"Usually, I want to buy products of daily use"* (0.206), *"I do not bother about price,"* (0.062) *"I want to buy discounted products"* (0.095), *"I always buy something when I go to the shopping mall"* (0.001), *"I want to be sure before I purchase anything"* (0.059), *"Generally, I visit a shopping mall with my friends"* (0.106), *"Salespersons helps us to buy the products"* (0.301), *"I avail after sales services at the shopping mall"* (0.078), *"I can change my products easily at the shopping mall"* (0.168), *"I always purchase food products from the shopping mall"* (0.213), *"I watch movies at the shopping mall"* (-0.026), and *"Salespersons helps us to buy the products"* (0.490), were having factor loading below 0.530. These statements were not considered for naming.

NAMING OF FACTORS

After a factor solution has been obtained, in which all variables have a significant loading on a factor, the researchers attempted to assign some meaning to the pattern of factor loadings. Variables with higher loadings are considered more important and have greater influence on the name or label selected to represent a factor. Researchers examined all the underlined variables for a particular factor and placed greater emphasis on those variables with higher loadings to assign a name or label to a factor that accurately reflected the variables loading on that factor. The names or labels are not derived or assigned by the factor analysis computer program; rather, the label is intuitively developed by the factor analyst based on its appropriateness for representing the underlying dimension of a particular factor. All three factors have been given appropriate names on the basis of the variables represented in each case.

Table 10: Naming Of The Factors

Factor Number	Name of factor	Label	Statement	Factor Loading	Cronbach's alpha
Factor-1	Quality conscious	1	I always enjoy at the shopping mall.	0.713	0.710
		14	Usually, I buy branded products at the shopping mall.	0.636	
		11	Working environment is superb at the shopping mall.	0.610	
		16	Electronic goods are of good quality at the shopping mall.	0.567	
		13	Quality of products are good at the shopping mall.	0.532	
Factor-2	Time saving conscious	24	I can save my time at the shopping mall.	0.754	0.742
		21	It is easy to find items at the shopping mall.	0.708	
Factor-3	Price conscious	6	Durable products are cheaper than traditional outlets.	0.710	0.708
		23	I always bargain for the products.	0.659	
		10	I do not buy costly products.	0.571	

(a) Factor-1: Quality Conscious : This factor is most important factor which explained 16.035 % of the variation. The statements as *"I always enjoy at shopping mall."* (0.713), *"Usually, I buy branded products at the shopping mall."* (0.636), *"Working environment is superb at the shopping mall."* (0.610), *"Electronics goods are of good quality at the shopping mall."* (0.567), *"Quality of products are good at the shopping mall."* (0.532) are highly correlated with each other. These statements reflect quality consciousness of customers using shopping mall buying, hence, the researcher names this segment as quality consciousness of customers.

(b) Factor-2: Conscious About Saving Time: The Second kind of factor explained 7.695 % of the variances. In this

segment, the researchers took the three important variables such as “*I can save my time at the shopping mall.*” (0.754), “*It is easy to find items at the shopping mall*” (0.708). These statements reflected consciousness to save time on the part of the buyers i.e. the researchers named these variables as *Buyers Who Were Conscious About Saving Time*.

(c) Factor-3: Price Conscious: This factor explained 6.977 % of the variations. “*Durable products are cheaper than those available at traditional outlets*” (0.710), “*I always bargain the products*” (0.659) and “*I do not buy costly products*” (0.571). These statements show price consciousness on the part of buyers. Hence, the researchers named this segment as *Price Conscious Customers*.

RELIABILITY AND VALIDITY OF THE CONSTRUCT

As far as the reliability and validity are concerned, analysis began with measuring the reliability of the construct. First of all, internal reliability of the scale was examined using Cronbach's alpha coefficient. Value of the reliability was 0.7 and above as an indicator of good reliability. The Cronbach's alpha coefficient was 0.728, which is good. After that, convergent validity can be assessed from the measurement model by determining whether each indicator estimated maximum likelihood loading on the underlying construct is significant. In the Table 10, all factor loadings exceed 0.53. This shows evidence of convergence validity of this research. Composite reliability coefficients for each construct were also found. Composite reliability should be greater than 0.7 to indicate reliable factors (**Hair et al 1995**). In this research paper, all the composite reliability coefficient were greater than 0.7, indicating reliability of all 24 variables. Composite reliability variance was extracted and Cronbach's alpha coefficient values for all shopping mall variables greatly exceeded the minimum acceptable values. This research indicated that measures were free from error and, therefore, yielded very consistent results (**Zikmund, 2003**). These tests showed that the data was reliable and valid for this research.

CONCLUSION

The present study divided shopping mall users into three categories. First types of customers were named as *Quality Conscious Customers*, who were enjoying at the shopping mall because they think that quality of products are good at the shopping mall. They feel that working environment is superior at the shopping mall. They also have concern for good quality at the shopping mall. Most of the customers feel that the environment is superior at the shopping malls. Second kind of customers have been named as *Buyers Who Were Conscious About Saving Time*.. These customers feel that they can save their time by shopping at a shopping mall. This group also believes that they find items easily at the shopping mall. The third category of customers, named as *Price Conscious Customers*, feel that products are cheaper than traditional outlets. These consumers do not buy costly products.

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