

# **A study on the factors influencing brand personality and consumers' attitude towards dairy products**

## **Abstract**

India's dairy industry is witnessing significant growth, driven by factors such as rising disposable incomes, evolving consumer preferences, and the emergence of foreign brands. As the market expands, establishing a strong brand image becomes essential. This research focuses on assessing the brand personality of AMUL, a prominent player in the Indian dairy market, and its influence on consumer loyalty. Utilizing a structured questionnaire administered to respondents in Coimbatore District, this study measures consumers' attitudes towards AMUL, its brand personality. Through exploratory factor analysis, four key dimensions of AMUL's brand personality viz., activity, simplicity, responsibility and emotionality are identified. The findings reveal a positive correlation between brand personality and consumer attitude, indicating the importance of personality in brand perception. The study underscores the importance of aligning branding efforts with consumer preferences and suggests strategies for AMUL to enhance its brand image and brand personality. By leveraging these insights, AMUL and other dairy firms can effectively engage consumers, strengthen brand equity, and sustain market competitiveness in India's dynamic dairy landscape.

Keywords: Brand personality, consumer attitude, exploratory factor analysis, AMUL

## **1. Introduction**

For centuries, dairy products have been essential for people's diets and cooking traditions. These products, made from milk, come in various flavours and textures and offer many nutritional benefits (Min *et al.*, 2017). From milk to cheeses, yogurts, butter, and creams, dairy products are common in households, restaurants, and the food industry worldwide. They mainly come from mammal milk, with cow's milk being the most popular and widely produced. However, milk from animals like goats, sheep, and buffaloes is also used to make different dairy products. Making dairy products involves processing milk in various ways, resulting in a wide range of tastes, textures, and uses (Zhong, 2018).

Amul, a renowned dairy brand, has cemented its place in the hearts of consumers with its unique brand personality. Established in India, Amul has grown to become synonymous

with reliability, quality, and affordability. Its iconic mascot, the Amul girl, has been a constant presence, reflecting the brand's wit and relatability. Through its advertising campaigns, Amul has consistently connected with consumers on emotional and cultural levels, making it more than just a dairy brand but a part of everyday life. With its wide range of dairy products, including milk, butter, cheese, and ice cream, Amul continues to maintain its strong brand presence and loyalty among consumers (Jackson *et al.*, 2023).

### **Dairy Industry in India**

India's dairy sector stands as a beacon of success in the nation's post-Independence development narrative. With the highest livestock population globally, India boasts a robust dairy industry characterized by significant growth and innovation in the year 2021-22, India made the most milk in the world, accounting for about a quarter of all milk produced globally. Over the past nine years, from 2014-15 to 2022-23, India's milk production increased by 58%, reaching 230.58 million tonnes in 2022-23 (NDDB, 2023). That's an average annual growth rate of 5.85%.

The top five states producing milk in India are Rajasthan (making 15.05% of the total), Uttar Pradesh (14.93%), Madhya Pradesh (8.6%), Gujarat (7.56%), and Andhra Pradesh (6.97%). Together, these states make over half of all the milk produced in the country. In the year 2022-23, India exported 67,572.99 metric tonnes of dairy products to other countries, valued at \$284.65 million. The organized dairy sector, spearheaded by cooperatives like Amul, plays a pivotal role in processing and marketing milk products, contributing substantially to India's economic landscape. Moreover, India's burgeoning dairy market presents lucrative opportunities for both domestic and international players, fueled by factors such as rising disposable incomes and evolving consumer preferences.

In an increasingly crowded marketplace, brands serve as vital differentiators, offering consumers a unique set of promises and attributes. Plummer (2000) identified brand personality as a core element that contributes to brand identity and consumer perception. Brands, therefore, play a pivotal role in positioning organizations and fostering customer loyalty by aligning with consumers' personalities and values. Brand personality, encompassing human traits associated with a brand, serves as a powerful tool for marketers to communicate with consumers and create lasting emotional connections. As consumers gravitate towards brands that resonate with their own personalities, cultivating a distinct brand persona becomes imperative for driving preference and loyalty.

