



VALIDATING CONSUMER ETHNOCENTRISM SCALE (CETSCALE)

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ABSTRACT

Shimp and Sharma had proposed Consumer Ethnocentrism scale in 1987 to measure the ethnocentric opinions of consumer towards foreign products. This scale has been used extensively by research scholars in various countries. However, very few researchers have made attempt to validate the CETSCALE in their respective cultures. The main objective of the study is to validate CETSCALE in India. The authors have done extensive literature review on CETSCALE and its applications. Factor analysis is run to identify the valid question statements in CETSCALE. The factor analysis resulted in only 6 item scale. Further these 6 items were loaded on two different factors. Limitations and scope for future studies are discussed in the study.

Keywords- CETSCALE, Factor analysis, Consumer Ethnocentrism

I. INTRODUCTION

Consumer Ethnocentrism refers to ethnocentric opinions held by consumers in one country towards foreign products (Shimp and Sharma 1987). Due to ethnocentric tendency consumer may hold negative attitude towards foreign products and may even think that it is morally incorrect to buy such products as buying products of other countries results in cutting jobs in one's own country and it hurts economy of that particular country. Shimp and Sharma (1987) had developed a scale to measure consumer ethnocentrism. It is popularly known as CETSCALE. This scale has been adopted by many research scholars in various countries including India. Some research scholars have also used the short version of the questionnaire. The original CETSCALE contains 17 items. These items are measure on Likert scale. Very few research studies were conducted to explore the validity of the CETSCALE in different countries. Over so many years it would be apt to investigate the

validity of the scale, therefore researcher undertook this study to examine the validity of the CETSCALE in Indian culture.

To achieve the purpose of this study, CETSCALE was used to collect responses from consumers in Pune, Maharashtra. These responses were collected from Colleges, Universities, and popular market places and through internet based questionnaire. The factor analysis were carried out to investigate the validity of the CETSCALE in today's environment.

II. LITERATURE REVIEW

Sumner (1906)¹ defines ethnocentrism as "One's own group (in group) is considered at the center and all other groups (out groups) are viewed with reference to in group". Ethnocentrism has been described as either a favourable or unfavourable stance towards one's own party (out group).

Adorno et al. (1950)² saw ethnocentrism as an ideological framework, the distinct

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hallmark of this brand is consensus exclusion of out-groups. Ethnocentrism indicates a tendency to judge out-groups negatively. A different way of putting it is to suggest that groups are thought of as separate entities, while the collective of other groups is treated as another entity. A consequence of this method is that the in group tests all of the out groups, without treating any exceptional cases.

According to Perkins and Forehand (2010)³ consumer ethnocentrism is thought to result from cognitive (e.g. belief that products produced in one's own country are better), affective (a positive affective reaction toward native products), and ideological and normative (belief that it is appropriate to purchase products manufactured in one's country) thought processes.

Measuring ethnocentrism could be possible due to construction of Consumer Ethnocentric Tendencies Scale (CETSCALE) by Shimp and Sharma (1987)⁴. Customers with a high degree of ethnocentrism look down on foreign-produced goods and favour domestic-produced goods. Strong ethnocentrism creates discrimination against foreign products, which encourages people to think 'buying foreign products is false and bad for the country's economy. Product reviews from consumers that are less ethnocentric or are not ethnocentric are based on the characteristics of the product itself. for example, customers who do not know the country of origin of such goods may fall into this category

IV. DATA ANALYSIS

To validate the CETSCALE factor analysis is used. The output is reproduced here

COMMUNALITIES

	Initial	Extraction
"1.	1.000	.723
"2.	1.000	.716
"3.	1.000	.706
"4.	1.000	.625

Luque-Martinez, Ibanez-Zapata and del Barrio-Garcia (2000)⁵This argument insists that before using it to measure ethnocentrism in various nations, it must be seen that CETSCALE has both reliability and validity. The writers used a study to test the CETSCALE norm in Spain. The data collected for this study was collected between June and August of 1996, when CETSCALE was translated into Spanish and 476 responses were reported. A confirmatory factor analysis evaluated the validity and durability of CETSCALE. According to the results of the study, CETSCALE will reliably and continuously calculate ethnocentrism.

III. RESEARCH METHODS

Pune city in Maharashtra is selected for the study. So all adult consumers in Pune, form the population. Convenience sampling method was used for sampling from the huge population. The structured questionnaire (CETSCALE) was used to collect primary data. Self-administration method was adopted for collecting responses to the questionnaire. Total 145 questionnaires were distributed, however only 104 questionnaires were received back by the researcher. Response rate is more than 71%. Out of these 104 responses 4 responses were taken out from analysis because they were not completed by the respondents. Further 15 responses have to be discarded as they were unengaged. Secondary data sources were past research papers, articles and books. Descriptive statistics and Factor analysis were the statistical tools used for analysis of primary data.

"5.	1.000	.594
"6.	1.000	.693
"7.	1.000	.589
"8.	1.000	.679
"9.	1.000	.603
"10.	1.000	.313
"11.	1.000	.623
"12.	1.000	.662
"13.	1.000	.625
"14.	1.000	.619
"15.	1.000	.592
"16.	1.000	.473
"17.	1.000	.695

Extraction Method: Principal Component Analysis.

The communalities were checked for all the variables. It was found that the statement no. 10 was having communality extraction of .313 only. Hence that statement was removed from the factor analysis and factor analysis was repeated.

