

The Nature and Causes of Self-Esteem, Performance, and Satisfaction in the Sales Force: A Structural Equation Approach*

I. Introduction

Research into the sales force suggests that the behavior of salespeople will be a function of the person; the interactions the person has with customers, managers, and significant others; and the situation or context in which these interactions take place (Churchill, Ford, and Walker 1976; Bagozzi 1978). This article addresses the impact of two classes of these determinants—that is, the person and role relationships—as they influence particular outcomes on the job. Specifically, motivation and felt role strain and role ambiguity are investigated as they affect certain emotional, cognitive, and behavioral (i.e., performance) outcomes of salespeople.

The discussion begins with a conceptualization of three broad classes of job outcomes experienced by salespeople. Next, motivation, role strain, and role ambiguity are defined, and the mechanisms relating these independent variables to job outcomes are specified. Third, the methodology and structural equation models used to test the hypotheses are presented. Included in the treatment is a discussion of the sample and

Salesmen experience three broad outcomes on the job. The first deals with feelings about the self and is termed self-esteem. The second refers to actual performance, such as dollar volume of sales achieved, new business generated, or expenses incurred. The third represents evaluations about specific dimensions of the work situation and is termed here job satisfaction. This article presents the results of a study investigating the determinants of each type of job outcome for a sample of industrial salesmen. Using a structural equation methodology, the research shows job outcomes are a function of role ambiguity and motivation but not necessarily job tension.

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the measures and procedures used. Finally, the article closes with a presentation and interpretation of the results.

II. Three Dimensions of Job Outcomes

Self-Esteem

Self-esteem is a particular kind of personal construct that refers to the manner in which individuals attribute and infer dispositions in themselves (Coopersmith 1967; Wells and Marwell 1976). These dispositions typically deal with attributions of personal competence and self-regard. They entail both cognitive and affective psychological processes in that the person must perform an act of conceptual self-identification and form an emotional evaluation thereof. The emotional content may be positive or negative and will vary in intensity, depending on the situation and the person's attributions in relation to it.

Korman (1970, 1974) identifies three sources of self-esteem. Chronic self-esteem is "a relatively persistent personality trait that occurs relatively consistently across various situations." Task-specific self-esteem originates from past experience with a particular task or similar tasks and is a reflection of one's felt degree of competence in performing that task. Socially influenced self-esteem, in contrast, is a function of another's expectations for one's behavior. Korman (1970) posits that all three sources of self-esteem function to determine an individual's level of "self-perceived competence and ability for the task at hand."

Performance

Performance outcomes refer to the actual events resulting from a salesperson's efforts. They thus connote objective happenings under the influence of the salesperson. Common indicators of performance include the total volume of sales achieved (in dollars or units), new business generated, percent of quota reached, improvement over the past year, sales relative to others with like experience, expenses incurred, and so on.

What constitutes performance is somewhat a normative and arbitrary issue. Management sets company and individual salesperson goals based, in part, on the history of sales, the costs of production and administration, profit expectations, estimates of territory potential, the ability and experience of the salesperson, competition, and other factors. The salesperson, in turn, perceives and interprets company goals in terms of his or her needs and the unique selling situation. For the salespeople under investigation in this study, the most relevant performance measure is the dollar volume in sales achieved by each salesperson. This measure of performance is the one most visible to management and the salespeople. Salaries, bonuses, rewards from

contests, and recognition in a monthly publication within the firm depend directly on these values.

Job Satisfaction

The final class of job outcomes is job satisfaction (e.g., Locke 1976). Whereas self-esteem refers to attributions toward the self as an object of focus, job satisfaction denotes specific reactions toward the job as the object of scrutiny. In general, job satisfaction is expressed in two forms. The first is a strictly cognitive one in that specific aspects of the job are seen by the salesperson as a means for satisfying needs. The second is largely affective in content. That is, given a particular cognitive assessment, the salesperson is thought to form either positive or negative feelings toward dimensions of the job, depending on the perceived discrepancy between what is desired and what is obtained from the job.

