

Development and Validation of Consumer Economic Nationalistic Tendencies Scale (CENTSCALE)

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Abstract

Economic nationalism has been identified as a critical component of nationalistic sentiment, influencing cognitions, attitudes, evaluation and purchase intentions. While a distinction is made between economic nationalism and other measures of national and international orientation (ie. consumer ethnocentrism), previous empirical studies explore the concept in a 'unified' form. This study bridges this gap by developing a scale specifically tailored to measure consumer economic nationalistic tendencies. Scale generation, purification, validation and confirmation are achieved through five studies.

Background and Problem Development

Economic nationalism is described as the associated need with protectionism in the third world that involves discrimination in favour of one's own nation (Macesich, 1985). It is the readiness to support nationalist economic policy, primarily adopting an 'us first', in-group versus out-group distinction (i.e. 'domestic' versus 'foreign' companies). In this case, it is proposed to be associated with personal job insecurity, authoritarianism, and intolerance of ambiguity (Baughn and Yaprak, 1996). Literature has also demonstrated that the term attributed to three components namely nationalism, patriotism and internationalism (Mort and Duncan, 2003; Kosterman and Feshback, 1989). In addition, some related the term to ethnocentrism, economic discrimination and even racism (see Becker, 1957; Ouellet, 2007; Adorno *et al.*, 1960; Johnson, 1992), including the resistance to the immigration of foreign workers as well as to foreign investment; job utility, ownership of intellectual property and technological competitiveness (Macesich, 1985; Baughn and Yaprak, 1996).

The construction of a unique scale is needed as current scales to measure economic nationalism by Baughn and Yaprak's (1996) and Mort and Duncan, (2003) have little relevance to the study of consumer behaviour, in particular, consumer perspective of country ownership applications and related marketing functions. In developing a new measurement of consumer economic nationalism, the newly formed tendencies are closely associated with the purchasing of foreign- versus domestic-owned product in relation to the need and importance to support the interest of domestic ownership (Mort and Duncan, 2003). As a result, the apprehension for economic security and power in conjunction with the importance of nationalistic tendencies and subsequently ownership implications are the basis for the conceptualization of consumer economic nationalism (CENT) (Baughn and Yaprak, 1996; Burnell, 1986; Mort and Duncan, 2003; Reich, 1991). The theoretical bases are derived from the realistic group conflict theory (RGCT) noting 'competition over scarce resources' (Sherif *et al.* 1961; Jackson, 1993). As such, jobs and economic benefit constitute such highly competed-for resources (Insko *et al.*, 1992), proposing that the consumer economic nationalism should include these two themes or factors.

Methods and Results

Study One

The first step in development of the scale was to generate items that are designed to ‘capture the conceptual and logical true variance presented in the construct’ as per their definition (Eastman, Goldsmith and Flynn, 1999). DeVellis (2003) suggested that the theory surrounding the concepts we were exploring should first be consulted to air clarity. The definitions and theories supporting each form of economic nationalistic tendency are discussed. As per Li, Edwards and Lee (2002) we used three methods to generate a set of potential scale items: literature reviews (Churchill, 1979), thesaurus searches (Wells, Leavitt and McConville, 1971), in-depth interviews/focus groups (DeVellis, 2003) and experience surveys (Chen and Wells, 1999; Churchill, 1979). From these procedures we developed an initial pool of 32 items. Valid respondents received totalled 336. The pool of item were then reviewed by the group of experts utilised previously to help generate the most appropriate pool and to assist in maximising the content validity of the scale. Exploratory factor analysis (EFA) has often been cited as a first step in scale development and item removal and was thus undertaken (DeVellis, 1991, Spector, 1992, Sweeney, Hausknecht and Soutar, 2000). EFA revealed two factors, both of which were clearly related to CENT. The EFA process included removing items indicated as unusable in the EFA, in addition to using Cronbach’s alpha and removing items with squared multiple correlations of less than 0.30 and corrected item-to-total correlations of less than 0.50. An analysis of the items through their mean scores (as suggested by DeVellis, 2003) showed no extreme means either way (between 4.03 and 5.03 on a seven point scale). Scale length was also optimised by removing the weaker items in favour of almost identical stronger items. Finally we were left with five items relating to “ERT” ($\alpha = .746$) and 5 items relating to “WRT” ($\alpha = .720$) (KMO and Bartlett’s test = .762, Approx. Chi-Square = 717.843, df. = 45, Sig. = .000).

Study Two

The aim of this study was to examine the uni-dimensionality of the scale items developed in study one and to further purify the scale items. After this stage we could also examine the items for content validity by comparing the remaining items with our working definition of the construct. As discussed, this paper was only concerned with developing a CENTSCALE. Explained working definitions of the concepts with a new survey instrument containing the 10 CENT items. Valid respondents totalled 202. Confirmatory factor analysis (CFA) was used as a means of scale reduction by showing what items may be trimmed from the scale (Netemeyer, Bearden and Sharma, 2003), and to test for uni-dimensionality (Pedhazur and Schmelkin, 1991) The CFA was again completed using AMOS 6. CFA further refined the scale resulting in five items (see appendix A) for “ERT” (Chi-square = 4.9, d.f. = 5, Probability level = .427, GFI = .990, AGFI = .971, RMSEA = .000, $\alpha = .69$); and five items (see appendix A) for “WRT” (Chi-square = 4.9, d.f. = 5, Probability level = .429, GFI = .990, AGFI = .971, RMSEA = .000, $\alpha = .78$), both reaching acceptable results (Hu and Bentler, 1999). On face value the scale also still encompassed the character of our definition (content validity).

