

IMPACT OF LIGHTING ON INDIAN CONSUMER'S BUYING BEHAVIOR AND BRAND PERCEPTION IN RETAIL STORE

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Abstract

Purpose: To study the impact of retail store lighting on the buying behavior of Indian consumers and the perception it builds about the brand in their minds.

Design/Methodology/Approach: It is an exploratory research which involves the analysis of responses of the participants as a sample population from the population of young urban consumers.

Findings: Consumer's focus has shifted from buying only the product to buying the experience now. The store environment plays a vital role in determining the duration a consumer will spend in the store. Lighting impacts the merchandise examination by customers and the perception they form about the brand.

Practical implication: The results of the study imply that the brands should pay attention to the store environment and how the lighting can improve the duration of the consumer's visit to the store. Various innovations in the lighting industry can be used as tools to gain popularity among consumers.

Originality/Value: The study infers that the consumers derive value from the experience they have with the brand.

Key words: Lighting, Store environment, Consumer perception, Buying behavior

Introduction

We are all aware of a very interesting perception about food and that is "Half the hunger is

satisfied with the smell of the food". Similarly, the sensory store elements play a vital role in any retail setup. According to Kotler, the term atmospherics refers to "the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability." The consumer is the individual who holds the decision of buying a product or service, where to buy it from, and based on his previous experiences whether to repeat this purchase or not. With the consumer focus shifting towards buying experience along with the product or service, it has become important for the retailers to cater to this consumer's needs.

The shoppers must feel comfortable at the store and must be willing to spend their time exploring the various offerings by the company. With the increasing competition where customer can shift very easily to a competitor brand, retailers should not leave any gap in ensuring that customer experiences the brand functionally, emotionally and mentally. The store environment is one such way to capture the consumer's attention apart from the product being offered in the store. Store environment influences consumer behavior in multiple ways and therefore companies like

Starbucks, Bulgari, Apple, Singapore Airlines, etc. have been constantly tapping the customer's senses like smells, sight, and touch. As the retail store's designs and structures have evolved with time, the focus was laid on to the lighting as well but the majority of it has been on the aesthetic part of it. Lighting influences how customers come to a buying decision in the store. Lighting is a powerful method of visual correspondence between the retailer and the purchaser and is the key to the general accomplishment of the shopping experience. Lighting can likewise be applied to viably speed up the transaction time, improve accuracy at the billing counter, and for the most part, can also encourage the sale. World's renowned companies in the lighting industry

like Signify, Havells are continuously innovating their offerings to retail and commercial sectors

because they see the lucrative business in these sectors because of the shift in consumers' needs. Lighting innovations have arrived at its top in these cutting-edge times so the retailers would now be able to make the ideal lighting impacts, with great lights of any shading that will unquestionably help any kind of business development.

From window and faced lighting to floor lighting, racks, and shelves lighting to fitting rooms lighting, there are thousands of options available for companies and even the choice to customize as per the business. Even these giants in lighting sectors claim that their products can seduce and surprise the visitors in the retail store and that lighting can serve as a medium to drive sales and communicate the brand vision to the customer. Lighting can make the overall in-store ambiance more attractive and can help in highlighting the products. From keeping the aisle bright in the store making the food look fresh, lighting helps in better presentation of the products which in wows the customers with accentuated color, texture, and quality of the products and enhances the shopping experience for the customer. It is a crucial part of the brand's personality and therefore retail architectures strategically blend the colors, contrast, temperature, and tone of the lighting while designing the store. The amount and nature of brightness, the impression it makes about

the merchandise, and the impact it has on the store's appearance are generally factors determining the success of lighting design.

