<u>Comparing Projective With Self-Rating Measurement Scales: An Application to Customer-Orientation Measures</u>

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Abstract:

Within a sales context, measurement scales are often used to support both academic research and managerial decision making. Improvement in measurement scales should lead to the development of better theories as well as more effective managerial decisions. This paper examined a projective measurement technique as an alternative to traditional self-report measures. Data were collected on customers' orientation from three perspectives, a direct self-report by salespeople, a projective technique by salespeople, and a customer-orientation measure completed by retail buyers. A total of 484 salespeople and 484 retail buyers participated in the study, responding to an adaptation of the Selling Orientation Customer Orientation scale. Comparisons of the scores among the three groups were made. The mean from the projective scale was between the mean for the direct scale and the mean for the buyer scale. Also, the self-report measure produced the smallest variance while the projective scale produced the largest variance. These results indicated support for the projective technique in reducing self-report bias.

Keywords: selling orientation | customer orientation | measurement scales

Article:

Within a sales context, measurement scales are often used to support both academic research and managerial decision making. An improved understanding of sales-related phenomena is dependent on improved measures. In applied settings, the results of aptitude, personality, or behavior-based measures may affect hiring decisions (Hunter & Hunter, 1984), influence both the design and effects of training programs, and contribute to the evaluation of salespersons' performance (Jackson, Keith, & Schlacter, 1983). Improved measurement also will provide greater understanding of other important phenomena surrounding sales issues such as turnover, organizational commitment, and role perceptions as well as development of better theories in the literature.

This study examined the measurement of sales behaviors and aptitudes using a projective technique as an alternative approach to traditional self-report measures. Results obtained with the projective approach were compared with self-report scores. The benefits of the projective

technique, including potential reduction of bias inherent in self-report measures, are discussed. This technique may also represent a form of quasitriangulation since it provides an additional method for measuring constructs. Prior research on customer orientation provided the context for this assessment. A brief review of this research is provided as background.

Customer Orientation

Customer orientation is considered a critical component in establishing beneficial, long-term relationships between buyers and salespeople (e.g., Dunlap, Dotson, & Chambers, 1988). The introduction of the Selling Orientation Customer Orientation scale (Saxe & Weitz, 1982) has enhanced the ability of researchers both to assess the extent to which a salesperson follows a customer-oriented sales approach and to conduct theoretical research on relationships between customer orientation and outcomes such as performance. While the reliability and validity of the Selling Orientation Customer Orientation scale have been established in earlier studies (Saxe & Weitz, 1982; Michaels & Day, 1985), one shortcoming has been its inherent upward bias. When salespeople are asked to rate their own customer orientations, the responses cluster heavily at the high end of the scale.

Such biases are common in similar self-rating contexts (e.g., Silk & Kalwani, 1982) and represent a form of response bias: ". . . [response bias] concerns the effects of measurement artifacts on the *average responses* of a group of people . . ." (Nunnally, 1778, p. 655, emphasis in original). In psychological research it has long been observed that individuals tend to answer self-rating questions in a way to indicate how well they fit culturally prescribed norms (Frank, 1765). If the immediate environment of the salesperson, i.e., the company culture or policy, or professional orientation such as trade idiosyncracies, imposes such norms, it would be reasonable to expect that these norms operate to *bias* the respondents' ratings.

Michaels and Day (1985) offered a solution to such a bias for the Selling Orientation Customer Orientation scale by successfully adapting the scale for use with buyers. They contended that buyers would provide a "more objective" assessment of customer orientation. Their results "compare favorably" with the Saxe and Weitz (1982) findings. As expected, the major discrepancy between the studies is the difference between the means (7.6 versus 5.7 on a 9-point scale). Michaels and Day explained most of the difference in terms of a correction of the bias; however, they also accepted the possibility of a downward bias (in the opposite direction from the salespersons' bias) in the buyers' ratings.

One approach to reducing potential bias in the Selling Orientation Customer Orientation scale and to getting a better estimate of the "true customer-orientation score" is to use a projective technique. In psychology, projective techniques have been used to remedy biases resulting from the raters' propensity to provide responses indicating conformity to norms. The technique also has been successfully implemented in marketing studies (e.g., Haire, 1750; Cox, Cox, & Moschis, 1970; Robertson & Anderson, 1993).

The present study compared the proposed projective inventory (salesperson's ratings of the "typical" salesperson in his company) to the traditional salesperson's self-reported and buyer-reported approaches to measuring customer orientation. The study provided, therefore, a within-

study comparison across the three methods. This is important because previous comparisons of Selling Orientation Customer Orientation scores (Michaels & Day, 1985) were based on findings from two independent studies. In the current study differences between the measurement methods were observed without the potential confounding effects of methodological variations across studies.

