# VALIDATION OF THE SUSCEP SCALE: AN INDEPENDENT SECOND LOOK

Robert A. DeMarais, University of Oklahoma
Stacia Wert, University of Oklahoma

## Abstract

The consumer susceptibility to interpersonal influence (SUSCEP) scale developed by Bearden, Netemeyer, and Teal (1989), has the potential of being a major individual difference measure in consumer behavior. However, to date, no replications of the reliability and validity studies have been accomplished. In the replication tradition, this study examines the factorial structure, reliability, and convergent/ discriminant validity of SUSCEP. With the possible exception of one test item, support was found for SUSCEP.

## Introduction

Numerous marketing researchers in the positivist/empiricist tradition (Banks 1965; Kollat, Engel, and Blackwell 1970; Robertson and Ward 1972; Heeler and Ray 1974) as well as those writing for a broader audience (Campbell and Stanley 1963; Kerlinger 1964) have long insisted that replication is required.

"In general, measures that have undergone extensive development and scrutiny are judged to be more valid than those that are proposed haphazardly" (Peter and Churchill 1986, p. 1). This statement suggests (1) a long process, (2) carefully planned studies, and (3) independent replication. The dominant measurement process paradigm (Churchill 1979) indicates numerous feedback/replication iterations may be necessary. Since construct validity varies over time and situations (Peter and Churchill 1986), the measurement validation process never ends.

In the spirit of a continual validation process, this study is designed to provide information related to the consumer susceptibility to interpersonal influence (SUSCEP) scale developed by Bearden, Netemeyer, and Teal (1989). A brief summary of their validity studies precedes the reporting of our findings.

## Review of Previous SUSCEP Measurement Studies

The SUSCEP scale includes eight items to measure the normative (conformity and enhancing one's image) dimension and four items to measure the informative (utility information) dimension. SUSCEP is a self-reported measure, scored on a seven-point scale from strongly disagree to strongly agree. Bearden, Netemeyer, and Teal (BNT) (1989) provide an intentional construct definition (Bagozzi 1980) which lists a unique set of properties for each dimension.

> The construct is defined as the need to identify with or enhance one's image in the opinion of significant others through the acquisition and use of products and brands, the willingness to conform to the expectations of others regarding purchase decisions, and/or the tendency to learn about products and services by observing others or seeking information from others. (Bearden, Netemeyer, and Teal 1989)

Deutsch and Gerard (1955) suggest that SUSCEP consists of normative and informational influences. BNT conceptually supported Park and Lessig's (1977) three factor proposition which separates the normative factor into value expressive and utilitarian components. However, BNT's results clearly support a two factor model over both the three factor and one factor models.

TABLE 1
SUSCEP SCALE ITEMS

| Item no. | Statement |
|---|---|
| | Normative Items. |
| 5 | I rarely purchase the latest fashion styles until I am sure my friends will approve of them. |
| 3 | It is important that others like the products and brands I buy. |
| 8 | When buying products, I generally purchase those brands that I think others will approve of. |
| 11 | If other people can see me using a product, I often purchase the brand they expect me to buy. |
| 9 | I like to know what brands and products make good impressions on others. |
| 12 | I achieve a sense of belonging by purchasing the same products and brands that others purchase. |
| 2 | If I want to be like someone, I often try to buy the same brands that they buy. |
| 6 | I often identify with other people by purchasing the same products and brands they purchase. |
| | Informational Items. |
| 4 | To make sure I buy the right product or brand, I often observe what others are buying and using. |
| 7 | If I have little experience with a product, I often ask my friends about the product. |
| 1 | I often consult other people to help choose the best alternative available from a product class. |
| 10 | I frequently gather information from friends or family about a product before I buy. |

BNT started with, "An original pool of 166 items generated from a review of prior literature." Rather than being a representative sample of the construct domain, sampling from prior literature may yield a sample of only parts of the domain. Psychometric scale development requires that the entire domain of the construct be sampled

(Nunnally 1978). Inadequate domain sampling is a primary source of measurement error (Churchill 1979). While random sampling of a construct domain is unrealistic, Angleitner and Lohr (1986) recommend structured sampling as an alternative.

Two judge panels pruned the original items to 62 by eliminating ambiguous items, duplicates, and unrepresentative items. An analysis of a sample of 220 adult consumers resulted in removing 47 additional items. The analysis of a second sample, consisting of undergraduate students, reduced the remaining 15 items to 12. The final two-dimensional scale is shown above in Table 1.

