Consumer Ethnocentrism :
Validating the CETSCALE in India

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Abstract

Several researchers have extensively employed Consumer Ethnocentric Tendencies Scale (CETSCALE) to measure consumer ethnocentrism in cross-cultural settings albeit generally in the context of developed economies. Thus, the present study makes an attempt to assess its validity and reliability in the context of an emerging economy like India. In this sense, the main purpose of this paper is to validate the CETSCALE as a measure of Indian consumers' ethnocentric tendencies. Exploratory Factor Analysis (EFA) results showed the CETSCALE is not unidimensional in the Indian context. The researchers proceeded with Confirmatory Factor Analysis (CFA) to assess the unidimensionality and validity of the CETSCALE in India. CFA revealed that the 17-item single factor model suggested by Shimp and Sharma (1987) was not found to be a universally "good fit" solution for India. A large geographically dispersed sample of 403 respondents was relied upon to refine the original 17-item measure to obtain a better fitting 6-item unidimensional scale with the help of CFA. The fit indices of the modified 6-item CETSCALE were much better therefore proving that it measures a unidimensional construct and is a better measure of Indian consumers' ethnocentric tendencies.

Keywords : Consumer Ethnocentrism, CETSCALE, Validity, Reliability, EFA, CFA

1. Introduction

The rapid pace of globalization and international market expansion has exposed consumers in almost every country of the world to products manufactured in a foreign country. However, sentiments towards other cultures might influence the consumers in terms of product purchase decisions. In other words, the level of ethnocentrism might determine how consumers receive products manufactured in other countries.

An important issue in consumer research is its scope in international context. Interestingly, a large number of studies have focused just on the views of consumers in US and other Western countries. Thus, there is a need to identify and validate measures of consumer behavior constructs in emerging economies like India. One such scale that has been developed is the CETSCALE (Shimp and Sharma, 1987). This scale was originally developed to measure the ethnocentric level of consumers in US. Later, it was translated and used to assess consumer ethnocentrism in other countries (Netemeyer et al., 1991; Sharma, Shimp & Shin, 1995; Good & Huddleston, 1995; Lindquist et al., 2001; Douglas & Nijssen, 2002).

Both the Shimp & Sharma (1987) and Netemeyer et al. (1991) teams suggested that further research would be necessary to

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validate the CETSCALE in other countries. This has been the purpose of the work of a number of researchers (e.g. Bailey & de Pineres, 1997; Durvasula et al., 1997; Good & Huddleston, 1995; Plank & Lindquist, 1999; Sharma et al., 1995; Steenkamp & Baumgartner, 1998). However, the question whether this instrument is truly valid in various settings around the globe still remains. Is the CETSCALE unidimensional or multidimensional? Do all its 17 items enter into the individual country consumer ethnocentric models? As Steenkamp and Baumgartner (1998) noted, the measure of invariance in cross-cultural settings is critical if constructs used are to have any meaning. Hence, marketing research focused on consumer ethnocentrism in nations other than the US poses potential problems based on the level of invariance of the scale (Lindquist et al., 2001). There are very few studies that have used CETSCALE in countries other than US and certain other developed nations.

Thus, the purpose of the current paper is to investigate the structure and validity of the previously used 17-item CETSCALE (Shimp & Sharma, 1987) as a measure of Indian consumers' ethnocentric tendencies. Initially, Exploratory Factor Analysis (EFA) was carried out that showed that CETSCALE is not unidimensional in the Indian context. Next, we proceeded with Confirmatory Factor Analysis (CFA) to assess the unidimensionality of the CETSCALE. CFA was performed on the CETSCALE with the objective of determining the fit of the one-factor model. The poor fit statistics obtained showed that the scale was not unidimensional in nature. As suggested by Bawa (2004), we proceeded with scale refinement to obtain a better fitting unidimensional scale with the help of CFA. Finally, six items were retained out of the original 17 items of the CETSCALE giving us a better fitting model. The study is unique in the sense that the large sample of 403 respondents belonging to market friendly middle-class families was taken from a geographically dispersed group of management students.

2. Literature Review

The concept of consumer ethnocentrism originated in the more general concept of ethnocentrism. The sociological definition of ethnocentrism is:

The view of things in which one's own group is the center of everything, and all others are scaled and related with reference to it. Each group nourishes its own pride and vanity, boasts itself superior, exalts in its own divinities and looks with contempt on outsiders (Sumner, 1906).