Lighting set up can both pull in customers' consideration and enthusiasm for the product and decidedly influence purchasers' conduct goals. In a retail situation, lighting ought to encourage a customer's productive and wonderful shopping experience while outwardly displaying the product and space. Great lighting can impact clients to invest more time in the store, spend a few more pennies, have a higher possibility of coming back to your store, and will probably recommend your store to their companions and friends and family, basically on the grounds that

they looked and felt incredible. Proper illumination in the store helps in making the buying

journey as easy as possible, can draw customer's attention to any specific part of the store, and also influences the way he or she feels and looks in the trial rooms. Related exploration in western countries found that store environment improvements can inject joy and excitement just as approach and evasion practices. Studies have demonstrated that lighting impacts discernments in important manners and can influence the shopping desire and also the level of satisfaction the consumer experiences. Though various researchers have explored western consumers to study the impact of lighting, the research in the Indian market is still has a lot of scope for study. Apart from this, while the studies have been conducted to read the consumer's behavior, this research also focuses on the perception the consumers form about the brand based on the lighting set up of the retail store.

The study is to examine the impact of lighting on the Indian consumer in the retail stores in the scope for research. Lighting could affect consumer at a cognitive level, emotional level, or behavioral level, or many of these together. The urbanization and increased per capita income, the purchasing power on Indian consumers has increased and so has their expectations while buying. From big malls to supermarkets and exclusive showrooms, the options to buy from where and why have been widened. The concept of malls and showrooms is relatively new to Indian consumers yet it is a lucrative market for multiple companies considering its potential. With the increased competition, it becomes a mandate for the brand to stand out in the consumer's mind and serve them with an experience that eventually adds to their brand equity. Lighting is one of the important design parameters during store set up which can be used to enhance the consumer experience. Now the lighting in different tones, brightness customization, multiple colors, and smart lighting systems are getting installed all around the globe in homes

and offices, it has also paved path for changes to occur in the retail industry while building the stores. The primary objective of this research is to understand the impact of lighting on Indian consumer's perceptions of

the brand and their purchasing behavior. The study has found that the keywords with which consumers relate a well-illuminated retail store's brand are classy, luxurious, attractive, stylish, high quality, elegant, good experience whereas for a dim or

inadequately lit store's brand are shady, dull, dull products, gloomy, low quality, cheap, unattractive, etc. The study also found the adequate lighting increases the chances of customers visiting the trial rooms.

Literature review

Researchers have explored the arena of understanding the impact of lighting in commercial space and yet there is a lot more to be explored. The relationship between the impact of lighting on

employee's productivity and office lighting was established and now the impact on consumers is being studied by different brands and researchers. For brands in the retail industry, it is crucial to understand the customers in and out and provide them what they are expecting to be on top of their minds. Similarly, in the lighting industry, the companies are studying how they can boost sales and enhance the brand value for their retail customers indirectly by understanding the impact of their offerings on customers. Although various studies have been done to understand the impact of store environment on the consumers in western countries in marketing researches, its impact on Indian consumers has been a limited area for research. The studies are also conducted with a particular category in mind be it wine, food, or clothing. The immediate effect on sales due to lighting was not observed in most of the researches but the duration of the visit and the temptation for purchasing the products was found to be manipulated by the amount and type of store lighting.

Charles S. Areni and David Kim (1994) in their work examined the impact of lighting on a wine store. The hypothesis was around the bright and soft light and its impact on patrons in a wine shop. They not only observed the impact of bright light vs soft light on consumers but also on the shelf placing of the merchandise considering the type of consumers single, couple, etc. The study was based on experimental research where they observed the buyers every Friday and Saturday between 6:00 pm to 11:00 pm from May to July excluding the holiday or event nights where the sales could be higher anyway. A total of 171 observations was recorded over 16 nights. The wattage of the bulbs and their numbers were manipulated to capture the impact of bright vs soft light. The number of items examined, handled, and purchased was taken as a dependent variable. Average behavior was taken into consideration rather than total behavior to mitigate any influence of nearby events on store traffic. The research result showed that customers tend to examine more merchandise in a brightly lit store, though the lighting's impact on the amount spent is nonsignificant. It also showed that lighting should be considered from the functional aspect as well.