Projective Techniques

Projective techniques are mainly used to obtain information which the subjects cannot or will not impart. The underlying premise of the method is that the subject, without being aware, provides information about himself through his projections. In essence, "... when a subject gets absorbed in explaining what seems to be an *objective* bit of material, he loses sight of the fact that in his interpretations he discloses his preoccupations, his wishes, his fears, and his aspirations" (Korner, 1765, p. 25; emphasis added). The typical process involves asking the participant to respond to a relatively unstructured stimulus. The responses are then interpreted and conclusions are reached by the observer. Despite the widespread use and power of projective techniques in psychology, marketing researchers have displayed serious concerns about the nonobjective (possibility of interpretations changing across different observers) nature of the technique. Objective, within this context, refers to issues of validity, reliability, and the extensive inferential demand made on the researcher.

To remedy this problem in traditional projective methods, this study employed a "choice" or "ordering" technique (Kerlinger, 1986). This technique is the application of the common structured-response formats, e.g., multiple-choice, rating, ranking, within a projective frame and has been seen as a means of "objectifying projective devices" (Lindsay, 1959). Projective techniques have been used with some degree of success in the marketing literature to uncover and understand some otherwise concealed information (cf. Haire, 1950; Cox, *et al.*, 1990; Robertson & Anderson, 1993).

METHOD

Research Design and Sample

To examine scores from the salespersons' and buyers' perspective as well as from the projective technique, questionnaires were sent to both salespeople and retail buyers. The first wave of questionnaires was sent to a list of 5,000 wholesale apparel-sales representatives obtained from an apparel-sales representatives' organization. One-half of these questionnaires contained the self-rating inventory for the measurement of selling orientation toward the customer, while the other half followed the projective technique. A total of 734 usable surveys was received for an over-all response rate of 14.7%. While quite low, this response rate generated an adequate sample size. Also, the 734 respondents, when compared with demographic characteristics of the membership, exhibited no meaningful differences from the membership of the apparel-sales representatives' organization. The sales representatives were asked to provide the names and addresses of three of their customers who could participate in the second phase of the study. To provide a representative sample of their customers, the instructions asked the salespeople to identify a "more important," an "average," and a "less important" customer. This produced a

sampling frame of 1253 retail buyers who each received a questionnaire. A total of 484 usable questionnaires was received for a response rate of 38.6%. At this point, salespeople for whom no retail buyer participated were eliminated from the sample. This over-all procedure resulted in a final sample of 484 salespeople and the matching 484 retail buyers. A total of 263 salespeople responded to the projective questionnaire and 221 to the direct questionnaire. The data represent a surrogate for dyadic data, based on the procedure which was followed. Each set of salespeople (projective and self-rating) had customers in the retail buyers' set who provided ratings of the "typical" apparel salesperson who called on them. This approach ensured that each salesperson was in the set of salespeople rated by each buyer.

Selling Orientation Customer Orientation Measure

The Selling Orientation Customer Orientation measure used for salespeople in this study was adapted from the original measure (Saxe & Weitz, 1982). Following Michaels and Day (1985), the Selling Orientation Customer Orientation scale for the retail buyers mirrored the salespersons' survey (except for slightly altered wording to position the items correctly for the retail buyers). The original Selling Orientation Customer Orientation measure presented some operational problems due to its length. This type of constraint has been discussed by Lagace, Goolsby, and Gassenheimer (1993) who evaluated a shortened version of INDSALES. To decrease subjects' fatigue and to increase the response rate, the original Sehng Orientation Customer Orientation scale was reduced to 12 items. The number of points on the scale was also reduced (from 9 to 6). The final scale contained equal numbers of both positively stated and negatively stated items believed to capture the essence of customer orientation. A reduced version of the Selling Orientation Customer Orientation scale has been previously used in research on sales force (O'Hara, Boles, & Johnston, 1991). Information on the scale is presented in the Appendix (p. 434). The reliability coefficients were .88, .69, and .83, respectively, for the salespersons' projective test, salespersons' self-report, and customers' reports on Selling Orientation Customer Orientation. For the purposes of this study, the critical element is that each group responded to the same scale.

RESULTS

The objective was to examine the projective technique as an alternative to traditional self-report measures. In comparing the scores from the different methods, potential biases were also examined. It is noted that biases are not inherent in or specific to the Selling Orientation Customer Orientation scale. First, biases are products of those who respond to the questions. Second, similar self-rating measures are likely to induce comparable biases. Selling Orientation Customer Orientation was chosen because it is a widely accepted measure of customer orientation and its biases have been demonstrated (Michaels & Day, 1985; Dunlap, et al., 1988).

