Factors Influencing Purchase of Fake FMCG Products among Urban and Rural Consumers – An Empirical Analysis

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Abstract

Objectives: Indian economy is agrarian based and the rural population shared half of the gross domestic product of India. Though, with changes in economy, advanced technology and innovative marketing, the rural population is exploited by way of poor quality products and services, common shortages leads to black marketing, irrational pricing, promotions and others. To accord with it, this study intends to identify the various factors inducing the purchase of FMCG products in both rural and urban areas and the level of impact on these factors towards the purchase of fake FMCG products. **Methods/ Analysis:** This study is conducted in rural and urban areas of Madurai District in Tamil Nadu which is considered primarily as the universe of the present study. The present study comprising of 20 villages in Madurai District consisting of 100 rural sample respondents and also covered 100 sample respondents from Madurai city (urban). Thus, the researcher has used multistage simple random sampling technique within the sampling frame to collect the urban and rural responses for the study. This study depends mainly on primary data. A structured interview schedule (in regional language) was constructed and administered to collect primary data among the rural and urban groups for a period of one month from November 2015 to December 2015. **Findings:** The study findings pointed out that urban consumers were influenced by 'conviction' and 'appeal' factors and the rural consumers were influenced by 'conviction' and 'promotions' during their purchase behavior towards fake FMCG products. Thus, an integrated approach including representative from corporate firms, retailer forum, sales executives is needed to empower the rural and urban consumers by way of including consumer education, training for government enforcement officials, research and statistical analysis, public policy analysis and support for policy development and sharing global best practices information. **Applications/Improvement:** This study has given a new acumen in the field of creating consumer awareness towards purchasing of fake products among rural population.

Keywords: Consumer Awareness, Fake Products, FMCG Products, Madurai City, Rural and Urban Consumer

1. Introduction

Indian economy is agrarian based and the rural population shared half of the gross domestic product of India. As nearly about 70 per cent of the population residing in rural, this new emerging market has a mix of growing income, expectations and desires. Related to this changing paradigm and potential of the market, rural population renders a remarkable capital investment pros-pect for corporate firms. 75 percent of the new factories were focused only the rural area and accountable for new job opportunities. This potential growth has provided a way to certain negative happenings in trade specifically, adulteration, fake and counterfeiting products. It affects the health of the consumer, ethical trade practices and it is a threat to the economy. In most cases, consumer awareness towards the generic and fake products was not often very clear and apparent. As per the study conducted

by Associated Chambers of Commerce and Industry of India (ASSOCHAM), the yearly sales of fake products reached Rs.15,000 crores and the loss of revenue is expected around Rs. 1250 crores[1]. Though, with changes in economy, advanced technology and innovative marketing, the rural population is exploited by way of poor quality products and services, common shortages leads to black marketing, irrational pricing and promotions[2]. The buying pattern of rural consumers are different from their counterparts in urban. They habitually purchase things on a weekly basis and often go for similar set of products due to lack of choice. Mostly rural population is heterogeneous, but the influence of community in decision making for purchase of products is also prevalent. The planning of marketing strategies in introducing new product in the market, pricing policies, packaging, offers,

promotions, supply of products and services are differ based on the location of customers. To accord with it, this study intends to identify the various factors inducing the purchase of FMCG products in both rural and urban areas and among the factors spot out which factors are influencing the consumers to buy the fake FMCG products.

The Fast Moving Consumer Goods (FMCG) sector in rural and semi-urban India is estimated to cross US$ 20 billion by 2018 and US$ 100 billion by 2025[3]. The present rural market size for 742 million people for fast moving consuming goods is Rs. 65.000 crores. Comprising 6 lakhs villages, 90% of the villages have a village public telephone, forty million formers credit cards were distributed and more than fifty percent of transactions are from surrounding small towns on Rediffmail E-shopping web

Table 1. Awareness of faking among the respondents according to their demographics

Demographic variables	Aware of fake products(115)		Unaware of fake products(85)	
	Frequency	Percentage	Frequency	Percentage
Age in yrs				
< 25	41	36	28	33
25-40	38	33	26	31
>40	36	31	31	36
Gender				
Male	73	63	38	45
Female	42	37	47	55
Location				
Urban	70	60	30	35
Rural	45	40	55	65
Educational Qualification				
Schooling	11	10	28	33
UG	46	40	21	24
PG	42	36	19	22
Others	16	14	17	21
Monthly income in Rs.				
< 5000	16	14	39	46
5000-15000	33	29	24	28
15000-25000	31	26	10	12
>25000	35	31	12	14

