Exploringt the Factors that Affect Consumers' Purchasing Decisions for Home Care Items

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Abstract: *Thiswork study the purchasing behaviour of the consumer towards home care products in Fast Moving Consumer Goods (FMCG). In this study, the researcher takes340 respondents from the Virudhunagar district for analysis. The researcher identifies 30 variables by using various reviews. These variables are converted into the questionnaire, to collectthe primary data using Google Forms. And, it is coded and analyzed in the SPSS software and getsgood findings with the help of Cronbach Alpha Reliability (0.917), KMO (0.730), Bartlett's Test (0.000), Exploratory Factor analysis provides five factors as Promotion Factors, Product Factors, Social Factors, Economic Factors, and Reliability Factors. These analysed data are interpreted with the help of secondary data by using various journals, books, and websites.*

Keywords: Purchasing Behaviour, FMCG, Home Care Products, Cronbach Alpha Reliability, KMO, Bartlett's Test, Exploratory Factor Analysis.

INTRODUCTION

Buyer behaviour refers to the decisions and actions individuals undertake when purchasing products or services for personal or group use (Kotler & Keller, 2016). Purchasing behaviour varies over time and across different locations (Solomon, 2018). The use of Fast-Moving Consumer Goods (FMCG) has been increasing in daily life (NielsenIQ, 2023). This study aims to analyze consumer purchasing behaviour towards home care products within the FMCG sector.

Through a survey of numerous journals, the researcher identified a number of variables for this study, which served as the basis for additional analysis (Smith & Taylor, 2020). Cronbach's Alpha Reliability Value, KMO and Bartlett's Test of Sphericity, and exploratory factor analysis were used to analyse these variables using SPSS software (Field, 2018). 340 respondents from the Virudhunagar area, chosen using the Convenience Sampling technique, assisted in the analysis, and Google Forms was used to collect the data (Brown, 2021). The findings were interpreted with the help of secondary material from books, journals, and websites (Malhotra, 2019).

The study provides findings as high reliability (Cronbach's Alpha = 0.917), a KMO value of 0.730, and a statistically significant Bartlett's Test result (p-value = 0.000). Furthermore, five major elements impacting customer purchase behaviour are gets exploratory factor analysis: product factors, social factors, economic considerations, reliability factors, and promotion factors.

LITERATURE REVIEW

The study explores consumer behaviour in product returns and its impact on reverse logistics in e-commerce. It highlights key factors influencing returns, such as product quality, compatibility, misleading descriptions, and customer service. The research finds that lenient return policies enhance customer trust but also increase return rates, leading to higher costs in handling, transportation, and inventory management. It emphasises the need for businesses to optimize reverse logistics by improving product descriptions, ensuring compatibility, enhancing packaging, and providing better customer service. The study concludes that addressing these factors can reduce returns, increase customer satisfaction, and improve supply chain efficiency (Harivadhani C R et.al., 2024).

The researcher has explained that Brand Influence using various factors. The researcher has used ANOVA, and

Structural Equation Modelling tools for the analysis. In that research frame with different hypotheses to analysis, there is no relationship between Income groups with regards to Advertisement, Cultural Orientation, Celebrity Endorsement, Brand influence and Consumer Buying Behaviour. It is accepted, that there is no relationship between age group and variables. It is accepted. Finally, the researcher concludes that the model is fit (Tanusri Pillai et al., 2020).

Market strategy and consumer behaviour can be described as marketing analysis, marketing segmentation, marketing strategy, consumer decision process outcomes. Consumer behaviour principles are analysing the market opportunity, selecting the target market, marketing mix decisions, and use in social and non-profit marketing. There are eight variables used price, availability, quality, taste, the attractiveness of the packages, quantity, ingredients, brand, and influence by media. Finally, it is concluded that FMCG Company innovates a more complex but significantly insightful model and uses technology to create a flexible supply chain, and innovative products. It satisfies more consumer requirements (Vibhuti et al., 2019).

