

A REFINEMENT OF INDSALES TO MEASURE JOB SATISFACTION OF SALES PERSONNEL IN GENERAL MARKETING SETTINGS

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INDSALES scale is one of the most comprehensive scales available to measure job satisfaction of industrial salespersons. Even though the instrument's longevity has been rather impressive, it is quite possible that the effects of time and ongoing changes in organizations and jobs may have affected the validity of this scale. Accordingly, the purpose of this paper is to revise, update, and trim the INDSALES instrument to assess job satisfaction of personnel working not only in industrial but also in general marketing settings. The changes proposed in this study are designed to create a measure of job satisfaction that could be more up-to-date, convenient to use, and applicable in a wide range of marketing related jobs.

INTRODUCTION

Job satisfaction is probably one of the most widely investigated constructs in marketing. While there are over twenty (20) different satisfaction scales available, INDSALES developed by Churchill, Ford, and Walker (1974) is one of the most comprehensive scales available to measure job satisfaction of industrial salespersons (Comer, Machleit, and Lagace 1989). However, the scale has not found widespread use in marketing literature due to the copyrighted nature of the instrument and excessive length (95 items) of the measure. Through the years, several researchers have made attempts to shorten the scale while maintaining the scale's psychometric properties (Childers et al. 1980; Comer, Machleit, and Lagace 1989; Lagace, Goolsby, and Gassenheimer 1993; Smith 1982) but none of these studies revised the original items, and tested the integrity of the scale in general marketing settings (e.g., retail sales clerks, bank tellers, industrial and non-industrial salespersons, etc.). The purpose of this study is to revise, update, and trim the INDSALES instrument to

assess job satisfaction of personnel working in general marketing settings. The changes proposed in this study are designed to create a measure of job satisfaction that could be: (1) more up-to-date, (2) convenient to use, and (3) applicable in a wide range of marketing related jobs.

NEED FOR A REVISED INSTRUMENT

The INDSALES instrument consists of 95 items that measure seven dimensions of job satisfaction in industrial salespersons pay and company benefits, the job itself, fellow workers, supervision, company policy, promotion and advancement, and customers (Churchill, Ford, and Walker 1974). In the 21 years since development and publication, the INDSALES instrument has not undergone any formal revision, although occasionally researchers have attempted to reduce its length and test its validity (e.g., Childers et al. 1980; Comer, Machleit, and Lagace 1989; Futrell 1979; Lagace, Goolsby, and Gassenheimer 1993; Smith 1982). The instrument's longevity is impressive. However, it is possible that the effects of time as well as changes in organizations and jobs may have affected the validity of some of its original items. The change which describes what happens when an item's measurement characteristics change

over time is called "item drift" (Muraki and Bock 1986).

Several possible factors could contribute to "item-drift" in the job satisfaction construct (Roznowski 1989). First, characteristics of work situations in general can differ from those that existed when the scales were constructed. Second, there may have been some job characteristics that were typical of work situations in the 1970s which have changed over the years. As a result, these characteristics may not discriminate between job satisfaction and dissatisfaction in present jobs. Finally, worker expectations and resulting work attitudes may have changed due to reduced long-term job security, and periodic reduction in work forces caused by restructuring of jobs and organizations; all of which have characterized the work environment of the 1980s and 1990s. As a result of these changes, employees react to a much different work environment today than in years past. All these reasons justify changing the current measurement instrument. A more accurate instrument can be obtained by dropping some of the "obsolete" items and including new items that better reflect the current domain.

Another related objective of this study is to keep the number of items in the scale to a minimum while maintaining the psychometric properties. The INDSALES instrument is made up of a lengthy list of 95 items that measure seven facets (aspects) of job satisfaction. Using a lengthy instrument severely limits measuring other constructs of interest. First, the length of the survey is inversely related to the quality of the survey responses. As the survey length increases, respondent fatigue increases and reduces the quality of the responses (Childers et al. 1980). Second, the length of a survey is inversely related to response rate. In general, as the questionnaire length increases, response rate decreases (Childers and Ferrell 1979; Kanuk and Berenson 1975). Therefore, there appears to be a definite need to develop a reliable and valid instrument that is psychometrically sound, but short and easy to administer. Even though several researchers have provided shorter versions of the INDSALES to measure job satisfaction of industrial salespeople (e.g., Comer, Machleit, and Lagace 1989; Childers et al. 1980; Smith 1982) and insurance

salespeople (Lagace, Goolsby, and Gassenheimer 1993), no study has tested the integrity of INDSALES in measuring job satisfaction of employees working in a wide range of marketing related positions.

