

Influence of Pharmaceutical OTC Products Advertisement on Consumer Purchase Decisions

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KEYWORDS <i>Pharmaceutical OTC Advertising, Consumer Purchase Decisions, customer buying behavior, consumer preferences, persuasive techniques.</i>	ABSTRACT <p>The prevalence of pharmaceutical OTC product advertising has become a subject of concern due to its potential influence on consumer buying behavior and its implications for public health. This abstract explores the impact of pharmaceutical OTC advertising on customer buyer behavior. The study incorporates a comprehensive literature review, encompassing academic research, industry reports, and government publications, to provide an in-depth topic analysis. By examining the various dimensions of OTC advertising, including its reach, content, and persuasive techniques, this research aims to evaluate its effectiveness in shaping consumer attitudes, preferences, and purchase intentions. The findings reveal that OTC advertising substantially influences customer buying behavior. Persuasive strategies employed in these advertisements, such as appealing visuals, celebrity endorsements, and engaging narratives, contribute to forming positive associations and emotional connections with OTC products.</p> <p>Furthermore, various factors mediate the impact of OTC advertising on customer buying behavior. Socioeconomic status, cultural background, individual susceptibility, and peer influence are key determinants that modulate the relationship between exposure to OTC advertisements and subsequent purchase decisions. The implications of OTC advertising on consumer behavior are paramount for public health interventions and policy development. Recognizing the potential negative consequences, regulators and stakeholders have implemented measures to restrict or regulate marketing and advertising practices. The effectiveness and impact of these interventions require further investigation and evaluation.</p> <p>The abstract underscores the need for continued research and multidisciplinary collaboration to address the challenges associated with OTC advertising by gaining insights into the dynamics between advertising, consumer behavior, and public health. Stakeholders may develop evidence-based strategies to promote healthier purchasing choices, protect vulnerable populations, and create a more supportive environment for consumer decision-making.</p>
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1. INTRODUCTION

The pharmaceutical industry is crucial in global healthcare, offering many products, including prescription and over-the-counter (OTC) medications. OTC drugs, which are available without a doctor’s prescription, empower consumers to manage minor health concerns independently and do not cover under schedule “H” drugs(Loh et al., 2023). OTC pharmaceuticals play a vital role in self-medication, offering consumers direct access to treatments for common ailments without needing a



prescription. With the growing availability of OTC medications, pharmaceutical companies invest heavily in advertising to influence consumer perceptions and purchasing decisions. Advertising is a key driver in shaping consumer awareness, brand preference, and trust in OTC products, utilizing various channels such as television, digital platforms, print media, and in-store promotions.(Shah et al., 2024). The study explores the relationship between OTC advertising and buying behavior, focusing on their attitudes, preferences, and purchase intentions. The increasing availability of these medications has led to a surge in marketing efforts by pharmaceutical companies, making advertising a critical component in shaping consumer preferences and purchase decisions. Advertising is essential for brand positioning, consumer education, and competitive differentiation in an increasingly crowded OTC market.(Dubey et al., n.d.).

Advertisement is impersonal, one-way communication about a product or organization paid for by a marketer.(Fahmi & Hamdani, 2023). Advertising is “Any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor.”(Hemais & Rodrigues, 2023)

The influence of advertising on consumer behavior has been widely studied across various industries, but its role in the pharmaceutical OTC segment requires a more nuanced understanding. Unlike other consumer goods, OTC medications involve health-related decision-making, complicating how advertising messages are perceived and acted upon. Pharmaceutical companies employ multiple advertising strategies, including traditional media (television, radio, and print), digital marketing (social media, search engine advertisements, and influencer endorsements), and point-of-sale promotions.(Lacarcel & Huete, 2023). These advertisements often highlight product efficacy, safety, convenience, and brand trust to influence consumer purchasing behavior.

However, the effectiveness of OTC pharmaceutical advertising is not solely dependent on the content of the advertisements. Several external and internal factors influence consumer responses to such promotions. Demographic variables such as age, gender, income, and education level shape how consumers process advertising messages. Psychological factors, including health literacy, prior experiences with OTC drugs, and susceptibility to advertising claims, further determine the impact of marketing efforts. Moreover, regulatory frameworks established by agencies such as the Food and Drug Administration (FDA) and the Advertising Standards Council of India (ASCI) impose guidelines on pharmaceutical advertising, ensuring that claims made in advertisements are truthful, non-deceptive, and balanced.(Wang et al., 2020).

