
STRUCTURAL EQUATION MODEL (SEM)-PREDICTING SHOPPERS SHOPPING EXPERIENCE IN MALLS

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Abstract

Purpose: This paper aims to explore the composition of “Shopping Experience” for shoppers in shopping malls of South India. **Research Methodology:** The paper applies analyzing data using Reliability Test, Confirmatory Factor Analysis (CFA) and Multiple Linear Regression on a sample of 356 respondents and reduces a set of 18 variables into a list of six attributes of shopping malls.

Finding: The present study proposes a model of the impact of shopping mall attributes on shopping experience of shoppers. **Implication:** The study found that convenience, aesthetic, security, safety, amenities and tenants are impacting significantly the shopping experience. Therefore, shopping mall managers should focus on the above factors to provide enrich shopping experience of shoppers.

Conclusion: The study investigated the impact of mall attributes on shopping experience in malls of the shoppers concluded that convenience had the highest impact on the shopping experience of the shoppers followed by, aesthetic, security, safety, amenities and tenants.

Keywords: Convenience, Aesthetic, Security, Safety, Amenities, Tenants, Shopping Experience, Shopping Mall and Shoppers.

Introduction

"Retail" starts from a French-Italian word retailer which implies somebody who cuts off or sheds a little piece from something. Retailing is the arrangement of exercises that market items or administrations to conclusive purchasers for their very own or family use. It does this by getting sorted out their accessibility on a generally huge scope and providing them to shoppers on a somewhat limited scale. India is seeing the changing ways of life, expanded salaries, the segment fluctuation and lively majority rules government. Indian retailing is extending and is relied upon to reach at US\$900 billion by 2014 as indicated by a report by worldwide consultancy and examination firm, Price Waterhouse Cooper (PWC). Current retail which as of now represent just 4-6 percent of the all out market is probably going to build its portion to more than 30% by 2013 Das (2011). The business is relied upon to assume significant part in the Indian financial development. The idea of shopping is developing in to and hypermarkets, stores, specialty stores and different arrangements. Retail industry is one of the critical impending areas in India contributing major to work age. India has perhaps the biggest number of retail outlets on the planet. The retail area is encountering outstanding development, with retail development advancement occurring in significant urban communities, yet additionally in Tier-II and Tier-III urban communities. India's developing populace and urbanization gives a colossal market to coordinated retail. Developing monetary thriving and change in utilization design drives retail interest. India positioned fourth among the 30 nations that was overviewed in Global Retail Development Index and positioned 6th in the 2011 Global Apparel file.

Review of Literature

Mohanty & Panda (2008), retailing in India possesses significant spot in the financial development procedure of the country. India is seeing retailing blast being moved by expanding urbanization, rising buying power equality (PPP) of truly developing India's working class, changing segment profiles vigorously shifted youthful populace, mechanical unrest, extreme globalization drive and so forth Nagesh (2007) portrayed that Indian retailing world would see an adjustment of the following five years, driving utilization blast at any point found throughout the entire existence of any country. From a dry season circumstance we would see surge of current retail, so Indian retail will be on a consistent ground of supported development year after yearend from that point.

Shiv Kumar (2009), Executive Director and head of Retail and Consumer Practices Price Warehouse Co-agents, likewise holds the assessment that retailing is the following dawn portion of the financial advancement of the country. Changing ways of life are advancing changes in retail climate. Time imperatives and gridlock, expansion in dispensable salaries has made a requirement for new sorts of retail design. Getting the right item at right time at most reduced conceivable expense is a benefit of buyers in the edge of retail change. Wakefield and Baker (1998) analyzed the connection between three elements inhabitant assortment, shopping mall climate and customer shopping inclusion and concentrated because of these variables on customer fervor and want to remain at a shopping mall. The discoveries uncovered a differential impact from the three elements. Inhabitant assortment biggest affected customers' fervor, while the shopping mall climate had the best impact on their longing to remain. Thought was given to natural elements by gathering them into music, lighting and temperature, format, building plan and inside stylistic layout. The discoveries uncovered differential impact from the natural elements on fervor and want to remain.