III. Factors Affecting Job Outcomes

The self-esteem, performance, and job satisfaction experienced by salespeople are hypothesized to be affected by two broad determinants. First, they are posited to be a function of the nature of the social interactions the salesperson has with customers, sales managers, and significant others in his or her role-set. The two social interaction variables studied in this investigation are job tension and role ambiguity. Second, job outcomes are hypothesized to be under the influence of the person. In particular, the motivation of the salesperson is regarded as a strong determinant of job outcomes in that it reflects the psychological and physical effort and commitment devoted to the job.

Job Tension and Role Ambiguity

Although all members of organizations engage in many relationships with individuals and groups within the organization, salespeople seem to face a set of interactions which differ in both kind and degree. In addition to the normal encounters with supervisors and other agents in the home organization, salespeople must regularly deal with a large and diverse set of customers and gatekeepers who are outside the organization, yet who are central to the selling job. Moreover, exchanges with customers are more intense and risky than the typical intrafirm encounter. This is the case for a variety of reasons. First, the salesperson-customer relationship usually transpires away from the salesperson's organization. Physical separation lessens the direct scrutiny of supervisors, and it tends to weaken normative constraints felt by the salesperson. It also mitigates any social control resulting from informal group affiliation in the home organization. Second, even

though the actions of the salesperson are relatively hidden from the supervisor, the performance outcomes of exchanges, of course, are not. This condition coupled with the fact that the salesperson's livelihood depends directly on these outcomes make the salesperson vulnerable and dependent on the customer. Third, because of the nature of the functions performed by the salesperson and the presence of scarcity of resources and competition in the environment, he will be confronted with a set of conflicting expectations and demands. Customers bring pressures to bear to lower prices, expedite shipments, straighten out paper work, and generally meet their needs; while management urges that sales expand, expenses decline, profits rise, and the company's needs be met. Overall, the selling situation is one where uncertainty and interpersonal conflict are great, and demands for coping exceed the norm for most occupations.

Role theory represents one paradigm for modeling the behavior of salespeople in organizations. Following Biddle and Thomas (1966, p. 29), a "role" is regarded herein as "the set of prescriptions defining what the behavior of a position member (in the organization) should be." As such, roles attempt to capture the social connections between the salesperson on the one hand and the home organization and customer organizations on the other. These connections are manifest in the expectations that the salesperson has of the organizations and their agents and the expectations the organizations and their agents have of the salesperson.

Two broad concepts that have been developed in role theory to represent the impact of the organization on the individual seem particularly appropriate for the selling situation. The first—termed job tension—can be used to represent the frequency with which the salesperson feels bothered with dimensions of the overall job situation, such as the scope of responsibilities, opportunities for advancement, the amount of work, and so on (e.g., Kahn et al. 1963). The premise is that those salespeople who cope more effectively with tension and strain will be the ones who feel less bothered by that tension and strain. Thus, job tension is regarded as a cognitive evaluation performed by the salesperson in relation to his or her role relationships.

It is hypothesized that job tension will be negatively related to self-esteem, performance, and job satisfaction. As tensions mount and the ability to cope lessens, one would expect a lowered self-esteem because of the identification of personal competence on the job with the self; the saliency of the job for one's livelihood; and family, peer, and societal-wide expectations for success in one's life work. Similarly, job tension is posited to be negatively related to performance because of its tendency to draw attention away from planning and other activities needed for success and its anxiety-producing quality for

disrupting the processing and evaluation of information related to the job effort. Finally, job tension is hypothesized to be negatively related to job satisfaction in that people are inclined to devalue and dislike things which make them uncomfortable or prevent them from achieving what they need and want. Research in both organization behavior (Kahn et al. 1963; Lyons 1971) and marketing (Bagozzi 1978) lends some support for the above hypotheses.

A second concept from role theory—role ambiguity—is also useful for representing the impact of the organization on the salesperson. Role ambiguity is defined here as the degree of uncertainty the salesperson experiences with respect to customer, sales manager, and family expectations; limits to authority; and other dimensions of the job role.