Considering these dynamics, this research aims to explore the brand personality of leading dairy brands in India. Through a comprehensive analysis, this study endeavors to shed light on the critical role of brand personality in shaping consumer perceptions and driving brand loyalty in India's evolving dairy market landscape.

## 2. Literature review

Recent research in marketing has shown that consumers tend to choose brands with personalities that align with their own, although this isn't true for everyone. Maehle and Shneor (2010) studied how different personality types influence brand preferences. They discovered that people generally prefer brands that mirror their own personality traits. To conduct their research, they used a scale developed by J. Aaker and Ekelund called the Diversity Icebreaker (DI) scale. Their findings revealed that individuals with a Blue DI personality type tended to steer clear of brands associated with excitement, while those with a Red DI personality type leaned towards brands embodying sincerity. However, the research didn't yield definitive results for individuals with a Green DI personality type, who are typically characterized as individualistic, non-conformist, and innovative.

Lin (2010) concluded that consumer's preferred brands with personalities that more closely matched their own self-concept. Representatives of "differential approach". Till and Heckler (2009) argued that traits of brand personality should not be identical to traits of consumer personality and marketers do a mistake trying to transfer consumer personality characteristics into brand personality and brand personality should be attractive to consumers, but not exactly the same as consumer. Keller (2008) defined brand image as one consisting of (1) user profiles, (2) purchase and usage situations, (3) personality and values, and (4) history, heritage and experiences.

Murat (2011) conducted a study in Turkey for Predicting consumers' behavioral intentions with perceptions of brand personality in Cell Phone Markets and showed that the dimensions of competency and excitement had higher impact on behavioral intention than the dimensions of traditionalist and androgen. Geuens *et al.*, (2009) came up with a new BPS that took all those critiques into account. The new scale consisted of twelve items and five factors, including (1) activity, (2) responsibility, (3) aggressiveness, (4) simplicity, and (5) emotionality. This brand personality scale resembled for a great part the human personality scale (i.e. Big Five). This made it easier for managers to create the right brand personality in view of the target group.

Saptarshi (2009) conducted a study to measure the brand personality of four brands in India using Aaker scale with factor analysis tool and concluded that each brand should be treated separately while studying their brand personality. Bejoy John Thomas and P C Sekar (2008) in their study focused on measuring the brand personality of Colgate brand in the Indian context and explored the model validity of Jennifer Aaker's Brand Personality scale. Confirmatory Factor Analysis revealed that ruggedness, competence, and excitement as the main dimensions of Colgate Brand Personality. Controversially, Bosnjak *et al.*, (2007) concluded that Aaker scale underwent a major criticism which related to the definition of brand personality in which demographic characteristics (*e.g.*, age, gender) are absorbed.

Brand loyalty was built over time through a collection of positive experiences that required consistent effort and attention to detail. Loyal customers were repeat customers who chose a brand or company without even considering other options. They bought more, and they bought more regularly, and they frequently recommend the brand to others (Manternach, 2010). The positive effect of brand loyalty was that loyal customers often provided more feedback to companies, allowing them to enhance their products and services accordingly to the consumers' wishes (Wong *et al.*, 2009).

### **3. Methodology**

The primary data is collected from the consumers of milk products in six taluks of Coimbatore. The respondents were contacted in person with a well-structured and pre-tested questionnaire and the data were collected from them. The purpose of the study was explained to them before giving out the questionnaire. Only the users of Amul products were taken for the study since they can give the much-needed information on the brand.

We used a statistical method to figure out what kind of personality the brand AMUL has. We looked at data we collected and used two techniques: one to explore different factors (exploratory factor analysis), and another to see how these factors are related (Correlation analysis).

#### **3.1. Exploratory factor analysis**

Saptarshi (2009) studied the brand personality of four brands in India. In his study he used exploratory factor analysis to measure the brand personality dimensions and inferred that each brand had different personality and that each should be treated separately for making strategies. Therefore, in this study exploratory factor analysis was used to measure the brand personality dimensions of the Amul brand. The 12 traits of Geuens scale were subjected to factor analysis technique.

