

Development of scales of preference while purchasing selected household items

MANJUSHA REVANWAR, MADHURI KULKARNI AND D. MURALI

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See end of the article for authors' affiliations

Correspondence to:

MADHURIKULKARNI

Department of Family
Resource Management,
College of Home Science,
Marathwada Agricultural
University, PARBHANI
(M.S.) INDIA

ABSTRACT

The present investigation was undertaken to develop an objective scales of preference while purchasing household items like grocery, clothes, furniture, electrical appliances and bed linen. The developed scales were reliable to decide the factors of preference while purchasing grocery ($r = 0.42^{**}$), clothes ($r = 0.55^{**}$), furniture ($r = 0.42^{**}$), electrical appliance ($r = 0.54^{**}$) and bed linen ($r = 0.59^{**}$)

Key words : Preferential scale, Household items

Family is a main consuming unit, which governs the production and distribution of products in the market. Every family in the process of struggling for the fulfillment of their basic needs, tries to find a way of making the things available with them. While trying to do so, most of the families may either try to manufacture them or to purchase them from the respective sources. Purchasing is essential and unavoidable activity for all the families in order to fulfill their basic needs.

There are a number of products that consumers have to buy. Food products and clothing are important items that every consumer has to pay special attention in buying. The consumer's needs and demands continuously change and development of the technology has given rise to multiplicity of brands. (Mukherjee and Ghosh, 1996) In buying edible items or grocery, consumers have to verify the content, quality, degree of adulteration, safety, performance, date of manufacturing and expiry date etc. (Kochadia and Thanulingam, 1989).

There are various types of furniture and large variety of furnishing available in the market. When a consumer has to make choice, he does not know how to choose the product. His major concern is safety, quality and getting his money's worth. (Shah and Trustee, 1988).

These days production is being carried out on a mass scale and due to varied demands of consumers and technological advancement new products are being offered in the market. To get the satisfaction of expenditure consumers must have good knowledge and efficiency of choice in the market and ability to select items wisely.

To reduce the drudgery of buying the consumer needs great help in acquiring sound judgment, some tool

for measuring the standard product on certain lines may be useful to solve the problem of making choices of different products in the market.

Scale is an important and useful aspect of research in social science. Objective scales are used in variety of ways ranging from the rating of an object to evaluating of personal traits. Some can be answered quickly and without much thought, while others are complex and the rater is forced to make fine discriminations between degrees of behaviour or preference.

Common household items required for the family are grocery, clothes, furniture, electrical appliances and bed linen. While purchasing these items, choices can be decided on different criteria, which are important while selecting the items. A scale can be utilised as a standard tool for deciding hierarchy of these criteria for choosing different products.

An attempt was made in this study to device the scale of preference for the purchase of grocery, clothes, furniture, Bed linen and electrical appliances and to test the validity and reliability of developed scales.

METHODOLOGY

The study was conducted in Parbhani city of Marathwada region of Maharashtra state. The 60 experts and 120 consumers were selected randomly for the study.

The study was intended to develop a scientific measure to appraise the level of factors of preferences of consumers in the purchasing of selected household items. The household items selected for the study were grocery, clothes, electrical appliances, furniture and bed linen as these were commonly purchased items by families. The scales were developed by applying the

Guilford's technique of normalised rank order. The steps followed in the development of the scale are given below.

Selection of the factors:

With the help of available literature and consulting subject matter specialists, the factors of preference while purchasing selected household items were listed down.

Conducting survey:

A sample of 60 consumers who had good knowledge and experience of marketing was selected and the list of factors of preferences was presented in random order to the selected samples of judges. Judges were asked to rank these factors of preferences in the order of importance while purchasing selected household items.

Scoring procedure:

The method of rank order suggested by Guilford was followed to rank the different factors of preferences while purchasing selected items. The item of greatest preference ranked as 1 to the point of recording data but correspond to increasing magnitude of stimuli thus rank 1 had highest rank value. Based on the responses from judges rank order frequency matrix for purchasing selected household items was prepared.

Rank value:

Rank value was calculated by the equation,

$$R_i = n - r_i + 1$$

where, R_i is rank value,

n is number of factors and r_i is rank noted.

Centile position:

Centile position (P) was computed by using the formula,

$$P = (R_i - 0.5)100/n$$

where, R_i is the rank value,

n is the number of things ranked.

P is essentially a centile value and represents the area under the normal distribution below the median of the interval assigned to the object.

Scaling with 'C' values:

As recommended in the method common 'C' scale value table was used. For different number of factors ranked (n) corresponding 'C' scale values were noted down.