Ahmed, Ghingold and Dahari (2007) evaluated buyer conduct towards shopping malls in a non-western nation, explicitly, Malaysia. A review of Malaysian college understudies was led to evaluate the shopping mall coordinated shopping propensities and shopping directions of youthful grown-ups. An aggregate of 132 usable reviews were acquired from five college grounds in the Klang Valley locale of Malaysia. The discoveries uncovered that the Malaysian understudies were roused to visit shopping malls essentially by the inside plan of the shopping mall. Catherine, Vijayalakshmi and Magesh (2013) distinguished the in store choices of customers in a clothing display area. The variables considered were store brand, advancements and showcases, value, data and names, flyers and booklets, accommodation and product and apparel wellness. The outcomes uncovered that in store promoting and comfort made more interest to buy among customers. Cost is one of the store qualities which impact the purchasers experience and support choice concerning where to shop. The justification behind the buyer considering a retail plaza is valuing. Valuing impacts the shopping conduct, and store support. Arnold, Handerman and Tigert (1996) reviewed low cost departmental store customers in five distinct urban areas in the US and Canada. They observed that a store which was recognized similar to the best on the exhibition credits, for example, area comfort, cost and variety of product was bound to be disparaged by shoppers. It likewise uncovered that a store recognized as

having solid local area notoriety straightforwardly impacted store decision as well as directed the impact of area, cost, and collection credits.

McCarthy (1980) included transport mode/travel credits as subjective attributes that impacted the decision in shopping objective. Utilizing the component insightful method, five arrangements of subjective summed up ascribes were created. These summed up credits included trip accommodation, trip solace, and excursion security, shopping region fascination and shopping region versatility. He observed that those summed up credits, which was gotten from attitudinal data, was critical in a singular's decision of shopping region. Arnold, Handerman and Tigert (1996) overviewed low cost departmental store customers in five distinct urban areas in the US and Canada. They observed that a store that was distinguished similar to the best on the presentation ascribes, for example, area comfort, cost and variety of product was bound to be disparaged by shoppers. It additionally uncovered that a store distinguished as having a solid local area notoriety straightforwardly impacted store decision as well as directed the impact of area, cost, and arrangement credits. Naik, Gantasala and Prabhakar (2010) led exploration to know the variables that sway consumer loyalty. The intention was to portray applied to support quality aspect in a retail business, to know administration quality aspects that made shoppers fulfilled and to know administration quality aspects that were predominant in affecting consumer loyalty. The review uncovered that administrations presented by retail units had a positive effect and were huge in building consumer loyalty. Administration quality aspects were urgent for consumer loyalty in retail.

Ubeja (2013) directed a review to research the consumer loyalty as for deals advancement blend and gathering of elements in shopping malls and varieties in the consumer loyalty regarding deals advancement blend and gathering of elements across orientation. It was observed that female those were reliant or autonomous were more cognizant about deals advancement which was connected with on the fortunate and gift offers in shopping malls, male was likewise cognizant about money related benefit offers getting consumer loyalty in Jabalpur city. Shoppers were drawn to a deals advancement blend which was accessible in shopping malls. Gangisetty, N., and Mohana, S. (2018) in this study accept importance on the grounds that South India is an unmistakable objective drawing in customers from everywhere the globe. An endeavor has been made to depict customer's assumptions from shopping malls. The examination utilizes information decrease with the assistance of Exploratory

Factor Analysis (EFA) on an example of 200 respondents from South India and consolidates a bunch of 22 shopping malls ascribes into a rundown of five understandable variables. Aftereffects of the review shows that shopping mall customers of South India view shopping experience as mix of five variables: comfort of area, atmospherics, security, conveniences and wellbeing. Customers appoint differential weight age to these elements. Synthesis of these variables as far as its constituents uncovers unmistakable examples. Discoveries of this examination might be utilized as rules for advancement and the executives of shopping malls in South India. Shopping malls utilizing these experiences are bound to draw in and support a more elevated level of footfalls. Capital escalated projects like shopping malls can't stand to fizzle. This application arranged study proposes new benchmarks for shopping mall turn of events and the executives and decreases the likelihood of taking incorrectly choices.

