

APPLICATION OF THE SHORTENED VERSION OF THE SOCO SCALE IN A PERSONAL SELLING CLASS

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ABSTRACT

The original SOCO Scale was reduced to 10 items by Thomas, Soutar, and Ryan (2001). The author conducted a pretest and a posttest in his Personal Selling class during the Fall 2009 semester. Significant differences by gender, student sales experience and family member in the sales field were identified. The author once again pretested the shortened scale in his Spring 2010 Personal Selling class; however, spousal health problems derailed the planned posttest. Significant differences by gender and student sales experience were found. Paired t-test findings and comparison of the two data sets data are also addressed in this paper.

INTRODUCTION

The Sales Orientation/Customer Orientation (SOCO) Scale was developed by Saxe and Weitz (1982) as a tool to measure the degree of sales versus customer orientation in salespeople. The scale has been tested and applied, in part or in whole, in many studies over the years (e.g., Boles et al. 2001; Brown, Widing and Coulter 1991; Cross et al. 2007; Dunlap, Dotson and Chambers 1988; Jaramillo et al. 2007; Keillor, Pettijohn and d'Amico 2011; Kelley and Hoffman 1997; Pettijohn, Pettijohn and Parker 1997; Rozell, Pettijohn and Parker 2004; Tadepalli 1995; Williams 1998).

Concern has been expressed about possible respondent fatigue and acquiescence bias with the use of the 24-item SOCO Scale. This led Thomas, Soutar and Ryan (2001) to develop a 10-item shortened version of SOCO. They concluded that "using the reduced ten-item set would lose little information" (p. 67). Perriatt, LeMay and Chakrabarty (2004) tested the shortened version and found support for its use, noting "it is both parsimonious and effective" (p. 49). However, some researchers have urged caution in the reduction-in-items process (see Panagopoulos and Avlonitis 2008, p. 376; Franke, Rapp and Andzulis 2013).

The purpose of this research was to test the applicability of the shortened version of the SOCO Scale in an academic setting. One marketing professor tested the full version of SOCO in a series of studies in his small personal selling classes over ten years ago, producing some interesting findings (see Totten 2001, 2002a, 2002b, and Totten et al. 2003). Using that professor's methodology, this author tested the shortened version in his Fall 2009 personal selling class and got the pretest done in his Spring 2010 class before family health problems prevented the posttest from being completed. The null hypothesis was: No increase in customer orientation of the students over the course of the

semester (pretest scores = posttest scores). The results of these studies are reported in this paper.

LITERATURE REVIEW

The SOCO Scale as developed by Saxe and Weitz (1982) has come under some criticism over the years. One issue is that researchers have usually assessed customer/sales orientation "from the perspective of the firm in contrast to individual performance" (Wachner, Plouffe and Grégoire 2009, p. 34). Franke and Park (2006) conducted a meta-analysis and concluded that "customer-oriented selling does not consistently lead to sales or other results that managers value, because its effects on manager-rated and objective performance are nonsignificant" (p. 700). Schwepker (2003) also criticized the scale, noting that a sales orientation will help salespeople meet outcome-based performance measurements, at least in the short term. Using the shortened version of SOCO along with performance and selling skills scales, Wachner, Plouffe and Grégoire (2009, p. 40) found that, to achieve performance goals, "the salesperson must have both a customer orientation and the requisite selling skills." "If a salesperson has low selling skills (. . .), they perform better by applying a pure sales orientation" (p. 40). Though they used the shortened version, they did not focus on how well it worked as a scale. Bagozzi, et al. (2012) also tested the scale and substituted three scale items that they said worked better (p. 642). A review of the literature did not find any research study that applied the shortened version in the academic setting, like Totten (2001, 2002a, 2002b; Totten, et al. 2003) had with the traditional SOCO Scale.

FALL 2009 METHODOLOGY

Following the lead of Totten (2001), the author developed a one-page questionnaire around the 10-item shortened scale version, plus three demographic questions (gender, student's sales experience, and family members' sales experience). The questionnaire began with an introductory paragraph of instruction that was originally used by Saxe and Weitz (1982) and modified by Martin, Kimball and Bush (1998). The latter added the phrase, "or, if you have no sales experience, the proportion of customers with whom you believe it would be appropriate to act" for their use of the scale in an academic setting (Martin, Kimball and Bush 1998, p. 11). Five of the 10 items were reversed-scored so that a score of 9 would consistently mean the item is "True for ALL of your customers—ALWAYS."

