

# TESTING THE VALUE AND LIFE-STYLE MODEL (VALS) OF PSYCHOGRAPHIC MARKET SEGMENTATION

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## ABSTRACT

This article describes the development of a psychographic inventory suitable for testing the VALS model of market segmentation within the South African context. Hypotheses relating to value and life-style traits, suggested by prior research, are tested, utilising a sample of white and black respondents in the Johannesburg/Soweto metropolitan area. Results imply that the instrument developed has moderate reliability and can be administered bilingually. The VALS model tested by the instrument suggests that most respondents hold need-driven and outer-directed values. Implications for value and lifestyle segmentation within the South African context are discussed.

## OPSOMMING

Hierdie artikel beskryf die ontwikkeling van 'n psigografiese inventaris geskik vir die toetsing van die VALS-model van marksegmentasie binne Suid-Afrikaanse verband. Hipoteses met betrekking tot waarde- en lewenslystrekke, voortspruitend uit vorige navorsing, word getoets op 'n steekproef van wit en swart respondente in die Johannesburg/Soweto metropolitaanse gebied. Resultate toon dat die instrument gemiddelde betroubaarheid openbaar en toepasbaar is op 'n tweetalige grondslag. Die VALS-model soos getoets deur die instrument toon dat die meeste respondente behoefte-gedrewe en na buite gerigte waardes openbaar. Implikasies vir waarde- en lewenslystrekke binne Suid-Afrikaanse verband word ook bespreek.

One of the most intriguing developments in value methodology in recent years has been the values and life-style (VALS) questionnaire developed at the Social Research Institute (S.R.I.) by Mitchell (1983). It derives from the theoretical base of Maslow's (1954) need hierarchy and the concept of social character as defined by Riesman, Glazer and Denny (1950). Approximately 34 questions were identified through statistical and theoretical means as useful in classifying people into one of nine life-style groups. These questions include various specific and general attitude statements as well as demographic items. Figure 1 shows the nine value and lifestyle profiles which emerged from Mitchell's research. These profiles may be grouped into three broad consumer segments viz need-driven, outer-directed and inner-directed (Assael, 1987).

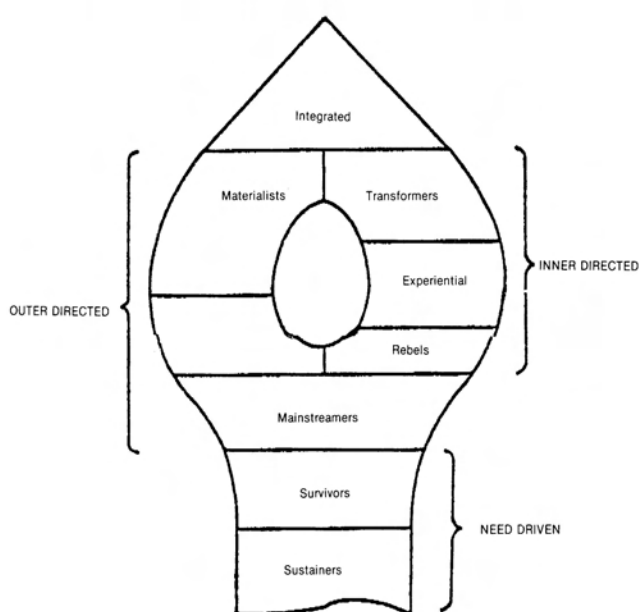


Figure 1. The value and life-style profile.  
Source: Schiffman, L.G. & Kanuk, L.L. (1987). *Consumer Behaviour* (3rd ed.) New York: Prentice Hall Inc.

Need-driven consumers represent people whose economic activities are driven by need rather than choice. This life-style group include "survivors" and "sustainers". Survivors are the most impoverished consumer segment representing about four percent of the adult American population. Most are poorly educated, elderly, tend to be depressed, withdrawn, insecure and mistrustful. Sustainers (seven percent of the population) are a group that has not yet given up hope. They are angry, trying to climb out of poverty and join the middle class (Schiffman & Kanuk, 1987).

Outer-directed consumers are people whose values centre around objects and activities outside themselves. This segment buys in accordance with established and traditional norms, representing 71 percent of American consumers. They include "mainstreamers", "strivers" and "materialists". Mainstreamers tend to be traditional, conservative, family oriented and moral. They want stability, want to fit in rather than stand out and they follow the rules of society. Strivers tend to be ambitious, competitive, hard working, status conscious, fairly successful and demand a great deal of themselves as they try to climb the social class ladder. Materialists are well educated and affluent. They place high value on tangible material possessions and tend to prefer physical comfort to spiritual values (Assael, 1987).