It is hypothesized that role ambiguity will be negatively related to self-esteem, performance, and job satisfaction. The mechanism is thought to arise through information-processing activities. That is, as uncertainty in expectations increases, the ability of the salesperson to make accurate judgments decreases, while risk increases. The result is that performance is adversely affected and evaluations of the self and job decline. Again, some support for this hypothesis may be found in both the organization behavior (Rizzo, House, and Lirtzman 1970; House and Rizzo 1972; Hamner and Tosi 1974; and Schuler 1977) and marketing (Pruden and Reese 1972; Bagozzi 1978) literatures.

Motivation

The final determinant of job outcomes is motivation. In general, two broad conceptualizations of motivation have been identified by industrial and organizational psychologists: (1) mechanical or process theories and (2) substantive or content theories (e.g., Campbell and Pritchard 1976). Mechanical theories of motivation are perhaps best exemplified by instrumentality (Mitchell and Biglan 1971) or expectancy-value (Campbell and Pritchard 1976) approaches. Briefly, these models define motivation as a multiplicative function of one's cognitive evaluation of various job outcomes times one's expectancies that (a) working hard will lead to the accomplishment of task objectives and (b) these, in turn, will lead to particular job outcomes (Staw 1977). Substantive theories typically posit the existence of certain needs within individuals and then relate these to behaviors on the job such as performance. Herzberg, Mausner, and Snyderman's (1959) two-factor theory, McClelland's (1961) theory of need achievement, and Alderfer's (1972) hierarchy-of-needs model are three leading examples.

Motivation in the present study is conceptualized as a general cognitive evaluation of the importance of work in the everyday life of the salesperson. By attempting to capture the generalized valences for work in both an absolute and relative sense (with respect to leisure

activities) and at the same time relating these to the needs of the salespeople, this investigation combines elements of both the mechanical and substantive approaches to motivation.

The hypothesis is that motivation will be positively related to self-esteem, performance, and job satisfaction. That is, the greater that salespeople value the positive dimensions of their jobs and the less they feel anxious about or devalue the negative dimensions of their jobs, the higher will be their self-esteem, performance, and job satisfaction. The rationale for the connections is based on both a balance theory of cognition and social learning theory (e.g., Mischel 1973). Salespeople are hypothesized (1) to form cognitions of various dimensions of the job, (2) to evaluate these dimensions in terms of their own needs and expectations, and (3) to expend an amount of effort consistent with these cognitions and evaluations. Hence, the more motivated the salesperson is and/or the greater the probability that the job meets the needs and expectations of the salesperson, the higher will be the self-esteem, performance, and job satisfaction.

IV. Methodology

Research Setting and Sample

Data were obtained from a sample of industrial salespeople and information found in company accounting records. The focal sales force consisted of 135 men, of which 122 completed all items employed for a 90% response rate. These salespeople sell steel and plastic strapping and seals used in shipping and also small hand tools used to apply strapping. For the most part, the customers include purchasing agents and material managers from a wide assortment of industries. The salespeople are assigned to an exclusive geographical territory. Product-form competition exists through many substitute products (e.g., twine, wire, alternative packaging, etc.), and four or five competitors who manufacture similar products as the focal organization also exist in every market.

As a test of the theory outlined above, the focal sales force is ideal for a number of reasons. First, compared to many other organizational settings, the present context exhibits stronger contingencies between the efforts, abilities, and individual differences of the employees on the one hand and their job outcomes on the other. Second, the relative role of situational and environmental determinants of performance is less in the present setting than in many other occupations. The two above conditions are a result of the nature of the job and its position in the market and industry. That is, the products and customer needs are technical and well defined; very little product differentiation exists within the industry; there is no price competition among firms for

selling steel strapping, which constitutes the largest part of each person's sales; and advertising is minimal and does not appear to have a discernible effect on sales. Thus, there are *a priori* reasons for expecting that situational factors are not the major causes of job outcomes, but that the characteristics of the salespeople and their interactions are significant determinants of job outcomes.

A third reason that the sample provides an ideal test of hypotheses lies in the structure of the task and employee-supervision relationships. The performance of each salesperson is quantitative; highly visible; regularly monitored by management and salesperson; and tied to salary, bonuses, promotions, and formal recognition in a company-wide publication. Further, as part of formal procedures on the job, each salesperson regularly appraises his own past and present performance against both personal and company standards. These factors tend to provide strong cognitive and functional connections between the behavior of salespeople and their outcomes experienced on the job.