Research Gap

The review of literature examined above distinguishes specific research gaps. The main research gaps are listed below.

- From the previously mentioned investigations it very well may be assessed that there is a need to foster a composite model portraying different variables influencing the shopping experience. The scientists have considered these variables independently, and not comprehensively.
- Restricted research studies have been done to explore the distinction between customers as far as the need they put on various elements of the shopping experience.
- Restricted research work has been done investigating the connection between shopping mall ascribes and the general shopping experience of shopping mall customers in the Indian setting.
- There are a few investigations did to inspect the shopping conduct in coordinated and sloppy retail among Indian customers yet they have restrictions.

Consequently the above research gaps investigated by arising writing have brought about laying out the requirement for future exploration named “Structural equation model predicting shoppers shopping experience in malls. There is a need to investigate the peculiarity in the Indian setting.

Research Problem

Retailing is one of the biggest industry in India after agriculture and perhaps the greatest wellspring of work in the country. The retail climate in India is showing intriguing patterns. Quick development is happening as far as buy as well as far as store designs that retailers are acquiring the market. The Indian shopper is looking for more worth as steady accessibility, further developed quality, a charming shopping climate, financing choice and cutthroat estimating. Shoppers' preferences and inclinations are changing prompting an extreme change in way of life and spending designs which thus are leading to new business open doors. Hence, it has an immense extension for the examination and as the retailing climate is evolving quickly, prompting customers' assumptions. Customers' shopping assumptions are changing ceaselessly so in such a climate it is important to get buyers' decision of inclination and assumptions towards the shopping mall. Buyers' shopping experience might offer bits of knowledge into how and why the shopper shops and the characteristics that shoppers picks during shopping in shopping malls. It would assist the retailers with acquiring a superior comprehension of their shoppers' decisions and inclinations will likewise empower them to determine which shopping mall ascribes should be accentuated in retailing system to permit retailers to make a more driven shopping experience.

Research Objectives

1. To identify the shopping mall attributes in South India.
2. To measure the impact of mall attributes on shopping experience of shoppers.

Research Hypothesis

H₀₁: There is no significant relationship between shopper opined mall attributes on shopping experience.

- **H_{01.1}:** There is no significant relationship between shopper opined convenience on shopping experience.
- **H_{01.2}:** There is no significant relationship between shopper opined aesthetic on shopping experience.
- **H_{01.3}:** There is no significant relationship between shopper opined security on shopping experience.

- **H_{01.4}**: There is no significant relationship between shopper opined safety on shopping experience.
- **H_{01.5}**: There is no significant relationship between shopper opined amenities on shopping experience.
- **H_{01.6}**: There is no significant relationship between shopper opined tenants on shopping experience.

Statistical Tools

- Reliability Test
- CFA (Confirmatory Factor Analysis)
- Multiple Linear Regression

Sampling Procedure

The population of the study consisted of shoppers who come to shop in shopping malls South India. The inspecting outline comprised of shopping malls as it were. To decide the sample size total number of footfalls in shopping malls were determined. The example size was viewed as 356 customers. The members in this study were male and female shopping mall customers (N=356) who visit shopping malls. Generally multistage inspecting was reestablished for collection of data.

First stage, Bengaluru was distinguished for the review. The city identified for the review has been arranged into multistage of Indian retail life cycle. The subsequent explanation being that the city of the country with a metropolitan population in light of the greater part million inhabitants and retail customers. Third explanation being this city has a sizeable number of retail shopping malls.

At long last, inside recognized shopping malls and stores convenience sampling was utilized for collection of data. In convenience sampling, the example is chosen based on the comfort of the respondents and the analyst. The customers who were accessible and able to take part in the review were chosen for the study. In spite of, impediments, comfort testing takes into account the accomplishment of large sample data in a brief span of time (Dyer, 1995; Gravetter and Forzano, 2003.) Convenience inspecting strategy is appropriate when the example for the review meet the prerequisite of the review Goodwin (2008). Consequently, the utilization of convenience sampling in this study is thought of as satisfactory.

