



INVESTIGATIONS INTO EXTRANEOUS FACTORS IN PURCHASE OF TOYS

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 64 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

Occupation	N	Mean	Std. Deviation	F	Sig.
Professional/Service	54	3.2063	0.85429	0.650	0.586
Business	11	3.1818	1.13045		
Home maker	9	3.6349	0.83943		
Any Other	10	3.3143	0.75832		
Total	84	3.2619	0.87667		

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

Age	N	Mean	Std. Deviation	F	Sig.
Less than 25 years	12	3.5595	0.66578	1.343	0.266
25-35 years	29	3.0197	0.87375		
35-45 years	31	3.3548	0.91761		
More than 45 years	12	3.3095	0.91541		
Total	84	3.2619	0.87667		

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 3.5595. 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

Gender	N	Mean	Std. Deviation	T	Sig. (2-tailed)
Male	38	3.3083	0.76645	0.438	0.662
Female	46	3.2236	0.96499	0.448	0.655

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 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 5 Summary For Hypotheses Testing and Their Results

Parameter	Hypothesis	F/T	Sig.	Results
Other Aspects (extraneous factors) of Purchase & Occupation	Ho1: There is no significant relationship between other aspects (extraneous factors) of purchase of toys and occupation.	0.650	0.586	Supported
Other Aspects (extraneous factors) of Purchase & Age	Ho2: There is no significant relationship between other aspects of purchase of toys and age	1.343	0.266	Supported
Other Aspects (extraneous factors) of Purchase & Gender	Ho3: There is no significant relationship between other aspects of purchase of toys and gender	0.438	0.662	Supported
Other Aspects (extraneous factors) of Purchase & Occupation	Ho4: There is no significant relationship between other aspects of purchase of toys and qualification	0.575	0.633	Supported

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

1. J. Yu and H. Cooper, A quantitative review of research design effects on response rates to questionnaires, *Journal of Marketing Research*, 20, 1983, 36-44.
2. M. K. Malhotra and V. Grover, An assessment of survey research in POM: from constructs to theory, *Journal of Operations Management*, 16(17), 1998, 407-425.

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

Table 4: ANOVA Test for Testing Relationship Between Other Aspects (extraneous factors) of Purchase of Toys and Qualification

Qualification	N	Mean	Std. Deviation	F	Sig.
Technical/Professional Graduate	26	3.4011	0.90172	0.575	0.633
Non-Technical Graduate	19	3.0677	0.93115		
Post Graduate	27	3.3016	0.89944		
Any Other	12	3.1786	0.70547		
Total	84	3.2619	0.87667		

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 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.

The descriptive statistics of the sample along with the mean values and the standard deviation are presented in Table 4. The Table shows the highest mean value was for the technical/professional graduate which was at 3.4011 followed by post graduate which was at 3.3016. This was followed by any other whose mean value was 3.1786.

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.

3. S. PGupta, Statistical methods (Sultan Chand and sons publishers, New Delhi, 2003).