Finally, the most often used measurement of job satisfaction, the Job Descriptive Index (JDI), has identified five facets (aspects) of job satisfaction (Zedeck 1987). They are: pay, job, coworkers, supervision, and promotion. The lack of customer facet in the JDI instrument limit its use in measuring job satisfaction of personnel working in general marketing settings. When customer interaction is an integral part of a person's job (e.g., bank teller, retail sales clerk etc.), one critical aspect of job satisfaction could be the customer itself. The authors of this study identified 24 survey instruments that measured multiple facets of job satisfaction (as oppose to global or overall job satisfaction). However, none of these measures included the customer facet of job satisfaction.

In summary, possibility of "item-drift" and extensive length may be two reasons why one of the most comprehensive scales available to measure job satisfaction, the INDSALES, has not found widespread use in marketing literature. The limited number of scales that are available to measure the customer facet of job satisfaction (along with other facets of job satisfaction) have created a need to develop a multi-facet measurement of job satisfaction.

DOMAIN OF THE JOB SATISFACTION CONSTRUCT

Traditionally, job satisfaction has been defined as an emotional state reflecting an affective response to the job situation (Locke 1976). This is different from the job involvement construct which is defined as a cognitive belief reflecting the degree of psychological identification with one's job (Kanungo 1982; Lawler and Hall 1970; Locke 1976; Rabinowitz and Hall 1977). According to Lawler and Hall (1970), job satisfaction is determined by the difference between what individuals expect to get out of their jobs and what their jobs actually offer. A person will have

high job satisfaction when he or she generally likes and values his or her job highly and feels positively toward it. Therefore, satisfaction, by definition, is a work attitude that the individual "evaluates" relative to his or her frame of reference.

Measurement instruments that evaluate the extent to which people are satisfied with their jobs consist of two general types: those instruments which assess global (overall) job satisfaction and those which assess specific facets (aspects) of job satisfaction. This distinction is based upon the reasoning that all attitudes can be viewed at several levels of abstractness, ranging from an overall evaluation of the attitude to very specific reactions to limited features of that attitude.

One key objective of this research study is to evaluate the possible use of INDSALES developed by Churchill, Ford, and Walker (1974) to measure job satisfaction in general marketing settings. Therefore, our conceptualization of the construct job satisfaction was similar to the conceptualization of Churchill, Ford, and Walker (1974) study. The domain of job satisfaction was conceptualized as characteristics of the job itself and the work environment which personnel employed in general marketing settings found rewarding, fulfilling, and satisfying, or frustrating and unsatisfying. The construct's domain was defined as consisting of seven dimensions of job satisfaction. They were: (1) pay and company benefits, (2) the job itself, (3) fellow workers, (4) supervision, (5) company policy, (6) promotion and advancement, and (7) customers. The conceptualization of the domain of job satisfaction was operationalized by identifying the major elements of personnel working in general marketing situations which determine their satisfaction with the job which were the underlying dimensions of job satisfaction.

PRE-TESTING OF THE INSTRUMENT

Item Pool Creation

To generate an item pool that was large enough to capture various aspects of job satisfaction, the 95 items of INDSALES were supplemented by an additional twenty-one (21) items. These new items

were generated from existing literature on job satisfaction—both relating to sales and marketing, and to general organizational settings. Items that supplement the original INDSALES items were generated in ways so that the structure of the new items was similar to the original items. Forty-nine (49) items in the item pool of 116 were negatively worded to eliminate any errors that may be caused by an acquiescent response style—the tendency to generally agree with statements regardless of their content (Kidder and Judd 1986). All items were scaled on a five-point rating scale anchored at opposite ends with "strongly agree" (5) to "strongly disagree" (1). This scale format was consistent with the original format used in the INDSALES scale.

Initial Sample and Method

Since it was important to use a relatively homogeneous sample to purify the measure (Churchill 1979), the item pool of 116 items was first administered to a random sample of 296 employees working in general marketing settings (e.g., service, retail, manufacturing, etc.) who were simultaneously attending classes in three large universities in the southwest region. Each of the 116 items was assigned a priori to one of the seven hypothesized facets of job satisfaction. At the initial stage of scale construction, item-to-total correlations were calculated for each item relative to the facet of job satisfaction it was intended to measure. Items were deleted in several stages beginning with the items possessing correlations near zero. Next, items that produced a substantial or sudden drop in the item-to-total correlations were deleted. The coefficient alpha, a measure of internal consistency of a set of items, was also calculated at each stage for each of the seven individual facets of job satisfaction. Once a satisfactory alpha coefficient was achieved, a factor analysis was used to confirm whether the number of dimensions conceptualized could be verified empirically.

Purification of Scale Items

The process of item-selection and testing the reliabilities of the sub-scales were carried out in five successive steps. In the course of these five steps, the

number of items included in the scale was reduced from 116 to 28. The number of items (N) that measured each facet of job satisfaction and the coefficient alpha at each of the five steps are provided in Table 1.