Highly ethnocentric individuals tend to accept things culturally similar and reject things culturally dissimilar (Samovar & Porter, 1995). As applied to consumer behavior, ethnocentrism, in the initial studies, focusing on US, was viewed in the context of beliefs held by US consumers about the appropriateness, indeed morality, of purchasing foreign-made products (Shimp & Sharma, 1987). Consumer ethnocentrism results first from the love and concern for one's own country and the fear of losing control of one's economic interests from the harmful effects of imports (Sharma, Shimp & Shin, 1995). Consumers who are highly ethnocentric are unwilling to purchase foreign products and tend to look at the issue of buying foreign goods as a moral rather than just an economic problem. Purchasing imported products is held to be wrong in that it potentially harms the domestic economy, causes loss of jobs, and is unpatriotic. In addition, to the extent that domestic products are viewed as superior, products from other countries (i.e. from outgroups) are objects of contempt to highly ethnocentric consumers. Alternatively, consumer ethnocentrism can be defined as:

The beliefs held by consumers about the appropriateness, indeed morality, of purchasing foreign-made products (Shimp & Sharma, 1987).

Consumers who are ethnocentric believe that purchasing imported products is unpatriotic, causes loss of jobs, and hurts the domestic economy. Consumers who are non-ethnocentric judge foreign products on their merits without consideration of where these products are made. It has been suggested that consumer ethnocentricity is a personality trait affecting attitudes, intentions, preferences and purchase behavior with respect to imported vs. domestic product and service choices (Vida & Fairhurst, 1999).

A 17-item scale, termed the CETSCALE, was suggested by Shimp & Sharma (1987) to measure this concept. The scale was developed from a pool of 180 items elicited from over 800 consumers in the USA and subsequently refined in two successive studies on large samples. The scale showed high internal validity. It also exhibited discriminant validity relative to Adorno's (1950) patriotism, political economic conservatism and dogmatism scales. Shimp and Sharma (1987) also found a shortened ten-item version to have high internal consistency and external validity. But, according to Douglas & Nijssen (2002), considerable caution should be taken when using scales developed in one country or cultural context in other environment. Based on this fact Luque-Martinez et al. (2000) found the scale to be reliable and valid in Spain. Sinkovics (2002) investigated CETSCALE for its applicability in Austrian context, and found that it was well transferable.

The CETSCALE has been used in a number of other countries (Sharma, Shimp & Shin, 1995; Good & Huddleston, 1995; Douglas & Nijssen, 2002). The results of these studies have been different in different parts of the world. Suh & Kwon (2002) found that consumers in a different culture, who are different in their attitudes and perceptions, tastes and preferences, and values, are still different even after being exposed to the massive wave of globalization. According to Kaynak & Kara (2000), degree of ethnocentrism may vary depending upon region and that religiosity too has an impact on consumer ethnocentrism.

Some researchers argue that consumer ethnocentrism is a phenomenon of the developed world (Okechuku, 1994; La Barre, 1994; Good & Huddleston, 1995; Durvasula, Andrews & Netmeyer, 1997; Vida & Fairhurst, 1999). While in her study, Bawa (2004) observed that the level of ethnocentrism was no less than that found in the developed countries. These corroborate the observations of La Barre (1994) that 'India is an import receptive country but it has a healthy self image'. In fact, in the present day context, this self-image has become a strong platform for brand building by the marketers. The marketers seem to be grabbing every opportunity to flag nationalistic themes to woo target audience. So, it would indeed be interesting to explore the prevailing levels of ethnocentrism in India.

As far as the dimensionality of the CETSCALE is concerned, Bandopadhyay & Saevarsdottir (2001) found the CETSCAE unidimensional in Iceland. Luque-Martinez et al. (2000) also found it to be unidimensional in Spain. Bandopadhyay & Muhammad (1999) found the scale to be unidimensional in India as well as Bangladesh. But Douglas & Nijssen (2002) did not find the CETSCALE to be unidimensional in Netherland. Similarly, Mavondo & Tan (1999) did not find the CETSCALE to be unidimensional in Malaysia. A study done in India by Bawa (2004) also did not find it to be unidimensional. Keeping in mind the sweeping changes in the marketspace and evolving nature of the Indian consumer, it was thus thought necessary to revisit the issue of unidimensionality in the Indian context.