Data-Collection Instruments and Procedures

Performance was measured as the dollar volume of sales. The data were hand copied from company records, and steps were taken to adjust for or remove those salespeople who quit or were transferred. Also, care was taken to adjust for changes in territory size, shifts in accounts between territories, windfall accounts, and other confounds which occurred during the investigation period.

Self-esteem was operationalized through six Likert items especially constructed for this study. Self-esteem measure 1 consists of two nine-point items and one five-point item asking each salesperson to rate himself in relation to the other salespeople in the company as to his quantity of sales achieved, potential for reaching the top 10% in sales, and quality of performance in regard to management of time, planning ability, and management of expenses. Self-esteem measure 2 is comprised of three nine-point items asking each salesperson to rate himself in relation to the other salespeople in the company as to his ability to reach quota, quality of performance in regard to customer relations, and quality of performance in regard to knowledge of own company and products, competitors' products, and customers' needs. The Cronbach Alpha reliability for the composite self-esteem measures was .77.

Job satisfaction was measured with an eight-item Likert scale. Job satisfaction measure 1 consists of four six-point items asking each salesperson for his feelings of satisfaction about promotion opportunities, the level of pay, the general work situation, and other dimensions of the job. Job-satisfaction measure 2 contains four six-point items asking each salesperson for his feelings of satisfaction with the opportunity to demonstrate ability and initiative, job security, the degree of

challenge on the job, and the amount of control of the work situation. Four of the items were those used by Pruden and Reese (1972), while four were explicitly designed for the specific sales situation in this study. The Cronbach Alpha reliability for the composite job-satisfaction measures was .78.

Job tension was indicated through the responses to the Job Related Tension Index, a 15-item Likert scale developed by Kahn and his associates (1963). The scale asks how often the person feels "bothered" about various aspects of the job situation such as the amount of authority, scope and responsibilities of the job, and so on. Since the scale is unidimensional, eight items were used to construct the job-tension measure 1, and seven items were used to construct the job-tension measure 2. The Cronbach Alpha reliability for the composite job-tension measures was .75.

Role ambiguity was measured with a 12-item scale developed by Ford, Walker, and Churchill (1974). Role-ambiguity measure 1 is comprised of six five-point Likert items asking how certain/uncertain the salesperson is with respect to limits to authority, call norms, sales manager expectations for allocating time, sales manager evaluations of importance of activities, customer expectations for frequency of calls, and family expectations for time spent on the job. Role-ambiguity measure 2 consists of six five-point Likert items asking how certain/uncertain the salesperson is with respect to the freedom to negotiate on price, power to modify delivery schedules, satisfaction of manager with own performance, general customer expectations, satisfaction of customers with own performance, and general family expectations. The Cronbach Alpha reliability for the composite role-ambiguity measures was .80.

Motivation was measured with eight items from the Work Orientation Index (Duncan 1969). The items ask for both absolute and relative (with respect to leisure) attitudes toward the general work situation. Since the index is unidimensional, it was divided into two subscales: motivation measure 1 and motivation measure 2. The Cronbach Alpha reliability for the composite measures was .60. Table 1 presents the means, standard deviations, and intercorrelations for all variables used in the study.

Prior to the collection of performance measures and administration of the questionnaire, and even before the final set of scales were selected, extensive interviewing and participant observation were conducted. Interviews were performed with the head of sales (a vice-president of the corporation), sales managers, salespeople, and a number of marketing-research personnel close to the selling situation. I also accompanied a number of salespeople as they made calls. Observation and discussion with the above people led to the design and selection of the instruments used in the study.