Data Collection

Both primary and secondary data was used in order to conduct this research. This study was completed by utilizing paper articles, web reports, and scholarly diaries from destinations, for example, Science Direct and Emerald Insight, course books, industry reports and so on data from scholastic diaries and course books was especially valuable in evaluating the current writing. The review utilized the overview strategy which utilized a poll. There are many sorts of study technique however for this situation a self-controlled poll was chosen for the purpose of data collection.

The data was gathered from individual male and female shoppers who come to shop in shopping malls. The scientist visited every one of the 5 chose shopping malls in South India and directed the overview. The information was gathered utilizing shopping mall block study technique when shoppers have finished the shopping.

For the current review, 500 shopping mall customers were by and by drew closer for investment in the review. Out of them 356 customers answered positively.

Data Analysis & Results

Reliability and Validity Test

In the internal consistency method, reliability is considered as internal consistency, which is the degree of inter-correlation among the items that constitute a scale. It represents the level of homogeneity in the items of the scale. Internal consistency is measured using a reliability coefficient of Cronbach's alpha.

The standardized Cronbach's coefficient alpha has been calculated for the (18) items of the data collected.

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Table: 1. Case Processing Summary

		N	%
Cases	Valid	356	100.0
	Excluded ^a	0	.0

	Total	356	100.0
a. Listwise deletion based on all variables in the procedure.			

Table: 2. Reliability Statistics

Cronbach's Alpha	N of Items
0.830	18

The internal consistency of the questionnaire of 18 questions with a value of the Cronbach's Alpha is 0.830, which shows that data is 83. per cent reliable.

CONFIRMING THE MEASUREMENT MODEL BY CFA

Confirmatory Factor Analysis of Shopping Mall Attributes

The measures adopted to study the mall attributes have already been validated by other researchers as mentioned earlier. So, we have only conducted a confirmatory factor analysis in order to establish the valid factor structure of shopping mall attributes. The proposed six-factor model (see Figure 1) was found to fit the research study. The model with a chi-square of 407.596, $df = 5$ CFI = 0.720, TLI = 0.827, AIC = 437.596, RMSEA = 0.034. Good fit values that are generally acceptable for CFI and TLI should be near to 0.95 and for RMSEA should be less than 0.08 (Hair et al., 2010).

Selected Variables Expansion

CONVEN (Convenience), AESTH (Aesthetic), SECU (Security), SAFE (Safety), AMENITIES (Amenities) and TENA (Tenants).

