

# Coloring consumer`s psychology using different shades the role of perception of colors by consumers in consumer decision making process: a micro study of select departmental stores in Mumbai city, India

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## **Key Words**

Colors, Perception, Consumer decision making, Departmental stores, Mumbai

## **Abstract**

*Color plays a significant role in triggering emotions in people. The current research studied the role of perception of colors in consumer decision making process. The study focuses on how the departmental stores by using different colors/color combinations in logo, the brand name, the tagline, and the slogan reach to their audiences. How are these colors interpreted by audiences and do they have a positive or negative effect on decision making? How do consumers perceive these messages and eventually decide to make purchases into a particular departmental store. Data collected from fifty respondents through an administered survey by unstructured questionnaire method is analysed both quantitatively and qualitatively. The sampling technique used is convenient sampling. The data collected is mostly primary in nature. Major conclusions of the study were that colors do play an important role in triggering emotions of the consumers. Consumers relate certain colors to socio economic class and accordingly decide to choose their shopping place. They were also able to recall departmental store names on the basis of color/color combinations. However few respondents agreed that color does not play any important role in their decision making; it is in fact the appearance, music played in the store, services offered by the store that help in decision making.*

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## **Introduction**

Color is considered as one of the effective tools in advertising. A study of phone directory ads by Derrick Daye (2007) concluded that ads in color are read up to 42% more than black and white ads. Market researchers argue that color affects purchasing habits. Impulse buyers respond best to red-orange, black and royal blue. Shoppers, who plan and stick to budgets respond best to pink, light blue and navy. Traditionalists respond to pastels - pink, rose, sky blue. But to check accurate color effects and perception of consumers is difficult as there are many parameters such as culture, gender, age, socio economic class, and religion etc. Importantly, cultures differ in their artistic expressions as colors represent different meanings and aesthetic appeals in different cultures. The following colors are associated with certain qualities or emotions:

- i. Red --excitement, strength, sex, passion, speed, danger.

- ii. Blue -- (listed as the most popular color) trust, reliability, belonging, coolness.
- iii. Yellow --warmth, sunshine, cheer, happiness
- iv. Orange -- playfulness, warmth, vibrant
- v. Green -- nature, fresh, cool, growth, abundance
- vi. Purple --royal, spirituality, dignity
- vii. Pink -- soft, sweet, nurture, security
- viii. White --pure, virginal, clean, youthful, mild.
- ix. Black --sophistication, elegant, seductive, mystery
- x. Gold -- prestige, expensive
- xi. Silver -- prestige, cold, scientific

Na Ree Lee (2002) states that color as a sign offers possibilities of many interpretations rather than only one way of looking at any issue. Humans experience message in color as it triggers their sensations and thus influence can be seen on buying decisions.

This topic has not been studied from Indian consumers' perspective so far. The paper will help marketing research, especially concerning to experimental design and the use of colors to extract information on consumer behaviour. Experiments can be designed using label/logo/advertisement colors and/or words in different marketing fields. The study can also develop a better understanding amongst marketers and management regarding usage of color/s and words in any communication to its customers and help them create better brand and corporate images, thus changing consumers' behaviour.

## Review of Literature

### 1 What are colors?

The first circular diagram of colors was developed in 1666 by Sir Isaac Newton. Since then many studies have been conducted on numerous variations of this concept by scientists and artists and have debated on the validity of one format over another. But any "color circle or color wheel" representing a systematically arranged series of shades has value. (Color Matters)