TABLE 1 Pearson Product-Moment Correlations for Observed Variables ($N = 122$)

Variable	y_1	y_2	y_3	y_4	y_5	x_1	x_2	x_1^*	x_2^*	x_3	x_4	Mean	SD	No. of Items
Self-esteem measure 1, y_1	1.000											19.57	2.16	3
Self-esteem measure 2, y_2	.546	1.000										24.16	2.06	3
Dollar volume of sales, y_3	.544	.507	1.000									720.86	209.06	...
Job-satisfaction measure 1, y_4	.281	.225	.418	1.000								15.53	3.43	4
Job-satisfaction measure 2, y_5	.324	.314	.394	.627	1.000							18.46	2.81	4
Job-tension measure 1, x_1	-.255	-.243	-.452	-.596	-.503	1.000						19.90	3.42	8
Job-tension measure 2, x_2	-.403	-.281	-.406	-.293	-.364	.585	1.000					15.02	2.68	7
Role-ambiguity measure 1, x_1^*	-.335	-.251	-.188	-.154	-.175	.318	.294	1.000				12.77	2.71	6
Role-ambiguity measure 2, x_2^*	-.384	-.426	-.261	-.163	-.256	.329	.435	.686	1.000			12.60	2.46	6
Motivation measure 1, x_3	.201	.172	.129	.202	.266	-.185	-.187	-.065	-.041	1.000		14.90	1.95	4
Motivation measure 2, x_4	.161	.174	.189	.284	.208	-.079	-.020	-.078	-.069	.365	1.000	14.35	2.08	4

The questionnaire was sent to the salespeople by mail with a cover letter from the head of sales. The letter stated the overall purpose of the study in rather vague terms, who was conducting the research, and directions for completing the questionnaire. The letter also stressed that the individual responses of salespeople would be kept strictly anonymous. To reduce the impact of evaluation apprehension and other forms of reactivity, a statement was included in the letter instructing the salespeople not to sign the questionnaire. Since no identification numbers appeared on the questionnaire, the salespeople had no reason to believe that their individual responses would be known to anyone.

The Structural Equation Models

To test the hypotheses, a structural equation methodology was employed that explicitly models errors in equations and errors in variables. The general path model is diagrammed in figure 1, where the following abbreviations are used for key variables: ξ = either role ambiguity or job tension, depending on the model tested; M = motivation; SE = self-esteem; P = performance; and JS = job satisfaction. Because of potential definitional confounding between role ambiguity and job tension and concomitant multicollinearity, two models will be tested: one including role ambiguity but excluding job tension, and a second including job tension but excluding role ambiguity.

Following the conventions established in the causal modeling literature, the path model of figure 1 can be expressed through the following system of equations:

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} \begin{pmatrix} SE \\ P \\ JS \end{pmatrix} = \begin{pmatrix} \gamma_1 & \gamma_4 \\ \gamma_2 & \gamma_5 \\ \gamma_3 & \gamma_6 \end{pmatrix} \begin{pmatrix} \xi \\ M \end{pmatrix} + \begin{pmatrix} \zeta_1 \\ \zeta_2 \\ \zeta_3 \end{pmatrix}, \quad (1)$$

$$\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{pmatrix} = \begin{pmatrix} \alpha_1 & 0 \\ \alpha_2 & 0 \\ 0 & \alpha_3 \\ 0 & \alpha_4 \end{pmatrix} \begin{pmatrix} \xi \\ M \end{pmatrix} + \begin{pmatrix} \delta_1 \\ \delta_2 \\ \delta_3 \\ \delta_4 \end{pmatrix}, \quad (2)$$

$$\begin{pmatrix} y_1 \\ y_2 \\ y_3 \\ y_4 \\ y_5 \end{pmatrix} = \begin{pmatrix} \lambda_1 & 0 & 0 \\ \lambda_2 & 0 & 0 \\ 0 & \lambda_3 & 0 \\ 0 & 0 & \lambda_4 \\ 0 & 0 & \lambda_5 \end{pmatrix} \begin{pmatrix} SE \\ P \\ JS \end{pmatrix} + \begin{pmatrix} \epsilon_1 \\ \epsilon_2 \\ \epsilon_3 \\ \epsilon_4 \\ \epsilon_5 \end{pmatrix}, \quad (3)$$

where the γ parameters relate the true exogenous variables to the true endogenous variables; α and λ relate the true exogenous and endogenous variables to their respective measures, x and y ; ζ represents errors in equations; and δ and ϵ depict the errors in variables for x and