A series of validity tests were then conducted including comparison to three other scales--Eagly's (1967) self-esteem, Ajzen and Fishbein's (1980) motivation to comply, and Lennox and Wolfe's (1984) ATSCI--and an examination of correlations with behavioral indices and external judge ratings. Results of these studies supported SUSCEP's construct validity. However, more support was found for the normative dimension than for the informational dimension.

BNT did not analyze their results for differences of gender. Gender differences represent a major problem in developing individual difference scales. Kassarjian (1971) suggests that all consumer personality measure development must control for gender. More specifically, an extensive literature search, by Zikmund et. al. (1984), showed that most conformity studies found females to be more yielding. Zikmund's own study found that females would conform more than males across broad product categories. Because SUSCEP is related to conformity, gender is an issue that must at some point be addressed.

In summary, Bearden, Netemeyer, and Teal (1989) have demonstrated considerable construct validity for the SUSCEP scale. However as mentioned previously, measurement validation is a long process. The scales must still be confirmed and additional construct validity studies are required to help identify what SUSCEP measures and what it does not. The next section is an account of our independent study intended to advance SUSCEP's validation process.

## Replication Results

A convenience sample of 137 undergraduate marketing students was drawn from a large southwestern university. The research instrument consisted of a series of items all measured on seven-point scales and included the 12 SUSCEP items, 35 CAD items (Cohen 1967), and 18 revised self-monitoring items (Snyder and Gangestad 1986).

### SUSCEP's Factorial Structure

Nested LISREL models were constructed to examine the internal structure of the SUSCEP. Table 2 lists the results of the hypothesized two factor model. The correlation between the two factors (r = 0.44) is identical to BNT's results.

TABLE 2
INDIVIDUAL ITEMS RESULTS FOR HYPOTHESIZED MODEL

| Item Number /Scale | Lambda Correlations Norm | Lambda Correlations Inform | Modification** Indexes Norm | Modification** Indexes Inform |
|---|---|---|---|---|
| 5 N | .677 | - | | .1 |
| 3 N | .656 | - | | 9.6 |
| 8 N | .906 | - | | .6 |
| 11 N | .822 | - | | 1.7 |
| 9 N | .723 | - | | .2 |
| 12 N | .763 | - | | 1.0 |
| 2 N | .564 | - | | .9 |
| 6 N | .654 | - | | 5.3 |
| 4 I | - | .428 | 51.2 | |
| 7 I | - | .741 | 3.1 | |
| 1 I | - | .655 | .1 | |
| 10 I | - | .813 | 2.7 | |

| Item Number /Scale | LISREL T-values* Norm | LISREL T-values* Inform | Squared Multiple Correlations (Reliabilities) |
|---|---|---|---|
| 5 N | 8.7 | | .458 |
| 3 N | 8.3 | | .430 |
| 8 N | 13.4 | | .820 |
| 11 N | 11.5 | | .676 |
| 9 N | 9.5 | | .523 |
| 12 N | 10.3 | | .583 |
| 2 N | 6.9 | | .318 |
| 6 N | 8.3 | | .428 |
| 4 I | | 4.7 | .183 |
| 7 I | | 8.9 | .549 |
| 1 I | | 7.7 | .429 |
| 10 I | | 10.0 | .661 |

* A LISREL T-value greater than 2 is considered to be significant at the 0.05 level.
** If the largest modification index is greater than 5, then, had that element been included in the model, it would have had been significantly correlated.

To test the hypothesized two factor model versus a one factor model, a difference in chi-square test was performed with the restricted model ($\phi_{12}$=1.00) (chi-square = 224, 54 df) against the unrestricted model ($\phi_{12}$ free) (chi-square = 180, 53 df). The difference in model chi-squares of 44 with 1 df is significant at .001, thus supporting the two factor model. The question of whether the correlation is significant was resolved with a similar test. Here the restriction of $\phi_{12}$ = 0.0 yields a chi-square of 200 with 54 df. Against the unrestricted model ($\phi_{12}$ free), the difference in chi-squares of 20 with 1 df, is significant at the .001 level. Thus the two factors are significantly correlated.

