Research Paper Management

# A Study on Consumer Behaviour towards Replacement of Select Kitchen Appliances in Coimbatore City

* P. Chitra pushpa ** Dr. P. Palanivelu

* Research scholar, Department of Commerce and Management studies, Karpagam university, Coimbatore-641021

** Professor, Department of Commerce and Management studies, Karpagam university, Coimbatore-641021

ABSTRACT

*The most challenging concept in marketing deals with understanding why buyers do, what they do or don't do. The kitchen appliances market continues to grow strongly. However, the information concerning to replacement of kitchen appliances is limited. In this context, it is essential for manufactures to understand the factors behind the consumers in replacement of select kitchen appliances and identify the most effective sales promotional tools to use in penetrating the market. Data were collected from 750 respondents, who had replaced any one of the kitchen appliances i.e., mixie, pressure cooker, gas stove and non-stick cookware in Coimbatore city by using structured questionnaire. The Percentage analysis, Chi-square test and Friedman Rank tests were used to analyze the data. From the study it was concluded that the replacement of selected kitchen appliances were due to the failure of the working unit. The two demographic factors monthly income and family size were significant on the replacement of mixies and gas stoves .On the other hand replacement of the pressure cookers and non-stick cook wares does not have a significant association with monthly income and family size. All other factors like gender, age, occupational status and educational qualification have no significant relationship on the replacement of select kitchen appliances. Furthermore the discount offer was identified as the most effective sales promotional tools among the replacers.*

Keywords : Kitchen Appliances, Types of replacement, Sales Promotional Offers and Replacement.

## Introduction

Kitchen appliances have become one of the most emergent markets in India. The growth in the markets is likely to be primarily driven by the replacement demand and up gradation to branded product/products with better features. The kitchen appliances are commonly referred as the brown goods. Basically, a kitchen appliance is a human energy-saving device that uses electricity or gas energy to perform some common kitchen or cooking task. The major factor in favour of the kitchen appliances replacement is that these products have a much shorter replacement cycle of 2-3 years, technology introductions and lower price range results in higher volume growth and quicker penetration possibilities. In a modern house, the requirement of varied kitchen appliances is purpose driven. The benefits of sustained growth by way of higher disposable incomes, greater media exposure and increased retail penetration were now reaching into the vast middle class people who are willing to purchase kitchen appliances to improve life style.

## Statement of the problem

Several manufactures have been engaging in production and marketing of kitchen appliances. High growth is projected in the replacement market due to increase in the prosperity levels of the income combined with technological advancements. In this context, the kitchen appliance marketers should be able to identify what motives consumers for the replacement of select kitchen appliances. This is in order to design the most effective strategies to use in penetrating the market. Although, a lot of research talks about the increasing demand of replacement sales, the study on the replacement behaviour is still limited in Indian context. Therefore, there is a need to study about replacement of kitchen appliances.

## Objectives of the study

- To analysis the impact of demographic factors on replacement of select kitchen appliances.
- To identify the type of replacement decision made by the consumers for select kitchen appliances.
- To find out the sales promotional offer which make maximum impact on replacement of select kitchen appliances

## Research methodology

The research design selected for this study was combination of exploratory and descriptive research designs. This research study explores the behaviour of the consumers towards the replacement of select kitchen appliances of mixie, pressure cooker, gas stove and non-stick cookware. The primary data were collected from the 750 respondents, who had replaced any one of the kitchen appliances i.e., mixie, pressure cooker, gas stove and non-stick cookware in Coimbatore city, by using structured questionnaire. An instrument in the form of structured and close ended questionnaire using multiple choice and dichotomous questions was constructed based on the data required for objectives and hypothesis for the research. Convenient sampling technique was used to select the respondents and secondary data was obtained from research publications, magazines, print- media and web-sources. The survey for descriptive study was conducted from February 2012 to July 2012. Percentage analysis, Chi-square test and Friedman Rank tests were used to analyze the data.

## Analysis and Interpretation of data

In this study the replacers were categorized according to demographic factors such as gender, age, education qualification, occupational status, monthly income, and family size.