Exploratory factor analysis was used to group the 12 traits of the BPS. Any one variable may be completely identified or grouped with one or more variables. It may be partially so identified, or it may be completely independent of other variables (Khoa *et al.*, 2023). The exploratory factor analysis is based on correlation coefficients. Statistical Package for Social Sciences 20 (SPSS) was used for doing the factor analysis. In this study, factor analysis was used to group the personality traits that will suit brand Amul.

The analysis was performed using the Principal Component Analysis method of extraction, along with Varimax rotation, which simplifies the results while maintaining orthogonality (Hill and Lynchehaun, 2002).

The Eigen values were examined to determine the appropriate number of factors. Factors with an Eigen value greater than one were kept for further examination. In order to measure the internal reliability of each factor, Cronbach's alpha, a coefficient of inter-item correlation, was also calculated for each item. Cronbach's Alpha coefficient, which shows internal consistency of the variables forming the scale, is used to evaluate the reliability of the study. When Cronbach's Alpha coefficient is 0.60 or less, the results related to internal consistency are not satisfactory. The value of Cronbach's Alpha should be higher than 0.70. When it is higher, the reliability also increases due to the value of correlation coefficient between variables (Ursachi *et al.*, 2015).

### **3.2. Correlation Analysis**

Correlation analysis is used to analyze the relationship between brand personality of the Amul and the customers' attitude towards Amul.

## **4. Results and discussions**

### **4.1 General Profile of the Sample Respondents**

The general profile of the respondents consists of basic details such as age, gender, family size, family type, annual income, occupational status, etc. This would help to understand the buying behavior of the consumers to a certain extent and also for framing useful suggestions and prescribing policy options.

#### **4.1.1 Age of the Respondents**

The consumers' wants and abilities always changes with the age. It also influences the choice of brand they consume. Thus, age is an important demographic variable and it is

essential to analyze the age of the respondents. The minimum age of the respondents was 17 and the maximum age was 54 and so for the convenience of study they were classified into four groups and the details are furnished in Table 1.

**Table 1 Distribution of the Respondents According to Age Group**

| S.No | Category     | No. of Respondents | Percentage   |
|------|--------------|--------------------|--------------|
| 1    | 15-25        | 60                 | <b>50.00</b> |
| 2    | 26-35        | 43                 | 35.83        |
| 3    | 36-45        | 9                  | 7.50         |
| 4    | More than 45 | 8                  | 6.67         |
|      | Total        | 120                | 100.00       |

It is clear from the table 1 that major share (50 per cent) of respondents was of 15-25 years age category and 35.83 per cent of respondents belonged to the age group of 26-35 years.

#### 4.1.2 Gender

Men and women tend to have different attitudinal and behavioural orientation. The present study focused consumer attitude towards AMUL brand and the loyalty towards it, hence the gender of the respondents was studied and the results are furnished in the Table 2.

**Table 2 Gender Distribution of the Sample Respondents**

| S.No | Gender | No. of Respondents | Percentage   |
|------|--------|--------------------|--------------|
| 1    | Male   | 32                 | 26.67        |
| 2    | Female | 88                 | <b>73.33</b> |
|      | Total  | 120                | 100.00       |

Among the respondents, the major share (73.33 %) was the female respondents and the 26.67 per cent of the respondents were males. This was because the female respondents preferred to provide data for the survey.

#### 4.1.3 Educational Level of the Respondents

Educational status is yet another important socio-economic factor that influences the purchasing behavior and the range of the products preferred by the consumers. The educational status classified in this study was based on the modified Kuppusamy socio-economic status scale for urban (Bhalwar, 2009). Certain categories were dropped due to the growth in the literacy levels and only the categories suitable at present were used for the study. Therefore, the educational status of the respondents was studied and the details are furnished in Table 3.