Researchers have also examined the effect of demographic variables such as age, gender, education, income level, and foreign travel on consumer ethnocentrism (Good & Huddleston, 1995; Shimp, 1984; Sharma, Shimp, & Shin 1995; Wall, Liefield & Heslop, 1989; Douglas & Nijssen, 2002). Published studies have demonstrated that the degree of consumer ethnocentrism varies between individuals according to demographic, socio-economic and regional economic factors; the degree of perceived threat from international competition; how necessary or otherwise the product is perceived (Sharma, Shimp & Shin 1995); and the degree of generalised animosity towards a target country (Klein, Ettenson & Morris, 1998; Elliott, Cameron & Acharya, 2003).

Although consumer demographics have a significant influence on consumer ethnocentrism, a study in Russia done by Imbert et al. (2003) concluded that age and gender are not strong predictors of consumer ethnocentrism. Also, another study measuring consumer ethnocentrism in two populous countries of South Asia namely India and Bangladesh conducted by Bandyopadhyay and Muhammad (1999), found out that there was no significant correlation between ethnocentrism and age in either sample, which incidentally, was not supported in a previous study in Korea (Sharma, Shimp & Shin 1995). Bandopadhyay & Saevarsdottir (2001) found that although ethnocentrism had a significantly positive correlation with age, but could not conclude that the level of ethnocentrism was different between men and women in Iceland (which is inconsistent with the earlier studies where it was found that women tend to be more ethnocentric). Philp & Brown (2003), in their study concluded that individuals with high consumer ethnocentrism levels who favor domestic products are female, and they come from lower socio-economic groups, are less educated and have limited cultural exposure. However, Bawa (2004) in her study focusing on India concluded that the socio-demographic variables fail to adequately explain the phenomenon of consumer ethnocentrism. Although, demographics may have some influence on consumer ethnocentrism, yet in the present paper, we have restricted ourselves to exploring the issues of unidimensionality, reliability and validity.

3. Research Design

The sampling frame for the study comprised students enrolled in post graduate programs in business administration at various business schools of India. The institutions covered in the present study cater to students from market friendly middle-class and were located in Delhi, Kolkata and Bangalore and a non-metro city namely, Aligarh. Surveying these students was deemed appropriate as business graduates are considered to be the elite among professionals in this part of the world. They usually command comparatively higher salaries among other professional occupations (Cox, 1996; Saywell, 1997); are easy approachable, and give quality responses. Moreover, students belonging to the faculties of Economics/Business Management/Commerce are the most oft researched group of respondents (Bawa, 2004). Further, the survey could be conveniently administered in English without encountering any problems as English is the medium of instruction for higher education as well as most commonly used language in business transactions in India.

The subjects in the sample were given a self-administered questionnaire that included Shimp and Sharma's (1987) 17-item CETSCALE (with references to the United States in the original scale replaced with reference to India). The respondents were asked to indicate their extent of agreement with various statements describing ethnocentric proclivities on a 7- point Likert scale (1 = strongly disagree, 7 = strongly agree). Reverse scored items were employed to attenuate response pattern bias (Idaszak and Drasgow, 1987).

A total of 96 usable responses were received from Aligarh, 130 from Delhi, 89 from Bangalore and 88 from Kolkata. The students from these institutions would be having a common profile as all of them were pursuing the same course, and also these institutes accommodate students primarily from market friendly middle class families of India. Keeping in mind the fact that the respondents were spread all over the country, we considered the sample to be representative and adequate for getting glimpses into the nature of consumer ethnocentrism currently prevalent in India.

4. Research Methodology

4.1 Reliability and Validity

A scale for a construct is useful for application only if it is statistically reliable and valid. Further, a thorough measurement analysis on instruments used in empirical research is essential for several reasons. First, it provides confidence that the empirical findings accurately reflect the proposed construct. Second, empirically validated scales can be used directly in other studies in the field for different populations. They also yield valid tools to practitioners for assessment, benchmarking and longitudinal evaluation of their programmes (Flynn et al., 1994).

The stability and trustworthiness of a measure is determined by its reliability. Reliability refers to the degree of dependability and stability of a scale (Gatewood & Field, 1990). It reflects the scale's ability to consistently yield the same responses. A scale has validity if it is measuring the concept that it was intended to measure (Bagozzi & Phillips, 1982). Validity of a scale may be defined as the extent to which differences in observed scale scores reflect true differences among objects of the characteristic being measured (Malhotra, 2005). Without establishing the reliability and validity, it is difficult to standardize measurement scales, and hard to know whether they truly measure what they intend to measure. Therefore, the CETSCALE was subjected to tests of reliability and validity to ensure operationalization and standardization.