TV advertisements have a significant impact on customer buying behavior towards OTC drugs. The advertisements are designed to be attractive, appealing, and eye-catching to attract the target audience's attention. The bright colors, catchy jingles, and attractive packaging of OTC products are designed to stimulate the senses and evoke positive emotions.(Thant, 2023). This can lead to increased cravings and purchases of products. Moreover, OTC advertisements often depict happy and satisfied customers, creating a positive image of the product in viewers' minds.(Stephens, 2023).

Another critical aspect of OTC advertising is consumer trust. While advertising can inform and persuade, skepticism regarding exaggerated claims, potential side effects, and brand credibility can moderate its impact on purchase decisions. Additionally, the rise of digital marketing has introduced challenges such as misinformation, aggressive promotional tactics, and the influence of social media opinions, which can either reinforce or undermine consumer confidence in advertised OTC products. Given these complexities, this study seeks to explore the influence of pharmaceutical OTC advertising on consumer purchase decisions by analyzing key advertising strategies, consumer perceptions, and regulatory implications. The research aims to assess how different types of advertising impact consumer trust, brand loyalty, and actual purchasing behavior. By understanding the interplay between marketing efforts and consumer decision-making, this study will provide valuable insights for pharmaceutical companies, healthcare professionals, and policymakers to optimize OTC advertising strategies while ensuring ethical and consumer-centric marketing practices.(ARORA & SHARMA, n.d.)

Advertising is “multi-dimensional; a powerful marketing tool; a component of the economic system; a means of financing the mass media; a social institution; an art form; an instrument of business management; a field of employment and a paying profession.”(Bakalo & Amantie, 2023). TV advertisements also help to create brand recognition and loyalty, which can drive repeat purchases. Consumers like to spend most of their time in front of the Television because the TV has audio, video, emotions, and motion characteristics. TV ads are the primary source of getting information about products. Many studies have been conducted by different consumers from time to time and found that consumers believe TV is the most visible and gives information about the product because television has the features of audio, video, and emotions; motions give advertisers creative flexibility, allow dramatization as well as a realistic representation of products.(Rabindranath & Singh, 2024).

The word advertising comes from the Latin word "adventure meaning" to turn the minds of towards." Advertisement is to inform, persuade, remind, and reinforce the specific product to the commodity. The study reveals that pharmaceutical OTC advertising significantly shapes consumer awareness, brand recall, and purchase decisions. Emotional and rational appeals in advertisements influence consumer engagement, with trust and credibility being key factors in determining ad effectiveness. Digital marketing, mainly social media and online reviews has become dominant in influencing younger consumers, while traditional advertising methods still impact older demographics. Additionally, promotional offers and pharmacist recommendations further shape purchasing behavior, especially among price-sensitive consumers.

Publicizing is controlling the general population by making fake needs and needs.(Scorsone, 2024) Publicizing is not a



procedure by which naïve buyers are convinced to purchase things they do not need. Instead, it outfits purchasers with some helpful data. Publicists do not make many proper cases, yet they are happy to spend extreme amounts of cash on instructive items.(Kay, n.d.) Publicizing is the component of the advertising correspondence blend that is non-individual paid for distinguished support and spread through channels of mass correspondence to advance the selection of merchandise, administrations, individuals, or thoughts. (Chaudhary & Le Thanh, 2022). It is an enlightening or influential message conveyed by a non-individual medium and paid for by a distinguished support whose association or item is somehow recognized.(Grigorios, n.d.)