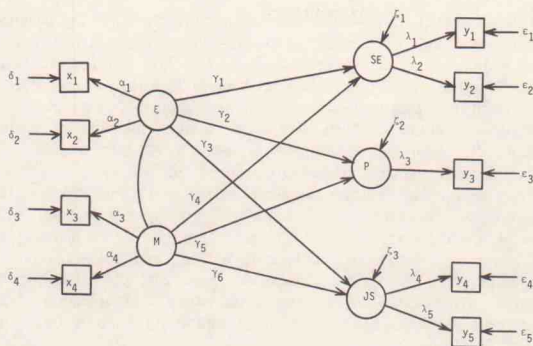


FIG. 1.—Path model

y , respectively. A number of assumptions are made with regard to the model implied by equations (1)–(3). First, the observations, x and y , are taken to be measured as deviations from their means. Second, it is assumed that $E(SE) = E(P) = E(JS) = 0$, $E(\zeta) = 0$, and $E(\xi) = E(M) = 0$. Further, it is assumed that ζ is uncorrelated with either ξ or M and that the errors in variables are uncorrelated with SE, P, JS, ξ, M , and ζ . Finally, the errors in variables are assumed to be uncorrelated among themselves.

With $z = (y', x')'$, the variance-covariance matrix of z may be expressed as

$$\Sigma = E(zz') = \begin{bmatrix} \Lambda(\Gamma\phi\Gamma' + \psi)\Lambda' + \theta_\epsilon & \Lambda\Gamma\phi\alpha' \\ \alpha\phi\Gamma'\Lambda' & \alpha\phi\alpha' + \theta_\delta \end{bmatrix}, \quad (4)$$

where ϕ and ψ are the covariance matrices of $(\xi, M)'$ and ζ , respectively; θ_ϵ and θ_δ are the covariance matrices of ϵ and δ , respectively; and

$$\alpha = \begin{bmatrix} \alpha_1 & 0 \\ \alpha_2 & 0 \\ 0 & \alpha_3 \\ 0 & \alpha_4 \end{bmatrix}, \quad \Lambda = \begin{bmatrix} \lambda_1 & 0 & 0 \\ \lambda_2 & 0 & 0 \\ 0 & \lambda_3 & 0 \\ 0 & 0 & \lambda_4 \\ 0 & 0 & \lambda_5 \end{bmatrix},$$

$$\Gamma = \begin{bmatrix} \gamma_1 & \gamma_4 \\ \gamma_2 & \gamma_5 \\ \gamma_3 & \gamma_6 \end{bmatrix}.$$

In the analyses to follow, it should be noted that the following assigned values in α and Λ are made: $\alpha_1 = \alpha_3 = \lambda_1 = \lambda_4 = 1.000$. This is a convention suggested by Jöreskog (e.g., Jöreskog and Sörbom 1978) which has the effect of scaling the unobserved true scores for ξ , M , SE , and JS in the same units of measurement as their respective observed variates. Similarly, because there is only a single measure for performance, P , the following parameters are fixed: $\lambda_3 = 1.00$ and $\theta_{\epsilon 3} = .000$. That is, performance is assumed measured without error.

For the particular system of equations described above, it is possible to show that the model is overidentified with 18 df (e.g., Geraci 1977; Jöreskog and Sörbom 1978). With the assumption that the distribution of observed variables is multivariate normal, and given the above assumptions, Jöreskog has developed a procedure (LISREL) for estimating parameters. Briefly, the method uses a modification of an algorithm developed by Fletcher and Powell to minimize the following fitting function:

$$F = \log |\Sigma| + tr(S\Sigma^{-1}) - \log |S| - (p + q), \quad (5)$$

where F is a function of the logarithm of the likelihood function; S is the sample covariance matrix defined as $S = [1/(N - 1)](Z'Z - N\mu\mu')$, with N = sample size, Z = raw data matrix, and $\mu = (1/N) Z'1$; and p = number of y and q = number of x variables. The algorithm makes use of the first-order derivatives and large sample approximations to the elements of the matrix of second-order derivatives to achieve minimization. Using the likelihood ratio technique, a χ^2 goodness-of-fit test is provided, and degrees of freedom can be calculated from $df = 1/2(p + q)(p + q + 1) - t$, where t is the number of parameters to be estimated in Σ . For the model of equations (1)–(4), t equals 27 (i.e., 6 γ 's, 2 α 's, 2 λ 's, 4 θ_δ 's, 4 θ_ϵ 's, 3 elements in ϕ , and 6 in ψ). Hence, there are 18 df. The p value associated with the goodness-of-fit test gives the probability of obtaining a χ^2 value larger than that actually obtained, given that the hypothesized model holds.