The reliability of the construct was determined by computing the alpha coefficient of internal consistency (Cronbach, 1951). Peterson (1994) writes that 'there is virtual consensus among researchers that, for a scale to be valid and possess practical utility, it must be reliable. Conceptually, reliability is defined as the degree to which measure are free from error and therefore yield consistent results. Nunnally & Bernstein (1994) stress the importance of Cronbach's coefficient alpha, because it provides actual estimates of reliability. Further, Peterson (1994) states that Nunnally recommended in 1967 that 'the minimally acceptable reliability for preliminary research should be in the range of 0.5 to 0.6, whereas in 1978, he increased the recommended level to 0.7. Cronbach's alpha is commonly used to establish internal consistency and construct validity, with .60 considered acceptable for exploratory purposes, .70 considered adequate for confirmatory purposes, and .80 considered good for confirmatory purposes. It is also worth mentioning here that an alpha coefficient of 0.6 and above is considered to be good for research in social sciences (Cronbach, 1990).

4.2 Scale Refinement

Corrected item-to-total correlations and Cronbach's Alpha statistics were employed to conduct this type of analysis. It has been observed that numerous marketing based scale development articles illustrate the use of item and reliability analysis for trimming and retaining items (Netemeyer et al., 2003).

Table 1 : Item-Total Correlation and Cronbach Alpha for CETSCALE

Statement	Corrected Item-Total Correlation	Cronbach's Alpha
Statement 1	.614	.924
Statement 2	.576	.925
Statement 3	.558	.925
Statement 4	.618	.924
Statement 5	.611	.924
Statement 6	.693	.922
Statement 7	.730	.921
Statement 8	.672	.923
Statement 9	.654	.923
Statement 10	.666	.923
Statement 11	.697	.922
Statement 12	.570	.925
Statement 13	.640	.923
Statement 14	.598	.924
Statement 15	.564	.925
Statement 16	.623	.924
Statement 17	.652	.923

Items with low corrected item-to-total correlations are candidates for deletion. Bearden & Netemeyer (1998) advocated corrected item-to-total correlations of 0.35 or above. In this study, we observed that all the items had values above 0.35 of corrected item-to-total correlations (Table 1). Moreover, the value of Cronbach's Alpha was above 0.90 for all the items, again showing a high reliability of the CETSCALE; as also demonstrating convergent validity. So, none of the items could be dropped at this stage.

4.3 Factor Analysis

EFA was employed to check whether all variables of CETSCALE load on a single construct. But, to determine if the data are likely to factor well, before proceeding with EFA, KMO and Bartlett's Tests were performed. KMO measure quantifies the degree of intercorrelations among the variables and hence the appropriateness of factor analysis (Malhotra, 2005). If KMO is found to be greater than 0.5, then one can proceed with factor analysis and if the value is less than 0.5, then factor analysis may not be appropriate. Here, the value was 0.993, a meritorious value, so we could proceed with factor analysis. Another measure is Bartlett's test of sphericity which measures the presence of correlations among the variables. It provides the statistical probability that the correlation matrix has significant correlations among at least some of variables. Thus, a significant Bartlett's test of sphericity is required (Malhotra, 2005). Because p =0.000 (its associated probability is less than 0.05), we proceeded with factor analysis (Exhibit 1).

Exhibit 1 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	3425.826
	df	136
	Sig.	.000

When going for factor analysis, one should ensure that the sample size should be at least 5 (ideally 10 or even 20) times the number of variables. Our sample size was 403, more than 20 times the number of variables (17 variables). Outliers were also checked and removed before proceeding for factor analysis thus reducing the sample size to 396. The sample was homogeneous with respect to the underlying factor structure.

When EFA was done, it was found that the CETSCALE was not unidimensional in nature. The observed loadings were on three factors. The following tables show the results of EFA (Table 2, Table 3 and Table 4). In our study, the percentage of variance extracted did not exceed the thumb rule of 0.6 (Malhotra, 2005). In fact, it was found to be low (58%) (Table 2).

Table 2 : Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.591	44.654	44.654	7.591	44.654	44.654	3.949	23.230	23.230
2	1.261	7.417	52.071	1.261	7.417	52.071	3.288	19.344	42.574
3	1.008	5.931	58.002	1.008	5.931	58.002	2.623	15.427	58.002
4	.855	5.028	63.030						
5	.767	4.511	67.541						
6	.754	4.433	71.974						
7	.655	3.853	75.828						
8	.607	3.573	79.401						
9	.519	3.053	82.454						
10	.492	2.893	85.347						
11	.461	2.714	88.061						
12	.437	2.572	90.633						
13	.399	2.347	92.980						
14	.325	1.914	94.894						
15	.305	1.797	96.691						
16	.297	1.748	98.439						
17	.265	1.561	100.000						

Extraction Method : Principal Component Analysis.