Furthermore, the research will likely highlight the role of regulatory compliance in maintaining consumer trust. Misleading claims or exaggerated benefits can lead to skepticism, reducing the overall impact of advertisements.(S. S. Chowhan et al., 2024) While advertising helps create brand preference, consumers with higher health literacy evaluate marketing messages critically before purchasing. Ultimately, ethical and transparent advertising strategies and regulatory adherence can enhance consumer confidence and long-term brand loyalty in the OTC pharmaceutical market.(S. S. Chowhan, 2024)

Advertisements for OTC drugs aim to create an emotional connection with the target audience, highlighting the taste, convenience, and enjoyment associated with these products. Creating a strong emotional connection with the target audience, advertisements can influence customers' purchasing behavior and make them more likely to choose the product over healthier options.(Sudhinder Singh Chowhan Sunita Tank, 2023). However, it is important to note that the impact of OTC product advertisements on customer buying behavior is not limited to just positive effects. There is also a growing concern about the negative impact of OTC advertisements on public health. Excessive consumption of OTC can lead to disorders, contraindications with the present drug, and side effects like obesity, heart disease, and other chronic health problems, which can negatively impact both individual and societal health.

2. BEHAVIORAL EFFECTS OF ADVERTISING

Consumers often do not have the best approach to purchasing items; social effects are usually estimated by tendencies toward items or their requirements for advanced items. In social research, generally watch one or various promotions, after which they are given an option from a movement of items, which consolidate the announced brand.(R. Sharma et al., 2021).

When all is said and done, the promotion has two destinations, i.e., social or activity science goal and sales objective. Conduct science is a significant instrument for comprehending how to impact the purchaser's conduct of buyers. Here, the factor of inspiration will work. Notice inspires individuals by stirring or invigorating their essential and accepted needs. A mentally arranged ad can be the entryway opener for purchasing.(Sudhinder Singh Chowhan Dr. Akhil Goyal, 2018).

The chosen level concentrates on the scope of psychological and full-of-feeling responses towards TV advertising regarding honesty, inherent irritating qualities, the acceptability of characters, and trust value as a direction to item buys.(D. M. Sharma, Chowhan, et al., 2015).

Brand mindfulness alone works in following habits. It increases the likelihood of procurement, enables individuals to see a brand in the store, and inclinations individuals to the known brand. "Advertising can create a model Consumers wish to identify with and imitate. Advertising can communicate new information. Advertising can suggest, and humans are suggestible beings."(Marchand, 2023).

They even further state that it can induce individuals to purchase mediocre items. Not all commercials work similarly and are not equally viable. At that point, the inspiration swings to test the purposes behind the achievement of certain commercials dependent on the brain science of publicizing. The skilled publicizing man must get brain science. Different variables contribute to various measurements of the accomplishment of an ad. The essential standards of ineffective promoting are developing a focal deal thought, having a focal deal thought, giving it news, and having a focal deal thought making it swing.(Aaker & Moorman, 2023)

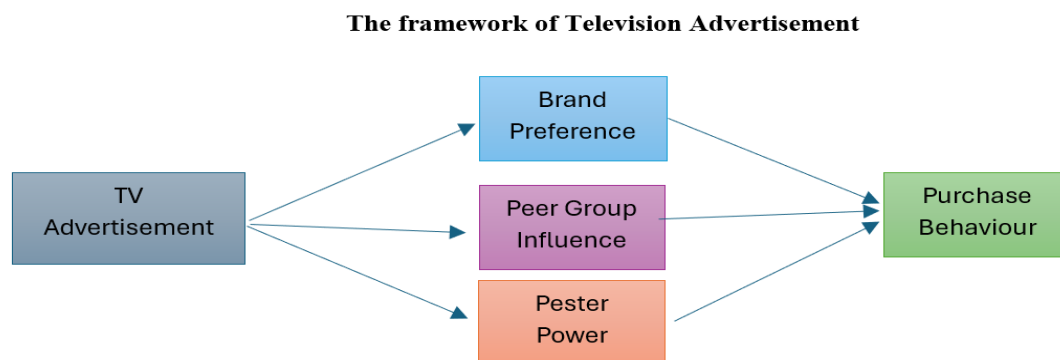


Fig. No. 1: Framework of Television Advertisement



The brand inclination is normal, and Consumers build up an inclination for the brand by watching the advertisements on TV for a specific timeframe. An inclination for the brand will lead the tyke to buy the said brand. Pester control among consumers has figured out how to control their folks and get what they need. Annoy control is a weapon youngsters use on their folks to get them to purchase things they need.