**Table 3 Educational Level of the Respondents**

| S.No | Category     | No. of Respondents | Percentage |
|------|--------------|--------------------|------------|
| 1    | Primary      | 0                  | 0          |
| 2    | High school  | 11                 | 9.17       |
| 3    | Diploma      | 3                  | 2.50       |
| 4    | Graduate     | 34                 | 28.33      |
| 5    | Postgraduate | 72                 | <b>60</b>  |
|      | Total        | 120                | 100.00     |

It could be observed from the table 3 that majority of the respondents (60 per cent) had completed their post graduation and 28.33 per cent respondents were either graduates or doing their graduation degree. The level of respondents with high school education and diploma education constituted 9.17 per cent and 2.50 per cent respectively and interestingly the respondents with only the primary education was found to be nil.

#### **4.1.4. Occupational status of the respondents**

Nature of the job combined with income level of the respondents influences their purchasing power. Hence the respondents were classified into five major groups' viz. public sector, private sector, self-employed, house wife and student. The data collected was analyzed and the results are explained in Table 4.

**Table 4 Occupational Status of the Respondents**

| S.No | Category                | No. of Respondents | Percentage |
|------|-------------------------|--------------------|------------|
| 1    | Private sector employee | 29                 | 24.17      |
| 2    | Housewife               | 9                  | 7.50       |

|   |                        |     |              |
|---|------------------------|-----|--------------|
| 3 | Self employed          | 6   | 5.00         |
| 4 | Public sector employee | 36  | 30.00        |
| 5 | Student                | 40  | <b>33.33</b> |
|   | Total                  | 120 | 100.00       |

It is clearly evident from the table 4 that major share of the respondents (33.33 per cent) were students while 30 per cent were employed in public sector. The share of respondents who were employed in private sector constituted for 24.17 per cent. The housewives and self employed persons accounted for 7.5 per cent and 5 per cent respectively among the respondents.

#### **4.2. Measuring Brand Personality of AMUL Brand**

Brand personality had become important in today's marketing concept. In order to create better brand image these days firms try to build a clear personality for their brands. In this context an attempt was made to measure the brand personality of Amul. This would help the firm to know about the brand image, customers had formed in their minds. This information could be used for designing its marketing mix.

##### **4.2.1. Necessity of Brand Personalities**

General opinion of customers regarding the application of brand personality concept on brands was enquired. The data collected were analysed and the results were presented in the table 5.

**Table 5 Necessity of Brand Personality**

| <b>S.No</b> | <b>Particulars</b> | <b>No. of Respondents</b> | <b>Percentage</b> |
|-------------|--------------------|---------------------------|-------------------|
| 1           | Yes                | 66                        | <b>55.00</b>      |
| 2           | No                 | 54                        | 45.00             |
|             | Total              | 120                       | 100.00            |

From the table 5 it was evident that 55 per cent of respondents felt that brands should have personalities like human beings. They felt having a distinct brand personality could be effective in marketing. They also felt being close to the brand that had a personality similar to theirs or they thought being attracted to more such brands. 45 per cent of the respondents felt that brand personality is necessarily not needed for a brand.

#### 4.2.2 Influence of attitude in attaching a human personality

To know about the role of attitude about the brand in attaching a human personality to it becomes necessary in the marketing facet. Here the influence of attitude about Amul in attaching personality to it was examined with the collected data and the results are presented in the table 6.

**Table 6 Influence of attitude in attaching a human personality**

| S.No | Particulars | No. of Respondents | Percentage   |
|------|-------------|--------------------|--------------|
| 1    | Yes         | 74                 | <b>61.67</b> |
| 2    | No          | 46                 | 38.33        |
|      | Total       | 120                | 100.00       |

From the table 6 it can be concluded that 61.67 per cent of the respondents felt that their attitude towards Amul brand helped in attaching a human like personality to it. It became obvious that any brand in the process creating a distinct brand personality should also consider giving customers an encouraging, favourable, likeable attitude. 38.33 per cent of the respondents indicated that their outlook towards Amul had no effect in attaching a personality to it.