**Chapter 2. Fig 1. Primary Colors**

Red, Yellow and Blue



**Chapter 2. Fig 2. Secondary Colors**

Green, Orange and Purple

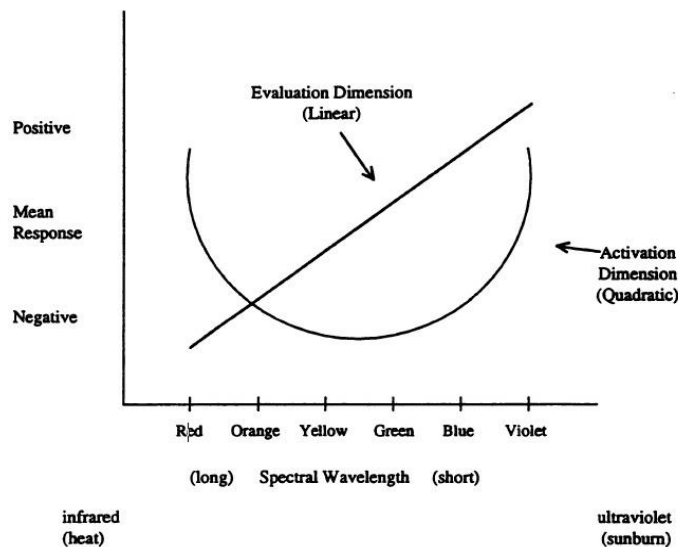


**Chapter 2. Fig 3. Tertiary Colors**

Yellow-Orange, Red-Orange, Red-Purple,  
Blue-Purple, Blue-Green, Yellow-Green

## 2 How colors affect human beings?

Ayn E Crowley (1993) mentioned that certain colors are more activating, they stimulate brain wave activity, skin conductance, etc. and while others are more deactivating. Colors can be placed in order of long to short wavelengths as follows: red, orange, yellow, green, blue, and violet (see figure 4) which is just a small part of the total spectrum of wavelengths. Wilson (1966) states that slightly longer wavelengths than visible red are called “infrared or heat-producing wavelengths”. Further Pavay (1980) mentions that the “opposite end of the spectrum, beyond the blue/violet visible wavelengths are ultraviolet or sunburn-producing wavelengths”. The color spectrum is viewed as ratio scale when wavelength and the visible spectrum are used to map colors (Stevens, 1946). Many researchers have agreed that color represents a “nominal variable with no natural ordering” (e.g. Jacobs and Suess, 1975; Bjerstedt, 1960; Sallis and Buckalew, 1984) and used in statistics texts as a nominal variable (Armore, 1973).



**Chapter 2. Fig 4. ‘Two dimensions’ hypothesis regarding consumer response to color**

Based on “skin conductance measures and conductance change (galvanic skin response) data” Wilson (1966) determined that red is more arousing than green. Kroeber-Riel (1979) confirmed that processing of advertising depends on arousal. This arousal is specifically useful in increasing long- term memory as compared to short-term memory. (cf. Singh and Churchill, 1987)

Sharpe (1979) categorized colors into a warm group e.g. red, orange, and yellow and a cool group e.g. green, blue, and violet. Cool colors especially blue are consistently preferred over warm colors (cf., Silver and McCulley, 1988), although some cross-cultural differences have been found (Wiegersma and Van Der Elst, 1988). Likewise, Mehrabian and Russell (1974) found that green to blue region of the visible spectrum give maximal pleasure linked with colors.

### **3 What are departmental stores?**

Marketing primarily focuses on making and selling consumer wants. The departmental stores were established to please the customers by giving him/her the choice of selecting his needs. Any business needs to understand the consumer and provide him/her with his/her wants. Businessman needs to make efforts to induce consumers for purchasing products in a particular shop. (A.Sukumar, 2008)

### **4 Consumer Behaviour and Marketing**

The process by which individuals plan and purchase economic goods and services and decide whether what, when, where, how and from whom to purchase is known as consumer behaviour. Charles G Martina on buyer behaviour states, "instead of trying to market what is easier for us to make, we must find out much more about what the consumer is willing to buy - we must apply our creativeness more intelligently to people, and their wants and needs rather than to product".

Major characteristics of buyer behaviour are:

- a) Physical activities such as walking through the market to look at the products and mental activities such as attitude formation and knowing preference of a particular brand.
- b) Internal factors such as wants, purpose, perception and attitudes in addition to external factors related to environmental influences such as the family, social groups, cultural, economic and business. (A.Sukumar, 2008)

### **5 What is Perception?**

"Perception is the process by which an individual selects, organizes and interprets information inputs to create a meaningful picture of the world". Information inputs are the sensations received through sight, taste, hearing, smell and touch. Persons at the same motivated stage may act in a quite different manner if they perceive the situation differently. ([www.udel.edu](http://www.udel.edu), n.d.)