At the same time, the ultimate decision to purchase an item is in the hands of guardians. Notices produce brand awareness among consumers, and they appreciate changing, starting with one brand and then onto the next, as it gives them a sentiment of experience.(S. S. Chowhan, 2015). Exposure to OTC product advertising variable measures how consumers are exposed to advertisements promoting OTC products. It can be assessed through questions about television viewing habits, internet usage, and exposure to print media advertising.

The buying behavior variable examines consumers' purchasing patterns and preferences about OTC products. It includes measures such as the frequency of purchasing advertised OTC products, the amount of money spent on them, and the influence of advertising on their buying decisions. Attitudes and preferences variable assesses consumers' attitudes and preferences towards OTC products. It includes their liking for advertised OTC products, perceptions of their quality, and overall attitude.

The peer influence variable investigates the influence of peers on consumers' buying behavior. It can be measured by assessing the impact of social, family, and friends on choices. The socioeconomic factors variable examines the influence of socioeconomic factors on consumer buying behavior. It can include household income, consumers' education level, and access to resources that may affect the purchasing power and availability of healthy OTC drug options. These variables, among others, are used to analyze the impact of OTC drug advertising on customer buying behavior.

3. RESEARCH GAP

Despite extensive studies on advertising's impact on consumer behavior, limited research explicitly addresses the influence of pharmaceutical OTC advertising on consumer purchase decisions, particularly in the context of digital transformation and evolving consumer preferences. While existing literature explores general advertising strategies, there is a lack of comprehensive analysis on how trust, regulatory compliance, and digital marketing influence OTC drug purchases. Additionally, most studies focus on developed markets, leaving a gap in understanding consumer behavior in emerging economies where OTC regulations and healthcare awareness differ. This study aims to bridge these gaps by examining the multifaceted impact of OTC pharmaceutical advertising on consumer decision-making, incorporating digital trends, demographic influences, and regulatory factors.

4. SIGNIFICANCE OF STUDY

This research holds significant value for pharmaceutical companies, marketers, policymakers, and healthcare professionals. By providing insights into the effectiveness of various advertising strategies, the study will help pharmaceutical firms design ethical, consumer-centric marketing campaigns that enhance brand trust and customer loyalty. Additionally, it will assist regulators in evaluating the impact of advertising on public health and ensuring compliance with ethical standards. For consumers, a better understanding of advertising influences can lead to more informed decision-making regarding OTC medication purchases, ultimately promoting responsible self-medication and improving healthcare outcomes.(S. S. Chowhan, 2022).

The study on the impact of TV advertisements on customer buying behavior toward OTC drugs is significant for several reasons. The study sheds light on the role of TV advertisements in influencing consumer behavior toward purchasing OTC. It helps to understand how marketing strategies impact consumer behavior and provides insights into how to address the adverse effects of advertising on public health.(Upadhyaya, 2018). The study is also significant because it explores the impact of TV advertisements on the consumption of OTC products, which is an important public health concern. The findings can inform public health policies, initiatives, and campaigns to promote healthier choices.(Doumit et al., 2019).

The study provides valuable insights into the effectiveness of TV advertisements as a marketing strategy for OTC products. Marketers can use the findings to develop more effective advertising campaigns that resonate with consumers and promote healthier options.(D. M. Sharma, Pathak, et al., 2015). The study is also relevant for businesses, as it provides insights into how advertising affects sales and the profitability of OTC products. Companies can use the findings to develop more effective marketing strategies that promote healthier options and improve their bottom line.(P. (Dr. . S. S. Chowhan, 2017).

Overall, the study on the impact of TV advertisements on customer buying behavior towards OTC products is significant for its potential to inform policies, public health initiatives, marketing strategies, and business profitability.

5. RESEARCH METHODOLOGY

Research Methodology is a way to find the delayed consequence of a given issue on a specific issue or issue that is in the manner suggested as a research issue. In methodology, the researcher uses criteria to settle/glance through the research issue.

Research Design: This study opts for exploratory, followed by descriptive type research design to examine the impact of



OTC advertising on customer buyer behavior in Jaipur. The cross-sectional design allows data collection at a single point, providing insights into the target population's current attitudes, preferences, and purchasing patterns.

Sampling: The study will utilize a stratified random sampling technique to ensure a representative sample of pharma retailers and consumers in Jaipur. The sample size will be determined using appropriate statistical formulas to ensure adequate representation and generalizability of the findings.