Inner-directed consumers are people who concern themselves with the inner psychological aspects of life. They seek psychological growth rather than growth in their bank balance. This group includes "rebels", "experientials" and "transformers", together they represent 18 percent of the American population. Rebels are young consumers in a transition period from an outer-directed to an inner-directed way of life. They are individualistic, searching for new values, breaking away from tradition or conventions. Experientials seek inner growth through direct experience. They enjoy adventure, are artistic, active, participative and person centered. Transformers are a mature group concerned with societal issues such as conservation and consumerism. They are well educated, prosperous, liberal and consider non-material aspects of life to be more important than material ones.

"Integrated" consumers represent a life-style group that com-

bins the components of outer-directed and inner-directed values. They are the highest in education and their dominant values include maturity, individualism, tolerance and a world view (Hawkins et al., 1986).

The impact of Mitchell's values and life-style typology has been widespread and dramatic. Many companies — such as Avon, Boeing, American Motors and the New York Times — have used VALS as a basis for market segmentation (Kahle, Beatty and Homer, 1986). The Research Institute for Social Change (R.I.S.C.) has taken Mitchell's work one step further by linking the different value systems identified by him to different types of society. When a need-driven value predominates in a society, the society is said to be pre-industrial (i.e. third world countries). An outer-directed value system would predominate in an industrial society (first world countries) and an inner-directed value system would predominate in a post-industrial society (Corder, 1984).

South Africa has been described as a society in transition. There is a narrow band of many affluent Whites driving South Africa's computer based "high technology" communication "revolution" (Halley-Wright, 1988). In contrast the majority of consumers are still in the agricultural-industrial era, with most Blacks rooted in a broad subsistence economy. It may therefore be deduced that a large proportion of the South African population will hold either need-driven or outer-directed values.

Instruments utilized by research organizations in South Africa such as the Sociomonitor (Market Research Africa) and Young and Rubicam's cross cultural consumer characterisation (4C<sup>®</sup>) (Halley-Wright, 1988) are grounded in Maslow's need hierarchy and the VALS typology, suggesting that certain goals, motivations and values are so basic that they can be generalized cross culturally. Although these organizations have relied substantially on Maslow and Mitchell's work as a basis for their own segmentation purposes, the specific VALS model has not been tested empirically in South Africa.

The purpose of this study is two-fold: (i) to develop and validate an instrument suitable for testing the applicability of the VALS model in South Africa; (ii) to apply the instrument on a non-racial basis to determine its usage in a heterogeneous transitional society.

## METHOD

### Development of the instrument

Based on the VALS model, 21 items were generated for testing the relevance of each of eight constructs in the model. The ninth construct, "integrated", was not included as it was felt that too few respondents would fall into this category. Each construct was clearly defined. A panel of six judges (three White and three Black) assessed the content validity of each item. Judges used a three point Likert-type scale to rate the extent to which each item was representative of the construct. At least four judges had to rate an item as clearly representative for inclusion in the inventory.

After the initial screening of the judgements by the panel suitable items were selected, in some instances rephrased, and submitted once again for selection by the panel. During the second evaluation procedure judges were also asked to give their views on the comprehension level of the items for less educated respondents or people who would be answering the questionnaire in their second language. Eventually 56 items were included from an initial list of 168 items, resulting in seven items per construct. These items were translated into Afrikaans.

In order to test the reliability of the instrument a test of internal consistency (Cronbach's coefficient alpha) was performed for each set of items per construct, using a sample of 120 black and 120 white respondents. The correlations reflected in Table 1 show modest reliability. This may be regarded to suffice in the early stages of research on predictor tests or hypothesized measures of a construct (Nunnally, 1978).

Content validity was evaluated in terms of the extent to which members of the content evaluation panel perceived overlap between items in the inventory and the construct domain. The extent of overlap was determined quantitatively by applying a content validity ratio (C.V.R.) for each item. Items were eliminated if the C.V.R. failed to meet statistical significance as determined from a table represented by Lawshe, and from the retained items the mean C.V.R. value was computed (Casco, 1987). Fifty six items met this criterion.

### Administration of the instrument

As the research may be termed exploratory the following design hypotheses were set for testing the VALS model.