#### 4.3. Exploratory Factor Analysis and Reliability Analysis

The previous section revealed the sample respondents' view towards attaching brand personality to the brands they prefer and the influence of outlook about Amul on attaching a brand personality to it. To further measure the brand personality of the Amul, a set of 12 traits were taken from the brand personality scale developed by Geuens *et al.*, (2009). The items were analyzed using a five-point scale from 'highly descriptive' to 'highly undescriptive'.

**Table 7 KMO and Bartlett's Test**

| <b>KMO and Bartlett's Test</b>                  |                    |         |
|---|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy |                    | 0.639   |
| Bartlett's Test of Sphericity                   | Approx. Chi-Square | 346.409 |
|   | df                 | 66      |
|   | Sig.               | 0.000   |

Two tests, KMO statistic for sampling adequacy and Bartlett's test of sphericity, were undertaken to test whether factor analysis would be appropriate for this study. According to Shrestha (2021) KMO values that are above 0.90 is 'marvelous', in the 0.80's is 'meritorius' in the 0.70's is just 'middling' and less than 0.60 is 'mediocre'. For the sample, the KMO statistic is 0.639 (Table 7) implying that factor analysis could be undertaken for this study and Bartlett's test of sphericity was significant.

Exploratory factor analysis was performed separately on 12 items considered under brand personality scale. The analysis was performed using the principal factor method of extraction, along with varimax rotation, which simplified the results while maintaining orthogonality.

The Eigen values were examined and all the factors with an Eigen value greater than one were kept for further examination. Factors were created from groups of items that had a factor loading over 0.5 that were not cross loaded onto another factor. These rules ensured that the factors formed were less likely to be highly correlated, reducing the issue of multi collinearity in the analyses. In order to measure the internal reliability of each factor, Cronbach's alpha, was also calculated. The reliability of the construct is acceptable if Cronbach's  $\alpha$  exceeds 0.70 (Hair *et al.* 2006). As the Cronbach's alpha of the scale was more than 0.7 (Table 8) in the study the data were taken for further analysis.

**Table 8 Reliability Statistics**

| <b>Reliability Statistics</b>     |          |            |                      |            |
|-----------------------------------|----------|------------|----------------------|------------|
| Cronbach's Alpha = 0.772          |          |            | Number of items = 12 |            |
| <b>Hotelling's T-Squared Test</b> |          |            |                      |            |
| <b>Hotelling's T-Squared</b>      | <b>F</b> | <b>df1</b> | <b>df2</b>           | <b>Sig</b> |
| 185.759                           | 15.468   | 11         | 109                  | 0.000      |

Thomas and Sekar (2008) in their study used Hotelling's T-squared test to confirm that the mean of different personality items of Aaker's scale they used to measure the brand personality of Colgate was significantly different from each other. They concluded that the items under the five dimensions were significantly different from each other at 1 per cent level indicating no relation between them. It can be concluded from the table 8 that the results of Hotelling's T-squared test confirmed that the mean of different brand personality items under the Geuen's scale was significantly different from each other at 1 per cent level. This indicates that there is no equivalence between all the 12 items and that they are different.

Thus, considering the Eigen values and communalities, the various items of scale were grouped under four factors namely activity, simplicity, emotionality and responsibility. The total variance of the scale explained by these four factors was 62.438 per cent and it was more than 50 per cent. This could infer that, these four factors were good enough to measure the brand personality of Amul. The results are presented in table 9.

The factor Activity was derived from 3 factors loading onto this factor. Among other four factors, activity accounted for 26.73 per cent of the variance out of the total variance 62.438 per cent. The responses for this factor had a mean of 3.66 (SD 0.94) implying that respondents agreed that Amul brand had an active personality. The personality traits active, dynamic and innovative were loaded on to this factor. This revealed that the users of Amul brand considered the brand to be active in bringing out innovative ideas in marketing and constantly reminding the brand, they also considered brand to be vibrant in all its activities.

The factor simplicity was derived from loading 3 factors, ordinary, simple and down-to-earth onto it. This factor explained 14.02 per cent of the variance. The responses for this factor had a mean of 3.57 and SD 0.96. From this it was evident that the respondents thought that adjective simplicity described Amul brand well. The respondents thought the brand was ordinary implying that it was common in its approach, design and had simple outlook that

was friendly. They also that the brand had a down-to-earth stating it kept its promotions and marketing strategies practical and level-headed.