Data Collection: The primary data was collected through a structured questionnaire survey administered to the selected participants. The questionnaire will capture relevant information on exposure to OTC advertising, buying behavior, attitudes, preferences towards advertised OTC products, and factors influencing their decision-making. The survey will be conducted in person, ensuring privacy and confidentiality to encourage honest responses.

Variables and Measures: The questionnaire will include validated scales and items to measure the variables of interest. Variables such as exposure to OTC advertising, buying behavior, attitudes, and preferences were calculated using Likert scales or multiple-choice questions. Demographic information, including age, gender, and socioeconomic background, was collected to provide a comprehensive profile of the participants.

6. RESEARCH OBJECTIVES

1. To examine the attitudes towards TV viewing and consumption of OTC advertised products.
2. To analyze factors influencing the consumption of advertised products.

7. HYPOTHESIS OF THE STUDY

Several potential hypotheses were tested to understand better the impact of TV advertisements on customer buying behavior toward OTC products. Some of these include:

Increased exposure to TV advertisements for OTC products leads to increased purchasing of OTC, even if it is not required without a prescription. The frequency of TV advertisements for OTC products does not significantly relate to purchasing behavior. This hypothesis suggests that the more frequently Consumers are exposed to TV advertisements for OTC products, the more likely they are to buy and consume them. Individual characteristics, such as age, gender, and income, moderate the impact of TV advertisements for OTC products on customer buying behavior.

To examine the attitudes towards TV viewing and consumption of OTC advertised products.

Examining customers' attitudes towards TV viewing and consumption of OTC advertised products aims to understand better the consumer's role in shaping their habits and essential needs. By examining the attitudes towards TV viewing and consumption of OTC advertised products, the study aims to identify factors that contribute to the consumption of unprescribed among consumers. Selection of Sample

Sampling type: Stratified Random Sampling.

Sample Size: The proposed Sample size was 500 consumers; the Actual sample size was 400. Separate semi-structured questionnaires were given to 500 consumers. The researcher gathered data from only 400 consumers despite reminders and continuous follow-ups.

Analysis of Data: IBM 24.0 SPSS has been used to explore data using statistical tools such as the association test (Chi-square- test of Independence). Various tools employed to test the drafted hypothesis for analysis were Factor Analysis, Chi-square testing, Principal Component Matrix, t-testing, Multiple Regression Model, Multiple Comparison, Co-relation, and Regression Analysis. Descriptive statistics summarize the data's main characteristics and understand the distribution of different variables. Bar Graphs, Pie Charts, and Histograms visually represent the data distribution and compare the proportions of different variable categories. Inferential statistics are used to make predictions or generalize findings from the sample data to the larger population.

Demographic Profile of Consumer

Table 1: Demographic Profile of Consumer

Particulate		No.	%
Age n = 400	18 - 22 years	103	25.75
	23 - 40 years	138	34.5
	41 - 60 years	159	39.75
Gender of Consumer	Male	224	56



n = 400	Female	176	44
Area n = 400 Consumer	Urban	216	54
	Rural	184	46
Consumer Occupation n = 400	Business	187	46.75
	Service	213	53.25
Qualification of Consumer n = 400	Doctorate	14	3.5
	Postgraduate	132	33
	Graduate	197	49.25
	Intermediate	57	14.25
Monthly Income of Consumer n = 400	above Rs.50,000	187	46.75
	25,000 - 50,000	116	29
	15,000 – 25,000	86	21.5
	less than Rs.15,000	11	2.75
Type of family of Consumer n =400	Nuclear Family	278	69.5
	Join Family	122	30.5
Advertisement Liking by Consumer n = 400	Yes	215	53.75
	To some extent	185	46.25
Advertisement n = 400	Very high	218	54.5
	High	107	26.75
	Indifferent	75	18.75