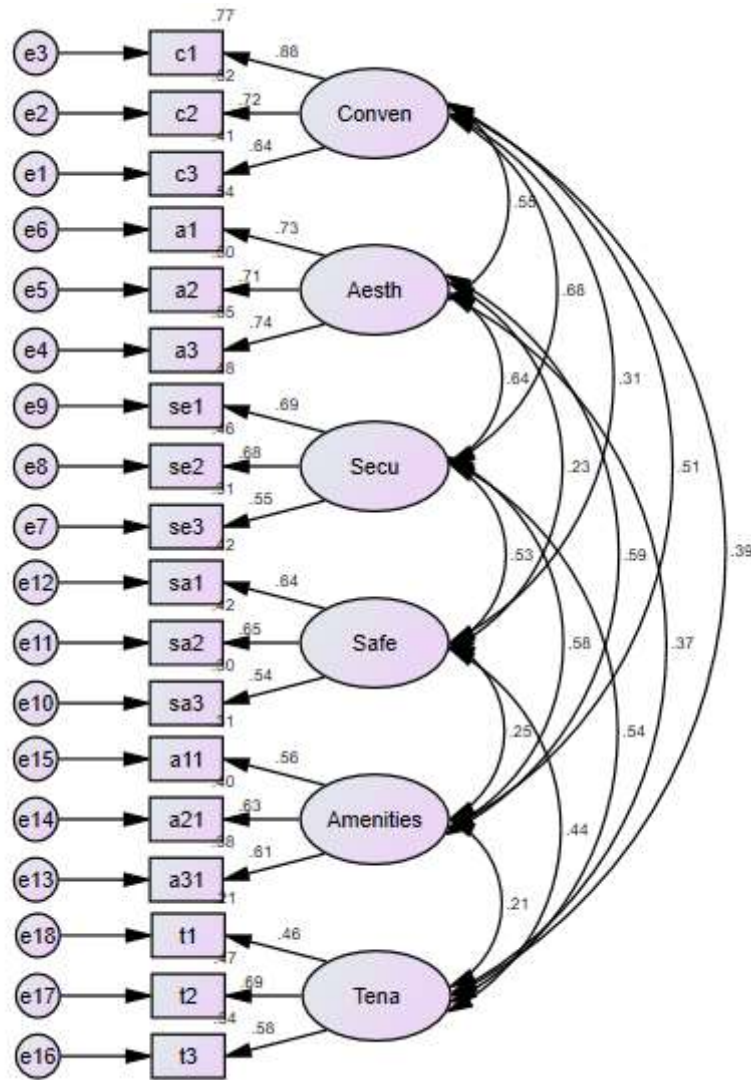


Table 3. Confirmatory Factor Analysis of Alternative Models

Model	χ^2	Df	χ^2/Df	TLI	CFI	RMSEA
Six-Factor Model	407.596	5	3.046	.827	.720	.034

Shopping mall attributes (Convenience, Aesthetic, Security, Safety, Amenities and Tenants. Figure 1 shows a significant inter-factor correlation between convenience & aesthetic at a significant level ($r = 0.55, p < 0.05$), convenience & security ($r = 0.68, p < 0.05$), convenience & safety ($r = 0.31, p < 0.05$), convenience & amenities ($r = 0.51, p < 0.05$), convenience & tenants ($r = 0.39, p < 0.05$) and aesthetic & security ($r = 0.64, p < 0.05$), aesthetic & safety ($r = 0.37, p < 0.05$), aesthetic & amenities ($r = 0.58, p < 0.05$), aesthetic & tenants ($r = 0.37, p < 0.05$), security & safety ($r = 0.53, p < 0.05$), security &

amenities ($r = 0.58, p < 0.05$), security & tenants ($r = 0.54, p < 0.05$) and safety & amenities ($r = 0.25, p < 0.05$), safety & tenants ($r = 0.44, p < 0.05$) and amenities & tenants ($r = 0.21, p < 0.05$). The result of the confirmatory factor analysis of alternative models is displayed in Table 3.

Multiple Linear Regression

In order to test hypothesis 1, we performed a regression analysis. In the regression analysis technique, we have regressed six mall attributes on shopping experience.