Response value:

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Assuming that these are interval scale values the means were computed which are known as response value R_j .

$$R_j = \bar{y}_{rank} \cdot C \text{ value} / \bar{y}_{ranks}$$

Final scale value:

Final scale value of each factor of preference was computed by using formula,

$$R_c = 2.357R_j - 7.01$$

(As suggested in method) (Guilford, 1954)

Validity of a scale is the property, which ensures that the obtained scale measures the variables they are supposed to measure. A scale is said to be valid when it measures what it intends to measure. The scale items were selected with the consultation of experts and literature in the field.

A scale can be said to be reliable only when it will consistently produce the same result when applied to the sample any number of times (Kerlinger, 1978) Reliability of the scale was assessed by using split half method. The final format of scales of preference for purchasing selected household items was presented to randomly selected 120 consumers. Based on the preferences noted by them, total preferential score was calculated by using formula:

Preferential score = $\bar{y}_{acquired \text{ score for listed items}} / \bar{y}_{score \text{ of all items}}$ (Guilford 1954).

Response in terms of preferential score was divided in to two halves by using odds and evens and the correlation was calculated for these half tests by using formula:

$$r = (2r_1/2)/(1+r_1/2) \text{ (Garett and Woodworth, 1981)}$$

RESULTS AND DISCUSSION

The final format of the developed scales of preference while purchasing the grocery, clothes, furniture, electrical appliance and bed linen is presented in Table 1, 2, 3, 4 and 5, respectively. The format comprised various factors of preference for selection of the items like grocery, clothes, furniture, electrical appliances and bed linen. The Reliability coefficient obtained for these final formats of scale indicated that these scales are reliable to decide the factors of preference while buying or selecting grocery ($r=0.42^{**}$), clothes ($r=0.55^{**}$), furniture ($r=0.42^{**}$), electrical appliances ($r=0.54^{**}$) and bed linen ($r=0.59^{**}$) which indicated that internal consistency of the scales is higher.

Table 1 : Final format of the developed scale of preference for purchase of grocery

Factors of preference	Rank	Scale value
Quality	01	10.2
Fresh stock	02	07.6
Cost	03	07.1
Packed goods	04	05.0
Accessibility of shop	05	04.1
Good acquaintance with shop keeper	06	03.1
Neatly arranged goods	07	02.6
Special schemes	08	02.4
Credit facility	09	01.9
Home service	10	01.7

Reliability co-efficient = 0.42**

** indicates significance of value at P=0.01

Table 2 : Final format of the developed scale of preference for purchase of clothes

Factors of preference	Rank	Scale value
Quality	01	10.9
Texture	02	07.8
Durability	03	07.1
Price	04	06.9
Pattern	05	06.2
Colour combination	06	05.9
Colour fastness	07	05.2
Maintenance cost	08	03.6
Special care required	09	02.4
Type of shop	10	00.5
Credit facility	11	00.3
Accessibility of shop	12	00.3

Reliability co-efficient = 0.55**

** indicates significance of values at P=0.01

Table 3 : Final format of the developed scale of preference for purchase of furniture

Factors of preference	Rank	Scale value
Material	01	09.2
Design	02	07.8
Durability	03	07.4
Comfort	04	06.8
Cost	05	06.4
Utility	06	06.1
Constructional features	07	05.9
Over all appearance	08	04.5
Finish	09	04.1
Currently in fashion	10	03.1
Suitability	11	01.0
Credit facility	12	00.9
Accessibility of shop	13	00.2

Reliability co-efficient = 0.42**

** indicates significance of values at P=0.01

Table 5 : Final format of the developed scale of preference for purchasing of bed linen

Factors of preference	Rank	Scale value
Material	01	08.3
Design	02	08.3
Colour combination	03	06.7
Texture	04	06.4
Durability	05	04.8
Cost	06	04.8
Colour fastness	07	03.6
Maintenance	08	02.2
Credit facility	09	01.0
Accessibility of shop	10	00.3

Reliability co-efficient = 0.59**

** indicates significance of value at P=0.01

Table 4 : Final format of the developed scale of preference for purchase of electrical appliances

Factors of preferences	Rank	Scale value
Quality	01	10.7
Safety	02	10.0
Utility	03	09.2
Guarantee	04	08.1
Initial cost	05	04.8
Maintenance cost	06	04.8
Operating cost	07	04.5
Durability	08	04.3
Size	09	03.8
Availability of service	10	02.9
Installation cost	11	02.4
Ease of cleaning	12	00.5
Accessibility of shop	13	00.5
Credit facility	14	00.1

Reliability co-efficient = 0.54**

** indicates significance of value at P=0.01

Conclusion:

Developed scales of preferences indicated significant correlation coefficient and hence are reliable and consistent to decide hierarchy of factors in selection of grocery, clothes, Furniture, electrical appliances and bed linen.

Authors' affiliations:

MANJUSHA REVANWAR, Department of Home Management, College of Home Science, Marathwada Agricultural University, PARBHANI (M.S.) INDIA
D. MURALI, College of Home Science, Marathwada Agricultural University, PARBHANI (M.S.) INDIA

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