Syed Amir Saeed (2015) in his research studied the impact of lighting as a visual merchandising tool on Pakistani consumer's purchase behavior. By conducting the experimental research in a fashion retail outlet in the city of Peshawar, he could discover that lighting is helpful in diverting the consumer's attention towards the merchandise and also triggers a closer examination of the same. Experimentation based research is conducted to examine the results. The study could be utilized by both retailers and manufacturers offering their products at the retail level. Lighting was taken as the independent variable and consumers' approach towards merchandise was the subject for study. The small town was selected where the fashion and retail market are relatively

low to study the effect of lighting in developing countries. In the research, a spot in the retail outlet was found which attracted relatively lower traffic. The observations were recorded for two days and then the spot was illuminated and the traffic was recorded. The result showed a positive relation as, after illumination, the spot attracted more traffic. Thus, the study found that lighting could be used as an efficient visual merchandising tool to attract more traffic to any corner of the outlet. No impact on immediate sales could be established in the research.

In the research done by QUARTIER, Katelijn, CHRISTIAANS, Henri, and VAN CLEEMPOEL, Koenraad (2008), the relationship between in-store lighting and shopper conduct is inspected.

They have considered the emotional factor and biological factor keeping the shopper at the center in a store environment. Atmospherics has been investigated on a small-scale level for their effect on purchasing conduct and the sales numbers. Consumers' moods as well as the behavior was considered for thorough research to understand the impact. The research involves three main parts. First was the in-depth interview with the selected experts, the survey of the literature, and the formation of hypothesis and research framework. The second part included the experiments in a controlled environment for which a lab was set up in the supermarket. The third part was to establish the guidelines about lighting for commercial spaces considering all the results of the experiments. The objective of their investigation is to create rules for planning lighting in the retail store designs. The analysis is conducted in The Netherlands and consequently in the Flemish talking some portion of Belgium in light of the fact that the two nations are comparative in the economy, language, and retail scene.

Yu-Fong Lin and So-Yeon Yoon (2015) in their study have explored the effects of Lighting on consumer visual experience in a retail environment. The study considers the contrast and color temperature of lighting as the factor affecting the consumer and the extend of the effect. The

hypothesis taken was that the high contrast lighting conditions attract more consumer attention than the low contrast lighting conditions in the retail store environment. Experimental research was conducted on 80 participants and high vs low contrast and warm vs cool color temperature of lighting were used to conduct the experiment. The outcomes show that in an electronic retail condition, members gave more consideration when they saw high-differentiate lighting conditions in contrast with low-differentiate lighting conditions. Along with this, it was also found that cool color conditions hold higher levels of attention when compared to the warm tone of lighting. In an electronic retail store, high contrast cool color temperature forms an ideal environment for the shopper to stay longer and potentially make a purchase.

In their study, Katelijn Quartier, Jan Vanrie, Koenraad Van Cleempoel (2014) investigate the role of lighting on consumer's perception of atmosphere, emotions, and behavior. The atmosphere measured the perception of store space on coziness, liveliness, and tenseness parameters. Image perception reading was done to know the perception of price, quality, and service. Impact on emotional dimension including pleasure and arousal were studied. The absolute time spent inside the store was estimated and purchasing conduct was estimated by enlisting the clients' real buys, all the more explicitly the number and kind of items purchased, and the aggregate sum of credits spent. Three different yet realistic lighting set up was presented to three groups of "shoppers" in a (semi-)realistic store environment. The perceptual outcomes do recommend that even with just a moderately unpretentious distinction in lighting, well inside utilitarian limits for a general store setting, the atmosphere of in other cases indistinguishable store conditions can be influenced. Secondly, for emotional perception, the setting with warm lighting and complement lighting in the store evoked essentially increasingly pleasurable

sentiments in members, which was additionally connected with coziness, liveliness, and a decline in tenseness. Finally, huge impacts on explicit conduct or behavior were not found. Except for a pattern for individuals to stay longer in the warm store condition, by and large, there was no reliable effect on any of the components of the in-store conduct that were broke down.

The study showed no direct impact on the purchasing behavior but for the retail design, given the capability of atmosphere to work as a forerunner for brand image and other store qualities, putting resources into lighting that imparts the correct message in line with the brand, is a significant procedure for an effective retail condition.