Source- Primary Data

portal. Though 40% villages are connected by road, only 44% rural homes have electric connection, the advertisement spent on TV in rural are expected to grow around 12-14 percent. The rural market which was neglected now started gaining momentum. As the earning income rate is growing among rural population, corporate firms were entering into the rural market with lot of challenges[4]. These corporate firms required to learn new marketing paradigms which will channelize their potential strategies towards rural market[5]. Rural population should be approached in a multi folded way by including economic, social, psychological and cultural aspects compared to urban. The rural consumer is not literate person, they tend to purchase based on community influences and women preferences[6]. They tried to utilise their visual picture and relate it with brands and symbols of products. They tend to buy low-priced products but on a community mass basis, their purchase is more of homogenous. Researchers[7,8] have tried to analyse the packaging pattern attraction towards rural and urban consumers and found that these factors were highly influencing their purchasing decision specifically for FMCG products. The research facts[9,10] exposed that rural consumers have developed brand familiarity with leading brands. But their brand awareness, preference and loyalty were comparatively less than urban consumers[11]. The level of brand awareness varies with the nature of the product, word of mouth and advertisement and changing their perception towards competitive products were very tough[12] and this "rural predilection" is being considered as one of the significant topics of market analysis[13,14]. But still the major problems faced by the consumers invariably rural and in urban were the availability of fake brands and spurious products. It might be of misspelling or resembling the original products. Most of the consumers not checked the available choice of the product, the life time of the product, overcharges, poor quality and lesser weights of the product what they purchase. This study is intended to find out the various factors related to the purchase of FMCG products and the difference of purchase behaviour exhibited while purchasing the fake products among urban and rural consumers[15, 16].

2. Methodology

Tamil Nadu is the eleventh largest state in the country in terms of area and seventh most populated too. Based on the recent census report, Tamil Nadu restored a final population of seven crores and twenty one lakhs. Of this, the rural population formed 51.55% and the remaining is urban population. In Tamil Nadu, there are 32 districts and 15979 villages as per Census-2011[17]. This study is conducted in rural and urban areas of Madurai District inTamil Nadu which is considered primarily as the universe of the present study. The present study comprising of 20 villages in Madurai District consisting of 100 rural sample respondents and also covered 100 sample respondents from Madurai city (urban). Thus, the researcher has used multistage simple random sampling technique within the sampling frame to collect the urban and rural responses for the study. The planned sample size is 200 and it is adequate sample size as per Morgan Table[18]. This study depends mainly on primary data. A structured interview schedule (in regional language) was constructed and administered to collect primary data among the rural and urban groups for a period of one month from November 2015 to December 2015. Secondary data has also been collected from books, websites and reports of Government Census 2011, Socio-Economic and Caste Census[19], India brand equity foundation, Department of Consumer Affairs, relevant journals and magazines. A pilot study was undertaken to comprehend the variables involved in the study. The data collected from the field study was empirically analysed through statistical tools for identifying the influence of various factors towards purchase of fake FMCG products among rural and urban consumers. Descriptive statistics was used to describe the characteristics of the respondents, Factor analysis was performed to factorize the influencing factors towards purchase of FMCG products and multiple regression was conducted to identify the significant influencing factors towards the purchase of fake FMCG products.

3. Results and Discussion

The present study has considered the age, gender, location, educational qualification, monthly income as the demographic variables. The Fast Moving Consumer Goods (FMCG) such as shampoo, bathing soap, washing soap, hair oil and face cream, face powder, washing powder, biscuits, ready to eat pocket snacks, chocolates and candies were considered and the demographic characteristics of the respondents were presented below. The table describes the respondent's awareness towards the product

Table 2. The cross tabulation between the location, monthly income and the frequency of purchase

Location	Monthly Income				Total	Frequency of Purchase				Total
	< 5,000	5,000-15,000	15,000-25,000	> 25,000		Daily	Weekly	Monthly	When required	
Urban	15	20	25	40	100	11	32	42	15	100
	15%	20%	25%	40%		11%	32%	42%	15%	
Rural	38	25	15	22	100	33	48	8	11	100
	38%	25%	15%	22%		33%	48%	8%	11%	
Total	53	45	40	62	200	44	80	50	26	200

Source- Primary Data

Table 3. Reason for buying fake products and not knowing the kind of brand purchased