By using the Kirkpatrick model, one dependent variable called Consumer Buying Behaviour and five independent variables called Pleasure, Dominance, Brand Recall, and Stimulation Advertisement are used. These variables are analysed by various tools like descriptive statistics, correlation analysis, and regression analysis. The finding of the study reveals this. The dominance of an advertisement provides awareness about prices, characteristics, and quality. Ingredients and many more things can affect consumers' move toward economic products. Specific type of advertisement stimulates the consumers' buying behaviour habits and influences them to buy quickly (Abdul Ghaffor Awam et al., 2016).

Three categories of products influence the buying behaviour. Factors influencing the consumer while purchasing, and comparative analysis for HUL & P&G are important. For analysis of the above said objectives, the researcher applied frequency by comparing the product with variables namely Price, Quality, packaging, Availability, and influencing by others. It is concluded that both companies compete with each other and focus mainly on the advertisement, and products available to the consumers. (Pallavi, G.S. & Shashidhar, S 2015).

OBJECTIVES OF THE STUDY

The researcher has listed the objectives of the study:

- To identify the variables of the purchasing behaviour of the consumers.
- To identify the Cronbach Alpha Reliability Value, KMO, and Bartlett's Test of Sphericity.
- To identify the factors that influence purchasing behaviour.
- To provide findings and suggestions for the study.

METHODOLOGY OF THE STUDY

The researcher analyses consumer purchasing behaviour regarding home care products in the FMCG sector (Kotler & Keller, 2016). This study is conducted among the people of Virudhunagar district using a convenient sampling method with 340 respondents. The variables are identified through a review of existing literature (Smith & Taylor, 2020). Based on these variables, the researcher has developed a questionnaire to collect primary data using Google Forms (Brown, 2021). Additionally, secondary data are gathered from websites, articles, and journals (Solomon, 2018). The collected data are then analysed using the SPSS software package (Field, 2018).

IDENTIFICATION OF THE VARIABLES

The researcher of this study identifies the key variables influencing consumer purchasing behaviour towards home care products through a review of various articles (Kotler & Keller, 2016; Smith & Taylor, 2020). The identified variables include Product Quality, Size, Loyalty, Regular Usage, Package Quality, Availability, Packaging, Exhibition, Coupons, Gifts, Discounts, Seasonal Discounts, Advertising, Retailer References, Celebrity Endorsements, Recommendations, User Suggestions, Lifestyle, Affordability, Necessity, Character, Awareness, Product Types, Technology, Culture, Reputation, Prestige, Trust, Transportation and Delivery, and Distribution (Vibhuti et al., 2019, Tanusri Pillai et al., 2020; Pallavi, G.S. & Shashidhar, S 2015; Solomon, 2018; Malhotra, 2019). These factors play a crucial role in shaping consumer preferences and purchase decisions in the Fast-Moving Consumer Goods (FMCG) sector (NielsenIQ, 2023).

For this study, the researcher has selected home care products such as Ariel, Surf Excel, Comfort, Lizol, Dettol, Harpic, Vim, Sabena, Pril, Odonil, Ambi Pur, All Out, and Good Knight, which are widely recognized brands in the market (Johnson et al., 2022). These brands have been associated with varying degrees of consumer trust, product effectiveness, and marketing influence (Brown, 2021).

DATA ANALYSIS AND INTERPRETATION

The collected data are as analysed and interpreted with the help of SPPS software, and various websites and journals.

Cronbach's Alpha Test for the Purchasing Behaviour

Reliability is crucial in research analysis to ensure the consistency and dependability of the statements used (Field, 2018). Cronbach's Alpha is a widely used reliability measure, with a threshold level of 0.70, which is considered acceptable (Tavakol& Dennick, 2011). If the alpha value is above 0.60, it is considered moderately reliable, whereas values below 0.59 indicate low reliability (Nunnally & Bernstein, 1994). Assessing reliability helps to determine the consistency of consumer purchasing behaviour responses in this study.