Study Three

This third study was undertaken to establish the scale's trait validity (discriminant and convergent). Studies by Churchill (1979), Eastman, Goldsmith and Flynn (1999), Campbell and Fiske (1959) and Oh (2005) were followed as guides for this stage. Previously established scales namely; CETSCALE (Shimp and Sharma, 1987), consumer racism scale (Ouellet, 2007), nationalism scale (Kosterman and Feshbach, 1989), patriotism scale (Kosterman and Feshbach, 1989), internationalism scale (Kosterman and Feshbach, 1989) and openness scale (Sharma, Shimp and Shin, 1995) were included to test for validity via the use of a Pearson Correlation. As shown in previous studies the use of a Pearson correlation to show convergent and discriminant validity is a valid undertaking (Eastman, Goldsmith and Flynn, 1999). The results for the Pearson Correlation are best explained in viewing Figure 1. Reliability (Cronbach's alpha) shows the continued acceptable reliability of the "ERT" ($\alpha = .692$) and "WRT" ($\alpha = .783$) dimensions which contributes to the overall CENTSCALE ($\alpha = .721$). The figure shows the basic principles and rules are met.

Figure 1 Pearson Correlation of the Various Scales

	I.	II.	III.	IV.	V.	VI.	VII.
CENT (I)	1	.672(**)	.575(**)	.473(**)	.295(**)	-.154(*)	-.012
CET (II)	.672(**)	1	.546(**)	.390(**)	.205(**)	-.150(*)	-.146(*)
CR (III)	.575(**)	.546(**)	1	.438(**)	.247(**)	-.064	.006
NAT (IV)	.473(**)	.390(**)	.438(**)	1	.136	-.115	-.043
PAT (V)	.295(**)	.205(**)	.247(**)	.136	1	.056	.225(**)
INT (VI)	-.154(*)	-.150(*)	-.064	-.115	.056	1	.482(**)
OPEN (VII)	-.012	-.146(*)	.006	-.043	.225(**)	.482(**)	1

** Pearson Correlation is significant at the 0.01 level (1-tailed)..

* Pearson Correlation is significant at the 0.05 level (1-tailed).

To demonstrate the discriminant validity, CENTSCALE was correlated with patriotism (PAT), Internationalism (INT), and Openness Scale (OPEN); either a low or an insignificant correlation with the CENTSCALE and these scales is expected. As predicted, the Pearson correlations between the CENTSCALE and the Openness Scale (-.012), Internationalism (-.154) and Patriotism (.295). Evidence of convergent validity is demonstrated by significant correlations of the scale with measures of other constructs to which it is expected to be related (Churchill, 1979). In other words, 'measures that should be related are in reality related'. Studies have proposed that Consumer Ethnocentrism (CET) and CENT should be empirically related (Mort and Duncan, 2003). We expected a high correlation with the CENT, the Consumer Racism (CR) and the Nationalism (NAT) scales. We found the CENTSCALE to be positively correlated to each of these constructs. The Pearson correlations of .672; .575 and .473 respectively indicated that the CENTSCALE is performing as it might be expected with related constructs (Eastman, Goldsmith and Flynn, 1999).

Study Four

The purpose of this study was to increase the generalizability of the scales by performing a CFA on the ten prior validated items using a variation in sample respondents (working professionals as opposed to students) and product category (ice cream as opposed to wines).. After the new survey instrument was pre-tested in a small focus group, new respondents were collected resulting in 200 useable surveys. In addition to the 10 CENT items, it also included thirty eight items for testing sociological concepts (i.e. consumer ethnocentrism). The CFA showed the suitability of the CENTSCALE under the differing conditions with acceptable

results (Hu and Bentler, 1999). Five items for “ERT” (Chi-square = 4.096, d.f. = 5, Probability level = .536, GFI = .992, AGFI = .976, RMSEA = .000, α = .68); and five items for “WRT” (Chi-square = 2.238, d.f. = 5, Probability level = .815, GFI = .995, AGFI = .986, RMSEA = .000, α = .79). Figure 2a and 2b shows the specific scale items for the two factors.

