

## **SCALE DEVELOPMENT: CONSUMER ECONOMIC NATIONALISTIC TENDENCIES (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. This study develops a scale specifically tailored to measure consumer economic nationalistic tendencies. Scale generation, purification, validation and confirmation are achieved through four 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 (Akhter, Kim & Hosseini, 2003; Baughn & Yaprak, 1996; Macesich, 1985). It is the readiness to support nationalist economic policy, primarily adopting an 'us first', in-group versus out-group distinction ('domestic' versus 'foreign' companies). In this case, it is proposed to be associated with personal job insecurity, authoritarianism, and intolerance of ambiguity (Baughn & Yaprak, 1996). Other studies have also demonstrated that the term attributed to three components namely nationalism, patriotism and internationalism (Mort & Duncan, 2003; Kosterman & Feshback, 1989). In addition, some related the term to ethnocentrism, economic discrimination and even racism (Adorno *et al.*, 1960; Balabanis *et al.*, 2001; 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.

The construction of a unique scale is needed as current scales to measure economic nationalism by Baughn and Yaprak (1996) and Mort and Duncan, (2003) has 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 purchasing foreign- versus domestic-owned product in relation to the need and importance to support the interest of domestic ownership (Mort & Duncan, 2003; Usunier, 2006). 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) (Akhter, Kim & Hosseini, 2003; Baughn & Yaprak, 1996; 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

**Purpose.** 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 & 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 & McConville, 1971), and experience surveys (Chen & Wells, 1999; Churchill, 1979). From these procedures we developed an initial pool of 86 items. Valid respondents received totalled 336.

**Method and Analysis.** 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 & Soutar, 2000).

**Results.** 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. At the end of these processes, five items relating to (ERT) economic related nationalistic tendencies (Cronbach's  $\alpha = 0.750$ ) and five items relating to (WRT) work related nationalistic tendencies (Cronbach's  $\alpha = 0.720$ ) remained (KMO and Bartlett's test = .762, Approx. Chi-Square = 717.843, df. = 45, Sig. = .000).

## **Study Two**

**Purpose.** 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 scale for consumer economic nationalistic tendencies.

**Method and analysis.** The new survey form containing the 10 CENT items (developed from Study 1) were administered. Valid respondents totalled 209. Confirmatory factor analysis (CFA) was used as a means of scale reduction by showing what items may be trimmed from the scale (Netemeyer, Bearden & Sharma, 2003), and to test for unidimensionality (Pedhazur & Schmelkin, 1991). As such, a CFA using AMOS (6.0) was calculated. From this point we deal with each scale factor separately during this stage.

**Results.** CFA further refined the scale resulting in five items for “ERT” (Chi-square = 4.9, d.f. = 5, probability level = 0.427, GFI = 0.990, AGFI = 0.971, TLI = 0.994, SRMR = 0.024, RMSEA = 0.000,  $\alpha$  = 0.70); and five items for “WRT” (Chi-square = 4.9, d.f. = 5, probability level = 0.429, GFI = 0.983, AGFI = 0.960, TLI = 0.991, SRMR = 0.024, RMSEA = 0.000,  $\alpha$  = 0.78), both reaching acceptable results (Hu & Bentler, 1999). On face value the scale also still encompassed the character of our definition (content validity).

### **Study Three**

**Purpose.** This third study was undertaken to establish the scale’s trait validity (convergent, discriminant and criterion). Nomological validity can also be suggested. Studies by Churchill (1979), Eastman, Goldsmith and Flynn (1999), Campbell and Fiske (1959) and Oh (2005) were followed as guides for this stage.

**Method and analysis.** A total of 299 valid respondents are analysed. A new survey was produced containing the proposed CENTScale items in addition to the discussed measures of attitude towards Australian product quality and willingness to buy of Australian owned products. These instruments appear as Likert-style scales (seven-point) and are made up of four (attitude) and six (willingness to buy) items that achieved a Cronbach's alpha equal to or greater than 0.80 in previous studies (Klein, Ettenson, & Morris, 1998; Kea & Phau, 2008). By using T-tests and a median split based on the scale to separate the respondents into high and low economic nationalistic groups and performing t-tests comparing the groups' attitude towards Australian product quality and willingness to buy Australian owned product, predictive validity can be established. Correlation of the proposed scale and these measures can also be undertaken for nomological validity.

To test convergent and discriminant validity using a Pearson correlation matrix (PCM), we need the inclusion of previously established scales. As such, the CETSCALE (Sharma, Shimp, and Shin 1995), the Openness Scale (Sharma, Shimp, & Shin 1995), the Economic Animosity (Klein, Ettenson, & Morris, 1998) and the Nationalism Scale (Kosterman & Feshbach, 1989) are included in the survey. Attitude towards protectionism regarding *home country bias* and the morality and appropriateness of purchasing foreign products (Sharma, Shimp, & Shin 1995), a concept theoretically related to economic nationalism, has previously been tested by using the 'CETSCALE', 'Economic Animosity' and 'Nationalism' Scales. The Openness Scale is designed to establish the distinction between nationalistic sentiments associated with personal or economic effects. These items should relate closely to the items in the CENTScale under

development, and although expected to be closely correlated, they should still be distinct. PCMs are used in previous studies to show convergent and discriminant validity (e.g. Churchill 1979; Eastman, Goldsmith & Flynn 1999; Lings & Greenley 2005).