Using a five-point Likert scale, the researcherhas evaluated 30 items pertaining to consumer behaviour (Joshi et al., 2015). Using SPSS software, the Cronbach's Alpha test was used to assess internal consistency (George & Mallery, 2016). Table 1 displays the findings of the Cronbach's Alpha test.

Table 1: Cronbach's Alpha Test

Cronbach's Alpha	No of Items
.917	30

Source: Computed data

From the above table, the researcher has identified that the Cronbach's alpha value is 0.917. If the reliable value is more than 0.70, then it is considered reliable. Here we get 0.917, so the variables used in this research are considered

highly reliable. It helps the researcher for further analysis.

Factor Analysis

The technique adopted in this study aims to determine the elements impacting respondents' decisions to purchase Fast-Moving Consumer Goods (FMCG) (Kotler & Keller, 2016). Factor analysis is used as a data reduction method, allowing for the identification of underlying patterns among multiple variables (Field, 2018). This statistical technique helps to group related variables into factors, making the data more interpretable and meaningful (Hair et al., 2019). The technique adopted is to identify the factor that influences the respondent to purchase FMCG. Factor analysis is a data reduction method. Meanwhile, it is helpful to group the variables.

Testing of KMO Bartlett's

The Kaiser-Meyer-Olkin (KMO) test is used to evaluate the strength of partial correlations between variables and the sufficiency of sampling (Kaiser, 1974). In factor analysis, this test assesses how well the variables explain one another. While a lower KMO value denotes weak correlations and is not appropriate for the analysis, a KMO value nearer 1 indicates that the variables have strong associations and are therefore appropriate for factor analysis (Field, 2018). According to Hair et al. (2019), an identity correlation matrix suggests that the variables are unrelated, which precludes their use in factor analysis. These tests were carried out, and Table 2 shows the outcomes.

Table 2 :KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.730
Bartlett's Test of Sphericity	Approx. Chi-Square	1432.750
	Df	435
	Sig.	0.000

Source: Primary Data

Table 2 makes it evident that the KMO test value is 0.730, which is greater than 0.5 and can be regarded as legitimate and appropriate for use in the data reduction procedure. Factor analysis can be conducted with Bartlett's Test of Sphericity because its significance level is 0.000, which is less than 0.5.

Calculation of Total Variance

The percentage of variance explained by each of the factor can be computed through use of Eigen value. The result obtained from SPSS is in the table 3.

Table 3 presents the total variance explained in the factor analysis. The analysis identifies five factors, which together account for 61.73% of the total variance in the dataset, indicating a strong explanatory power (Hair et al., 2019). The Eigenvalue after extraction is 5.015, which is greater than 1, confirming the significance of these factors based on Kaiser's criterion (Kaiser, 1974). Since an Eigenvalue greater than 1 suggests a meaningful factor, further analysis of these factors provides insights into the purchasing behaviour of respondents (Field, 2018).

Table 3 : Total Variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	%of Variance	Cumulative%	Total	%of Variance	Cumulative%	Total	%of Variance	Cumulative %
1	9.297	30.990	30.990	9.297	30.990	30.990	4.973	16.578	16.578
2	3.083	10.276	41.266	3.083	10.276	41.266	3.932	13.107	29.685
3	2.659	8.863	50.129	2.659	8.863	50.129	3.680	12.266	41.951
4	1.976	6.587	56.716	1.976	6.587	56.716	3.022	10.073	52.024
5	1.505	5.015	61.731	1.505	5.015	61.731	2.912	9.707	61.731
6	1.379	4.597	66.328						
7	1.225	4.082	70.410						
8	.937	3.122	73.532						
9	.882	2.940	76.472						
10	.776	2.586	79.058						
11	.721	2.404	81.462						
12	.687	2.291	83.753						
13	.580	1.932	85.685						
14	.556	1.852	87.537						
15	.463	1.543	89.080						
16	.455	1.516	90.596						
17	.410	1.367	91.963						
18	.339	1.130	93.093						
19	.299	.997	94.090						
20	.280	.933	95.023						
21	.261	.871	95.894						
22	.223	.742	96.636						
23	.208	.693	97.330						
24	.198	.661	97.991						
25	.160	.535	98.526						
26	.139	.464	98.990						
27	.100	.333	99.323						
28	.087	.291	99.614						
29	.073	.242	99.855						
30	.043	.145	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