In step 1, all 116 items were used to determine the reliability coefficients for the individual facets of job satisfaction. Coefficient alphas ranged from a low of .85 to a high of .95. Even though reliabilities were comparatively high at this stage of the scale construction (Nunnally 1978), the number of items was far too many and needed reduction. Accordingly, in the second step, items which produced sudden drops in item-total correlations were eliminated from the main list. This reduced the number of items from 116 to 73 with the lowest reliability being .84 and the highest being .95 once again. In step 3, items that had item-to-total correlations less than .55 were dropped, reducing the number of items to 40 without significant changes in the reliability coefficients. In step 4, all items that had item-to-total correlations less than .60 were dropped from the analysis, leaving a total of 31 items in the scale. Reliability coefficients varied from .79 to .92. In step 5, three items were dropped based on the item-to-total correlations so that all facets of job satisfaction were measured using the same number of items (specifically, four items). As stated by Comer, Machleit, and Lagace (1989), having an equal number of items measuring each facet of job satisfaction assures that all dimensions are given equal weights. Reliability coefficients were between .79 and .91.

Guidelines provided by Churchill (1979) recommend performing factor analysis at this stage to test the dimensionality of the scale. It should be noted that performing factor analysis prior to item purification stage can result in too many dimensions that may be difficult to conceptually identify (1979). Exploratory factor analysis of the remaining 28 items was performed and resulted in six factors (six facets of job satisfaction) which explained 66.4 percent of the total variation. Five of the factors identified in factor analysis were identical to five of the seven facets of job satisfaction that were conceptualized and the items that measured these facets correlated very highly with the respective factors. They were satisfaction with:

pay and company benefits, the job itself, fellow workers, promotion and advancement, and customer. However, some items that were expected to capture the facet "supervision" and the facet "company policy" converged into one factor. This suggested that items that measured satisfaction with supervision and satisfaction with company policy were possibly measuring only a single dimension of job satisfaction. The high Pearson Product Moment Correlation (.73) between these two facets of job satisfaction seemed to provide further evidence that the two actually corresponded to a single dimension. This illustrated the redundancy of including both satisfaction with company policy and satisfaction with supervision facets in the reduced version of INDSALES as well as the necessity to drop one of the two facets from further investigation.

Intuitively, company policy should have a direct relationship to satisfaction with pay, promotion, supervision, and the job itself of employees because policy encompasses all these facets of job satisfaction. Since one requirement of multidimensional constructs is the need for low inter-correlations among constructs (Stewart 1981), company policy appears to be the likely facet of job satisfaction to violate this assumption. Close examination of the correlation matrix at this stage revealed relatively high inter-correlations between company policy and other facets of job satisfaction (e.g., pay and company benefits, promotion and advancement, supervision, and the job itself) compared to low inter-correlations between supervision and these facets of job satisfaction. Accordingly, the company policy facet of job satisfaction was dropped from further investigation at this stage.

Once again, factor analysis of the remaining 24 items was performed. Results produced the expected facets of job satisfaction and explained 68.7 percent of the variance. It needs to be noted that the reduction of items from 116 to 24 did not significantly reduce the reliability of the individual facets of job satisfaction even though item reduction can decrease reliability (Churchill 1979; Peter 1979). On average, it reduced the reliability only .06 and all the reliabilities were

TABLE 1
Steps Followed in Item Reduction

Job Satisfaction Facet	Step-1		Step-2		Step-3		Step-4		Step-5	
	N	Alpha	N	Alpha	N	Alpha	N	Alpha	N	Alpha
Pay and company benefits	12	.90	8	.89	5	.86	5	.86	4	.84
The job itself	21	.93	11	.95	5	.92	4	.91	4	.91
Fellow workers	22	.93	14	.91	10	.90	5	.90	4	.83
Supervision	26	.95	18	.93	7	.83	4	.79	4	.79
Company policy	15	.89	9	.89	5	.87	5	.87	4	.85
Promotion and advancement	10	.89	6	.88	4	.87	4	.87	4	.87
Customer	10	.85	7	.84	4	.82	4	.82	4	.82
Total	116		73		50		31		28	

stable and within acceptable ranges specified by Nunnally (1978).

TESTING THE PURIFIED INDSALES

In stage 1 of the study, the purified and modified version of INDSALES was reduced to a 24-item instrument with six meaningful factors. The reliability of the sub-scales was high (between .79 to .91), and the factor structures appeared stable (explaining 68.7 percent of the variance). As such, the scale was now ready for validation tests. It was now necessary to further test the revised INDSALES instrument using a heterogeneous sample to assess the scale's generalizability, as well as convergent and discriminant validity (Churchill 1979).