First, it was expected that the salespeople's ratings would be biased "upward" and that the buyers' ratings would be biased "downward," with the projective score falling between the two. Further, the Saxe and Weitz (1982) and Michaels and Day (1985) studies imply that the upward bias resulting from the salespersons' ratings would be larger in magnitude than the potential downward bias of buyers' ratings.

Table 1 presents the means, variances, and reliabilities from the three groups. As expected, the mean from the projective scale (4.2) is between the mean for the direct scale (5.1) and the mean for the buyers' scale (4.1) and is much closer to the buyers' scale. The difference between each set of means is significant (α of .05), based on analysis of variance followed by multiple comparisons between each set of means. The fact that the variance of the self-report group (2) is smaller than those of the other two groups can be interpreted in two ways. First, it may indicate there is an inclination to inflate self-ratings by most (if not all) of the salespeople. One also could argue that it is possible to encounter a sales force with truly high and uniform customerorientation scores if a company emphasizes the concept and conducts effective training. However, the current data cannot be interpreted this way given the diversity of the respondents from varied affiliations of different sizes and industries. Therefore, the low variance is most likely interpreted as due to self-rating bias.

Method	М	σ	σ²	Reliability, a
Direct Salesperson	5.1	.45	.20	.69
Projective Salesperson	4.2	.74	.55	.83
Retail Buyer	4.1	.58	.34	.88

Table 1. Descriptive Statistics

The low variance, even if the scores are "true," also introduces important limitations because it shows that the scale is not sensitive to finer differences between the units of analysis. Therefore, a scale with larger variance provides more "information" than a scale with lower variance, provided they have equivalent validities and reliabilities. From a research perspective, it becomes difficult to establish relationships between two variables if one of the variables does not exhibit sufficient variance. Managerially the problem might be manifest as an inability to separate salespeople who definitely need customer-service training from those who need little help. The projective scale produced a considerably larger variance (.6) and so seems a better alternative.

Discussion and Implications

It is possible to argue that the projective scale scores are only slightly better than the buyers' scores and so provide inadequate justification for recommending the projective technique. For several important practical reasons the authors prefer salespersons' projective ratings over buyers' ratings. These reasons include the ease of data collection from company employees rather than from current or potential customers. Also, scores from buyers are likely to be influenced by the customer orientation of all salespeople they encounter and, therefore, may not be as accurate as scores for a specific company. Last, it could be difficult to trace buyers' responses to specific salespeople, so detecting each employee's actual behavior would be a problem.

At the same time, however, the utility of periodically gathering ratings of customer orientation from each salesperson's buyers is acknowledged. If customer orientation is to influence performance, one would expect this influence to occur at levels perceived and valued by the potential buyer. Further, the bias would be smaller since the "pressure for conformity to norms" does not operate with buyers as it does with the salespeople. Retail buyers' responses could be used to estimate the gap between the perceptions of the salespeople and those of their customers. If the customers' expectations are not being met based on the gap, it would be feasible to provide training to improve the situation. The basic premise of the suggestions in this study focused on the biases inherent in self-rating measures and whether use of projective techniques would reduce these biases. Our results suggest, therefore, that the projective technique represents an additional measurement method which, used in combination with self-report measures, may help the researcher triangulate on the "correct" score. Consequently, it would also be useful to extend this research to other self-rating scales, such as adaptive selling (Spiro & Weitz, 1990) or self-monitoring (Lennox & Wolfe, 1984) to enhance those performances.

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APPENDIX. ADAPTED SELLING ORIENTATION CUSTOMER ORIENTATION MEASURE*

Instructions for Salespeople-Self-report

The following statements describe ways a salesperson might act with a customer. In your opinion, how accurately does each of these statements describe your orientation toward your customers?

Instructions for Salespeople-Projective

The following statements describe ways a salesperson might act with a customer. In your opinion, how accurately does each of these statements describe the orientation of a typical wholesale apparel-sales representative toward their customers?

Instructions for Retail Buyers

The following statements describe ways a sales representative might act with a buyer. In your opinion, how accurately does each of these statements describe the orientation of a typical apparel-sales representative who calls on you?

Sample Items—Salesperson Inventory

I try to help customers achieve their goals.

I try to sell a customer all I can convince him to buy, even if I think it's more than a wise customer would buy.

I try to achieve my goals by satisfying customers.

I keep alert for weaknesses in a customer's personality so I can use them to put pressure on him to buy.

Sample Items—Retail Buyer Inventory

In dealing with me, the typical apparel-sales representative:

Tries to help me achieve my goals.

Tries to sell me all they can convince me to buy, even if they think it's more than a wise customer would buy.

Tries to achieve their goals by satisfying me.

Keeps alert for weaknesses in my personality so they can use them to put pressure on me to buy.

^{*} Based on Saxe and Weitz (1982). Adapted and reproduced with permission of authors and the American Marketing Association.