The LISREL modification index for the correlation between item four and the normative factor was 51.3. This indicates that the goodness of fit could be substantially improved by allowing the item to correlate with both dimensions. In exploring item four's factorial allegiance, additional models were developed. When item four is allowed to correlate with the normative dimension but not with the informational dimension ($\phi_{12}$ = 0.38, chi-square

= 123, 53 df), the result is a better fit for the data than the hypothesized model ($\phi_{12}$ = .44, chi-square = 180, 53 df).

A model where item four is correlated with both factors is also superior to the hypothesized model ($\phi_{12}$ = 0.376, chi-square = 121, 52 df). However, in this model, item four's correlation with the normative dimension is .64, while its correlation with its hypothesized dimension is 0.12. If this sample is representative of the population of interest, then item four is a measure of the normative dimension, not the informational dimension.

Reliability

SUSCEP's internal reliability was generally confirmed. Cronbach's coefficient alpha is 0.90 for the normative scale and 0.72 for the informational scale. One of the four informational items (item 4) had a pronounced negative effect on alpha. Removing the item increases the informational dimension's reliability to 0.78. Examination of the reliabilities of individual items can be made by examining the squared multiple correlations for items (see Table 2). The 0.183 reliability for item number four indicates item number four is unreliable.

Gender Results

Analysis of the data indicate females score lower (less conformist) than males on SUSCEP (See Table 3). For the normative scale, females scored 21.95 and males scored 26.82 indicating that females were less conforming to normative information than males (t=3.09, p=.0025). For the informational scale, the females (14.12) were also less susceptible to informational influence (t=1.87, p=.0632) than males (15.56). This finding is in contrast to that reported by Zikmund et. al. (1984).

TABLE 3
RANGE, MEANS, AND STANDARD DEVIATIONS

| | N | Range | Mean | SD |
|---|---|---|---|---|
| **Informational** | | | | |
| BNT First Sample | 220 | 4-28 | 16.70 | 5.59 |
| BNT Second Sample | 141 | 4-28 | 19.02 | 4.45 |
| This Study Total | 137 | 6-28 | 18.77 | 4.49 |
| Females Only | 75 | 8-26 | 18.12 | 4.26 |
| Males Only | 62 | 6-28 | 19.56 | 4.68 |
| **Normative** | | | | |
| BNT First Sample | 220 | 8-56 | 22.04 | 9.79 |
| BNT Second Sample | 141 | 8-56 | 27.18 | 9.15 |
| This Study Total | 137 | 8-46 | 24.15 | 9.33 |
| Females Only | 75 | 8-45 | 21.95 | 8.27 |
| Males Only | 62 | 8-46 | 26.82 | 9.89 |

In summary, item four demonstrates low reliability as a measure of the informational dimension, and it loads substantively and statistically significantly on the normative dimension, with that exception, the model is a good fit for our data sample.

Convergent/Divergent Validity

To establish construct validity, the instrument must measure what it is intended to measure, and not measure unrelated constructs. In other words, it should correlate with measures of similar constructs reflecting convergent validity and not correlate too highly with measures of unrelated constructs reflecting discriminant validity (Churchill 1979). Two analyses of SUSCEP's construct validity are reported below.

SUSCEP and CAD

The CAD scale, developed by Cohen (1966, 1967), is a measure of consumer "susceptibility to interpersonal influences" (Cohen 1967 p. 273). CAD is based on the belief that individuals are members of one of three groups, each of which has a "predominant mode of response to others" (Cohen 1967, p. 270). Compliant people tend to move toward others; aggressive people move against others; and detached people move away from each other.

One difference between CAD and SUSCEP is that CAD is more global and refers to an individual's response to others while SUSCEP refers to responses to significant others. In referring to others, CAD items tend to use more general terms (e.g. people, or everybody), while SUSCEP generally uses more personal terms (e.g. friends, or friends and family).

Compliant and aggressive individuals make extensive use of both normative and informational perceptions about others but differ in their relational tendencies with others. Compliants use perceptions from others because they are more empathetic, need others, are apologetic, and want to be loved. Aggressives seek and use the same perceptions but they conform for more Machiavellian reasons such as gaining power, prestige, and admiration (Cohen 1967). Thus any results found for aggressive should be similar to those found for complaint. In summary, compliants and aggressives both use normative and informational cues but differ in their emotional motives. Compliants want to be liked in a submissive manner and aggressives want to be liked in a admiring manner.