#### Hypothesis 1

A psychographic segmentation of the South African consumer market includes three broad segments based on cultural values viz, need-driven, outer-directed and inner-directed consumers.

#### Hypothesis 2

Values and life-styles within these segments can be further described in terms of eight identified constructs viz, sustainers, survivors, mainstreamers, strivers, materialists, rebels, experientials and transformers.

#### Hypothesis 3

Variables within each construct can be inter-correlated to obtain a richer and clearer profile of potential values and life-style.

A random sample stratified according to income, consisting of 355 whites and 150 black households from the Johannesburg/Soweto area was drawn from the telephone directory. Only one respondent per household, either the husband or wife, completed the questionnaire. Field work was carried out by an independent research house.

Using the B.M.D.P. statistical software programme (4M), factor analysis was performed on items in the psychographic inventory (Dixon, 1985). The method used for initial factor extraction was principle component analysis. Stepwise regression analysis was used to determine key predictor items for each factor in order to reduce the number of variables used in the calculation of each factor. A two-way analysis of variance (2V) was also performed on the demographic data of respondents with regard to each factor.\*

From the first run of the factor analysis programme, various items which produced low loadings (< .25) were excluded. A rerun of the programme on the remaining 52 items indicated that many items loaded on more than one factor, and in some instances loadings emerged on factors which were contradictory to the model. Based on this factor loading matrix, another factor analysis was performed on those items which showed the highest loadings for each factor respectively. The profile which emerged from this analysis not only grouped those items with the highest loadings per factor but also produced constructs for each factor.

\*Data pertaining to household size income, age, sex, education and race are included in Table 5.

**TABLE 1**  
**INTERNAL VALIDITY OF MEASUREMENT INSTRUMENT**

	Cronbach's coefficient Alpha	
	Whites	Blacks
1. Sub-scale: NEED-DRIVEN		
Sustainers	0,8124	0,7113
Survivors	0,8026	0,7297
Main Streamers	0,6598	0,5570
Total sub-scale	0,8766	0,7986
2. Sub-scale: OUTER-DIRECTED		
Strivers	0,6105	0,6757
Materialists	0,6911	0,7115
Rebels	0,4801	0,4868
Experientials	0,7926	0,7569
Total sub-scale	0,8199	0,8708
3. Sub-scale: INNER-DIRECTED		
Transformers	0,6414	0,7172
Total sub-scale	0,6414	0,7172

## RESULTS

### Factor 1: Need-driven

The life-style profile which emerges from Table 2 shows that need-driven respondents conform to many of the life-style descriptions typical of sustainers, survivors and mainstreamers in the VALS model.

Sustainers (construct 1) live within financial constraints (item 3), their lives being one of uncertainty (item 5). They feel insecure (items 14 and 16) and have an angry frame of mind (item 4). These respondents strive for social acceptability (item 20) and their values are hope and luck (items 2 and 6). Respondents relating to the values and life-style of survivors (construct 2) face physical hardships (item 8), they believe the system works against them (item 12) and feel insecure (item 13). They tend to be conservative (item 10 and 11) and value traditions of the past (items 17 and 19). Mainstreamers (construct 3) were mainly family oriented (items 15 and 18) and value conformity (item 21).

A step-wise regression analysis identified items 4, 9, 11, 12, 13 and 18 as key predictors for factor 1 ( $R^2 = 0,8671$ , inclusion criteria  $F = 4$ ). Table 2 shows regression coefficients for these selected items together with ranking in order of inclusion in the regression formula, derived by means of step-wise linear regression. The factor loadings quoted in Table 2 derive from the following factor analysis model:  $Q_i = a_{11}F_1 + a_{12}F_2 + a_{13}F_3 + a_{14}F_4$  where  $Q_i$  = question no.  $i$ ,  $F_j$  = factor no.  $j$  and  $a_{ij}$  = factor loading of questions  $i$  on factor  $j$  (Cureton & Agostino, 1983).

The Betas ( $\beta$ ) are linear regression coefficients which can be used to estimate the factor scores as follows:

$$F_j = \sum_{i=1}^m \beta_{ij} \times Q_i + \beta_{0j} \text{ where } \beta_{0j} = \text{regression constant for factor } j; \beta_{ij} = \text{regression coefficient for question } i, \text{ used in the calculation of } f_j \text{ and } m \text{ is the number of questions.}$$

A two way analysis of variance show that sex ( $F = 8,67$ ;  $df = 1$ ;  $p < 0,05$ ), age ( $F = 9,68$ ;  $df = 5$ ;  $p < 0,05$ ), education ( $F = 3,50$ ;  $df = 3$ ;  $p < 0,05$ ) and race ( $F = 15,27$ ;  $df = 1$ ;  $p < 0,05$ ) influence attitudes toward need-driven values and life-style, (factor 1). Black males with a secondary education level

in the age group 25–34 years had a positive attitude towards this life-style segment. The interpretation of these results is given in Table 5.