### **6 Indian Retail Industry**

In spite of approx 12 million retail stores in India which are more than rest of the world put together, retailing in India still remains in the unorganized sector. The first decade of modern retail was a shift from traditional channels of buying and selling to more new formats such as department stores, supermarkets and specialty stores. Retailing is forecasted to increase from 2 % to about 15-20 % by the next decade. Therefore, the retailers will have to support the large retail infrastructure in terms of

malls and superstores that are being created. The biggest challenge that today's leading retailers will face is creating demand than diverting demand. Mahesh (2011) signifies following factors of retail prospects in India:

- At 271 million, one of the largest consuming bases in the world, forming 27% of the total population.
- High spending community below 45 years comprises 81 % of the population.
- A young population with 54% population below 25 years
- Increased literacy rate and number of working women.

Indian Retail Report (2007) states that organized retail is growing rapidly and the emergence of large organized retail chains like Shopper's Stop, Lifestyle, Pyramid, Globus, Westside etc. are examples of the same. The report further adds that "Indian retail industry is the largest industry in India, with an employment of around 8% and contributing to over 10% of the country's GDP and is expected to rise 25% yearly. It's being driven by strong income growth, changing lifestyles, and favourable demographic patterns and by 2016 it will be worth US\$ 175- 200 billion. It's also one of the fastest growing industries as in 2007 it was worth US\$ 320 billion and is increasing at the rate of 5% yearly. A further increase of 7-8% is expected by growth in consumerism in urban areas, rising incomes, and a steep rise in rural consumption."

BRAND	RETAIL PRESENCE				RETAIL OUTLETS				
	end-'04/ 2004-2005	end-'05/ 2005-2006	end-'06/ 2006-07 (projections)	Projections for 2010	end-'03/ 2003-2004	end-'04/ 2004-2005	end-'05/ 2005-2006	end-'06/ 2006-07 (projections)	Projections for 2010
Globus	5	8	14		7	7	12	20	120
Westside	10	11	14		11	16	16	23	
Shoppers' Stop	9	10	12	20	13	16	20	26	49
Pyramid	3	6	8	14	3	3	7	11	30
Lifestyle	5	5	9	16	5	7	10	19	41
Ebony	5		7			9	8	7	
Pantaloons	9	15		30		12	21		80
RETAIL SPACE ('000 SQ.FT.)					RETAIL SALES (INR CRORE)				
end-'03/ 2003-2004	end-'04/ 2004-2005	end-'05/ 2005-06	end-'06/ 2005-07 (projections)	Projections for 2010	end-'03/ 2003-2004	end-'04/ 2004-2005	end-'05/ 2005-06	end-'06/ 2006-07 (projections)	EXPANSION PLANS
	140	195	290	1240	80	82	109	180	30 outlets by 2007
210	220	320	550			166	228	358	
525	753	951	1507	3627		507	678		34 outlets by 2007
124	180	420	660	1800					15 outlets by 2007
	268	342	746	1934	230	306	340	525	27 outlets by 2007
	167		140			85			11 outlets by 2008
	288	485		2000					42 outlets by 2007

Source: Indian Retail Report, 2007



## **7 Departmental Stores in Mumbai**

Departmental stores offer wide range of products under a single roof along with other amenities. Due to huge population, good earning consumer society, industrialization and modernization in Mumbai, it provides a huge amount of customers to be served. The retail consulting and research agency KSA-Technopak in their Nov2008 report had predicted that by 2010 annual retail sales by chain stores will reach 21.5 billion in Indian Metros. Government Policies are also favourable to Indian Retail sector in regard to FDI. Examples of some renowned Departmental Stores in Mumbai are Shoppers stop, Westside, Pantaloons, Big Bazaar, Spencers, Reliance Fresh, Lifestyle, Central, Wal Mart etc. (Arpit Mankar, n.d.)

## **8 Color & Brand Identity**

Brand identity is done to imprint brand's name and image in the minds of people and color plays a significant role in creating it. When checking a visual system shapes and colors play an important role. For better brand recall and perception these colors and shapes within the product category must be different. For instance, burgundy and forest green are perceived to be upscale while an orange label or package indicates an inexpensive item. Many researchers have also concluded that colors do impact on a person's state of mind and cognitive ability. For instance, pink has been shown to increase a person's appetite and calm prison inmates. (Consumer Report retrieved from [www.scribd.com](http://www.scribd.com), 2010)

## **9 Impact of color on consumer purchase behaviour**

"Color is vital in marketing. Some products have been re-energized and companies have been reinvented because of color. New products adopt certain color/s as part of their identity, and the simplest icons can take on a persona. Brands get identified with color that can be recognized even though brand name is not visible. Effective use of color is obvious in the food and beverage industry. Color affects the adrenal glands, tempting the taste buds," says Leatrice Eiseman, Director, Pantone Institute.