New data was obtained as a part of a larger study through self-administered questionnaires mailed to 582 persons who subscribed to a selling magazine. Of 582 mailed surveys, 201 usable ones were returned for a response rate of 34.5 percent. Respondents were predominantly male ($n=154$, 77 percent) with an average age of 35 and an average of 9 years of experience working in a sales job. Respondents worked in a variety of businesses and industries, including retailing, manufacturing, medical, real estate, and financial services among others. The heterogeneous nature of the sample should increase the generalizability of the results to other types of sales jobs.

Reliabilities and Factor Structure

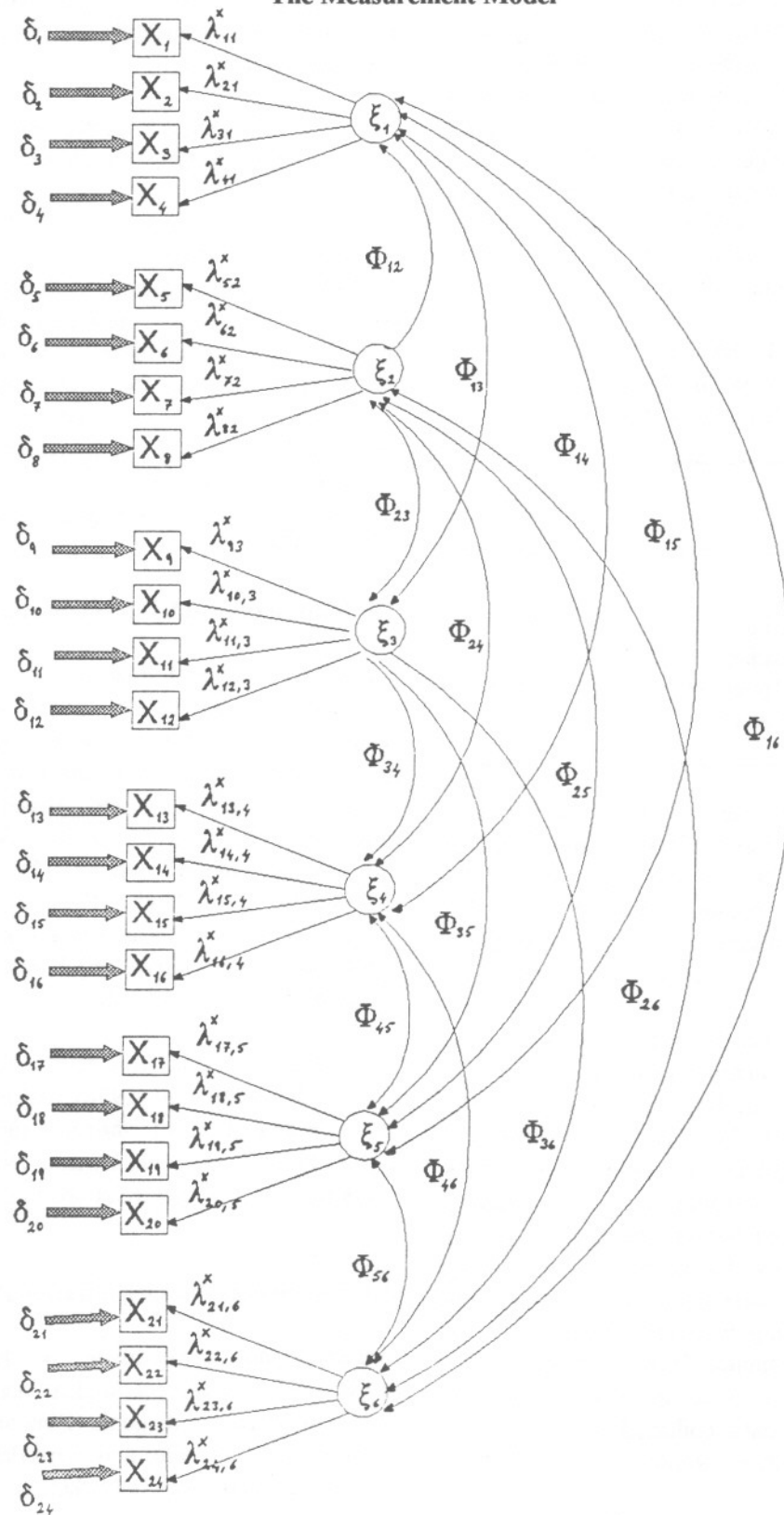
Using the sales sample, reliabilities were computed for the six dimensions. They were satisfaction with: pay and company benefits ($\alpha=.88$), the job itself ($\alpha=.86$), fellow workers ($\alpha=.87$), supervision ($\alpha=.83$), promotion and advancement ($\alpha=.90$), and customers ($\alpha=.74$). These reliability levels were satisfactory based on the criterion proposed by Nunnally (1978).

To evaluate the overall fit of the data to the conceptualized dimensionality of the revised INDSALES (shown in Figure 1), confirmatory factor analysis was conducted using LISREL VII (Jöreskog and Sörbom, 1989). The measurement model used in this study hypothesized the six dimensions of job satisfaction which were measured by twenty-four variables (see Appendix 1).