Anshu Singh Choudhary (2016), in her research work describes the various tools of visual merchandising and how consumers get affected by these in retail industry. As a part of research, she also throws light on the use of illuminations and lighting in the store environment. She describes how results from multiple studies have generally demonstrate that stores that are brilliantly lit, with the lights cunningly mixing with the interiors, lead to higher consumer comfort, and thus, more sales. Various sorts of lighting are utilized on various floors, the

change reflecting the different items that are in showcased on a specific floor, the proposed target customers, and the season. The women floor, for example, is frequently unpretentiously lit with delicate lights or on the other hand, in summers, cool pale blue lights are utilized to affect an impression of coolness and solace. The cautious utilization of spotlights encourages the appeal of items, like precious stone and gems. Studies show that legitimate lighting can increase sales by up to 20%. Effective lighting is a key that puts the first impression of the product on any consumer and thus is an important measure in visual merchandising. Great lighting can act as the customer's guide in store, uncover the shading of the product, show the styling and fitting and underline the great characteristics of the outfit, helping the product to be pre-offered to client.

J. Deepika, T. Neeraja (2014) in their research work studied the impact of lighting on the consumer's shopping behavior. The exploratory research method was used for this purpose on the sample size of 100 customers in the city of Hyderabad and Secunderabad in Andhra Pradesh, India. These respondents were selected randomly from 10 different stores immediately after their purchase, their responses were recorded about their demographics, shopping experience, time and money spent, impulse purchase keeping them as the dependent variable. The quantity of lighting being the independent variable under study. The lighting parameter was selected at different parts of the store. More than 25% of the customers were highly impacted by lighting in retail cloth stores and making impulse purchases. Though there was no relationship established between the store lighting and planned purchases of the customers. Though there was a moderate impact detected between store lighting and impulse buying, yet almost 73% of the buyer said the store lighting tempted them to buy something. The effect of lighting in the retail stores on the time spent by buyers in shopping was seen as moderate. The lighting in the retail clothing store didn't seem to be a factor that can impact the time spent in shopping by buyers to large extent. Anyway, the lighting condition demonstrated a moderate degree of impact on shopper time spent in shopping. Similar patterns were observed for the relationship between the lighting and the money spent by the consumer in the store.

Research Methodology

Exploratory research design is chosen to study the impact of lighting on the consumer in the retail store. The study also included different store environment elements and captured the response on the influence of each of them including lighting. In the research, we also tried to find a few categories which have more effect of lighting in-store by questioning the respondents about their interest level in products inside the store vs outside the store. Since the brand perception is also the area of research covered, the respondents were asked to associate a "bright and adequate" lighting system and "dim" lighting system in retail stores to their idea of the brand. Their shopping experience in both the lighting system was asked to be rated. Apart from this influence of fitting rooms' lighting in the applicable categories was also recorded.

Sampling Procedure

The research is conducted by surveying 226 people all across India. The sampling method chosen is that of Convenient Sampling. The method is chosen due to ease as the research involves familiarity with retail shopping experience. In convenient sampling the sample is chosen which is easily accessible and close by. Since the interest target of research is also around the same consumer group, the method eliminates any bias that could have occurred. The respondents recorded their responses in a form which questioned them in detail about their shopping conduct with respect to store lighting. In terms of demographics the selected consumers belong to urban cities where consumers are exposed to retail stores for clothing, jewelry, electronics, furniture, etc. in malls and exclusively designed showrooms. The age group ranges between 18-35 years. These are working professionals who are regular visitors to retail stores and make purchases frequently. This group was targeted at keeping the young urban audience in mind. Switching between brands is usually found to take place in this consumer group and thus what role lighting can play to enhance their shopping experience to maintain their loyalty towards one brand was under observation. Their responses are then analyzed to understand the impact of lighting on their buying behavior and brand perception.

Variables and the measurements

The independent variable taken is the quantity of lighting parameter and dependent variables are the duration of the store visit, no of trials in fitting rooms, shopping experience. The quantity of light was considered for window lights, aisle lights, signboards, shelf lights, and floor and ceiling lights. For dependent variables, the impact on various factors such as store visit, duration of visits, interest in the product, impact on visiting the trial rooms, the shopping experience was rated on the linear scale from 1-5. The consumers were also asked about the keywords they can recall for the store with bright and dim lighting respectively.

Key Objective

The entire research is divided into three parts to study each in detail and analyze. Analysis of factors around store environments that attract customers to visit the store is the first area of research. Second is the impact of lighting on the shopping experience and their shopping behavior. After this, the brand perception for the retail stores with bright illumination and dim illumination was observed and analyzed.

