Salma Shaheen  
Associate Professor, Faculty of Engineering and Technology, AMU, Aligarh

ABSTRACT  
Research on analysis of relationship between criteria for selection of toys and demographic profile such as occupation, age, gender and qualifications have been recently studied by a number of people. Investigation of relationship between motivational factor for purchase of toys and demographic profile has also been investigated recently. This paper looks into several other extraneous factors (other aspects) for purchase of toys and evaluates the effectiveness of other aspects for purchase of toys and demographic profile. In this research paper, four null hypotheses have been prepared, tested and results are compiled using SPSS (Statistical Package for the Social Science). The present paper also highlights the relationship which would be useful for manufacturers and marketers of toys.

KEYWORDS : ANOVA test, Demographic profile, Hypotheses testing, other aspects, Purchase of toys.

1. INTRODUCTION TO HYPOTHESIS TESTING  
This paper presents an analysis of the proposed hypotheses using ANOVA and t-tests. In this section, each hypothesis is first listed which is followed by a Table that shows the result of the administered ANOVA (or t-test, wherever appropriate). This is followed by an inference stating whether the hypothesis is supported or not supported.

First, the set of hypotheses have been analysed and presented. These are hypotheses Ho1 to Ho4. This set refers to hypotheses relating the variables with demographic profile like age, gender, occupation, and educational qualification.

2. FORMULATION OF HYPOTHESES  
Ho1: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and occupation.

Ho2: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and age.

Ho3: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and gender.

Ho4: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and qualification.

3. ADMINISTRATION OF QUESTIONNAIRE  
The objective of this research paper is to identify customer’s preference for criteria for purchase of toys. The research is exploratory in nature wherein survey methodology was adopted for the research endeavour.

The methodology adopted for this research work is convenience and judgemental.

A total of 224 copies of questionnaire were distributed. Finally, 118 filled in questionnaire were received. Out of these only 84 were found to be usable.

The response rate is 70% approximately. A response rate of 25% is considered desirable for survey findings [1], [2], and hence the findings of research work are useful and reliable. As per Gupta, minimum sample size required is based on number of question items in the questionnaire. Minimum sample size required = four times the number of question items [3].

As number of questions in questionnaire used by researcher is 16. Therefore, response rate of 84 is satisfactory.

4. OBSERVATIONS AND RESULTS  
Ho1: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and occupation.

Table 1: ANOVA Test for Testing Relationship Between Other Aspects (extraneous factors) of Purchase of Toys and Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional/Service</td>
<td>54</td>
<td>3.2063</td>
<td>0.85429</td>
<td>0.650</td>
<td>0.586</td>
</tr>
<tr>
<td>Business</td>
<td>11</td>
<td>3.1818</td>
<td>1.13045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home maker</td>
<td>9</td>
<td>3.8349</td>
<td>0.83943</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any Other</td>
<td>10</td>
<td>3.3143</td>
<td>0.75832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>3.2619</td>
<td>0.87667</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows the result of ANOVA test, which is run to test the difference across different occupational group on the dimension of other aspects of purchase of toys. It has been found that the value of F = 0.650 and Sig = 0.586, which is more than 0.05. Hence no difference exists.

Hypothesis Ho1 is supported (accepted); that is, there is no significant relation between other aspects of purchase of toys and occupation.

The descriptive statistics of the sample along with the mean values and the standard deviation are presented in Table 1. The Table shows the highest mean value was for home maker at 3.6349 followed by ‘any other’ which was at 3.3143. These were followed by Professional/Service and Business in that order.

Ho2: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and age.

Table 2: ANOVA Test for Testing Relationship Between Other Aspects (extraneous factors) of Purchase of Toys and Age

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 25 years</td>
<td>12</td>
<td>3.5595</td>
<td>0.66578</td>
<td>1.343</td>
<td>0.266</td>
</tr>
<tr>
<td>25-35 years</td>
<td>29</td>
<td>3.0197</td>
<td>0.87375</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-45 years</td>
<td>31</td>
<td>3.3548</td>
<td>0.91761</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 45 years</td>
<td>12</td>
<td>3.3095</td>
<td>0.91541</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>3.2619</td>
<td>0.87667</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows the result of ANOVA test, which is run to test the difference across different age groups on the dimension of other aspects of purchase of toys. It has been found that the value of F = 1.343 and Sig = 0.266, which is more than 0.05. Hence no difference exists.

Hypothesis Ho2 is supported (accepted); that is, there is no
significant relation between the dimension of other aspects of purchase of toys and age.

The descriptive statistics of the sample along with the mean values and the standard deviation are presented in Table 2. The Table shows the highest mean value was for the age group falling under 25 years with mean value of 3.5585. This was followed by the age group falling between 35 to 45 years, more than 45 years and 25 to 35 years wherein the mean values were 3.3548, 3.3095 and 3.0197 respectively.

Ho3: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and gender.

Table 3: t-Test for Testing Relationship Between Other Aspects (extraneous factors) of Purchase of Toys and Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>38</td>
<td>3.3083</td>
<td>0.76645</td>
<td>0.438</td>
<td>0.662</td>
</tr>
<tr>
<td>Female</td>
<td>46</td>
<td>3.2236</td>
<td>0.96499</td>
<td>0.448</td>
<td>0.655</td>
</tr>
</tbody>
</table>

Table 3 shows the result of independent sample t-test, which is run to test the difference across different gender group on the dimension of other aspects of purchase of toys. It has been found that the value of \( T = 0.438 \) and \( \text{Sig} = 0.662 \), which is more than 0.05. Hence no difference exists.

Hypothesis Ho3 is supported (accepted); that is, there is no significant relation between the dimension of other aspects of purchase of toys and gender.

The descriptive statistics of the sample along with the mean values and the standard deviation are presented in Table 3. The Table shows the highest mean value was for males at 3.3083. The mean value for females was 3.2236.

Table 3: t-Test for Testing Relationship Between Other Aspects (extraneous factors) of Purchase of Toys and Gender

Table 4 shows the result of ANOVA test, which is run to test the difference across different qualification groups on the dimension of other aspects of purchase of toys. It has been found that the value of \( F = 0.575 \) and \( \text{Sig} = 0.633 \), which is more than 0.05. Hence no difference exists.

Hypothesis Ho4 is supported (accepted); that is, there is no significant relation between the dimension of other aspects of purchase of toys and qualification.

5. SUMMARY OF HYPOTHESES TESTING

This section presents a summary of the results obtained by administering ANOVA and t-tests on the proposed hypotheses. A Table 5 has been constructed to present in brief the various hypotheses and its results.

6. CONCLUSIONS

This study concludes that the four null Hypothesis Ho1, Ho2, Ho3 and Ho4 which are for testing relationship between other aspects (extraneous factors) for purchase of toys with occupation, Age, Gender and qualification are supported/accepted because value of F and Sig. is more than 0.05. Therefore, this study reveals that there is no significant relationship between other aspects (extraneous factors) for purchase of toys and various demographic profile.

Therefore, it is recommended that toy designers, marketers and manufacturers may not consider the demographic profile of customers while designing and manufacturing toys for children.

REFERENCES