Table 2 provides the goodness-of-fit measures. The difference between the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) was only 0.035. As stated by Anderson and Gerbing (1988), AGFI is the result of significant coefficients in the covariance structure model used for the research hypotheses. All these indices indicated that the model fitted properly.

While the root mean square residual (RMSR) value was only 0.063, the ratio of Chi-square to degrees of freedom was only 1.598. As suggested by several researchers (e.g., Carmines and McIver, 1981;

FIGURE 1
The Measurement Model



Hoetler, 1983; Brooke, Russell, and Price, 1988), a ratio of less than 2.0 indicates an excellent model fit. Even though the Chi-square value was significant (Chi-square=378.61) implying a deviation between the data and the hypothesized model, numerous researchers (e.g., Browne, 1982; 1984; Bentler, 1983; Babakus, Ferguson, and Jöreskog, 1987) emphasized the necessity to relax the interpretation of the Chi-square statistic under certain circumstances (such as the times when multivariate normality assumption is not secured).

TABLE 2
Goodness-of-Fit Measures
for the Measurement Model

Summary Measure	Value
Goodness-of-Fit Index:	0.868
Adjusted Goodness-of-Fit Index:	0.833
Root Mean Square Residual:	0.063
Chi-square with 237 degrees of freedom:	378.61
Calculated probability level:	$p < 0.05$

Results of the measurement model (presented in Figure 1) are provided in Table 3. Results indicated that all paths in the model were statistically significant (t-values ranging from 8.57 to 17.41) assuring that the exogenous variables were being measured properly by their respective variables.

Because of the necessity to test the credibility of the revised INDSALES instrument prior to its use in future studies, the authors also examined the relationship between the well documented Job Descriptive Index (JDI) and revised INDSALES using LISREL VII. Because JDI does not have a scale for customer satisfaction, the two instruments did not completely overlap in the scale measuring various facets of job satisfaction. Table 4 shows the two matrices containing inter correlations among the five facets of job satisfaction for revised INDSALES and JDI separately (all correlation coefficients were obtained from the data collected in this study). Results were rather impressive: GFI=.993;

RMSR=.027; Chi-square=6.76, $p=.964$. Accordingly, it was concluded that there were no statistically significant differences between the two correlation matrices.

ASSESSMENT OF NOMOLOGICAL VALIDITY

Finally, the assessment of nomological validity requires that the results generated with revised INDSALES are consistent with the relationships reported in previous research studies. Job involvement, organizational commitment, and propensity to leave are the three variables that have been extensively investigated in research and consistently produced relationships with various components of job satisfaction. These three variables were used to assess nomological validity of revised INDSALES.

Job Satisfaction and Job Involvement

Job involvement is defined as the extent to which employees psychologically identify with their jobs (Blau 1985). Empirical work suggests that, in general, job satisfaction is linked positively to job involvement (Gannon and Hendrickson 1973; Hackman and Lawler 1971; Schuler 1975; Schwyhardt and Smith 1972). Moreover, Robinowitz and Hall (1977, p. 285) state "involvement increases as a result of satisfying job experiences." Thus, facets of job satisfaction should positively correlate with job involvement.

This study used the four-item Likert-type scale developed by Hall et al. (1978), and recently utilized by Cron and Slocum (1986) and Ingram, Lee, and Lucas (1991) in a sales management setting. Results supported the expected relationships as provided in Table 5.

Job Satisfaction and Organizational Commitment

Organizational commitment is defined as an employee's positive psychological identification with the organization and its goals (Blau and Boal 1987). Various studies in sales and non-sales settings have concluded that job satisfaction is positively

TABLE 3
Lambda-X Estimates for the Measurement Model

Observed Variables:	Exogenous Variables						t-values
	Customer	Coworkers	Promotion	Supervision	Job itself	Pay	
X1	0.628						8.61
X2	0.667						9.23
X3	0.626						8.57
X4	0.690						9.61
X5		0.906					15.99
X6		0.922					16.43
X7		0.613					9.28
X8		0.670					10.41
X9			0.885				15.80
X10			0.919				16.82
X11			0.937				17.41
X12			0.614				9.43
X13				0.803			12.89
X14				0.678			10.26
X15				0.658			9.87
X16				0.857			14.15
X17					0.878		15.24
X18					0.738		11.79
X19					0.844		14.33
X20					0.841		14.26
X21						0.725	11.30
X22						0.812	13.24
X23						0.789	12.41
X24						0.843	13.98

TABLE 4
Correlation Matrices*

INDSALES	JDI				
	Pay	Job	Coworkers	Supervision	Promotion
Pay and company benefits		.23	.23	.20	.34
The job itself	.31		.29	.42	.40
Fellow workers	.21	.33		.27	.12
Supervision	.24	.36	.27		.43
Promotion and advancement	.35	.41	.29	.43	