SUSCEP normative and CAD compliance were intended to measure, at least in part, conformity (Cohen and Golden 1972, BNT 1989). The link between SUSCEP informational and the CAD constructs is also hypothesized to be positive. One who is susceptible to consumer interpersonal information learns by observing others and seeks information from others (BNT 1989). Similarly, Cohen's compliant person accepts that others are a solution to problems and the compliant person wants to be helped and guided (Cohen 1967). Both SUSCEP normative and informational are expected to be positively correlated to both CAD compliant and aggressive.

In contrast to the above posited positive correlations, CAD detached should be negatively correlated with the two SUSCEP dimensions.

Individuals scoring high in either of the SUSCEP dimensions pay attention to others to enhance their image, conform, and gather information (BNT 1989). In contrast, the CAD detached person seeks independence, emotional distance, and is repelled by conformity (Cohen 1967).

One disadvantage of using CAD is that its own validity remains controversial. Some researchers (e.g. Noerager 1979) found little support for CAD's factor structure while others (e.g. Williams, Parent, and Mager 1986) disagree. However, the CAD scale was specifically developed for use in consumer behavior and is well known and currently used by marketers (e.g. Slama, Williams, and Tashchian 1987, Poctzner and Pandit 1987). Thus it is informative to compare SUSCEP with CAD, not only to investigate SUSCEP's construct validity, but also to see if SUSCEP is an acceptable substitute for the still troubled CAD scale.

SUSCEP and Self-Monitoring

The self-monitoring scale is posited to correlate positively with both SUSCEP dimensions. SUSCEP is concerned with identifying or enhancing one's image or self-concept by using information from or conforming to observations of others. SM is "self-observation and self-control guided by situational cues to social appropriateness," (Snyder 1974, p. 526). Thus it seems likely that those scoring high in self-monitoring will also score high in both the informational and normative dimensions of SUSCEP.

For purposes of construct validity, self-monitoring (SM) (Snyder and Gangestad 1986) offers disadvantages and advantages similar to CAD. Like CAD, SM's factor structure remains controversial (e.g. Briggs and Cheek 1988) but it is still of active interest to marketers (e.g. Bearden, Shuptrine, Teel (1989).

Results

Results of the analyses of LISREL models comparing SUSCEP to SM and CAD is shown in Table 4. All the correlational tests are a comparison of a two factor correlated model ($\phi_{12}$ free) versus a one factor, restricted model ($\phi_{12}$=0.0).

TABLE 4
CORRELATIONS BETWEEN SUSCEP,
CAD & SELF-MONITORING

| | SUSCEP Normative ($\alpha$=.90) | SUSCEP Informational ($\alpha$=.72) |
|---|---|---|
| CAD Compliant ($\alpha$=.60) | .29 (p=.009) | .33 (p=.003) |
| CAD Aggressive ($\alpha$=.75) | .37 (p<.001) | .19 (p=.092) |
| CAD Detached ($\alpha$=.66) | -.05 (p=.671) | -.22 (p=.064) |
| Self-Monitoring ($\alpha$=.80) | .13 (p=.167) | .02 (p=.841) |

All eight of the correlations between factors are in the posited direction, however only three are significant at a 0.05 alpha level and an additional two at a 0.10 alpha level. Peter and Churchill (1986, p. 3) suggest that the size of the correlation isn't critical and that a correlation of 0.20 "should not be viewed as inadequate solely because it is not large." It is possible that part of the reason for the weaker than expected correlations with the three CAD orientations is CAD's low alpha reliabilities (See Table 4).

The low correlation of CAD Detached to SUSCEP Normative is quite surprising. While it is possible that this finding is due to Type II error, detached individuals may find it easier to move away from informational cues than from normative cues.

After taking into consideration that the two comparative scales have questionable internal structure, we find support for SUSCEP's construct validity. However, results are not strong enough to suggest that SUSCEP can be used as a surrogate for any of the comparison measures.

## Conclusions

This study found strong support for the SUSCEP's validity. Internal reliability and factor structure were satisfactory except for item number four. All the construct validity correlations were in the posited direction and many were significant.

More research is needed to continue the validation process. In addition to the required replications to generalize across samples, several specific steps should be undertaken. First, as previously suggested, if item four must be removed from the informational scale, that scale will be reduced to three items. A new sample of informational items may have to be developed and processed. Second, the gender issue must be addressed with replication (possibly using BNT's original data). Third, the potential confound of social desirability should be investigated (Kerlinger 1986) by including a measure of social desirability in the next test administration. The potential of SUSCEP can only be realized if the validation process is continued aggressively.

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