**Table 1: Distribution of the respondents by gender**

| Gender | Number of respondents | Percentage |
|---|---|---|
| Male | 420 | 56.00 |
| Female | 330 | 44.00 |
| Total | 750 | 100 |

Table 1 indicates that out of the 750 respondents, 56 per cent of the respondents were male and 44 per cent of the respondents were female. It was evident that majority of the respondents were male.

**Table 2: Distribution of the respondents by age**

| Age groups | Number of respondents | Percentage |
|---|---|---|
| Below 30 years | 194 | 25.87 |
| 31-40 years | 110 | 14.67 |
| 41-50 years | 211 | 28.13 |
| 51 to 60 years | 165 | 22.00 |
| Above 61 years | 70 | 9.33 |
| Total | 750 | 100 |

Table 2 indicates that among the 750 respondents, 25.87 per cent of the respondents were in the age group of below 30 years, 14.67 per cent of the respondents were in the age group of 31-40 years, 28.13 per cent of the respondents were in the age group of between 41-50 years, 22 per cent of the respondents were in the age group of 51-60 years and 9.33 per cent of them were in the age group of 61 years. It was evident that most of respondents fall in the age group of 41-50 years.

**Table 3: Distribution of the respondents by educational qualification**

| Educational qualifications | Number of respondents | Percentage |
|---|---|---|
| High school level | 52 | 6.93 |
| Higher secondary school level | 70 | 9.33 |
| Under graduates | 269 | 35.87 |
| Post graduates | 258 | 34.40 |
| Professionals | 101 | 13.47 |
| Total | 750 | 100 |

Table 3 indicates that among 750 respondents, 6.93 per cent of the respondents have high school level education, 9.33 per cent of the respondents were educated up to higher secondary school level education, 35.87 per cent of them were under graduates, 34.40 per cent of the respondents were post graduates and 13.47 per cent of the respondents were professionals. It was evident that majority of the respondents were under graduates.

**Table 4: Distribution of the respondents by occupational status**

| Occupational status | Number of respondents | Percentage |
|---|---|---|
| Government service | 110 | 14.67 |
| Private sector | 60 | 8.00 |
| Professionals | 384 | 51.20 |
| Business | 144 | 19.20 |
| House wives | 52 | 6.93 |
| Total | 750 | 100 |

The Table 4 indicates that 14.67 per cent of the respondents were in government service, 8 per cent of the respondents were employees of private sector, 51.20 per cent of the respondents were professionals by occupation, 19.20 per cent of the respondents were doing business, and 6.93 per cent of the respondents were housewives. It was found that majority of the respondents were professionals by occupation.

**Table 5: Distribution of the respondents by family monthly income**

| Family monthly income | Number of respondents | Percentage |
|---|---|---|
| Below Rs 20000 | 55 | 7.33 |
| 20001 - 30000 | 59 | 7.87 |
| 30001 - 40000 | 381 | 50.80 |
| Above Rs.40000 | 255 | 34.00 |
| Total | 750 | 100 |

The table 5 clearly indicates that among 750 respondents, 7.33 per cent of the respondents monthly income was below Rs.20000, 7.87 per cent of the respondents monthly income was between Rs. 20001- 30000, 50.80 per cent of the respondents monthly income was between Rs. 30001- 40000 and 34 per cent of the respondents monthly income was above Rs.40000. It was evident that majority of the respondents monthly income was between Rs.30001- 40,000.

**Table 6: Distribution of the respondents by family size**

| No of members in the family | Number of respondents | Percentage |
|---|---|---|
| Up to 3members | 64 | 8.53 |
| 4members | 71 | 9.47 |
| 5 members | 445 | 59.33 |
| Above 5members | 170 | 22.67 |
| Total | 750 | 100 |

The Table 6 indicates that among 750 respondents 8.53 per cent of the respondents had up to 3 member family group, 9.47 per cent of the respondents belong to 4 member family group, 59.33 per cent of the respondents belong to 5 member family group and 22.67 per cent of the respondents belong to above 5 member family group. It was evident that most of the respondents belong to 5 member family group.