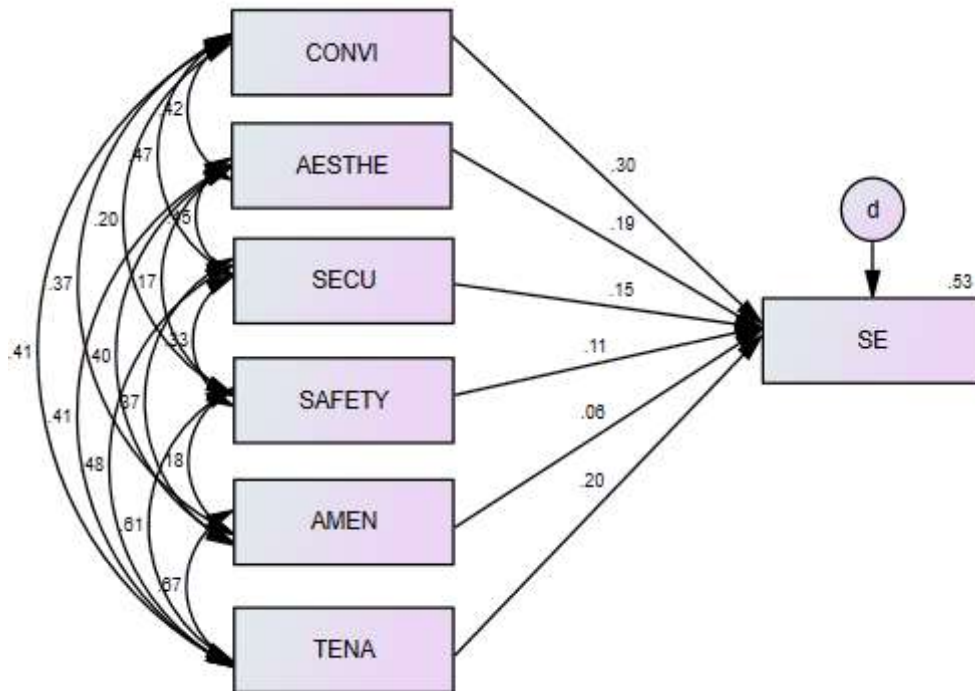


Figure: 2. A Structural Equation Model Showing Impact of mall attributes on shopping experience.

Structural Model Fit Estimation

Figure 2 indicates the standardized path regression coefficients and the relationship between unobserved and observed variables with respect to the path diagram. Structural model Fit Indices

Table: 4. Structural Model Fit Estimation

Indices	Recommended Value	Model Fit Indices
CMIN/Df	< 3	5.376
p-value	≥ 0.05	.000
GFI	≥ 0.90	1.000

AGFI	≥ 0.80	.921
NFI	≥ 0.90	1.000
CFI	≥ 0.90	1.000
RMSEA	≤ 0.08	.087
P Close	≥ 0.05	0.000

The structural model fit is checked based on CMIN/Df, p-value, Goodness of Fit (GFI), Adjusted Goodness of Fit (AGFI), NFI, Comparative Fit Index (CFI), Root Mean square of approximation (RMSEA) and P Close. The Model fit indices for the constructs have been found and the summary of the result is shown in the above table where the obtained Model fit indices are compared with the recommended value. We have not considered the actual chi square value as the chances of model rejection will be high when the sample size increases. Hence we have divided the chi square value with the degrees of freedom so that we can overcome the sample size issue. The result of chi square value divided by the degrees of freedom is shown in the table as 5.376 which is less than the acceptable limit 3. The obtained p-value is 0.00 which is less than the recommended value. The obtained GFI value is 1.000 which is above the recommended value of 0.90. The obtained AGFI value is 0.921 which is above the recommended value of 0.80. The obtained NFI value is 1.000 which is greater than the recommended value of 0.90. The obtained CFI value is 1.000 which is greater than the recommended value of 0.90. The obtained RMSEA value is 0.018 which is lesser than the recommended value of 0.08. The obtained P-close value is 0.000 which is lesser to the recommended value of 0.05. Hence we can find the overall model fit indices are within the acceptable recommended values as proposed by the researchers, so we can conclude that the hypothesized model fits with the sample data. All the 6 parameters have met all the other recommended value to verify fitness of the Model. Hence we can conclude that the Model is perfectly fit.

Ho1: There is no significant relationship between mall attributes on shopping experience.

Table: 5. Regression Coefficients of attributes of mall attributes on shopping experience.

Dependent Variable		Independent Variables	Estimate	S.E.	C.R.	P
Shopping Experience	<---	Convenience	.058	.031	1.733	.000
Shopping Experience	<---	Aesthetic	.276	.095	1.887	.000
Shopping Experience	<---	Security	.095	.048	1.033	.001

Dependent Variable		Independent Variables	Estimate	S.E.	C.R.	P
Shopping Experience	<---	Safety	.372	.085	3.301	.000
Shopping Experience	<---	Amenities	.230	.068	2.203	.000
Shopping Experience	<---	Tenants	.071	.052	1.732	.000