To begin with, different factors that could impact the customers' visit were recorded and store lighting being one such factor was analyzed.

Factor 1: Aesthetics of the store which is the basic theme of the store

Factor 2: Lighting, which is the entire lighting set up including the contrast, tone and lighting temperature. For easy understanding, we have kept the values to be bright and dim.

Factor 3: Color scheme used in the retail store.

Factor 4: Store Design, which includes the way products are displayed.

Factor 5: Fragrance, store environment touches all the sensory elements of the customers and thus fragrance within the store is taken into consideration.

The second part of the study focused on the impact of store lighting on their shopping experience and for understanding the same, the parameter considered are:

Parameter 1: Their duration of the store visit Parameter 2: Their shopping experience in the store

Parameter 3: Their frequency of visiting the trial rooms

The last part of the study is to pay attention to the perception that consumers form about the brand based on the lighting set up of the store. This is an important aspect of the study to understand the role of lighting design while setting up the store so that an informed and optimal decision can be taken by the brands to influence their customers and make them aware of the image the brand wants to portray.

Results and analysis

For the first part, factor analysis on the parameters mentioned above was done to find the factors which influence the decision to visit the store apart from the product and offerings there. SPSS is used to carry out this activity and the result is further discussed for detailed analysis.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.713
Bartlett's Test of Sphericity	Approx. Chi-Square	17.846
	df	10
	Sig.	.018

The value of “Kaiser-Meyer-Olkin Measure of Sampling Adequacy” is 0.713 which validates the adequacy of the sample size taken and infers that the sample lies within the acceptable range.

The significance value is 0.018, lesser than 0.05 and hence the model is significant with a 95% confidence level. We have selected the extraction method as the principal component and the rotation method as varimax. As per the rotated component matrix five factors, based on their similarity factors, are grouped into three components. The factors with high similarity are grouped together as one component.

Rotated Component Matrix^a

	Component		
	1	2	3
Aesthetics	.521		
Lighting			.954
Design	.722		
Colour	.852		
Fragrance		.824	

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

The first component has clubbed together with the three factors which are aesthetics of the store, design of the store, and color scheme of the store. These three factors together form the physical properties of the store’s visual architecture. They are interrelated parameters which the designers consider while planning the over store look. The second component is the lighting parameter. Lighting is again a visual tool to attract customers. Lighting is not only the mood setter once the consumer is with the store but it also makes the store stand out among the many in the same area. The lighting on the banners, logo, entrance, etc. grab the attention, and thus this parameter is crucial to analyze while observing the factors influencing the visit to the store. The last component is the store fragrance. This is very important usually in food and beverage stores, dining outlets, cosmetics outlet. Brands like Starbucks or Dior use fragrance as an intrinsic part of the store ambiance.

The final output of the factor analysis brings us to the three refined components to focus on while designing the store’s look and feel to ensure the maximum attention of the visitors and three important components. First are the physical properties of the store’s visual architecture

which includes store aesthetics, design, and color scheme together. Then we have lighting as a component that will further be discussed in detail to study its influence on customers more closely. In the end, the last component is the fragrance which is the important component of store ambiance.

For the analysis of the second part of the survey, the five-point Likert scale is used. The respondents were asked to answer certain questions by rating the influence on the scale ranging 1-5 with 1 being the lowest and 5 being the highest. For the ease of understanding, we have clubbed the score of 4-5 as high, 3 as neutral, and 1-2 as low.



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	High	Neutral	Low
Duration	138	54	34
Shopping experience	168	40	18
Trial Frequency	160	48	18
Buying Decision	132	62	32

With the data observed above, we can safely say that the lighting impacts the consumers in the retail stores as the values in the high column are much higher than those in the other two.

Though the impact on actual buying could not be captured, the influence is observed. This helps us in understanding that in spite of being a relatively newer concept in India, the lighting set up influences the mood and behavior of the Indian consumers.

Now to study the brand perception in the bright vs dim lighting system of the store, we analyzed the data as given below. When asked about if the lighting set up has any influence on consumers when it comes to brand perception, 59.2 % of the respondents rated lighting as a highly influential factor while 26.5% were unsure about it and 14.2 % considered it as a low.