Munich Personal RePEc Archive in their report on product characteristics and quality perception emphasized that colors have meanings and are a fundamental tool in corporate marketing strategies. These meanings are used for the purpose of product and brand differentiation (Schmitt & Pan, 1994) and also on the basis of consumer perceptions (Grossman & Wisenblit, 1999).

Consumer notice colors first on a package (Danger; 1987, Garber et al; 2000 & Schoormans & Robben; 1997) and these preferences regarding colors and patterns impact their brand choices (Kojina et al. 1986). Colors also communicate the quality of the brand (Gordon et al. 1994) and impact brand evaluations of consumers.

Colors are associated with objects on different dimensions. The sequence of colors follows the hue dimension on an activity scale of preferences. Hot colors (e.g. red and

yellow) lean towards activity, black and white are neutral and cold colors (e.g. green and blue) are on passive end (Osgood et al. 1957). More saturated colors make object appear more effective. It appears that “the evaluative effect of color interacts with the nature of an object, whereas the effects of color upon judged activity and the potency of objects with which they are associated are systematic and consistent with the hue and saturation dimensions, respectively” (Madden *et al.*, 2000).

Red and Orange are highly stimulating shades. Red appeals more particularly in printed text and are linked with fire and heat and therefore used by companies when offering a hot or free deal. Orange is a friendlier color than Red and is mostly liked by children aged 3-6 and adolescents. Pink is perceived as sweet and appealing whereas Yellow is referred to as a comforting color and interpreted as delicious, creamy, tangy and tart (when associated with citrus). Green is considered refreshing, healthy and is connected with nature and vegetables. It does not appeal when associated to a non-vegetable food. Sky indicates peacefulness and trust and sea suggests loyalty. Therefore, Blue color infuses same feelings in products and ads. Many banks use blue as it indicates dependability. Blue is pure and cool and is a perfect color for products like bottled water. It has little appeal in the context of food especially for adults as they find it strange, but kids love it as it gives a different look.

Although consumer preferences change with trends in design and fashion but their perceptions of and responses to the basic color families rarely change. In fact, different colors induce different emotional states. Memory retention studies conclude that a word or phrase printed in color than in black and white is 78% more likely to be remembered by consumers. Printed word activates the left brain whereas color activates the right brain and therefore when both are combined then it impacts consumers with better recall, recognition and attention. Choice of right colors can attract consumers and also influence decision making especially at point of purchase where they merely spend .03 of a second glancing at each product.

Na Ree Lee (2002) states that colors improve efficiency of the message and make them appear real as they form a visual concord of the elements projected in the ad. They can also lead to primary source of subconscious persuasion, but wrong colors may keep the customers away from considering product for purchasing.

## **Research Design**

### **1 Research Questions**

RQ 1: How different colors used by the departmental stores in their logos are interpreted by consumers?

RQ 2: Do colors help consumers in creating/ increasing brand recall?

RQ 3: How do consumers perceive these colors and eventually decide to make purchases into a particular departmental store?

## 2 Methodology

Administered survey by unstructured questionnaire method was used. A preliminary survey was conducted and respondents were asked to give three departmental store names they recollect. Out of these mentioned store names top ten stores were chosen for the purpose of this study. The names of these stores are: Westside, Shoppers Stop, Pantaloons, Big Bazaar, The Loot, Spencers, Reliance Fresh, More, Central and Lifestyle. The logo colors of the selected stores were downloaded from their corporate websites and the questionnaire was designed accordingly.

Respondents included both male and female from the five age groups namely 20 & below, 21- 30 years, 31-40 years, 41-50 years and above 51 years. Convenient sampling method is used 50 samples were studied. The sample was collected during the period starting from 1<sup>st</sup> Dec 2010 to 31<sup>st</sup> Dec 2010.