### Factor 2: Outer-directed

The life-style profile which emerges from Table 3 shows that outer-directed respondents conform to many of the life-style descriptions typical of strivers, materialists, rebels and experientials in the VALS model.

Strivers (construct 4) are respondents who are ambitious, competitive, hard working and demand a great deal of themselves (items 23, 24 and 25). They believe they will eventually make it in life although they have not yet cracked the code (item 27 and 31). They are also critical of their parents' values and try to break away from traditions and conventions (items 37 and 38).

Materialists (construct 5) are respondents who place high value on tangible material possessions (item 7). They are status conscious (items 22, 28 and 30) and major consumers of top-of-the-line products (item 32). They also prefer physical comfort and luxury to spiritual values (item 33) and enjoy the luxury of a roomy house (item 35). These respondents also value recognition (item 36).

Rebels (construct 6) are a group of respondents who regard themselves as individualists (item 40) searching for new values (item 41) and who are buyers of new trends (item 34). Experientials (construct 7) referred to respondents with a drive toward direct experience (item 43 and 44). These respondents are adventurous and like to do things which are different from everyday life (items, 45, 47 and 48). They seek inner-growth through direct experience (item 46).

Regression analysis selected items 23, 25, 28, 30, 32, 36, 41 and 45 as key predictors for factor 2 ( $R^2 = 0,8789$ ). Table 3 show regression coefficients on these selected items and order of importance.

A two way analysis of variance on factor 2 show that sex ( $F = 9,91$ ;  $df = 1$ ;  $p < 0,05$ ), household size ( $F = 3,88$ ;  $df = 5$ ;  $p < 0,05$ ), household income ( $F = 25,36$ ;  $df = 6$ ;  $p < 0,05$ ), age ( $F = 6,60$ ;  $df = 5$ ;  $p < 0,05$ ) and race ( $F = 22,34$ ;  $df = 1$ ;  $p < 0,05$ ) influence attitudes toward factor 2. Black female

respondents in the age group 55 to 64 years with a household size of six or more and an income ranging from zero to R499 per month were responsible for the positive attitude toward this life-style as can be seen from Table 5.

### Factor 3: Inner-directed

The life-style profile which emerge from Table 4 shows that respondents with a tendency towards inner-directed values have a social and moral conscience (items 50 and 52).

These people consider non-material aspects of life to be more important than material ones (items 51, 53 and 54). They seek inner-growth (item 56) and are deeply concerned with societal and health issues (items 55 and 49). They are a prosperous, mature group (item 29). This life-style profile corresponds with the construct "transformers" in the VALS model.

Regression analysis selected items 29, 51, 52, 53, 54, and 55 as key predictors for factor 3 ( $R^2 = 0,7687$ ). Table 4 shows regression coefficients and order of importance.

Analysis of variance show that age ( $F = 4,44$ ;  $df = 5$   $p < 0,05$ ), education ( $F = 9,53$ ;  $df = 3$ ;  $p < 0,05$ ) and race ( $F = 16,88$ ;  $df = 1$ ;  $p < 0,05$ ) influence attitudes toward factor 3. This is commented on in Table 5.

### Hypothesis testing

From the empirical data discussed above it becomes clear that the design hypotheses formulated to test the original model may be accepted in the case of hypothesis one and partially accepted in the case of hypothesis three.