Table 3 : Rotated Factor Matrix

Statements	Factor		
	1	2	3
Statement 1	.327	.154	.724
Statement 2	.108	.676	.303
Statement 3	.027	.389	.727
Statement 4	.277	.189	.736
Statement 5	.649	.032	.402
Statement 6	.646	.332	.226
Statement7	.730	.257	.291
Statement 8	.380	.585	.256
Statement 9	.331	.395	.499
Statement 10	.352	.682	.163
Statement 11	.618	.424	.174
Statement 12	.683	.126	.156
Statement 13	.292	.522	.385
Statement 14	.689	.266	.060
Statement 15	.422	.506	.052
Statement 16	.172	.774	.204
Statement 17	.623	.294	.216

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 7 iterations.

Table 4 : Component Transformation Matrix

Component	1	2	3
1	.652	.582	.486
2	-.755	.435	.491
3	.075	-.687	.723

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

As the scale is hypothesized to be unidimensional, all items should load highly (>0.3 or hopefully 0.5) on one factor. As per stringent item loading retention rules, item loadings need to be 0.5 or higher, the difference between an item's two highest loadings to be > 0.20, at least three items to load on each factor (Bawa, 2004; Tansey, Carroll and Lin Jun, 2001). Following these rules, and observing the values in Tables 2, 3 and 4, CETSCALE did not emerge unidimensional in nature. Therefore, we further proceeded with CFA to check for its unidimensionality.

4.4 Confirmatory Factor Analysis

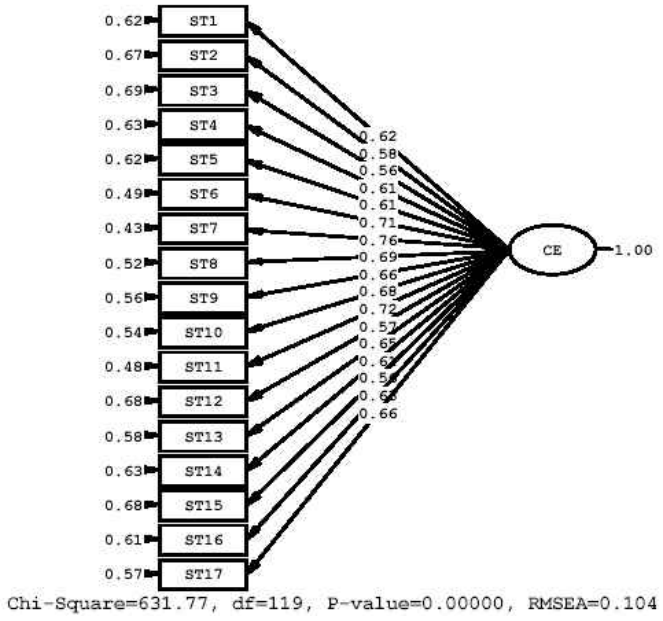
When the CETSCALE is used as a measure of consumers' ethnocentric tendencies, the underlying assumption is that such a construct is unidimensional and can be measured by means of the 17 items that make up the scale. Thus, we start with the assumption that consumer ethnocentrism can be explained by a one factor model with 17 indicators. Only if that holds, can we say that the CETSCALE is a valid measure of consumer ethnocentric tendencies (Luque-Martinez et al., 2000). In order to evaluate the overall fit of the model (shown in Figure 1) to the data, we used CFA, a method also adopted by previous researchers (Netemeyer et al., 1991; Durvasula et al., 1997; Luque-Martinez et al., 2000; Lindquist et al., 2001) in other cultural settings and by Bawa (2004) in India.

CFA is useful in establishing how the observed variables and the latent variables are related (Long, 1983; Bollen, 1989). That is, how well the underlying latent constructs relate to the observed variables. The CFA analysis procedure is frequently used to evaluate the convergent validity of a multi-item scale (Nunnally, 1978; Bagozzi, 1981; Long, 1991). Convergence refers to the extent to which the scale correlates positively with other measures of the same construct. For multi-item scales like the CETSCALE, each one of the items is a measure of the feature in question. In other words, convergent validity has to do with the fact that the scale for measuring consumer ethnocentrism represents one single dimension. Therefore, one single factor has to load on every one of the items that make up the CETSCALE.