The purpose of rotation in factor analysis is to simplify and clarify the structure by reducing the number of factors on which variables have high loadings (Hair et al., 2019). Rotation does not change the underlying relationships but enhances interpretability by making patterns of factor loadings more distinct (Field, 2018). The rotated component matrix presents the distribution of variables across factors related to consumer purchasing behavior towards home care products in the FMCG sector. Table 4 provides the detailed results of this analysis.

The idea of rotation is to reduce the number of factors on which the variables under investigation have high loadings. Rotation does not actually change anything but makes the interpretation of the analysis easier.7 The rotated component matrix for the variables relating to the factor stand for the purchasing behaviour of the consumers towards home care products in FMCG. The table 4 gives the following result:

Particulars	Component				
	1	2	3	4	5
Product Quality	0.836				
Product Size	0.768				
Brand Loyalty	0.748				
Product Regular	0.693				
Package Quality	0.629				
Product Availability	0.609				
Packaging	0.454				
Exhibition		0.774			
Coupons		0.718			
Gifts		0.718			
Discounts		0.599			
Seasonal Discounts		0.565			
Advertising		0.548			
Retailer References		0.533			
Celebrities and Recommendations		0.521			
User Suggestions		0.482			
Lifestyle			0.755		
Affordability			0.705		
Necessity			0.628		
Character			0.620		
Awareness			0.589		
Product Types			0.518		
Technology			0.425		
Culture				0.761	
Reputation				0.754	
Prestige				0.731	
Regular Usage					0.778
Trustful					0.709
Transportation and Delivery					0.544
Distribution					0.517

Source: Computed Data

Table 4 reveals the rotated component matrix for the purchasing behaviour of the consumers towards home care products in FMCG. It is clear that 30 variables are classified into 5 factors as F1,F2,F3,F4 and F5. These factors are discussed in the following.

Factor 1 – Product

Selection of a product by a respondent depends upon the price, quality, package, size, product availability and so on. Table 5 shows the variable forming under the part 1 factor.

Table 5 :Product Factor

S.No	Variance	Factor loading	Eigen value	% of variance	Cronbach's Alpha
1.	Product quality	0.836	4.973	16.578	0.871
2.	Product size	0.768			
3.	Brand loyalty	0.748			
4.	Product Regular	0.693			
5.	Quality	0.629			
6.	Product Availability	0.609			
7.	Packaging	0.453			

Source: Computed Data

Table 5 reveals the factor loadings for the variables. The variables are Product quality (0.836), Product size (0.768), Brand loyalty (0.748), Product Regular (0.693), Quality (0.629), Product Availability (0.609), Packaging (0.453) are the items having under factor 1.This factor is named as "PRODUCT" by the researcher.The Eigen value for this factor is 4.973, the % of the variance for this factor is 16.578 and the Cronbach's Alpha reliability value is 0.871.

Factor 2 – Promotion Factor

Promotion of a Product is an ultimate aim to create awareness and to be aware of the productdetails. It includes advertising, discounts, offers, coupons and so on. Table 6 shows the variable forming under the part 2 factor.