**TABLE 2**  
**FACTOR/CONSTRUCT LOADINGS AND REGRESSION COEFFICIENTS**  
**FOR NEED-DRIVEN LIFE-STYLE**

Items	Factor Loadings		Regression Coefficient		Construct Loadings		
	Factor 1 (Need-driven)	$\beta$	Order		Sustainers 1	Survivors 2	Mainstreamers 3
2. I keep on hoping I will get a lucky break	0,57				0,60		
3. Grocery shopping for my family means following a strict budget	0,52				0,38		
4. People like me don't have a chance in life and it sometimes makes me quite bitter	0,70	0,1145	4		0,72		
5. When I have the money I enjoy spending it although I often don't know where the next money will come from	0,35				0,65		
6. I wish I had something special that will make somebody employ me ahead of other people	0,54				0,79		
9. I sometimes wonder why I had so little success in life compared to people who were once at my level	0,72	0,1350	1		0,74		
14. I will be happy with any job as long as it offers me security	0,62				0,48		
16. I am uncomfortable disagreeing with somebody in authority	0,51				0,46		
20. It is important to me what others say about me	0,30				0,34		
8. Older people like me are having a hard time these days to survive	0,64					0,65	
10. I know I have old fashioned taste and habits but they have always proved to be right	0,50					0,73	
11. I often remember the good old days and regret that the world around me is changing	0,63	0,1154	3			0,71	
12. There is little I can do to change my life	0,68	0,0951	6			0,52	
13. Life has become very hard and difficult and I hope I will be cared for as I get older	0,65	0,1411	2			0,41	
19. Over the years my beliefs and ideas have not changed much	0,40					0,44	
15. My main interest is my family	0,30						0,74
18. Keeping my family happy is important to me and I try to fit in with them as far as most things are concerned	0,40	0,1790	5				0,77
21. I like things to be certain and clear so that I know I can depend on it	0,32						0,43
REGRESSION CONSTANT							
		-2,3068					

**TABLE 3**  
**FACTOR/CONSTRUCT LOADINGS AND REGRESSION COEFFICIENTS**  
**FOR OUTER-DIRECTED LIFE-STYLE**

Items	Factor Loadings	Regression Coefficient	Construct Loadings			
	Factor 2 (Outer-directed)	$\beta$	Order Strivers 4	Mate- realists 5	Rebels 6	Experi- entials 7
23. If I keep on trying I will find a way to make a lot of money	0.49	0,1039	7	0.59		
24. I feel that almost nothing in life can take the place of success or is more important than great achievement.	0.47			0.61		
25. I intend to be successful even if I have to start my own business	0,51	0,1004	3	0.48		
27. My friends think I am successful, even if it is not always true	0.42			0.33		
31. Any man who works hard will definitely make enough money to be a success	0,31			0.60		
37. I cannot accept the life-style of my parents and their friends and I refuse to live my life the way they want me to	0.50			0.51		
38. I sometimes have problems with sales staff trying to sell me clothes which are too old fashioned	0.42			0.56		
7. If I receive money by will (inherit) I will buy myself a sporty car and go for the latest styles in clothes	0.44				0.33	
22. I am often slightly jealous of people who are rich and have status	0.32				0.50	
28. Driving an expensive car is a good way to show friends and other people you know, that you are making progress in life	0.49	0,0904	5		0.67	
30. I am prepared to pay more for status products	0.58	0,0832	8		0.52	
32. I like to own the most expensive things	0.68	0,1425	1		0.67	
33. I enjoy the freedom and power that money has given me	0.49				0.57	
35. The way a home is furnished with quality household goods reflects the owners status in society	0.47				0.60	
36. I want my life to be somewhat different from that of others	0.58	0,0988	6		0.42	
34. I shop for quality and style, not price	0.40					0.55
40. I cannot stand the idea of having to wear a uniform which makes everybody look the same	0.47					0.63
41. The advertisements I like most are way-out and shock ordinary people	0.60	0,1383	2		0.35	
43. I find new and unusual experiences exciting, even if there is some risk involved	0.44					0.69
44. I am the kind of person who will try anything once	0.45					0.64
45. I like to visit places that are totally different from my home	0.48	0,1275	4			0.63
46. Even if you make mistakes, direct experience is a better way than careful studying to learn more about something new	0.28					0.38
47. I like getting involved in new and unusual situations	0.56					0.71
48. I would like a job that often allows me to travel to new places	0.52					0.71
REGRESSION CONSTANT		-2,9667				