In the one-factor model (Figure 1) we propose that consumer ethnocentrism (latent variable) is unidimensional and, therefore, 17 indicators converge to represent a single construct. A measure is said to possess convergent validity if independent measures of the same construct converge, or are highly correlated. When there is a high correlation between a measure and other measures that are believed to measure a single construct, convergent evidence for validity is obtained (Kaplan & Sacuzzo, 1993). It should be noted that internal consistency has already been calculated. An interesting aspect is that internal consistency is a type of convergent validity which seeks to assure there is at least moderate correlation among the indicators for a concept. Poor convergent validity among the indicators for a construct may mean the model needs to have more factors.

For proceeding with Structural Equation Modeling (SEM) using Maximum Likelihood Estimation (MLE), the suggested sample size is a minimum of 50 while the recommended size range is 100–200 (Lindquist et al., 2001). In our study, since we had a net sample of 396, SEM procedure could be adopted using LISREL 8.80.

Figure 1 : 17-Item CETSCALE



The fit for the model was determined based on adjusted goodness of fit index (AGFI) — greater than 0.9; Bentler's comparative fit index (CFI) — greater than 0.9; Bentler and Bonett's non-normed fit index (NNFI) — greater than 0.9; goodness of fit index (GFI)- greater than 0.9; normed fit index (NFI) – greater than 0.9; standardized residuals — ideally less than 2.58, zero or few in number is acceptable (Hatcher, 1994); and value <0.10 for root mean square error of approximation (RMSEA). The chi-square/d.f. ratio should be less than 2.0 (Fornell & Larcker, 1981); and for convergent validity t-values for the factor loadings were assessed. If all t-tests are over 3.29 (p=0.001) then this is viewed as evidence supporting convergent validity (Anderson & Gerbing, 1988); and coefficient alpha — 0.7 is acceptable for exploratory work, but 0.8 or higher should be the goal.

Table 5 contains the key fit statistics for the 17-item CETSCALE model. As suggested by Lindquist et al. (2001), the areas of greater focus were AGFI, CFI, NNFI, standardized residuals, convergent validity and coefficient alpha. The AGFI and GFI values were less than the desired minimum of 0.9. The number of standardized residuals with values greater than 2.58 were too high with the largest standardized value of 6.67. The chi-square to d.f. ratios too were not acceptable. The RMSEA was equal to 0.1 which too is not desirable. But the convergent validity with t-test values on factor loadings of greater than 3.29 (p=0.001) was found in the 17 item CETSCALE (Figure 1). The coefficient alpha was also very good (0.928). In the light of these mixed, but generally not acceptable results the authors expected that more parsimonious model with better fit could be constructed. In other words, the 17-item CETSCALE was not found to be uni-dimensional, and therefore it was decided to obtain better scale with the help of item reduction. This is a well documented practice in marketing research (Churchill, 1979; Goodwin, Purwar & Rogers, 1985; Lindquist et al., 2001, Bawa, 2004). CFA was performed repeatedly to get a unidimensional model with better fits. Standardized residuals were used to purify the scale and achieve unidimensionality of the construct, as recommended by Gerbing and Anderson (1988). The same practice of item deletion was adapted by Yelkur et al. (2006). This iterative process helped obtain stronger fitting single factor models.

Table 5 : CFA Model Fit Indicators

Fit Indicators	17 –item CETSCALE	Modified 6 item CETSCALE
Adjusted Goodness of Fit Index (AGFI)	0.8	0.973
Normed Fit Index (NFI)	0.94	0.987
Non-Normed Fit Index (NNFI)	0.95	0.992
Comparative Fit Index (CFI)	0.95	0.995
Goodness of Fit Index (GFI)	0.84	0.988
Chi-Square /d.f	596.05 /120	14.262/9
Root Mean Square Error of Approximation (RMSEA)	0.1	0.0371
Chi-Square /Degrees of Freedom	4.967	1.584
Standardized Residuals > 2.58	11 (Largest = 7.23)	None (Largest= 2.214)
Coefficient Alpha	0.928	0.812

Table 5 presents an overall summary of the appropriate fit information for the better fitting 6 item model. The AGFI, NFI, GFI, CFI and NNFI values are all higher than 0.9, while RMSEA was less than 0.1. The chi-square to d.f. ratio too was acceptable (<0.2). There were no standardized residuals with values greater

than 2.58. The largest value was 2.214. The model demonstrated convergent validity since t-tests of factor loadings were all greater than 3.29 (Figure 2). The last fit indicator reported is coefficient alpha, a measure of internal consistency and reliability which was 0.812, a meritorious value. Summary of the items that were part of the better fitting 6-item model is given in Table. The items retained by Bawa (2004) and Khan, Rizvi and Qaddus (2007), who also performed CFA to get a unidimensional model in their study for university students are also given in the table. We can see that out of 17 items of the CETSCALE, only two items were common in all the refined scales. The reason for this could not be ascertained at this stage. Kelloway (1998) cautions that such post hoc modifications, which are empirically generated, must be cross-validated on different samples and this was the reason for comparing the items that were retained in the study with items retained by Bawa (2004).