Figure 2a:
CFA of Economic Related Tendencies

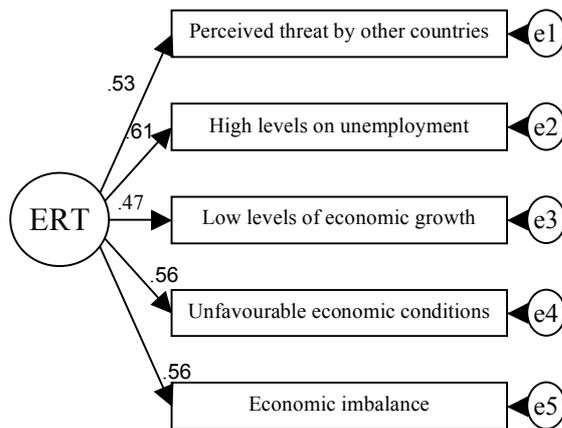
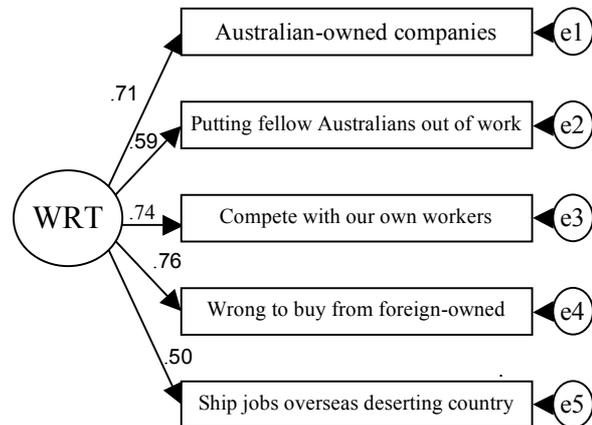


Figure 2b:
CFA of Work Related Tendencies



Study Five

The purpose of this study was to establish the scale’s construct validity (nomological) and to further confirm criterion validity (predictive). It also facilitated an assessment of test-retest reliability and coefficient alpha. A new survey instrument was produced containing the scale items in addition to an established scale to measure purchase intentions toward Australian products. This would be of use in establishing predictive validity through median split and T-tests. Previously established scales namely; domestic economic threat and personal economic threat (Sharma, Shimp and Shin 1995); Zaichkowsky’s (1985) Revised Personal Involvement Inventory (RPII) and lastly willingness to buy foreign (owned) products (WTB) (Klein, Ettenson and Morris 1998) were included to test for validity via the use of a Pearson Correlation. As shown in previous studies the use of a Pearson correlation to show convergent and discriminant validity is a valid undertaking (Eastman, Goldsmith and Flynn, 1999). The results for the Pearson Correlation are best explained in viewing Figure 3.

Figure 3 – Pearson Correlation of the Various Scales

	I.	II.	III.	IV.	V.
CENT (I)	1	.342(**)	.323(**)	.413(**)	.252(**)
ECON_P (II)	.342(**)	1	.546(**)	.390(**)	.205(**)
ECON_D (III)	.323(**)	.546(**)	1	.438(**)	.247(**)
RPII (IV)	.413(**)	.390(**)	.438(**)	1	.136
WTB (V)	.252(**)	.205(**)	.247(**)	.136	1

** Pearson Correlation is significant at the 0.01 level (2-tailed).

The criterion (predicative) validity of the scale was supported as both the Pearson correlation and T-test analyses confirmed a significantly more positive purchase intention toward Australian ‘owned’ products (WTB) ($P < 0.01$, $df. = 122$) in those experiencing a higher level

of CENT, as tested by the developed items. Evidence of nomological validity is demonstrated by significant correlations of the scale with measures of other constructs to which it is expected to be related (Churchill 1979). (see Figure 3). In addition, reliability was assessed two ways in this study. Apart from coefficient alpha, the six week test-retest reliability of the Pearson correlation between the summed scores of the scales at each administration was .81. Reliability (Cronbach's alpha) shows the continued acceptable reliability of the "ERT" ($\alpha = .542$) and "WRT" ($\alpha = .751$) dimensions which contributes to the overall CENTSCALE ($\alpha = .542 - .751$).

Conclusion

This paper has given an overview of the process undertaken in developing the CENTSCALE. CENTSCALE contributes to the literature by (a) integrating "economic related tendencies" to the existing knowledge of economic nationalism; (b) incorporating a more 'consumer' or 'marketing' related approach to the measurement (c) distinguishing from a more general operationalisation of economic nationalism and its allied constructs. This will aid managerial initiatives in consumer education, consumer behaviour and marketing insinuations relating to local campaigns and ownership appeals together with the extension of the 'owned' by labels (Mort and Duncan, 2003) and their immediate implications.

Appendix A – Full Items of CENTSCALE

Factors for "Economic Related Tendencies"

1. Low levels of economic growth would highlight the importance of supporting national wellbeing.
2. Australians should support national interests in periods of unfavorable economic conditions
3. In situations of economic imbalance, Australians should be more nationalistic.
4. Given the perceived threats by other countries, Australia should heavily support national policies.
5. High levels of unemployment would create a need to support local jobs.

Factors for "Work Related Tendencies"

1. Australian companies that ship jobs overseas are deserting their country.
2. Australians should only deal with Australian-owned companies.
3. Australian consumers who purchase products made in other countries are responsible for putting their fellow Australians out of work.
4. Foreigners should not be permitted to come into Australia if they compete with our own workers.
5. It is wrong to buy from foreign-owned companies because it causes Australian-owned companies to go out of business.

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