* Correlation matrix below the diagonal relates to INDSALES (inter correlations among INDSALES sub scales)
 Correlation matrix above the diagonal relates to JDI (inter correlations among the JDI sub scales)

TABLE 5
Nomological Validity and Reliability

	Reliability	Nomological Validity		
	Coefficient Alpha	Job Involvement	Organizational Commitment	Propensity to Leave
<u>Satisfaction facet</u>				
Pay and company benefits	.87 (.84)	.15 ^a	.31 ^b	-.42 ^b
Job itself	.86 (.91)	.38 ^b	.40 ^b	-.46 ^b
Fellow workers	.86 (.83)	.07	.23 ^b	-.18 ^a
Supervision	.83 (.79)	.18 ^a	.44 ^b	-.46 ^b
Promotion and advancement	.90 (.87)	.22 ^b	.46 ^b	-.46 ^b
Customer	.73 (.82)	.13	.10	-.17 ^a
Global job satisfaction	.89 (.88)	.28 ^b	.53 ^b	-.60 ^b

Reliability coefficients within parentheses are for the first sample

^a Significant at $p < .05$

^b Significant at $p < .005$

associated with organizational commitment (e.g., Bedian and Armenakis 1981; Dubinsky and Skinner 1984; Oliver and Brief 1978). A study conducted by Johnston et al. (1987) resulted in a significant positive correlation between organizational commitment and satisfaction with promotion, supervision, the job itself, and coworkers. The study did not measure the customer facet of job satisfaction.

This study used the scale developed by Porter et al. (1974), recently used by Ingram, Lucas, and Lee (1991) in a sales management setting. Results supported the expected relationships as provided in Table 5.

Job Satisfaction and Propensity to Leave

Studies about salespersons' turnover have suggested that propensity to leave is inversely related with various facets of sales representative satisfaction. Futrell and Parasuraman (1984) concluded that propensity to leave was negatively related with all five of the satisfaction measures they employed. This study used the single item 5-point Likert-type scale developed by Futrell and Parasuraman (1984) to

measure propensity to leave. As expected, the study resulted in an inverse relationship shown in Table 5, propensity to leave was negatively related with all six facets of job satisfaction.

In summary, goodness of fit indices (e.g., GFI, AGFI, and RMSR), lambda estimates, and significant path coefficients confirm the underlying structure of the data being represented by the scale's conceptualized dimensionality across marketing job settings. The non-significant differences between the correlation matrices of revised INDSALES (with the omission of the customer dimension) and JDI suggest that they are similar in their capacity to measure. Therefore, administering the revised INDSALES in future studies will have benefits for users over both original INDSALES and JDI in general marketing job settings. Relationships in Table 5 were consistent with the past research findings and this established the nomological validity of the revised INDSALES.

CONCLUSION

This study resulted in the creation of a new instrument designed to measure job satisfaction

among employees working in generalized marketing environments. The six facets of the revised INDSALES instrument displayed high internal reliability. They also possessed satisfactory convergent, discriminant, and nomological validity. The validity and reliability of the new instrument was particularly impressive considering the short length of the instrument.

Often the choice of an instrument by researchers is based on the population under study, various facets of constructs of inquiry, length, and reliability/validity of the instrument. The new version of INDSALES meets all these criteria. The scale is short (only 24 items), and measures the six most commonly examined dimensions of job satisfaction. The reliability and validity indicators for the scale are quite high. Also, the scale has evolved out of the INDSALES scale designed to measure job satisfaction among industrial sales people. Thus, the items used to revise the scale are firmly grounded in the marketing literature, both because they have been derived from the INDSALES and because new items have been supplemented from sales and marketing literature. The new scale is, therefore, capable of meeting the requirements of those marketing researchers and practitioners who are looking for an instrument that reflects the unique characteristics associated with marketing jobs and is capable of examining job satisfaction in various marketing settings.

The revised INDSALES also have two major advantages over JDI which is the most widely used measure of job satisfaction in existence (Zedeck 1987). While both scales can be used to measure job satisfaction in a variety of job settings, the revised INDSALES has the advantage of being able to measure the customer aspect of job satisfaction. In addition, the INDSALES scale is shorter than JDI (24 items in the revised INDSALES as oppose to 72 items in JDI) and is easier and more convenient to administer.