Figure 2 : Modified CETSCALE

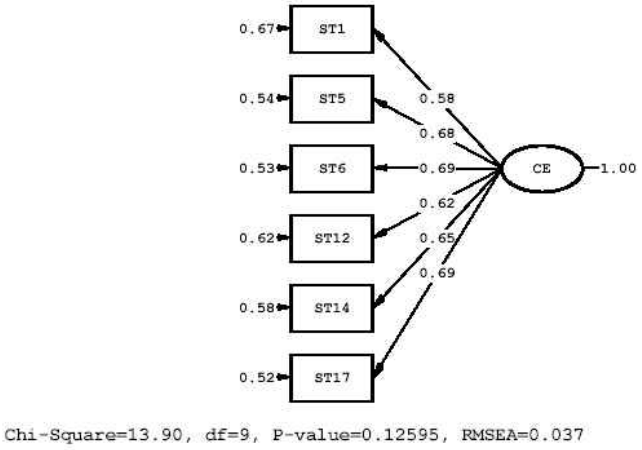


Table 6 : Comparison of Items Retained in the Modified CETSCALE in India

ITEMS	Bawa (2004)	Khan, Rizvi & Qaddus (2007)	Present Study
Statement 1	X	X	X
Statement 2			
Statement 3	X		
Statement 4			
Statement 5		X	X
Statement 6		X	X
Statement7			
Statement 8	X	X	
Statement 9	X	X	
Statement 10			
Statement 11	X		
Statement 12	X	X	X
Statement 13	X		
Statement 14	X		X
Statement 15	X		
Statement 16	X		
Statement 17	X		X

Key: 'X' indicates retained items.

5. Discussion and Implications

The study was designed to find appropriate Indian model based on the 17- item CETSCALE. The 17-item scale did not perform well in the CFA as did the more robust 6 item model. Shimp and Sharma (1987) state that, "People who are highly consumer ethnocentric feel that purchasing foreign products is wrong because *it hurts the domestic economy, results in loss of jobs, and is unpatriotic"*. Certain of the scale items, namely, statements 2 and 16, are tied to "product availability", though not so classified by Shimp and Sharma (1987). Hence, the 17 items of CETSCALE are linked to these concepts (Table 7). This classification was done in the modified 10-item scale by Lindquist et al. (2001). Given the potential value of CETSCALE, and classifying the 17-items in these four dimensions, it was found that none of the items that were retained in the study were related to the *product availability* dimension. The items that were retained were related to the three dimensions namely – *patriotism, employment impact and economic impact*.

The Indian Economic Survey (2008-09) shows that unemployment continues to rise in India. The survey also confirms the structural changes the Indian economy is undergoing: from being agriculture-oriented to becoming services oriented. This means agriculture is becoming increasingly irrelevant to the GDP, the conventional mode of measuring the economy. One may generally conclude from these data that unemployment is likely of strong concern for the Indians. Hence, it would be expected that the CETSCALE items measuring this dimension would be part of the modified consumer ethnocentrism model. As, Santosh Desai (CEO, Future Brands, India) said 'The idea of self-consciously calling oneself Indian and with pride is a recent phenomenon'. Thus, the patriotic dimension should also be the part of the modified ethnocentrism model. The monthly average wage is low in India therefore showing concern for the overall national economic well-being. Therefore, patriotism, unemployment and national economic well-being items should be part of the country model. The product availability dimension was not a part of the modified scale. Probably, Indians are now not averse to made in India tag and thus have no fear for foreign products (Bawa, 2004).