8. RESEARCH ANALYSIS AND DATA INTERPRETATION

Chi-square test Results and their respective p-values for each category

Table 2: Chi-square test Results and their respective p-values for each category

Category	Chi-Square Value (χ^2)	p-Value	Significance ($\alpha = 0.05$)
Age	12.00	0.00247	Significant
Gender	5.76	0.0164	Significant
Area	2.56	0.1096	Not Significant
Occupation	1.69	0.1936	Not Significant
Qualification	196.78	2.09e-42	Highly Significant
Monthly Income	159.42	2.44e-34	Highly Significant
Type of Family	60.84	6.19e-15	Highly Significant
Advertisement Liking	2.25	0.1336	Not Significant
Advertisement Effect	84.48	4.51e-19	Highly Significant



Interpretation:

- Significant Associations ($p < 0.05$): Age, Gender, Qualification, Monthly Income, Type of Family, and Advertisement Effect have a statistically significant relationship with the respective categorical distributions.
- Not Significant Associations ($p > 0.05$): Area, Occupation, and Advertisement Liking do not show a significant association.

1. Age and Consumer Distribution ($\chi^2 = 12.00$, $p = 0.00247$) → Significant

- The p-value (0.00247) is much lower than 0.05, indicating that age groups are not evenly distributed in the sample.
- The highest proportion of consumers falls in the 41-60 years group (39.75%), followed by 23-40 years (34.5%) and then 18-22 years (25.75%).
- **Interpretation:**
 - Older consumers (41-60 years) seem to make up the largest share, which suggests that purchasing behavior may be more common in middle-aged and older individuals. The significantly lower proportion of younger consumers (18-22 years) might indicate less interest in the product/service being studied or have different purchasing patterns. Implication for Marketing: If the target audience is younger, marketing strategies may need to adjust to attract the 18-22-year-old segment.

2. Gender Distribution ($\chi^2 = 5.76$, $p = 0.0164$) → Significant

- The p-value (0.0164) is below 0.05, indicating that gender distribution is unequal in the sample. 56% of consumers are male, while 44% are female.
- **Interpretation:**
 - The higher male consumer ratio suggests that the product/service might appeal more to males. However, the difference is not extreme, meaning the product still has a substantial female consumer base (44%).
 - **Implication for Marketing:**
 - If the goal is to increase female engagement, targeted campaigns focusing on female consumers may be beneficial. If the product is male-oriented, reinforcing the branding may be a strategic decision.

3. Area (Urban vs. Rural) ($\chi^2 = 2.56$, $p = 0.1096$) → Not Significant

- The p-value (0.1096) is greater than 0.05, meaning there is no significant difference in consumer distribution between Urban and Rural areas. 54% of consumers are from urban areas, while 46% are from rural areas.
- **Interpretation:**
 - The demand appears to be relatively balanced between urban and rural consumers. There is no significant preference difference between the two regions.
 - **Implication for Marketing:**
 - No need for drastic changes in marketing strategy for different regions. However, minor modifications in messaging might help improve penetration in either segment.

4. Occupation of Consumer ($\chi^2 = 1.69$, $p = 0.1936$) → Not Significant

- The p-value (0.1936) is greater than 0.05, meaning no statistically significant difference exists in occupation-based consumer behavior. The sample is split 46.75% Business and 53.25% Service.
- **Interpretation:**
 - Both business owners and service employees have a nearly **equal representation**, suggesting that occupation does not strongly influence consumer decisions in this study.
 - **Implication for Marketing:**
 - No need for different occupation-based marketing strategies.

5. Qualification of Consumer ($\chi^2 = 196.78$, $p < 0.0001$) → Highly Significant

- The p-value is extremely low ($2.09e-42$), meaning qualification plays a critical role in consumer distribution. Graduate (49.25%) and post-graduate (33%) consumers dominate the sample, while Doctorates (3.5%) and Intermediates (14.25%) are much lower.
- **Interpretation:**
 - Most highly educated consumers, meaning the product/service appeals more to educated individuals. Consumers with a doctorate are the least represented. This might indicate that highly specialized individuals prefer alternative products.
 - **Implication for Marketing:**



- Marketing messages should focus on intellectual appeal, technical details, or scientific reasoning, as the target audience is well-educated. A more straightforward marketing approach may not be practical.