REFERENCES

- Anderson, James C., and Gerbing, David W. (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological Bulletin*, 103 (May), 411-423.
- Babakus, Emin, Ferguson, Jr. Carl E., and Jöreskog, Karl G. (1987), "The Sensitivity of Confirmatory Maximum Likelihood Factor Analysis to Violations of Measurement Scale and Distributional Assumptions," *Journal of Marketing Research*, 24 (May), 222-228.
- Bedian, A. G., and Armenakis, A. A. (1981), "A Path-Analytic Study of Consequences of Role Conflict and Ambiguity," *Academy of Management Journal*, 24 (June), 417-424.
- Bentler, P. M. (1983), "Some Contributions to Efficient Statistics in Structural Models: Specification and Estimation of Moment Structures," *Psychometrika*, 48, 493-517.
- Blau, Gary L. (1985), "A Multiple Study Investigation of the Dimensionality of Job Involvement," *Journal of Vocational Behavior*, 27 (August), 9-36.
- Blau, Gary L., and Boal, Kimberly B. (1987), "Conceptualizing How Job Involvement and Organizational Commitment Affect Turnover and Absenteeism," *Academy of Management Review*, 12 (2), 288-300.
- Brooke, Jr., Paul P., Russell, Daniel W., and Price, James (1988), "Discriminant Validation of Measures of Job Satisfaction, Job Involvement, and Organizational Commitment," *Journal of Applied Psychology*, 73 (2), 139-145.
- Browne, M. W. (1982), "Covariance Structures," *Topics in Applied Multivariate Analysis*, Cambridge University Press, Cambridge, England.
- Browne, M. W. (1984), "Asymptotically Distribution-Free Methods for the Analysis of Covariance Structures," *British Journal of Mathematical and Statistical Psychology*, 37, 62-83.

- Carmines, E. G., and McIver, J. P. (1981), "Analyzing Models with Unobserved Variables: Analysis of Covariance Structures," in *Social Measurement: Current Issues*, G. W. Bronstedt and E. F. Borgatta, eds., Sage, Beverly Hills, CA.
- Childers, Terry C., Churchill, Gilbert A., Ford, Neil M., Walker, Orville C. (1980), "Towards a More Parsimonious Measurement of Job Satisfaction for the Industrial Salesforce," *Proceedings of American Marketing Association*, Richard P. Bagozzi et al., eds., AMA, Chicago, IL. 344-349.
- Childers, Terry C., and Ferrell, O. C. (1979), "Response Rates and Perceived Questionnaire Lengths in Mail Surveys," *Journal of Marketing Research*, 16 (August), 429-431.
- Churchill, Jr., Gilbert A. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," *Journal of Marketing Research*, 16 (February), 64-73.
- Churchill, Jr., Gilbert A., Ford, Neil M., and Walker, Orville C. (1974), "Measuring the Job Satisfaction of Industrial Salesmen," *Journal of Marketing Research*, 11 (August), 254-260.
- Comer, James M., Machleit, Karen A., and Lagace, Rosemary R. (1989), "Psychometric Assessment of a Reduced Version of INDSALES," *Journal of Business Research*, 18 (June), 291-302.
- Cook, John D., Hepworth, Susan J., Wall, Toby D., and Warr, Peter B. (1988), *The Experience of Work*, Academic Press, New York, NY. 1988.
- Cron, William A., and Slocum, John W. (1986), "The Influence of Career Stages on Salespeople's Job Attitudes, Work Perceptions, and Performance," *Journal of Marketing Research*, 23 (May), 119-129.
- Dubinsky, A. J., and Skinner, S. J. (1984), "Impact of Job Characteristics on Retail Salespeople's Reactions to Their Jobs," *Journal of Retailing*, 60 (Summer), 35-62.
- Futrell, C. (1979), "Measurement of Salespeople Job Satisfaction: Convergent and Discriminant Validity of Corresponding INDSALES and JDI," *Journal of Marketing Research*, 16 (November), 594-597.
- Futrell, C., and Parasuraman, A. (1984), "The Relationship of Satisfaction and Performance to Sales Turnover," *Journal of Marketing*, 48 (Fall), 33-40.
- Gannon, M. J., and Hendrickson, D. H. (1973), "Career Orientation and Job Satisfaction Among Working Wives," *Journal of Applied Psychology*, 57 (June), 339-340.
- Hackman, J. R., and Lawler, E. E. (1971), "Employee Reactions to Job Characteristics," *Journal of Applied Psychology*, 55 (June), 259-286.
- Hall, Douglas T., Goodale, James G., Robinowitz, Samuel, and Morgan, Marilyn A. (1978), "Effects of Top-Down Departmental and Job Change Upon Perceived Employee Behavior and Attitudes: A Natural Field Experiment," *Journal of Applied Psychology*, 63 (February), 62-72.
- Hoetler, J.W. (1983), "The Analysis of Covariance Structures: Goodness-of-Fit Indices," *Social Methods and Research*, 11, 325-344.
- Ingram, Thomas N., Lee, Keun S., and Lucas, George H. (1991), "Commitment and Involvement Assessing a Salesforce Typology," *Journal of the Academy of Marketing Science*, 19 (3), 187-197.
- Johnston, Mark W., "Varadarajan, "Rajan" P., Futrell, Charles M., and Sager, Jeffrey (1987), "The Relationship Between Organizational Commitment, Job Satisfaction, and Turnover Among Salespeople," *Journal of Personal Selling and Sales Management*, 7 (November), 29-38.
- Jöreskog, Karl G., and Sörbom, Dag (1989), *LISREL VII: Analysis of Linear Structural Relationships by Maximum Likelihood, Instrumental Variables, and Least Squares Methods*, University of Uppsala, Uppsala, Sweden.
- Kanuk, Leslie and Berenson, Conrad (1975), "Mail Survey and Response Rate: A Literature Review," *Journal of Marketing Research*, 12 (November), 440-453.
- Kanungo, R. N. (1982), *Work Alienation*, Praeger, New York, NY.