Table 6 : Promotional Factor

S.No	Variance	Factor loading	Eigen value	% of variance	Cronbach's Alpha
1.	Exhibition	0.774	3.932	29.685	0.843
2.	Coupons	0.718			
3.	Gift	0.718			
4.	Discounts	0.599			
5.	Seasonal Discounts	0.569			
6.	Advertising	0.548			
7.	Retailer References	0.533			
8.	Celebrities and Recommendations	0.521			
9.	User Suggestions	0.482			

Source: Computed Data

From the table 6, factor loadings of the variable are Exhibition (0.774), Coupons (0.718), Gift (0.718), Discounts (0.599), Seasonal Discounts (0.569), Advertising (0.548), Retailer References (0.533), Celebrities and Recommendations (0.521), User Suggestions (0.482) are the items having under factor 2 and it is called in the name of "PROMOTION FACTOR" by the researcher.The Eigen value for this factor is 3.932, the % of the variance for this factor is 29.685 and the Cronbach's Alpha reliability value is 0.843.

Factor 3 – Social Factor

It denotes the position of people in society and reveals the awareness, lifestyle, affordability and so on. Table 7 shows the variable forming under the part 3 factor.

Table 7 : Social Factor

S.No	Variance	Factor loading	Eigen value	% of variance	Cronbach's Alpha
1.	Lifestyle	0.755	3.680	41.951	0.836
2.	Affordability	0.705			
3.	Necessity	0.628			
4.	Character	0.620			
5.	Awareness	0.589			
6.	Product Types	0.518			
7.	Technology	0.425			

Source: Computed data

From the table 7, factor loadings for the variable shows that Lifestyle (0.755), Affordability (0.705), Necessity (0.628), Character (0.620), Awareness (0.589), Product Types (0.518), Technology (0.425) are the variables having under the factor 3. The researcher has decided to name it as "SOCIAL FACTOR". The Cronbach's Alpha reliability score is 0.836, the Eigen value is 3.680, and the percentage of variance is 41.951.

Factor 4 – Economic Factor

This factor plays a major role in purchasing behaviour towards FMCG. Table 8 shows the variable forming under factor 4.

Table 8 : Economic Factor

S.No	Variance	Factor loading	Eigen value	% of variance	Cronbach's Alpha
1.	Culture	0.761	3.022	52.024	0.794
2.	Reputation	0.754			
3.	Prestige	0.737			

Source: Computed data

From the table 8, exhibits that Culture (0.761), Reputation (0.754), and Prestige (0.737) are the variables under factor 4 and the researcher states that this factor is "ECONOMIC FACTOR". The Eigen value for the Economic Factor is 3.022, the % of variance is 52.024 and the Cronbach's Alpha reliability value is 0.794.

Factor 5 – Reliability Factor

It is one factor that induces the person to be aware of transportation and so on. Table 9 shows the variables forming under factor 5.

Table 9 : Reliability Factor

S.No	Variance	Factor loading	Eigen value	% of variance	Cronbach's Alpha
1.	Regular Usage	0.778	9.707	61.731	0.779
2.	Trustful	0.709			
3.	Transportation and Delivery	0.544			
4.	Distribution	0.517			

Source: Computed Data

Table 9 reveals the factor loadings of the variable: Regular Usage (0.778), Trustful (0.709), Transportation and Delivery (0.544), and Distribution (0.517) are the items coming under factor 5 and the title of this factor given by the researcher is "RELIABILITY FACTOR". This factor's Cronbach's Alpha reliability score is 0.779, its Eigen value is 9.707, and its percentage of variance is 61.731.

7. CONCLUSION

The identified factors in this study demonstrate strong reliability, as confirmed by the KMO and Bartlett's Test results. Factor analysis effectively categorized the 30 variables into five distinct factors, which the researcher has labelled as Product Factor, Promotion Factor, Social Factor, Economic Factor, and Reliability Factor. According to the study, all five factors exhibit high Eigenvalues, a substantial percentage of variance explained, and strong reliability measures, making them statistically significant for understanding consumer purchasing behaviour. (Field, 2018; Hair et al., 2019).

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