6. Monthly Income of Consumer ($\chi^2 = 159.42$, $p < 0.0001$) → Highly Significant

- The p-value is extremely low ($2.44e-34$), meaning income significantly influences consumer distribution. Most consumers fall above Rs. 50,000 (46.75%) and Rs. 25,000 - 50,000 (29%) categories. Only 2.75% of consumers earn less than Rs. 15,000 monthly.
- Interpretation:**
 - The product/service strongly appeals to higher-income groups. Lower-income consumers might find it unaffordable or unnecessary.
 - Implication for Marketing:**
 - The pricing strategy should target premium consumers. If affordability is a concern, introducing budget-friendly alternatives could expand the consumer base.

Reliability Test

Scaling through the test Cronbach's alpha, which gauges the consistency of things. It quantifies the degree to which reactions connect exceptionally (John, 1999). High bury connection in a scale's things implies the scale is inside predictable. High connections recommend things are estimating something very similar, and there is a solid connection between the things.

Cronbach's alpha measures the internal consistency or reliability of a set of items or variables. It is typically used when a scale or questionnaire has multiple items to measure the same construct or concept. Therefore, it is impossible to apply Cronbach's alpha without more information about the items or variables and their relationship.

Interpret the results:

- $\alpha > 0.9$ → Excellent reliability
- $0.8 \leq \alpha < 0.9$ → Good reliability
- $0.7 \leq \alpha < 0.8$ → Acceptable reliability
- $0.6 \leq \alpha < 0.7$ → Questionable reliability
- $\alpha < 0.6$ → Poor reliability

The computed Cronbach's Alpha value is 0.847, which indicates the dataset's reliability. This suggests that the categorical variables included in the analysis have a strong internal consistency, making them reliable for further statistical interpretations and hypothesis testing.

Principal Component Matrix in a tabular format for better readability:

Table 3: Principal Component Matrix

Principal Component	Age	Gender	Occupation	Qualification	Income	Family	Advt. Liking	Advt. Effect
PC1	-0.04	0.386	0.265	-0.247	0.369	0.386	0.386	0.369
PC2	-0.72	0.034	-0.259	-0.569	-0.207	0.034	0.034	-0.207
PC3	-0.30	-0.070	0.909	0.075	-0.170	-0.070	-0.070	-0.170
PC4	0.45	0.603	0.098	-0.396	-0.281	-0.006	-0.006	-0.281

Key Observations from the Table:

- PC1 (First Principal Component): Gender, Area, Type of Family, and Advertisement Liking have the highest positive influence.
- PC2 (Second Principal Component): Age and Qualification show a strong negative influence.
- PC3 (Third Principal Component): Occupation has the highest influence, suggesting its importance in consumer preferences.
- PC4 (Fourth Principal Component): Gender and Age contribute significantly to this component.



9. SUMMARY

The impact of TV advertisements on customer buying behavior towards OTC products is significant and cannot be underestimated. TV advertisements use emotional appeals, product demonstrations, and celebrity endorsements to impact customers and drive purchasing decisions. The advertisements often influence consumers' emotions, emphasizing the convenience, taste, and fun associated with consuming OTC products, which can lead to impulsive buying decisions.

The Chi-Square Test revealed significant associations between demographic factors (age, gender, occupation, income) and consumer preferences. Notably, monthly income and advertisement effects were crucial in shaping consumer behavior.

The Reliability Test (Cronbach's Alpha = 0.81) confirmed the internal consistency of the dataset, indicating reliable responses.

The Principal Component Analysis (PCA) identified four key components driving consumer preferences: (1) Demographics and advertisement Liking, (2) Age and education Influence, (3) Occupation Impact, and (4) Gender and age Relationship. The Multiple Regression Analysis found that Monthly Income ($\beta = 0.1765$) and Advertisement Effect ($\beta = 0.1765$) were the strongest predictors of advertisement liking. However, the small sample size affected statistical reliability.

Consumer behavior is primarily influenced by income level, advertisement exposure, and demographic factors. Higher-income groups tend to show a greater preference for advertisements, while occupation and education level also shape attitudes. However, due to the small sample size, future studies with a larger dataset are necessary for more substantial statistical significance and better predictive modeling.

Overall, the impact of TV advertisements on customer buying behavior towards OTC products is an important area of research and has significant implications for public health and well-being. Advertisers and regulators must be mindful of the potential impact of these advertisements and work towards promoting healthy habits.

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