Discussion

- The probability of getting a critical ratio as large as 1.733 in absolute value is .000. In other words, the regression weight for **Convenience** in the prediction of **Shopping Experience** is significantly different from zero at the 0.05 level (two-tailed).
- The probability of getting a critical ratio as large as 1.887 in absolute value is .000. In other words, the regression weight for **Aesthetic** in the prediction of **Shopping Experience** is significantly different from zero at the 0.05 level (two-tailed).
- The probability of getting a critical ratio as large as 1.033 in absolute value is .001. In other words, the regression weight for **Security** in the prediction of **Shopping Experience** is significantly different from zero at the 0.05 level (two-tailed).
- The probability of getting a critical ratio as large as 3.301 in absolute value is less than 0.001. In other words, the regression weight for **Safety** in the prediction of **Shopping Experience** is significantly different from zero at the 0.05 level (two-tailed).
- The probability of getting a critical ratio as large as 2.203 in absolute value is less than 0.000. In other words, the regression weight for **Amenities** in the prediction of **Shopping Experience** is significantly different from zero at the 0.05 level (two-tailed).
- The probability of getting a critical ratio as large as 1.732 in absolute value is 0.000. In other words, the regression weight for **Tenants** in the prediction of **Shopping Experience** is significantly different from zero at the 0.05 level (two-tailed).

Practical Implication

The study found that convenience, aesthetic, security, safety, amenities and tenants are impacting significantly the shopping experience. Therefore, shopping mall managers should focus on the above factors to provide enriches shopping experience of shoppers.

Conclusion

The study investigated the impact of mall attributes on shopping experience in malls of the shoppers concluded that convenience had the highest impact on the shopping experience of the shoppers followed by, aesthetic, security, safety, amenities and tenants.

Reference

1. Das, M. S. (2011). Next-Generation Retailing in India: An Empirical Study Using Factor Analysis. *International Review of Management and Marketing* 1(2), 25- 35.
2. Nagesh, B.S (2007), Indian Retail The Way Forward, India Retail Report, An Images F & R Research,pp.246-248,www.indiaretailing.com
3. Mohanty, A.K.& Panda, J. (2008), Retailing in India: Challenges and Opportunities, The Orissa Journal of Commerce, Vol. XXIX, NO.2, Bhubaneswar, July, pp. 69-79.
4. Shivkumar, S(2009),Executive Director, Retail and Consumer Practices Price Warehouse Cooperative, India Retail Report, An Images F&R Research, pp.6. Available at: www.indiaretailing.com
5. Wakefield, K. L., & Baker, J. (1998). Excitement at the mall: determinants and effects on shopping response. *Journal of retailing*, 74(4), 515-539.
6. Ahmed, Z. U., Ghingold, M., & Dahari, Z. (2007). Malaysian shopping mall behavior: an exploratory study. *Asia Pacific Journal of Marketing and Logistics*.
7. Vijayalakshmi, I. B., Rao, P. S., & Chugh, R. (2013). A comprehensive approach to congenital heart diseases. JP Medical Ltd.
8. Arnold, S. J., Handelman, J., & Tigert, D. J. (1996). Organizational legitimacy and retail store patronage. *Journal of business research*, 35(3), 229-239.
9. McCarthy, P. S. (1980). A study of the importance of generalized attributes in shopping choice behaviour. *Environment and Planning A*, 12(11), 1269-1286.
10. Arnold, S. J., Handelman, J., & Tigert, D. J. (1996). Organizational legitimacy and retail store patronage. *Journal of business research*, 35(3), 229-239.
11. Naik, C. K., Gantasala, S. B., & Prabhakar, G. V. (2010). Service quality (SERVQUAL) and its effect on customer satisfaction in retailing. *European journal of social sciences*, 16(2), 231-243.

12. Kushwaha, T., Ubeja, S., & Chatterjee, A. S. (2017). Factors influencing selection of shopping malls: an exploratory study of consumer perception. *Vision*, 21(3), 274-283.
13. Gangisetty, N., & Mohana, S. (2018) FACTORS DEFINING SHOPPING EXPERIENCE IN MALLS: AN EMPIRICAL STUDY OF SOUTH INDIA.