Table 7 : Macro Dimensions of CETSCALE

Statement	Macro Dimension	Scale Item
Statement 1	Patriotism	Indian people should always buy Indian – made products instead of imports.
Statement 2	Product availability	Only those products that are unavailable in India should be imported.
Statement 3	Employment impact	Buy Indian-made products, keep India working.
Statement 4	Patriotism	Indian products, first, last and foremost.
Statement 5	Patriotism	Purchasing foreign made products is un-Indian.
Statement 6	Employment impact	It is not right to purchase foreign products because it puts Indian out of jobs.
Statement 7	Patriotism	A real Indian should always buy Indian-made products.
Statement 8	Economic Impact	We should purchase products manufactured in India instead of letting other countries get rich off us.
Statement 9	Patriotism	It is always best to purchase Indian products.
Statement 10	Economic Impact	There should be very little trading or purchasing of goods from other countries unless out of necessity.
Statement 11	Employment impact	Indians should not buy foreign products because it hurts Indian business and causes unemployment.
Statement 12	Economic Impact	Curbs should be put on all imports.
Statement 13	Patriotism	It may cost me in the long run but I prefer to support India products.
Statement 14	Economic Impact	Foreigners should not be allowed to put their products on our markets.
Statement 15	Economic Impact	Foreign products should be taxed heavily to reduce their entry into India.
Statement 16	Product availability	We should obtain from foreign countries only those products that we cannot obtain within our own country.
Statement 17	Employment impact	Indian consumers who purchase products made in other countries are responsible for putting their fellow Indians out of work.

Another interesting finding was to compare the level of ethnocentrism prevailing in India with studies done in other nations as well as India. Bawa (2004) and Khan and Rizvi (2008) in their study found that the level of ethnocentrism in India was no less than that prevailing in the developed countries among university students. The mean scores obtained in previous studies for University students are given in Table 8.

In the present study total mean score was 57.97, indicating again that the levels of ethnocentrism among students are quite high and comparable to samples from the developed world. The modified scale calls for more studies in different settings, cultures and countries to ascertain the unidimensionality of the CETSCALE. But, on the other hand, it provides companies and researchers with a valuable instrument to aid both with the analysis, knowledge, segmentation of a market, and with the designing of marketing-mix activities. More insightful segmentation guidelines could be developed for both local producers and foreign firms. The classification of the 17-items into 4 dimensions as discussed above can be another way of segmenting the market effectively. For example, by knowing the magnitude of the ethnocentric tendencies of consumers

Table 8 : Summary of Findings of Research Studies involving University Students

Author and Year	Country	Sample Size	Mean	SD
Shimp and Sharma (1987)	USA	145	51.92	16.370
	USA	145	53.92	16.520
Durvasula et. al (1997)	USA	144	50.24	22.850
	Russia	60	32.02	12.470
Vida and Fairhurst (1999)	Czech Republic	131	45.17	11.970
	Estonia	179	53.59	13.790
	Hungary	76	43.30	13.760
	Poland	172	50.61	14.330
Bawa (2004)	India	103	52.43	16.812
Khan, Rizvi and Qaddus (2007)	India	130	63.17	33.200
	Pakistan	148	77.50	33.670
Khan and Rizvi (2008)	India	96	61.43	31.400
Present Study	**India**	**396**	**57.97**	**21.033**

belonging to the patriotic dimension, an advertiser would be able to determine whether messages that include patriotic themes would be appropriate or not. Likewise, this information could be of help in determining in which situations the product's packaging should include messages of the "made in (country of origin)" type. Also, the strong ethnocentric tendencies prevalent in India would be prudent in promotional campaigns by marketers where they can very well include the tags of 'Made in India' label.

6. Limitations and Future Research Directions

Just like any other study, the work also suffers from certain limitations. The limitations highlighted can also serve as a guide for future researchers. The study suffers from an up-market bias as the target group comprised students from middle class background. Although the data collected is not restricted to a specific region, India being a multilingual, multi-religious and multi-regional country, the sample may not be true representative of the entire Indian population and therefore, generalisation has to be done with caution. Other factors that might possibly influence ethnocentrism, such as socio-psychological variables, patriotism, collectivism/individualism, conservatism, cultural openness, foreign travel, perceived threat from foreign competition, exporting country attributes, country of origin effect, etc., have not been covered in this study.

It is very likely that product evaluations may vary according to product types and the country of origin. Thus, future studies need to incorporate different product categories and country of origin variables to map variations in consumer evaluations. Caution must be used when interpreting the results. Generalizability is of concern since the sample population was a pool of management students enrolled in business schools located in urban settings. Further, the concepts presented here are not fully interpretable into the realm of understanding the appropriateness in all country or sample group situations. The original study respondents (Shimp and Sharma, 1987) were mostly middle-class Americans who probably had a higher living standards than the respondents in the present study who were primarily students. Thus, the students participating in the present study were not representative of the population at large. Members of other occupational groups should also be included in future studies to get a more representative view vis-à-vis prevailing levels of ethnocentrism in India.

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