**Results.** The criterion (predictive) validity of the scale is supported as those experiencing high consumer economic nationalistic tendencies (measured by the scale in development) have significantly higher mean scores in attitude towards Australian product quality ( $M = 4.54$ ,  $SD = 0.64$ ) than those with a lower economic nationalistic tendencies ( $M = 3.29$ ,  $SD = 0.85$ ) ( $t(149) = 17.071$ ,  $P < 0.05$ ). Likewise, they also have a significantly greater willingness to buy Australian owned product ( $M = 4.50$ ,  $SD = 0.59$ ) than their lower economic nationalistic counterparts ( $M = 3.26$ ,  $SD = 0.73$ ) ( $t(152) = 17.667$ ,  $p < 0.05$ ). The results for the Pearson correlation are best explained in viewing Table 1. First, Pearson correlation test shows the proposed CENTSscale to be significantly correlated to attitude towards Australian product quality ( $r = 0.473$ ) and willingness to buy of Australian owned product ( $r = 0.413$ ) at the 0.01 level. Nomological validity is thus indicated by these results as the items (CENTSscale) behave as expected with respect to another item (attitude towards Australian product quality and Australian product purchase/ownership) to which they are theoretically related (Cadogan, Diamantopoulos, & de Mortanges 1999; Churchill 1995). Second, as required for an acceptable PCM, the coefficients indicating convergent validity should reveal significant and higher correlation coefficients with measures of other scales to which it is expected to be related. The correlation of the proposed scale with the CETSCALE ( $r = 0.67$ ) is significant and high enough to show convergent validity. Discriminant validity is supported by the higher correlation ( $r = 0.67$ ) than with the proposed scale and animosity and openness measures ( $r = 0.29$  and  $r$

= -0.15), as well as the nationalism measure ( $r = 0.47$ ). The figure shows the basic principles and rules are met. Reliability (Cronbach's alpha) shows the continued acceptable reliability of the "ERT" ( $\alpha = 0.692$ ) and "WRT" ( $\alpha = 0.783$ ) scale factors which contributes to the overall CENTScale ( $\alpha = 0.721$ ).

- Table 1 about here -

#### **Study Four**

**Purpose.** 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 a test re-test reliability assessment is also performed to describe the operationalisation's ability to discern the stability of item responses over a period of time (Haynes et al., 1999).

**Method and analysis.** Data was collected via a mall intercept at a two part series seminar on current issues regarding the "Australian made Australian grown" campaign. This created sufficient relevance to our research as country of origin implications and nationalistic appeals were the main themes. Furthermore, these themes elicited the correct form of response to which the scale was designed to measure. All participants were noted to be working professionals, some being middle or top management executives from a multitude of industries. The test-retest reliability assessment will see respondents completing two halves of the survey three weeks apart (one half in the first week and the other half in the last week, see Robinson et al., 1991; Eastman, Goldsmith & Flynn 1999 for minimum test retest duration), with the propose scale appearing in each half. A total

of 206 new respondents were analysed. This resulted in 103 respondents completing each half per session. AMOS 6 was used to conduct the CFA.

**Results.** The CENTScale (Cronbach's  $\alpha = 0.88$ ) under the new respondent condition with ERT (Chi-square = 4.09, df = 5, probability level = 0.536, GFI = 0.992, AGFI = 0.976, SRMR = 0.023, TLI = 0.990, RMSEA = 0.000) and WRT (Chi-square = 2.23, df = 5, probability level = 0.815, GFI = 0.995, AGFI = 0.986, SRMR = 0.024, TLI = 0.991, RMSEA = 0.000), both scale factors showing acceptable results in the CFA (Hu and Bentler 1999). In addition to the high coefficient alpha, the study report high correlation between the summed scores of the CENTScale at each administration ( $r = 0.81$ ,  $p < 0.01$ ), showing test-retest reliability. This study, thus, achieves continuing reliability of the CENTScale, again supports the distinction between the two types of economic nationalistic tendencies and indicates a degree of generalisability of the scale. Figure 1a and 1b shows the specific scale items for the two factors.

- Figure 1a about here -

- Figure 1b about here -

## CONCLUSIONS

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.

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## APPENDICES

### 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.

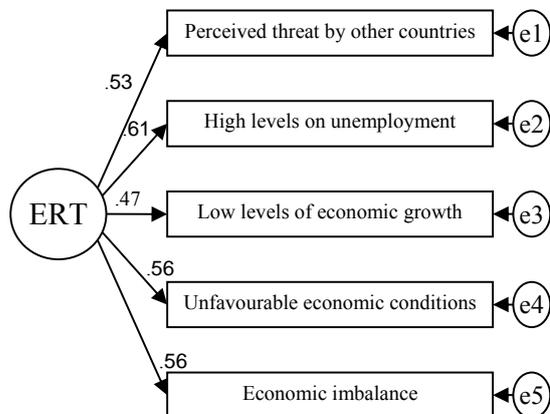
## TABLE AND FIGURES

**Table 1. Pearson correlation of the various scales**

	i.	ii.	iii.	iv.	v.	vi.	vii.
i. CENTSscale	1	.672(**)	.575(**)	.473(**)	.413(**)	.295(**)	-.154(*)
ii. CETSCALE	.672(**)	1	.546(**)	.390(**)	.390(**)	.205(**)	-.150(*)
iii. NATIONALISM	.575(**)	.546(**)	1	.438(**)	.438(**)	.247(**)	-.064
iv. Attitude towards product quality	.473(**)	.390(**)	.438(**)	1	.136	-.115	-.043
v. Willingness to buy/ownership	.413(**)	.390(**)	.438(**)	.136	1	.056	.056
vi. ANIMOSITY	.295(**)	.205(**)	.247(**)	.136	-.115	1	.482(**)
vii. OPENNESS	-.154(*)	-.150(*)	-.064	-.115	-.043	.225(**)	1

Notes: \*\* Pearson Correlation is significant at the 0.01 level (1-tailed). \* Pearson Correlation is significant at the 0.05 level (1-tailed).

**Fig. 1a.**  
CFA of economic related tendencies



**Fig. 1b.**  
CFA of work related tendencies