After this, the respondents were asked to associate a few words with the brands with bright vs dim lighting system and the responses are as mentioned below:

Bright	Dim
Trustworthy	Cheap
Pleasant	Dull Products
Customer	
Oriented	Gloomy
High Quality	Unwelcoming
luxurious	Cost saving
Premium	Average
More clarity	Misleading

When observing the sentiment using these keywords, we see the pattern of positive perception towards the brand with brightly illuminated stores. The negative patterns towards those with dim lighting is also observed. To get more clarity on the same, we also checked for their interest in the product while they are in the store, 71.7% of respondents agreed that they find products more interesting in the store. 36.3 % of the respondent also agreed that their interest in the product changes when the examine it outside the store after the purchase while 43.4% were unsure of the same. Among the categories of clothing, Jewelry, food & Beverages, electronics, and furniture, the highest change in interest were observed in the clothing category, the color of the product is the most common reason behind the same according to respondents.

Discussions

Kotler (1973-74) has noted the importance of in-store lighting on the store image and the studies on the western countries have also confirmed that in-store lighting can set the mood and act as a visual merchandising tool to grab the attention of the consumers. This study approves of the similar patterns on Indian consumers. While the in-store lighting could be set up just to make the navigation possible across store, if utilized properly it can give brands a happy and satisfied customer who enjoy his or her visit to the store. A little bit of attention in putting up the perfect lighting according to the category of the product can give a pleasant experience to the visitor.

Though the lighting can not be defined just on the quantity parameter set as bright and dim, to avoid the complexity in the research these values for the parameter was considered. I agree to the fact that the same lighting set up can not be effective for a cosmetic store vs a furniture store and therefore from the brands perspective, thorough research should be done by them individually to use lighting as their advantage in bringing in more customer. With the ascent of e-commerce and online shopping, high-street stores are battling significantly harder to catch the eye of purchasers. Just as music, aroma and temperature, in store lighting is critical to make for customer a desirable shopping experience, and one that makes buying things in store more alluring than the undeniably mainstream options. Thomas Saint-Noir, Marketing Executive at the Simpson Group, said: "Lighting assists in highlighting products and allows a product to shine in a way that natural light cannot achieve. Lighting impacts what we think of a product, and whether to purchase it or not."

Now, discussing on lighting as an influential factor, the study is well in line with the previous literatures which examine the impact on lighting on consumers. Though the study does not show any difference in the money spend by the customer in store, it observes that the time spent there is influenced by the lighting set up. Lighting makes the products look more appealing and thus by highlighting the specific product with proper lighting,

stores can divert the traffic towards that product. The customer tends to pick more product to examine when the lighting is bright in store, reflecting the product to grab customer's attention. This eventually helps brands in keeping the customer in store for a longer duration. Signboards and banners outside the store filled with interesting lighting patterns are helpful in attracting the customer in the store. The audience selected as sample in the study are young urban consumers and therefore it is important to keep in mind that they are more aware of the going trends and the switch between the brands is very regular affair in the age group which is 18-35. Apart from lower brand loyalty, brands also have to keep in mind that such consumers are looking for an overall shopping experience and therefore from lighting and the window showcases to lighting on shelves, from lighting on billing counter to lighting in trial rooms all becomes the part of the experience that the brand is serving to the consumer. In the times where customer retention is a difficult job for brand executives, providing customers addition value by touching all the senses of connectivity seems to be an effective way.

The lighting within the store can be used to reflect the overall personality of the brand. Therefore, it become the matter of utmost importance for the brands to ensure their target audience as well their product is in sync with the atmosphere, they are trying to create in their retail store. In earlier times, these small components of shopping environment might not have help that much of value but in today's time these components significantly impact the business. Today it's possible to control the intensity of light based of the time and weather outside. The lights can be controlled through a central system. Music and lights can be synced together and what an attention-grabbing tool it can act to hold the customer in the store. The more time he or she spends in the store, the more exploration of merchandise happens. When a particular product is all shiny and highlighted with light, the chances of impulse buying from the shopper also get increased.

