A Review on the Factors Contributing to the Selection of a Wrist Watch using Conjoint Analysis

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Abstract: Urbanization and an aspiration for a better life supported by higher incomes are reshaping the Indian consumer market. The consequence of this is the emerging Indian consumer who is eager to place his riches on brand, quality and convenience and willing to explore and experiment. Indian consumer has remained the most positive about job prospects and personal finances and has consistently reported the highest consumer confidence score. Growing economy and rising consumerism endorses itself in the Indian Watch Market also. The study highlights the gradual transformation of watches in India, from time keeping devices to a fashion accessory. This research study attempts to study the attributes preferred by the consumers of wrist watches through a conjoint analysis as this industry offers a plethora of opportunity to domestic and international marketers. It outlines the attributes that contribute to the consumer likings as the manufacturers would incorporate these aspects in their product strategies to survive under dynamic market conditions.

Keywords: preferences, wrist watches, attribute, conjoint analysis.

I. INTRODUCTION

Today human begins work with the time. The various activities to be performed on generally prescribed on the basis of time factor. Thus time is considered to be a fresher factor in every walk of life. Now-a days we find no person without a wrist watch and a home without a clock. In 1961, the Government of India entrusted the job to HMT which set up a manufacturing Unit at Bangalore in collaboration with M/s Citizen Watch Co., Japan. Rising incomes, multiple income households, exposure to international life styles and media, easier financial credit and an upbeat economy are the key drivers enhancing consumer aspirations and consumption. There has been a significant increase in awareness among the Indian consumers. Their spending has increased and the way they spend on various items too has changed in the recent years. In fact, it becomes imperative for companies to understand the preferences of these customers, which will enable them to embark on strategies of effectively reaching them. This research attempts to study the preferences of the consumers with specific reference to the product category-wristwatches.

II. RESEARCH OBJECTIVE

To analyse the key attributes which contribute towards selection of a wrist watch.

To rank the attributes in the order in which they contribute towards the selection of a wrist watch.

III. RESEARCH DESIGN

An in-home personal interview was conducted among sixty patriarchs who were chosen at random from Abishekapuram zone of Tiruchirappalli to identify the attributes which contribute to the selection a wrist watch. The data collection was done from this zone as it consists of people who belong to all economic classes among the four zonal areas. The period of study was May 2015. Patriarchs were chosen as the researcher considered their buying experience would contribute more for the selection criteria of a wrist watch. In the study both primary and secondary data has been used for the purpose of collecting data. The

primary data have been collected through survey and discussions were carried out with the respondents personally. The secondary data has been collected from various published literature like text books, magazines, news papers and internet.

IV. REVIEW OF LITERATURE

Kunal Bhattacharya attempts to study this changing perception and preferences of the Indian consumer towards wrist watches as the market readies to offer a plethora of opportunity to domestic and international marketers. It outlines consumer likings and purchase patterns as watch vendors evolve product and promotion strategy in dynamic market conditions.

Anita N. Halamata studied the market response to Titan brand of watches. The study covers the market share of Titan watches, covers the reasons of buying the Titan watches, analyses the consumer attitude towards the price of the Titan watches and identifies the various marketing channels of Titan watches. The sample consumers were selected on stratified random sampling method. A structured question was used to collect information from the sample consumer contacted. Even personal interviews were held with the respondents to gather unbiased information. Observation method also made used to understand the real feelings of the respondents so that study become more realistic in nature

Rao, Venkoba in their study reveal that consumers prefer branded watches that are of Indian make in round or square shape offering 1.2 years or above warranty in the price ranges below Rs. 1000 and Rs. 1000-3000. 'Need-based' purchases are made from company showrooms/authorized outlets on cash payment. The preferences of male and female consumers do not differ much. The young consumers are more conscious about their preferences compared to the middle-aged and older consumers. Though widely exposed to international trends, consumers are price conscious and prefer to buy only affordable branded watches through extensive search.