**Kitchen appliances replaced by the respondents.**

Replacement takes place when a consumer replaces his/her current product with another newly acquired product. The replacements made by the 750 respondents across select kitchen appliances are listed in the following Table 7.

**Table 7: Kitchen appliances replaced by the respondents**

| Kitchen appliances | Number of respondents | Percentage |
|---|---|---|
| Mixies | 700 | 93.33 |
| Pressure Cookers | 729 | 97.20 |
| Gas stoves | 580 | 77.33 |
| Non-stick cook wares | 704 | 93.87 |

The Table 7 indicates that 93.33 per cent respondents had replaced their mixies, 97.20 per cent the respondents had replaced their pressure cookers, 77.33 per cent respondents had replaced their gas stoves and 93.87 per cent respondents had replaced their non-stick cook wares.

**Type of replacement**

Consumers replace their working or worn out kitchen appli-

ances for a variety of reasons, including style/ fashion preference, product features and technology advances. Bayus et al (1991)[3] stated that consumers might find themselves in situations where the replacement purchase is either a forced or unforced decision. However the forced situation derives from a bad experience of reliability and durability such as product failure. Whereas the unforced purchases comprise of innovations and enhancements that in turn motivate the consumer to consider a repurchase.

**Table 8: Type of replacement by the respondents**

| Type of replacement | Number of respondents | Percentage |
|---|---|---|
| Forced replacement | 482 | 64.30 |
| Unforced replacement | 268 | 35.70 |
| Total | 750 | 100 |

Table 8 portrays that 64.30 per cent of the replacements made by the respondents were forced replacements and 35.70 per cent of the replacements made by the respondents were unforced replacements. It was concluded that majority of the replacement of kitchen appliances were forced replacements.

**Sales Promotional tools preferred for Replacement purchase**

Sales promotional offers can influence customers to purchase a product immediately and it can be used to encourage repeat purchase effectively. For instance, free sample will increase the intention to buy a product (Adcock et al., 1998)[1]. Consumers staying in different areas have different attitude towards sales promotion. It might be influenced by the level of education, allowance or monthly income and occupation (Hamm, Perry and Wynn, 1969)[6]. Friedman chi-square test was applied on each promotional offer to know which offers were ranked higher and these higher ranked offers in turn will show which offers are influential to respondents.

**Hypothesis $H_0$**: The respondents do not have equal preference for all promotional offers on replacement of select kitchen appliances.

**Table 9: Promotional offers preferred for Replacement purchase**

| Promotional offers | Mean Rank | Ranking |
|---|---|---|
| Sweepstake offer | 3.33 | 7 |
| Cash back offer | 3.23 | 9 |
| Combo offer | 6.51 | 5 |
| Coupons | 2.68 | 10 |
| Exchange offers | 8.00 | 2 |
| Free gift offer | 7.42 | 3 |
| Financial schemes | 3.26 | 8 |
| Extended Warranty | 4.11 | 6 |
| Contest | 6.78 | 4 |
| Discount sale | 9.67 | 1 |
| Chi-square value | 4475.22 | |
| df | 9 | |
| p- value | .000 | |

It could be noted from the Table 9 that among the ten promotional offers discount sales was ranked first with mean rank (9.67), exchange offer was ranked second with mean rank (8.00) and free gift offer was ranked third with mean rank (7.42), contest was ranked fourth with mean rank (6.78), combo offer was ranked fifth with mean rank (6.51), extended warranty was ranked sixth with mean rank (4.11), sweepstake offer was ranked seventh with mean rank (3.33), financial schemes was ranked eighth with mean rank (3.26),Cash back offer was ranked ninth with mean rank (3.23) and coupons was ranked tenth with mean rank (2.68). For these rankings the obtained Chi-square value of 4475.22 was found to be statistically significant at 0.05 levels, for 9 degrees of freedom. Since the obtained p-value was less than 0.05, the null hypothesis was rejected and alternate hypothesis was accepted and it was concluded that all the respondents have equal preference for all promotional offers and discount offer was found to be preferred promotional offer among the replacers.