When coming to brand perception, this is one crucial parameter of building a brand that every marketer is cautious about. It is the total sum of all the feelings the customers have about the brand including their attitude and behavior around your products. Though brand through their advertisements, promotions and brand communication convey their value proposition and what they stand for, its ultimately the consumer who decides their perception about a brand. From product development and product packaging to public relations and social engagement, brand perception is a top-level measuring stick of a product's visual presence, goodwill, and emotional character. The sample audience in the survey, when asked to map their brand image where bright store lightings are used, they mapped it to luxurious, premium, high quality, convenience and cheap, low quality, dull environment, unwelcoming to otherwise store conditions. Thus, store lighting becomes a very important component while designing the store and the amount and types of lighting depends on the category of the product the brand is offering in the store. For example, there are a lot of researches happening on how to make fruits and vegetables looks fresh in the store using the lighting. Similarly, for clothing store, the type of lighting system would be different from that used for a car showroom. There stands an huge area of research to study the impact of lighting depending upon the different categories and mapping customer's brand perception on the same.

Conclusion and recommendations

The study was done to understand the impact of lighting on Indian consumers. The research found that store aesthetics influences the consumers' visit to the store. Apart from the structure and design of the store, lighting not only affects consumers while they are inside the stores, but it also has some role in bringing them to the store. It was also found that consumers tend to stay

more in a brightly illuminated store. The research found that for few categories, consumers' interest in the product changes outside store lighting. Lighting can also impact the chances of trial visits in retail stores.

When it comes to brand perception it was found that consumers relate the words like "classy", "luxurious", "attractive", "premium" etc. to a brightly or adequately illuminated store. The consumers also related the stores with din lighting systems with keywords like "cheap", "low

quality", "dull quality", "gloomy" and "unwelcoming". Such associations are not good for brand image and can

reduce the number of customers visiting the store thus eventually impacting sales.

The study infers that consumers are definitely impacted by the lighting in retail stores. Though lighting might not affect the immediate sales directly yet it can act as a crucial tool to attract customers to showrooms and make them explore the merchandise. Certain products can be highlighted using lighting and thus pulling more traffic. Also, the banners and the signboards outside the store when used with proper lighting grab the attention of consumers towards the store.

With hundreds of thousands of options available today for consumers, retaining the customer is one of the biggest challenges faced by brands and to do so they have to be on the top of recall for consumers. This can not be achieved only through the products and services that the company offers; consumers expect much more than that. They look for shopping experience now more than ever. This not only adds up to their satisfaction but also helps brands in spreading the word about the brand. All the brands are aware of the power of word-of-mouth marketing and thus a happy consumer surely brings in more business. For the same reason, the brands do not want to leave any stone unturned in enhancing the experience, and store lighting are one of the tools for doing so. The perception that consumers form about the brand with brightly lit stores is more on the positive side and therefore paying attention to store lighting while designing the stores is a must for brands. There are different kinds of lighting for different parts of the stores. Window lighting, cash counter lighting, trial rooms lightings, shelves lighting, etc. can be manipulated to trigger the consumers' minds. The study also observed that consumers related luxurious and trustworthy brands with a better lighting system. Consequently, designers and brands can refer to these findings to plan and structure the lighting in retail stores so as to pull in clients.

Limitations

The lighting industry is an industry under innovation. With thousands of products coming in the market with different luminous flux, color, tone, and temperature, the study has a wide scope for exploration. Different type of lighting is required in a different category of markets like clothing, food and beverages, electronics, furniture, etc. For instance, a gadgets retail condition could be intended to have high contrast lighting conditions that will instigate more significant levels of joy among customers, and accordingly improve their probability of making a buy whereas the same amount and type of lighting might not be suitable for a wine store. Also, with Artificial Intelligence and IoT enabled lighting systems, it becomes more difficult to take the exact parameters for lighting. The research took lighting as a whole parameter whereas a more detailed study can be done by changing the wattage and flux in different stores and then analyzing the behavior. In spite of the fact that this investigation didn't test subjects' real shopping conduct, the discoveries can even now offer new information about the impacts of ecological improvements on customers' enthusiastic and mental reactions

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