**TABLE 4**  
**FACTOR/CONSTRUCT LOADINGS AND REGRESSION COEFFICIENTS**  
**FOR INNER-DIRECTED LIFE-STYLE**

Items	Factor Loadings	Regression Coefficient		Constructs Loadings
	Factor 3 (Inner-directed)	$\beta$	Order	8 Trans-formers
29. The status I am currently enjoying is a result of my achievements in life	0.40	0.1646	3	0.40
49. I usually try to eat health foods	0.38			0.38
50. Too few people are prepared to get involved in community affairs these days	0.45			0.45
51. People should make time to develop their own interests even if it means earning less money	0.54	0.1395	4	0.54
52. I feel that the things that you believe in have a powerful effect on what you do	0.47	0.2722	5	0.47
53. If I were unhappy about my job I would find a new job even if it meant a drop in income	0.52	0.1348	6	0.52
54. I feel that our society should be more concerned with ideals and worry less about making money and having power	0.60	0.1669	1	0.60
55. I am concerned about the increase in air pollution (dirty air) in our urban areas	0.51	0.2617	2	0.51
56. It is important to choose a job that allows you to develop your own personal interest	0.46			0.46
REGRESSION CONSTANT		-2.2440		

**TABLE 5**  
**A MODIFIED MODEL OF VALS MARKET SEGMENTATION**

Consumer Type	MARKET SEGMENT		CONSUMER VALUE PERSPECTIVE
	Constructs	Demographics	General life style description
FACTOR 1 Need Driven	1. Sustainers	Race, sex, age, education influence life style. Black males in the age group 25-34 years with a secondary education.	Live within financial constraints. Feel insecure, uncertain and have an angry frame of mind. Strive for social acceptability; values are hope and luck.
	2. Survivors		Face physical hardships, believe the system (society) works against them, feel insecure about their future. They are conservative and value traditions of the past.
	3. Main-streamers		They are mainly family oriented and value conformity.
FACTOR 2 Outer-directed	4. Strivers	Household size, household income per month, age, sex and what influence life style. Black females in the age group 55-64 years with a household size of six or more and income of less than R500 per month.	Ambitious, competitive, hard working; demand a great deal of themselves. They believe they will eventually make it in life although they have not cracked the code yet. Critical of their parents' values and try to break away from traditions and conventions.
	5. Materialists		High value for tangible material possessions. They are status conscious, major consumers of top-of-the-line products. Prefer physical comfort and luxury to spiritual values. Also value recognition.
	6. Rebels		Regard themselves as individualists searching for new values. They are also buyers of new trends.
	7. Experimentals		Have a drive toward direct experience. They are adventurous, like to do things that are different from everyday life. Seek inner growth through direct experience.
FACTOR 3 Inner-directed	8. Trans-formers	Age, education and race influence life style. Older (65+ years). White respondents with a tertiary education.	Respondents have a social and moral conscious. They consider non-material aspects of life to be more important than material ones. Seek inner growth and are deeply concerned about societal and health issues. They are a prosperous mature group.

**H1** With regard to hypothesis one the factor analysis indicated that 19 (or 36,5%) of the 52 items in the psychographic inventory loaded on factor one (need-driven); 24 (or 46,2%) of the items on factor two (outer-directed) and nine (or 17,3%) of the items on factor three (inner-directed). Thirty-one percent of the variance may be explained by the three factors. The hypothesis is thus accepted.

**H2** With regard to hypothesis two the second factor analysis did produce eight constructs but the item loadings on each construct were not in the predicted sequence. Item seven, for instance, loaded on construct five (materialists) while item 29 loaded on construct eight (transformers). Furthermore, the constructs did not group themselves according to the factors in the model.

Three instead of two constructs emerged for factor one (need-driven) while only one instead of three constructs appeared for factor three (inner-directed). Judgement on this hypothesis is thus reserved.

**H3** This hypothesis is partially supported as variable items within each construct were inter correlated and subsequently regrouped, in order to obtain a richer and clearer profile of potential value and life-styles. The hypothesis may however, only be partially accepted as four of the fifty six items in the inventory (viz 1, 26, 39, 42) produced insignificant factor loadings and were thus excluded from the sorted factor loading matrix.

### CONCLUSION

The instrument developed for measuring value and life-style dimensions among white and black South African consumers showed moderate reliability (Table 1). This implies that the instrument can be used without translation into the vernacular.

The VALS model proposed by Mitchell (1983) and tested by our instrument has important implications for value and life-style segmentation in South Africa.

The fact that the largest number of items in the inventory load-

ed on factor one and two support the Research Institute for Social Change theory that many people hold need-driven and outer-directed values in an industrialising society like South Africa. To what extent the original model needs restructuring in terms of life-style dimensions and applicable constructs on each dimension, however, is a premature question at this stage.

Due to methodological deficiencies of this pilot study, i.e. incomplete cases and a relatively small black sample drawn only from one geographical region, it is suggested that a second pilot study be carried out with attention to these shortcomings.

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