Location	Reasons for buying fake products				Total	Reasons for non awareness of fake products				Total
	Availability	Price and discounts	Effect of promotion of brand	Shop location		Less brand awareness	Influence of price and discounts	Used to buy available products, lack of choice	Trust on shops/ Retailer	
Urban	36	22	4	5	67	11	17	40	6	74
Rural	73	23	28	9	133	34	19	55	18	126
Total	109	45	32	14	200	45	36	95	24	200

Source- Primary Data

whether it is genuine or fake based on their demographic profile. As per the table, the respondent belongs to the age group of less than 25 are comparatively more aware of fake products than the age group of more than 40. Interestingly, the male respondents are more aware of fake products than the female respondents. Respondents earning more than Rs. 5000 per month and having more than school education are more aware about the fake products. Comparatively, rural purchasers are unaware of the fake products with their counterparts. [Table 1]. It is inferred from the table that 40% of the respondents earning more than Rs. 25000 per month in the urban area and 15% of the urban respondents are earning less than Rs. 5,000 per month. 38% of the rural respondents earning less than Rs. 5,000 and 15% of the respondents earning Rs. 15,000 to Rs. 25,000 per month. The frequency of purchase is more in urban on a monthly basis and in rural on a weekly basis [Table 2]. The table described both urban

and rural respondents were buying and unaware of fake products mostly based on the availability of the product and lack of choice of other products in the shop. The other factors like price and discounts, promotion of brand, shop location and trust on retailers have less influence on the awareness of fake products by both rural and urban customers [Table 3].

3.1 Descriptive Statistics of Statements describing Purchase of FMCG Products

To understand the nature of the various purchases of FMCG products through a clear understanding of review of literature, an attempt was made to group the responses and to find the relevance of the outcomes by analyzing the mean scores and discuss the other aspects of the respondents for the present study using factor analysis. As a first step KMO and Bartlett's test was performed and is exhibited in the Table 3. KMO and Bartlette's test of sphe-

ricity creates the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlette's test (Field, 2005, Chapters 11 and 12). As per the test, the KMO value should be greater than 0.5 when the sample is sufficient. The Kaiser-Meyer-Olkin Measure of sampling adequacy is 0.831, which shows that sample for this study is quite adequate. The purpose of this analysis is to investigate and reduce the more number of variables in to small identified factors [Table 4]. The table shows that five factors were extracted. In total, the five factors were explaining 79.9% of the variance. The first factor is able to extract 22.9%, second factor is able to extract 19.1%, third factor is able to extract 16.7%, fourth factor is able to extract 12.2% and the fifth factor is able to extract 9.0% [Table 5] and rotated component matrix is prepared [Table 6]. 6 variables are loaded on factor 1 and all are positive loadings based on the loadings the factor is named as 'Conviction' [Table 7]. 4 variables are loaded on factor 2 and all are positive loadings based on the loadings the factor was named as 'Appeal' [Table 8]. 5 variables are loaded on factor 3 and all are positive loadings based on the loadings the factor was named as 'Reflection' [Table 9]. 5 variables are loaded on factor 4 and all are positive loadings based on the loadings the factor is named was 'Promotion' [Table 10]. 6 variables are loaded on factor 5 and all are positive loadings based on the loadings the factor is named was as 'Product'. Based on the Factor analysis, in total, five factors such as 'Conviction', 'Appeal', 'Reflection', 'Promotion' and 'Product' are able to extract 79.9% of variance. These five factors were identified as important factors of purchase of FMCG products. In order to identify the impact of these factors on the overall purchase of FMCG products in rural and urban which leads to the purchase of fake FMCG products, multiple regression analysis were conducted considering the five factors identified through factor analysis [Table 11].

Table 4. KMO and Bartlett's test

KMO -Sampling Adequacy		.831
Test of Sphericity	Appx. Chi-Square	4.2181
	Sig.	.000

Source- Primary Data

Table 5. Total variance

Components	Loadings of Rotation Sums of Squared		
	Total Eigen values	% of Variance	Cumulative %
1	5.433	22.9	22.9
2	3.190	19.1	42.0
3	1.734	16.7	58.7
4	1.103	12.2	70.9
5	1.083	9.0	79.9

Source- Primary Data

Table 6. Rotated component matrix

Variables	Factors				
	1	2	3	4	5
Shop Keeper's recommendation	.873				
Friends and family recommendation	.767				
Availability	.763				
Brand ambassador influence	.760				
Brand loyalty	.689				
Shop location	.673				
Affordability		.727			
Need based		.712			
Intended benefits		.673			
Shelf display		.653			
Brand Awareness			.817		
Dignity			.776		
Packaging			.762		
Lifestyle			.631		
Brand visibility			.621		
Relationship marketing				.787	
Other promotions				.752	
Product education and demonstration				.711	
Brand endorsements				.659	
Free offers/ sales promotions				.632	
Long lasting Product					.768
Additional features offering more benefits					.685
Quality					.631
Size					.622
Low price					.617
Variety					.611

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 5 iterations.