**Demographic factors influence on the replacement of kitchen appliances**

The demographical information such as gender, age, educational qualification, occupation status, income and family size are very important for any study because of awareness, motivation, opinion, preference, priority, satisfaction and so on and it may differ among the respondents under various categories.

The Chi-square tests were applied to analyze the influence of demographic factors on replacement of mixies, pressure cookers, gas stoves and non-stick cook wares.

Hypothesis $H_0$: There is no significant relationship between demographic factors of the respondents and replacement of select kitchen appliance (mixie, pressure cooker, gas stove and non-stick cook ware).

**Table 10: Demographic factors influence on replacement of select kitchen appliances**

| Demographic factors | Product categories –Chi-square value | | | | df | Table value |
|---|---|---|---|---|---|---|
| | Mixie | Pressure cooker | Gas stove | Non-stick cookware | | |
| Gender | 1.391 | 0.616 | 0.020 | 1.329 | 1 | 3.841 |
| Age | 0.212 | 1.798 | 4.416 | 3.505 | 4 | 9.488 |
| Occupational status | 5.723 | 0.218 | 1.270 | 2.136 | 4 | 9.488 |
| Educational qualification | 1.633 | 3.505 | 8.929 | 1.557 | 4 | 9.488 |
| Monthly Income | 22.97* | 0.592 | 22.40* | 2.142 | 3 | 7.815 |
| Family size | 17.86* | 1.248 | 22.86* | 3.246 | 3 | 7.815 |

*** Significant at 0.05 level**

The above Table 10 highlights the results of the chi-square for different demographic factors of the respondents on replacement of kitchen appliances of mixies, pressure cookers, gas stoves and non-stick cook wares. Among the seven demographic factors only two factors namely monthly income and family size were found to be significant for mixies and gas stoves. The null hypothesis was rejected because the Chi-square values were found to be more than the respective Table values under the significance level of ($\alpha \leq 0.05$). Therefore an alternative hypothesis was confirmed, which means that the socio-economic factors like monthly income and family size was exerted strong influence on the consumers replacement of kitchen appliances of mixies and gas stoves, where as in the case of other factors of gender, age, occupational status and educational qualification was exerted no influence on the consumers replacement behaviour of kitchen appliances.

**Findings**

Findings of the study indicate that out of 750 samples, majority (56.00%) of the respondents were male. Most of the (28.13%)

respondents fall in the age group of 41-50 years. 35.87% of the respondents belong to under graduate education group. Majority (51.20%) of the respondents were professionals by occupation. Majority of the (50.80%) respondents' income level were between Rs.30001- 40000. Most of the (59.33) respondents belong to 5 family member group. With regards to replacement of kitchen appliances 97.20% respondents had replaced their pressure cookers, next to that 93.87% respondents had replaced their non-stick cookware, 93.33 % respondents had replaced their mixies and only 77.33 % respondents had replaced their gas stoves. Most of the replacement of select kitchen appliances was due to forced replacement. Among the demographic factors the monthly income and family size alone contribute in a significant manner to the replacement of mixies and gas stoves. The findings of the study also indicates that all the respondents have equal preference for all promotional offers and even though it is a forced replacement all the respondents had benefited by the prevailing promotional offers like discount sale, exchange offers accordingly.

**Suggestions**

- Marketers should provide opportunity for exchange of goods along with discounts.
- Companies should also concentrate on extended product life and decrease the failure rate.
- Companies should design their products with varied categories of prices, so that even the lower income group consumers can purchase the product.
- More number of non-stick cook ware should be introduced to suit the all categories of family size.
- Companies should concentrate more on energy efficient models of mixies and gas stoves.
- Promotional schemes should be continued throughout the year so that it helps the respondents to go for replacement because of the forced nature. Any retail unit pursuing this business policy will attract many consumers.

**Conclusion:**

From the above study it is concluded that replacement of kitchen appliances like mixies, pressure cookers, gas stoves and non-stick cook wares are happening due to wear and tear reasons which we call it as forced replacement. It is also concluded from the study that the demographic factors like family monthly income and family size contributed in a significant manner in replacement of kitchen appliances of mixie and gas stove.

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