- Kidder, Louise H., and Judd, Charles M. (1986), *Research Methods in Social Relations*, CBS, College Publishing, New York, NY.
- Lagace, Rosemary R., Goolsby, Jerry R. and Gassenheimer, Jule B. (1993), "Scaling and Measurement: A Quasi-Replicative Assessment of a Revised Version of INDSALES," *Journal of Personal Selling and Sales Management*, 13 (Winter), 65-72.
- Lawler, E. E., and Hall, D. T. (1970), "Relationship of Job Characteristics to Job Involvement, Satisfaction and Intrinsic Motivation," *Journal of Applied Psychology* 54 (4), 305-312.
- Locke, E. A. (1976), *Handbook of Industrial and Organizational Psychology*, 1293-1349.
- Muraki, E., and Bock, R. D. (1986), "An Item Maintenance System with Provision for Item Parameter Drift," in *Model Based Psychological Measurement*, Gatlinburg, TN.
- Nunnally, Jum C. (1978), *Psychometric Theory*, McGraw-Hill Book Company, New York, NY.
- Oliver, R. L., and Brief, A. P. (1978), "Determinants and Consequences of Role Conflict and Ambiguity Among Retail Sales Managers," *Journal of Retailing*, 53 (Winter), 47-58.
- Peter, Paul J. (1979), "Reliability: A Review of Psychometric Basics and Recent Marketing Practices," *Journal of Marketing Research*, 16 (February), 6-17.
- Porter, L. W., Steers, R. M., Mowday, R. T., and Boulian, P. V. (1974), "Organizational Commitment, Job Satisfaction, and Turnover Among Psychiatric Technicians," *Journal of Applied Psychology*, 59 (5), 603-609.
- Robinowitz, S. and Hall, D. T. (1977), "Organizational Research on Job Involvement," *Psychology Bulletin*, 84 (2), 265-288.
- Roznowski, Mary (1989), "Examination of the Measurement Properties of the Job Descriptive Index with Experimental Items," *Journal of Applied Psychology*, 74 (5), 805-814.
- Schuler, R. S. (1975), "Role Perceptions, Satisfaction, and Performance: A Partial Reconciliation," *Journal of Applied Psychology*, 60 (December), 683-687.
- Schwyrhardt, W. R., and Smith, P. C. (1972), "Factors in the Job Involvement of Middle Managers," *Journal of Applied Psychology*, 56 (June), 227-233.
- Smith, Ruth A. (1982), "Measurement Abstracts," *Journal of Marketing Research*, 29 (February), 152-55.
- Stewart, David W. (1981), "Application and Misapplication of Factor Analysis in Marketing Research," *Journal of Marketing Research*, 18 (February), 51-62.
- Zedeck, S., Satisfaction in Union Members and Their Spouses, in *Job Satisfaction: Advances in Research and Practice*, Bowling Green, OH. 1987.

APPENDIX 1
Refined INDSALES Instrument

Question Number	Statement	Variable Corresponding to Figure 1
1.	My customers are fair	X1
2.	My customers are interested in what I have to say	X2
3.	My customers live up to their promises	X3
4.	My customers respect my judgment	X4
5.	My coworkers are smart	X5
6.	I have a good chance of promotion	X9
7.	My manager lives up to his promises	X13
8.	My opportunities for advancement are reasonable	X10
9.	My fellow workers are intelligent	X6
10.	In my job there are fairly good chances for promotion	X11
11.	The pay I get is unfair	X21
12.	My fellow workers are pleasant	X7
13.	It is easy to get ahead in this company	X12
14.	My manager has an annoying personality	X14
15.	My work is exciting	X20
16.	My work is satisfying	X17
17.	In my opinion the pay here is lower than in other companies	X22
18.	My work gives a sense of accomplishment	X18
19.	My manager is around when I need him	X15
20.	My job is interesting	X19
21.	I am paid less than what I deserve	X23
22.	My pay is low in comparison with what others get for similar work in other companies	X24
23.	My manager knows how to supervise	X16
24.	My fellow workers are responsible	X8