Analysis and Interpretation:

The items were analysed with the help of conjoint analysis to identify the key attributes which contribute towards the selection of an ideal wrist watch. Conjoint analysis is done to determine the relative importance consumers attach to the attributes and the utilities they attach to the levels of attributes. The attributes which affect the choice of a wrist watch are identified with appropriate levels. Three attributes were decided with three levels each:

i) Price   1)Less than Rs. 5,000   2) Rs. 5,000 – 10,000   3) Above Rs. 10,000

 ii) Appearance   1) Attractive   2) Fashionable   3) Sporty

iii) Multifunctionals   1)Only alarm   2) Alarm + stop clock   3) Alarm + stop cock + GPS

With three attributes at three levels each a total of 3x3x3 = 27 profiles can be constructed. To reduce the respondent evaluations task a fractional factorial design is employed and a set of

nine profiles (combinations of levels) are constructed to constitute the stimuli set. Individual level part-worth or utility function is estimated. (Malhotra,2011). These profiles are rated in the order of preference.

Table 1: - Profiles rated in the order of preference

S. No	Attribute 1	Attribute 2	Attribute 3	Rating
1	1	1	1	9
2	1	2	1	8
3	1	3	2	7
4	2	1	1	6
5	2	2	2	5
6	2	3	3	4

7	3	1	2	3
8	3	2	1	2
9	3	3	3	1

Source: primary data

Using dummy variable regression the attributes are coded with dummy variables. When an attribute has k_i levels it is coded in terms of $k_i - 1$ dummy variables. Three levels are coded with two dummy variables, therefore for the three attributes with three levels there are six dummy variables.

Each attribute level is coded as follows:

Level 1　　　　1　　　　0

Level 2　　　　0　　　　1

Level 3　　　　0　　　　0

The transformed data is shown below:

Table 2: - Data coded with dummy variables for regression

VAR1	VAR2	VAR3	VAR4	VAR5	VAR6	PREFERENCE RANKING
1	0	1	0	1	0	9
1	0	0	1	1	0	8
1	0	0	0	0	1	7
0	1	1	0	1	0	6
0	1	0	1	0	1	5
0	1	0	0	0	0	4
0	0	1	0	0	1	3
0	0	0	1	1	0	2
0	0	0	0	0	0	1

Source: Computed from primary data

Regression analysis is performed with dummy variables as independent variables and preference ratings as dependent variable and the B values are used to calculate the utility or part worth of each attribute level by imposing an additional constraint in the form of $B_{11} + B_{12} + B_{13} = 0$.

The relative importance weights are calculated based on the ranges of part worths as follows:

Sum of the ranges of utility　　　　= [1.242 - (- 1.863)] +[0.520 - (-0.762)]+

[0.341 - (-0.231)]

=3.105+1.282+0.572

= 4.959

Relative importance of price　　　　　　　　　　= 3.105/4.959 =0.626

Relative importance of appearance　　　　　　= 1.282/4.959 = 0.258

Relative importance of multifunctionals　　　　= 0.572/4.959 = 0.115

Table 3: - Attributes with levels showing the beta coefficients

S. No	Attributes	Levels	Utility (B)		Relative importance
1	Price	Less than Rs. 5,000	1.242	B_{11}	
		Rs. 5,000 – 10,000	0.621	B_{12}	
		Above Rs. 10,000	-1.863	B_{13}	0.626
2	Appearance	Attractive	0.520	B_{21}	
		Fashionable	0.242	B_{22}	

Dr. Josephine et al.,

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		Sporty	-0.762	B_{23}	0.258
3	Multifunctionals	Only alarm	-0.231	B_{31}	
		Alarm + stop clock	-0.110	B_{32}	
		Alarm + stop cock + GPS	-0.341	B_{33}	0.115

Source: Computed from primary data

It can be inferred that price is given the highest importance than the other attributes while selecting the wrist watch and appearance is the next important factor considered. Multifunctionals such as alarm, stop clock and Global Positioning System stand last in priority. Looking at the levels which have the highest utility values among the attributes, a watch which is less than Rs. 5,000, which looks attractive and consists of basic additional features like alarm and stop clock are generally preferred by wrist watch consumers.

V. Finding

The result of the conjoint analysis displays the key levels under each of the three attributes chosen for the study to substantiate the criteria for the selection of a wrist watch. These levels are then further ranked to prioritize them in the order in which they contribute to the selection of a wrist watch.

VI. Conclusion

Watches have become almost a necessity for human beings, to whichever economic class they belong. When purchasing a watch price is given the highest importance than the other attributes while selecting the wrist watch and appearance is the next important factor considered. Multifunctionals such as alarm, stop clock and Global Positioning System stand last in priority. Looking at the levels which have the highest utility values among the attributes, a watch which is less than Rs. 5,000, which looks attractive and consists of basic additional features like alarm and stop clock are generally preferred by wrist watch consumers.

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