COMMUNALITIES

	Initial	Extraction
"2.	1.000	.827
"4.	1.000	.667
"5.	1.000	.598
"6.	1.000	.691
"14.	1.000	.621
"1.	1.000	.708
"3.	1.000	.710
"7.	1.000	.597
"8.	1.000	.672
"9.	1.000	.595
"11.	1.000	.623
"12.	1.000	.634
"13.	1.000	.624
"15.	1.000	.594
"16.	1.000	.454
"17.	1.000	.696

Extraction Method: Principal Component Analysis.

From this table it was found that all the communalities values are greater than .4.

TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.487	40.543	40.543	6.487	40.543	40.543	4.132	25.823	25.823
2	1.556	9.724	50.267	1.556	9.724	50.267	3.041	19.008	44.831
3	1.182	7.390	57.657	1.182	7.390	57.657	1.860	11.622	56.453
4	1.086	6.787	64.444	1.086	6.787	64.444	1.278	7.990	64.444
5	.829	5.181	69.625						
6	.756	4.727	74.351						
7	.681	4.259	78.610						
8	.626	3.914	82.524						
9	.521	3.254	85.778						
10	.431	2.695	88.472						
11	.396	2.472	90.944						
12	.370	2.311	93.256						
13	.325	2.032	95.287						
14	.284	1.774	97.061						
15	.265	1.659	98.721						
16	.205	1.279	100.000						

Extraction Method: Principal Component Analysis.

From above table it was found that the four components evolved from the 16 items of the CETSCALE. Then the Rotated component matrix was referred to investigate the factor loadings.

ROTATED COMPONENT MATRIXA

	Component			
	1	2	3	4
"8.	.747			
"13.	.720		.318	
"12.	.704	.345		
"9.	.700		.320	
"7.	.623	.404		
"11.	.618	.457		
"16.	.609			
"17.	.559	.530		
"15.	.538	.534		
"14.		.779		
"6.		.760		
"5.		.733		
"3.	.344		.765	
"4.			.728	
"1.		.405	.559	.481
"2.				.890

Extraction Method: Principal Component Analysis.

ROTATION METHOD: VARIMAX WITH KAISER NORMALIZATION.

a. Rotation converged in 7 iterations.

From this table it can be seen than many items actually cross loaded on two components. Therefore these statements were removed from the factor analysis. The analysis was repeated after removal of statement no. 13, 12, 9, 7, 11, 17, 15,3, and 1.

COMMUNALITIES

	Initial	Extraction
"2.	1.000	.420
"4.	1.000	.388
"5.	1.000	.694
"6.	1.000	.691
"14.	1.000	.549
"8.	1.000	.609
"16.	1.000	.567

Extraction Method: Principal Component Analysis.

Communalities found be greater than .4.

TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.705	38.637	38.637	2.705	38.637	38.637	2.110	30.140	30.140
2	1.213	17.331	55.968	1.213	17.331	55.968	1.808	25.828	55.968
3	.890	12.710	68.678						
4	.721	10.305	78.983						
5	.635	9.077	88.061						
6	.521	7.443	95.503						
7	.315	4.497	100.000						

Extraction Method: Principal Component Analysis.

From this table it was observed that initial Eigen value is greater than 1 for 2 components. That means two factors are evolved from the entire 17 items scale.

ROTATED COMPONENT MATRIXA

	Component	
	1	2
"5.	.826	
"6.	.810	
"14.	.737	
"8.		.755
"16.		.746
"2.		.647
"4.	.421	.459

Extraction Method: Principal Component Analysis.

ROTATION METHOD: VARIMAX WITH KAISER NORMALIZATION.

a. Rotation converged in 3 iterations.

From this table shows that only on statement i.e. 4th question was cross loaded. Therefore it was taken out for the analysis and the process was repeated.

After analysis; following Rotated Component matrix was produced.

ROTATED COMPONENT MATRIXA

	Component	
	1	2
"6.	.835	
"5.	.829	
"14.	.732	
"8.		.775
"16.		.731
"2.		.679

Extraction Method: Principal Component Analysis.

ROTATION METHOD: VARIMAX WITH KAISER NORMALIZATION.

a. Rotation converged in 3 iterations.

This analysis suggested that only 6 questions are valid from entire 17 question item scale. These 6 questions are loaded on two factors.

These two factors are named as – Attitude towards Foreign products, and Attitude towards Indian Products.

‘Attitude towards foreign products’ factor (construct) comprise of following questions-

5. Purchasing foreign-made products is un-Indian

6. It is not right to purchase foreign products

14. Foreigners should not be allowed to put their products on our markets

‘Attitude towards Indian Products’ factor (construct) comprise-

8. We should purchase products manufactured in India instead of letting other countries get rich off us

16. We should buy from foreign countries only those products that we cannot obtain within our own country.

2. Only those products that are unavailable in India should be imported

RELIABILITY OF THE NEW SCALE

RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.697	6

From table no. it was found that the Cronbach's alpha value is almost equal 0 .7. Therefore the scale is considered reliable.

V. DISCUSSION AND LIMITATIONS

The result showed that the 17 item CETSCALE is not valid in current Indian business and political environment. The 17 item CETSCALE is reduced to only 6 items scale. It

was surprising to know that these 6 questions formed two factors (variables). Past literatures reported that all items were loaded on only one factor (variable). The newly evolved questionnaire is found reliable.

This study is collected in only one city of the country. Future studies may collect data from other cities also to make the samples true representation of the country's population. Further the study included only 85 responses. This sample size is small to generalise the findings. Future studies may include more responses in the study.

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