The students enrolled in the Personal Selling class at a southern regional state university were asked to complete the survey on the first day of class, following the procedure used by Totten (2001). A sheet of paper with numbers from 1 to 26 was given to one student along with an envelope. The author left the room after asking the student to have the students self-assign themselves to the numbers on the sheet of paper. Once all the students had written down their names, the student in charge folded the sheet of paper and sealed it in the envelope. Twenty-five students turned in surveys that day. At the end of the semester (early December), the students once again were given the questionnaire to take (the posttest). The author left the room after instructing a student to open the envelope and remind the classmates about what number each of them had. Both times the students wrote the numbers on the questionnaires. This would allow pairing of pre and post questionnaires while maintaining anonymity. For coding purposes only, the author used the list of names to mark a fourth demographic code on the forms – student major. The list was then destroyed. Twenty-three students took the posttest.

FALL 2009 RESULTS

Fourteen women and eleven men students participated in the pretest. Two students didn't take the posttest in December. Sixteen (64%) reported having some degree of sales experience. Thirteen (52%) indicated that family members had some sales experience. Eleven students (47.8%) were marketing majors and another seven (30.4%) were management majors. The Personal Selling class is an upper level marketing elective. Major was subsequently re-coded into marketing and all other business majors. No significant differences were found among the demographics at $\alpha = .05$ level.

As researchers had done before, the reliability of the shortened-version of the SOCO questionnaire was assessed for both measurements using Cronbach's Alpha. The pretest instrument had a coefficient alpha of .746 (n=25) and the posttest instrument had a coefficient alpha of .760 (n=22; one student didn't mark a response for item eight). Both reliability measures indicated an acceptable degree of internal consistency according to Nunnally (1978).

Total scores for the 10 items on the pretest instrument ranged from 48 to 88 (out of the high score of 90), while total scores for the posttest ranged from 58 to 90. The mean pretest total score (n=25) equaled 70.56 with a standard deviation of 9.12, while the mean posttest score (n=22) equaled 75.39 with a standard deviation of 8.813. The apparent improvement in scores from pretest to posttest was significantly different based on a paired t-test of the means ($t = -2.695, p = .014$).

Means were calculated for the pretest and posttest scale items and are shown in Table 1. All mean scores improved from the pretest to the posttest, with four items having the largest improvement. Independent t tests were conducted on both sets of means for gender, sales experience, family member in sales, and major, using $\alpha = .05$ level.

Female students had higher posttest mean scores than their male counterparts for "It is necessary to stretch the truth in describing a product/service to a customer" (7.64 vs. 5.89, $t = 2.185, p = .04$) and "I try to sell as much as I can to convince the customer to buy, even if it is more than wise customers would buy" (7.36 vs. 5.00, $t = 2.647, p = .015$). Several posttest scale items were statistically significant by whether the student had any sales experience or not, with students having experience recording higher scores for: "It is necessary to stretch the truth in describing a product/service to a customer" (7.87 vs. 5.25, $t = 2.868, p = .021$, equal variances not assumed), "I offer the product/service of mine that is best suited to the customer's problem" (8.4 vs. 7.5, $t = 2.385, p = .027$), and "I try to find out which kinds of products or services would be most helpful to customers" (8.60 vs. 7.62, $t = 2.594, p = .017$).

Turning to those with or without family members in sales, one pretest and one posttest scale items were significantly different. Those with family members in sales rated "I try to find out which kinds of products or services would be most helpful to customers" higher (pretest, 8.69 vs. 7.75, $t = 2.589, p = .016$) while rating "I paint too rosy of my products/services, to make them sound as good as possible" lower (posttest, 5.62 vs. 7.30, $t = -2.146, p = .044$) than their classmates who did not have family members employed in the sales field. Finally, only one pretest scale item was significantly different by major: "I try to figure out what a customer's needs are." Marketing majors rated