Table 7. Variables loaded on factor 'Conviction'

Variables	Loadings
Shop Keeper's recommendation	.873
Friends and family recommendation	.767
Availability	.763
Government promotions	.760
Brand loyalty	.689
Shop location	.673

Table 8. Variables loaded on factor 'Appeal'

Variables	Loadings
Affordability	.727
Need based	.712
Intended benefits	.673
Shelf display	.653

Table 9. Variables loaded on factor 'Reflection'

Variables	Loadings
Brand Awareness	.817
Dignity	.776
Packaging	.762
Lifestyle	.631
Brand visibility	.621

Table 10. Variables loaded on factor 'Promotion'

Variables	Loadings
Relationship marketing	.787
Other promotions	.752
Product education and demonstration	.711
Brand endorsements	.659
Free offers/sales promotions	.632

Table 11. Variables loaded on factor 'Product'

Variables	Loadings
Long lasting	.768
More features offering more benefits	.685
Quality	.633
Size	.622
Low price	.617
Variety	.611

3.2 Model of Status of Overall Purchase of FMCG Products Factors formed out of Opinion of the Respondents-Regression Analysis

Model of status of impact of overall purchase behaviour of FMCG products has framed from opinion amongrural consumerssuch as 'Conviction', 'Appeal', 'Reflection', 'Promotion' and 'Product' as predictors.

The responses for creativity factors were sub grouped under the relevant variables as follows:

- Conviction.
- Appeal.
- Reflection.
- Promotion.
- Product.

In order to identify the impact of influencing factors related to purchase of fake FMCG products based on the opinion of rural respondents, multiple regression analysis has been applied. The multiple regression lines were estimated to analyze the impact of purchase of fake FMCG products. The general form of the regression model for the present study is given below:

$$Y = a_0 + a_1 X_1 + a_2 X_2$$

Where,

Y = Overall purchase of fake FMCG products by rural respondents.

X1 = Factors of purchase of FMCG products.

3.2.1 Estimation of Status of Overall Purchase of Fake FMCG Products Factors = $a + b_1 X_1 + b_2 X_2 + ………..+ b_5 X_5$

The R^2 value explained 78 percent of the variations in the opinion by rural consumers. As the significance of F value is less than 0.05, which shows that the model is significant. Correlation value (R = .861) states that there is a high degree of correlation between overall influencing factors related to purchase of fake FMCG products among the rural consumers [Table 12]. To find out which

Table 12. Model of status of overall purchase of fake FMCG products factors formed out of opinion by rural consumers

R	R Square	Sum of Squares	df	Mean Square	F	Sig.
.861	.780	101.278	5	7.091	38.715	.000
		91.0121	143	.171		
		186.183	170			

Table 13. t-test and regression coefficients accepted by the model for influencing purchase of fake FMCG products among the rural respondents

Predictors	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.021	.146		15.367	.000
Conviction	.211	.021	.321	5.341	.210
Appeal	.054	.022	.120	2.098	.128
Reflection	.025	.018	.011	1.238	.041*
Promotion	.123	.023	.234	1.152	.032*
Product	.322	.045	.353	4.432	.326

* significant at 5%.

Table 14. Model of status of overall purchase of fake FMCG products factors formed out of opinion by urban consumers

R	R Square	Sum of Squares	df	Mean Square	F	Sig.
.811	.801	102.128	5	8.234	31.455	.000
		95.112	112	.186		
		123.213	154			

Table 15. t-test and regression coefficients accepted by the model for influencing purchase of fake FMCG products among the urban respondents

Predictors	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.019	.146		11.367	.000
Conviction	.126	.054	.235	5.345	.022*
Appeal	.065	.023	.109	2.019	.018*
Reflection	.012	.012	.009	0.457	.120
Promotion	.127	.011	.219	0.152	.032
Product	.241	.023	.316	4.122	.326

* = significant at 5%

variables are illustrative variables, each variable is analysed with *t*-test [Table 13].