The collected data was analyzed using percentage analysis and diagrams using SPSS software. The questionnaire was majorly designed to know consumer's preferred shopping location, their recall value of sample store logos, reasons for preferring a particular store over another. Consumers were asked to state their feelings when they see the logo color of the displayed in the questionnaire. This association was checked at two dimensions i.e. Activation and Evaluation.

## 3 Discussion and Conclusions

Color is used strategically to create a brand/ corporate image by using it in all communication materials such as on packages, logos etc. When it comes to features of corporate or product packaging, logos become one of the most important features. If there is recall of logo then there is a recall of brand too.

Out of the total respondents 67% agreed that they prefer departmental stores as their shopping place over general stores, grocery stores, online shopping, TV shopping, buying from sales representative etc. and confirmed that they prefer it because it is time saving, ambience is beautiful, sales representatives are there to assist them in shopping decisions, stores have trial rooms, free alteration facility, parking space, home delivery and goods are of better quality. 12% consumers agreed to that shopping in stores is of prestige rather than shopping in *kirana* (local shops) stores as crowd there comes from a better class. But when it comes to cost almost 82% of the respondents stated that it is very expensive to shop in stores and prefer shopping when store offers discounts and promotion schemes.



#### 4 Customer profile of stores

83% females and 65% males stated that they prefer stores over other places. Respondents from the age group of 20 and below, 21-30 and 31-40 years preferred stores as compared to the ones from 41-50 and above 51 years age groups. Of the total ten mentioned stores, females preferred Pantaloons, Big Bazaar, Spencers, Reliance Fresh, More and Life style whereas males preferred Westside, Shopper's stop, Central, The Loot and Big Bazaar. Age wise breakup of store visitors is:

- Below 20 years preferred Central, Lifestyle, and The Loot and
- 21-30 years preferred Pantaloons, Lifestyle, Big Bazaar, Westside, Central, Spencers, and Reliance Fresh.
- 31-40 years preferred Shopper's stop, Westside, More, Pantaloons, Big Bazaar, Reliance Fresh, and Lifestyle.
- 41-50 years preferred Shoppers Stop, More and Big Bazaar.
- Above 51 years preferred Shopper's Stop and Big Bazaar.

#### 5 Demography and Color Recall

The study confirmed that color is an important part of brand communication. Below are the details of the color shades that were given to the respondents to recall:

a) **Shoppers stop: Black color**



b) **Westside: Blue and Green colors**



c) **Pantaloons: Green color**



d) **The Loot: Red and Grey colors**



e) **Big Bazaar: Orange and Blue colors**



f) **Spencers: Orange color**



g) **Reliance Fresh: Red and Green colors**



h) **Lifestyle: Black, Pink & Orange color**



i) **Central : Red color**



j) **More: Orange color**



62% of all the respondents associated colors with store names meaning they were shown colors and were asked to recall the store name. 58% associated store names with colors meaning they were given store names and were asked to recall colors used in the logos. Out of those who recalled color and store names, 80% females as compared to 32% males were able to recollect colors. Respondents from the age group of 21 & below, 21-30 and 31-40 years had more color recall over other respondents from the age groups of 41-50 and above 51 years.

### **3 Activation and Evaluation Dimension of colors**

Out of the ten logo colors used in the study, Red and Blue are categorised as primary colors whereas Orange and Green are secondary colors. Black and Grey are neutral colors and remaining all colors are tertiary colors.

Red and Orange are considered as hot colors and Blue, Pink and Green as cold colors. Cold color shades such as blue, pink and green had passive impact on respondents whereas hot color shades such as Red and Orange had active impact.

Women stated Lifestyle as a feminine store and agreed that they were able to relate to it. One of the colors in Lifestyle logo is Pink, which is perceived as a feminine and sweet color. Hence, the connection can be seen. Orange is perceived as a friendlier & inexpensive color which is used in the logos of More, Spencer's and Big Bazaar. Customers of these stores stated that they prefer it because it's comparatively cheaper. Green is often associated with nature and vegetables and something which is healthy for you. Those who shop in Reliance Fresh stated that they feel refreshing when they visit the store. 54% of the respondents associated Green as the color of Reliance Fresh. On the contrary, only 24% of the respondents were able to recall Green as a Pantaloons color and 12% as Westside color. The reason being Pantaloons and Westside are apparel stores and thus this disconnection was observed. But when asked about Blue color, respondents did recall Westside (54%) but only 34% related Blue as Big Bazaar color. In fact, Orange was more related to Big Bazaar. 87% of the respondents related Black as a Shoppers Stop color, reason being very few departmental stores have black in their logo color hence there is no clutter in the minds of the consumers.