**TABLE 1
PRE AND POST MEAN SCORES FOR THE
SHORTENED-VERSION SOCO SCALE ITEMS**

Scale Item	Pre	Post
I paint too rosy of my products/services, to make them sound as good as possible.*	5.12	6.35
I try to figure out what a customer's needs are.	8.28	8.48
It is necessary to stretch the truth in describing a product/service to a customer.*	6.72	6.96
A good salesperson has to have the customer's best interest in mind.	7.56	8.15
I try to sell as much as I can, rather than satisfying customers.*	7.08	7.35
I offer the product/service of mine that is best suited to the customer's problem.	7.88	8.09
I make recommendations based on what I think I can sell and not on the basis of customers' long-term satisfaction.*	6.52	6.57
I take a problem-solving approach in selling products or services to customers.	6.96	7.73#
I try to sell as much as I can to convince the customer to buy, even if it is more than wise customers would buy.*	6.20	6.43
I try to find out which kinds of products or services would be most helpful to customers.	8.24	8.26

*Reverse scored. A score of 9 = True, always. #n=22, all other post n=23, pre n=25.

this item higher than did all other business majors combined (8.73 vs. 8.00, $t = 2.185, p = .045$, equal variances not assumed).

Paired t-tests were conducted on the scale items, matching each student's pretest responses with his/her posttest responses. While two marginally significant differences were observed, only one pretest-posttest difference was statistically significant at $\alpha \leq .05$. Students' mean score improved over the semester for the reverse-coded item, "I paint too rosy of my products/services, to make them sound as good as possible" lower (5.22 vs. 6.35, $t = -2.375,$

$p = .027, n=23$). Given the small sample size, the Wilcoxon Signed Ranks Test, the nonparametric equivalent of the paired t-test, was also used. It confirmed the significant finding for the first scale item. The sum of ranks were 56.50 (four negatives) and 174.50 (17 positives, two ties), and $Z = -2.082 (p = .037)$.

SPRING 2010 METHODOLOGY

The same questionnaire was used in the author's Spring 2010 Personal Selling class. The students were asked to complete the survey on the first day of class (pretest), following the same procedure used the previous fall semester. A sheet of paper with numbers from 1 to 39 was given to one student along with an envelope. The author left the room after asking the student to have the students self-assign themselves to the numbers on the sheet of paper. Once all the students had written down their names, the student in charge folded the sheet of paper and sealed it in the envelope. Thirty-eight students who were present that first day turned in surveys. The author expected to distribute the questionnaire again at the end of the semester (posttest); however, the author's spouse had major heart-related health problems and the course, along with others, was converted to online (referred to as web hybrid at the university). By the time the author finished dealing with how to tape and upload sales presentations, grade them, and give the final, the posttest went by the wayside (and a fourth demographic, major, was not identified).

SPRING 2010 RESULTS (PRETEST ONLY)

The class was evenly divided by gender, with 19 men and 19 women. Twenty of the students (52.6%) reported having had sales experience, and 21 (55.3%) reported having a family member who had worked in the sales field. There were no significant differences among the demographic variables.

As in the previous term, the reliability of the pretest questionnaire was assessed using Cronbach's Alpha. The pretest instrument had a coefficient alpha of .644 (n=36), which does not indicate a strong degree of internal consistency according to Nunnally (1978). Franke et al. (2013) warned that using reduced scales may result in inconsistency in reliability and content validity (Table 1, p. 324). This appears to have happened between the two studies. Total scores for the 10 items on the pretest instrument ranged from 47 to 85 (out of the high score of 90). The mean pretest total score (n=36) equaled 65.72 with a standard deviation of 8.847. Pretest mean scores are reported in Table 2.

TABLE 2
PRETEST MEAN SCORES FOR THE SHORTENED-VERSION SOCO SCALE ITEMS

Scale Item	Pre
I paint too rosy of my products/services, to make them sound as good as possible.*	4.89
I try to figure out what a customer's needs are.	7.82
It is necessary to stretch the truth in describing a product/service to a customer.*	5.54
A good salesperson has to have the customer's best interest in mind.	7.58
I try to sell as much as I can, rather than satisfying customers.*	6.26
I offer the product/service of mine that is best suited to the customer's problem.	7.38
I make recommendations based on what I think I can sell and not on the basis of customers' long-term satisfaction.*	5.50
I take a problem-solving approach in selling products or services to customers.	6.89
I try to sell as much as I can to convince the customer to buy, even if it is more than wise customers would buy.*	5.47
I try to find out which kinds of products or services would be most helpful to customers.	7.82
*Reverse scored. A score of 9 = True, always.	