3.2.1.1 Purchase of Fake FMCG Products among Rural Respondents = 2.021+ 0.211 (Conviction) + 0.054 (Appeal) + 0.025 (Reflection) +.123 (Promotion) +.322 (Product)

The present model's t test expressed that the predictors namely, 'Reflection' and 'Promotion' are significant at 5%. Further it shows that the predictors namely, 'Conviction',

'Appeal' and 'Product' are not significant at 5% which reflects that they are not influencing overall purchase of fake FMCG products.

3.2.2 Estimation of Status of Overall Purchase of Fake FMCG Products Factors = $a + b_1X_1 + b_2X_2+\ldots\ldots+ b_5X_5$

The R^2 value explained 80 percent of the variations in the opinion by urban consumers. As the significance of F value is less than 0.05, which shows that the model is

significant. Correlation value (R = .811) states that there is a high degree of correlation between overall influencing factors related to purchase of fake FMCG products among the urban consumers. [Table 14]. To find out which variables are illustrative variables, each variable is analysed with *t*-test.

3.2.2.1 Purchase of Fake FMCG Products among Urban Respondents= 2.019+ 0.126 (Conviction) + 0.065(Appeal) + 0.012 (Reflection) +.127(Promotion) +.241(Product)

The present model t test exhibits that the predictors namely, 'Conviction' and 'Appeal' are significant at 5%. Further it reflected that the predictors namely, 'Reflection', 'Promotion' and 'Product' are not significant at 5% which shows that they are not influencing overall purchase of fake FMCG products [Table 15].

Out of the 200 respondents, 57.5% of them were well aware of the fake products in the market and sharing the common demographics such as age group of less than 25, male members, residing in urban areas, having minimum graduation and earning income of more than Rs. 25, 000 per month. While comparing the frequency of purchase, urban respondents used to purchase more on a monthly basis and rural respondents purchase on a weekly basis. In both urban and rural respondents, they tend to purchase fake FMCG products mainly due to the availability of the product and lack of availability in the shop/market. The factor analysis pinpointed that conviction, appeal, reflection; promotion and product were the influencing factors for the purchase of FMCG products in both rural and urban areas. Now the young and educated rural population is increasing day by day, they act as decision makers for their purchase as a whole in line with their counterparts in urban. And comparatively, the rural women supposed to enjoy the economic power by engaging themselves in self help groups and other Government initiated programmes, their decision to purchase products were gaining momentum too.

Out of the five factors, the regression analysis conducted for the urban population revealed that 'conviction' and 'appeal' were predominantly influencing their purchase behaviour towards fake FMCG products and in contrary, in rural the factors as 'conviction' and 'promotions' were influencing more towards their purchase. The probable reason is both rural and urban customers trust their retailers and belief their words and particularly word of mouth was an influencing source in their rural places.As urban consumers were provided with lot of input on product information through apps, blogs, social media, the appeal factors entice them more to purchase fake products. The rural consumers are of price sensitive in nature, the promotion tools such as free samples; price offers allure them more to purchase fake products.On the ground of less competition among the retailers, thelack of choice of products was misleading the rural purchasers to buy fake products. As the rural decision is more of community based, the corporates marketing team needs to educate and orient the rural shop owners related to brand awareness and other marketing strategies which will strengthen their bondage. Regarding plan for promotions in rural areas, innovative strategies should be adopted to poise the price and the quality of the product.

4. Conclusion

This study has given a new acumen in to the field of consumer awareness against purchasing of fake products. To conclude, the leading corporate firms should dedicate a separate market division for serving rural and urban consumers. To leverage the derived benefit from rural and urban customers, the required sales job roles needs to be defined clearly by the firms. To forecast and manage the future consumers, mobile apps based technology might be implemented for assuring point of purchase and to ensure whether it is fake or not. In addition, special consumer awareness and education programmes on brands, symbols and logo should be organised in line with promotion campaign. The local Gramashaba may be used as a right channel to educate the rural consumers on basic consumer awareness and rights. The Government should intervene in to the enactments of fair trade practices and provide the need for developing specific judiciary proceedings for the unfair trade practices. Thus, an integrated drive campaign should be instigated including representative from corporate firms, distribution partners, retailer forum, sales executives, Government officials, NGO's, local bodies, public associations to empower the rural and urban consumerson consumer awareness education, training for government and NGO programmed officials, conducting research on consumer awareness and preparing statistical analysis reports, public policy analysis and support for policy development and sharing global best practices information.

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