When it comes to readability Black on White or vice-versa scores higher, closely followed by Red on White and vice-versa. This readability factor did help in recalling store names. Both Central and Shoppers Stop scored higher on recall value. When asked about Red, 72% of the respondents recalled Central and only 36% were able to recall The Loot. Both stores have consumer inflow of 30 and below years. These stores can be called as youth stores. But Central succeeded in projecting and recalling red as their logo color. The reason could be The Loot uses Red and Grey as its logo color. Black, Grey and White are considered as neutral colors and do not have register value, they scored less on recall value both at activation and evaluation dimension. Since, Loot uses both colors, customers tend to ignore it and in spite of using Red, their recall is less. Central uses Red

on White which scores second highest on readability score closely after White on Black and vice-versa.

Many respondents reacted positively on the activation and evaluation dimension of black color in spite of it being a neutral color. They considered it as dynamic, modern, mysterious, motivating, stimulating, and attractive color.

Hard colors (red, orange and yellow) are more visible and tend to make objects look larger and closer. They are easier to focus upon. They create excitement and cause people to over-estimate time. Soft colors (violet, blue and green) are less visible and tend to make objects look smaller and further away. They aren't as easy to focus upon. They have a calming effect, increase concentration, and cause people to under-estimate time. Central, More, Spencer's and Big Bazaar used hard colors and also scored high on color recall. Though blue and green are soft colors but it did score high on recall especially with Westside and Reliance respectively.

The colors can either enhance or weaken the perception of the departmental store. A consistent color and store combination is visible in the cases where either the store is often visited by the respondent or the color chosen is amongst the favourite colors of the respondent.

Crowley confirms that an activated consumer tends to indulge more in impulse buying. From the study it is clear that respondents found Red at more positive side of activation and had maximum color recall. Merchandise in a red environment was perceived as "up-to-date", this indicates that activation is more important than evaluation in driving perceptions of merchandise style. The results suggest use of red for retail environments where impulse buying of stylish merchandise is the goal.

Thus, from the above arguments significant conclusions can be drawn as stated below:

- More youngsters prefer to shop at departmental stores.
- Female prefer stores more over males.
- Big Bazaar is most preferred store amongst all age groups and also amongst males and females.
- Shopper's Stop is mostly preferred by older age groups.
- Central. The Loot and Lifestyle are mostly preferred by young customers.
- Lifestyle most preferred by females.
- More females were able to recollect color over males.
- Young respondents recollected more colors.
- Respondent's personal favourite colors affect his/her choice of store.
- Central and Shoppers scored higher on color recall.
- Green color must not be used in apparel stores.
- More, Spencer's and Big Bazaar are perceived as inexpensive stores.
- Hard colors as compared to soft colors scores high on color recall.

- 'Hot' colors and 'Neutral' colors are positively related to activation & evaluation dimension.
- 'Cold' colors are negatively related to activation & evaluation dimension.
- Combining cold colors with hot colors should be avoided.

Logo colors influences consumer's choice. Inappropriate choice of logo color may lead to strategic marketing failure. Furthermore, color is the least expensive way of changing a product. Thus marketers have to gain a lot from gaining more precise knowledge about the meaning/s consumers give to colors and perceive the corporate in turn.

## 5. Limitations and Scope for further research

Lack of an actual experiment hinders any conclusion and generalization of the research. The answers given by respondents are assumed to be true and the conclusions are drawn based on this assumption. Degree of sample error cannot be measured due to convenient sampling technique. Researcher has stated color names in the questionnaire and therefore the shade respondents might have in their mind is not judged by the researcher and the conclusions do not include this aspect. Thus, there might be varying views on the same. The sample may not be representative of the entire population. The study is limited to Mumbai only. Each geographical location gives a different scope for marketing studies and therefore change in geographical location might give different results and perceptions. Color alone cannot judge consumer perception regarding the store; there are other factors such as shape etc. also. Future study can be conducted to examine the meaning of color and words on sales and consumer inflow of departmental stores, effect of shapes and the color combinations, or it can be extended to products and brand evaluations.

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