The pretest mean scores were subjected to independent t-tests to determine if any scales items were significantly different by each demographic variable. No significant differences were found for family member in the sales field. Female students rated one item, "A good salesperson has to have the customer's best interest in mind," higher than did male students (8.05 vs. 7.11, $t = 2.027$, $p = .05$).

Two scale items and the overall mean score were significantly different by students' sales experience. Students with sales experience rated "I offer the product/service of mine that is best suited to the customer's problem" (7.84 vs. 6.89, $t = 2.245$, $p = .031$) and "I try to find out which kinds of products or services would be most helpful to customers" (8.30 vs. 7.28, $t = 2.852$, $p = .007$) higher than did students with no sales experience. Those with sales experience also had a significantly higher overall mean score (69.17 vs. 62.28, $t = 2.506$, $p = .017$).

COMPARISON OF THE TWO PRETESTS

Since the same 10 items were used in back-to-back semesters, the pretest scores and the overall mean scores of the

two semesters were compared statistically. While three marginally significant scale item differences were found, only one Fall-Spring difference was statistically significant at $\alpha \leq .05$, the overall mean scores. Students in the Fall 2009 course had a statistically higher score than did those in the Spring 2010 course (70.40 vs. 65.72, $t = 2.015$, $p = .048$). One wonders what might have caused this drop-off. The classes are different, with different students obviously. The spring class was larger, which may have had some effect. There may also have been more non-marketing majors in the class and/or more students without sales experience or having family members who worked in the sales field. The fact that the data is being analyzed three years later, due in part to the author's own health problems doesn't help with memory.

Score differences by gender and sales experience yielded some interesting results. However, no differences by family member in sales were found. Female students across both classes, rated one item, "A good salesperson has to have the customer's best interest in mind," higher than did male students (8.09 vs. 7.00, $t = 2.823$, $p = .007$, equal variances not assumed) and their overall mean score was also higher (70.10 vs. 65.10, $t = 2.202$, $p = .032$).

Three scale items and the overall mean score were significantly different by students' sales experience. Students with sales experience rated "I try to figure out what a customer's needs are" (8.36 vs. 7.52, $t = 2.492$, $p = .017$, equal variances not assumed), "I offer the product/service of mine that is best suited to the customer's problem" (7.86 vs. 7.22, $t = 2.059$, $p = .044$) and "I try to find out which kinds of products or services would be most helpful to customers" (8.39 vs. 7.44, $t = 3.282$, $p = .002$, equal variances not assumed) higher than did students with no sales experience. Those with sales experience also had a significantly higher overall mean score (70.24 vs. 64.37, $t = 2.606$, $p = .012$).

LIMITATIONS

One major limitation is the lack of a posttest for the Spring 2010 class. No assessment of improvement in customer orientation can thus be made. The inconsistency in the scale reliability from one semester to the next is also a limitation and a concern about the scale itself. A third weakness deals with the issue of "borrowed" scales; applying scales developed for use in one setting in another setting (sales field to academia), as noted by Engelland, Alford and Taylor (2001). Fourth, the lack of controls for other possible explanatory factors is a limitation. Factors that could have been taken into account include type of sales experience (B2C vs. B2B), length of sales experience, and impact of the major sales presentation project, grades, ethnicity, and professor's focus on customer orientation

throughout the term. Then there is the possibility of social desirability bias, in that the students may have responded in the way they felt the professor expected them to respond, instead of providing their true beliefs.

DISCUSSION

It was good to see overall improvement in the scale item mean scores. There were some gender differences, with female students indicating a higher customer orientation than male students did. There also seems to have been a positive impact on customer orientation for those students who have had sales experience. Having family members in the sales field apparently rubbed off on some of the students in the Fall 2009 class, leaving them more customer oriented.

Future research should first begin with a tracking of more factors, e.g., ethnicity, impact of grades, impact of projects, and impact of speakers, on the measurement of customer orientation using the shortened version. Using the shortened version in multiple sections of Personal Selling at larger schools would also be beneficial. This would allow one to measure the effect of class size and professor as well. It has also been suggested that perhaps giving the survey a third time, during the middle of the semester, might also be beneficial (Totten, et al. 2003, p. 153).

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