The factor responsibility was derived from 3 factors loading onto this factor. This factor explained 12.069 per cent of variance out of total variance. The mean of this factor is 3.54 (SD 0.97). It can be concluded that the respondents thought Amul had a stable and responsible personality. This was because of their marketing campaign using the Amul little girl theme for over a century and taking part in the social discussions on current affairs of the country. They also thought Amul to be very bold due to this participation.

The fourth factor was emotionality with mean of 3.40 and SD 0.94. The factor loaded onto this is romantic. It explained the variance of 9.61 per cent. The mean value revealed that this factor was considered as descriptive by the respondents. They thought Amul brand to be romantic because it had introduced many products targeting the young group like Amul kool café and using efficiently designed advertisements involving young people to woo this young customers.

Thus the prior discussion revealed that the brand personality of Amul is described by these four factors being derived from 12 traits of personality. The reliability check has also shown that these factors could best describe the brand’s personality well.

**Table 9 Factors of Brand personality Scale for Amul**

| <b>Factor No</b>                             | <b>Factors</b> | <b>Eigen value</b> | <b>Mean</b> | <b>S. D</b> | <b>Explained variance (%)</b> |
|--|----------------|--------------------|-------------|-------------|-------------------------------|
| 1  | Activity       | 3.208              | 3.66        | 0.94        | 26.730                        |
| 2  | Simplicity     | 1.683              | 3.57        | 0.96        | 14.029                        |
| 3  | Responsibility | 1.448              | 3.54        | 0.97        | 12.069                        |
| 4  | Emotionality   | 1.153              | 3.4         | 0.94        | 9.610                         |
| Total variance accounted for 62.438 per cent |                |                    |             |             |                               |

**4.4. Association between brand personality and customer attitude**

From the review of past studies, it was evident that consumer attitude indeed was affected by brand personality. An attempt was dined in this study to know about the influence of brand personality on consumer attitude. The data collected was analyzed using the correlation tool and presented in the table 10.

**Table 10 Association between brand personality and customer attitude**

| S.No | Variable name  | 'r' values |
|------|----------------|------------|
| 1    | Activity       | 0.251**    |
| 2    | Simplicity     | 0.133      |
| 3    | Responsibility | 0.147      |
| 4    | Emotionality   | -0.072     |

\*\* - Significant at one per cent level

From the table 6 it can be concluded that the personality dimension of Amul brand activity had a positive and significant influence on forming consumer attitude towards the brand. Also, the dimensions simplicity and responsibility had influence on customer attitude towards the brand. The emotionality represented a negative correlation with consumer attitude towards the brand. Hence a brand image that emphasizes the active, dynamic, bold, simplicity, responsibility of the brand should be formed in the customers' mind to keep their attitude favorably towards the brand.

## 5. Conclusion

The study examined various aspects of consumer behavior related to the AMUL brand, starting with the general profile of the sample respondents, including age, gender, education, and occupation. Many respondents were young adults, predominantly female, with a high level of education, reflecting the district's literacy rates. Occupational status varied, with a significant portion being students and public sector employees. The research delved into measuring the brand personality of AMUL, revealing a positive perception among consumers regarding the necessity of brand personalities, with most feeling it enhances marketing effectiveness. The study found that consumers' attitudes towards AMUL influenced their perception of its personality, emphasizing the importance of cultivating a favorable brand image. Exploratory factor analysis identified four key traits contributing to AMUL's brand personality: activity, simplicity, responsibility, and emotionality. These traits collectively explained a significant portion of the variance in consumer perceptions. Additionally, there was a significant association between certain brand personality dimensions and consumer attitudes, with activity having the most positive impact. Overall, the findings suggest that emphasizing active, dynamic, and responsible traits in AMUL's branding could help maintain positive consumer attitudes towards the brand.

**COMPETING INTERESTS DISCLAIMER:**

**Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.**

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