V. Results

Table 2 summarizes the findings for the model hypothesizing that role ambiguity and motivation are determinants of self-esteem, performance, and job satisfaction. Notice first that the overall model receives strong support, since $\chi^2 = 11.53$, $df = 18$, and $p \approx .87$. Also, each of the hypothesized relationships between the exogenous variables and the endogenous job outcomes is in the predicted direction and statistically significant, as can be seen from the standard errors of estimates (only γ_5 is not at least twice its standard error, though it approaches this rule of thumb). Further, all parameters relating unobservables to their respective measures are highly significant. Of particular interest are the

TABLE 2 Maximum Likelihood Estimates for the Model with Role Ambiguity and Motivation as Predictors of Self-Esteem, Performance, and Job Satisfaction

Parameter	Unstandardized Solution	Standardized Solution
α_1	1.000*	.704
α_2	1.383 (.268)	.974
α_3	1.000*	.622
α_4	.945 (.329)	.587
λ_1	1.000*	.747
λ_2	.978 (.140)	.731
λ_3	1.000*	1.000*
λ_4	1.000*	.785
λ_5	1.017 (.169)	.799
γ_1	-.561 (.123)	-.528
γ_2	-.348 (.132)	-.245
γ_3	-.255 (.119)	-.229
γ_4	-.417 (.187)	.347
γ_5	.380 (.212)	.236
γ_6	.603 (.227)	.478
ϕ_{11}	.496 (.140)	1.000
ϕ_{21}	-.042 (.057)	-.096
ϕ_{22}	.386 (.167)	1.000
ψ_{11}	.316 (.099)	.566
ψ_{21}	.359 (.084)	.480
ψ_{22}	.873 (.119)	.873
ψ_{31}	.102 (.066)	.173
ψ_{32}	.256 (.085)	.327
ψ_{33}	.431 (.122)	.698
$\theta_{\delta 1}$	.504 (.107)	.504
$\theta_{\delta 2}$	.051 (.162)	.051
$\theta_{\delta 3}$	.614 (.154)	.614
$\theta_{\delta 4}$	.655 (.145)	.655
$\theta_{\epsilon 1}$	.442 (.084)	.442
$\theta_{\epsilon 2}$	.466 (.084)	.466
$\theta_{\epsilon 3}$	.000*	.000*
$\theta_{\epsilon 4}$	.384 (.101)	.384
$\theta_{\epsilon 5}$	.362 (.103)	.362

NOTE.—Standard errors are in parentheses. $\chi^2 = 11.53$, $df = 18$, $p \approx .87$.

*Constrained parameter.

relative magnitudes of effects. For example, role ambiguity has about 1.5 times as much impact on self-esteem as does motivation, though both have strong effects. Similarly, role ambiguity and motivation affect performance with approximately equal magnitudes, but they are relatively less forceful than the other causal paths in the model. Finally, motivation affects job satisfaction with about 1.4 times the force of role ambiguity, though both variables have strong effects.

The results for the model hypothesizing that job tension and motivation are determinants of self-esteem, performance, and job satisfaction are displayed in table 3. Although the estimate for γ_5 is the only one of the six hypothesized relations that is not significant, one must reject the

TABLE 3
Maximum Likelihood Estimates for the Model with Job Tension and Motivation as Predictors of Self-Esteem, Performance, and Job Satisfaction

Parameter	Unstandardized Solution	Standardized Solution
α_1	1.000*	.951
α_2	.646 (.114)	.615
α_3	1.000*	.551
α_4	1.202 (.427)	.662
λ_1	1.000*	.766
λ_2	.931 (.150)	.713
λ_3	1.000*	1.000*
λ_4	1.000*	.835
λ_5	.899 (.117)	.751
γ_1	-.251 (.097)	-.312
γ_2	-.473 (.111)	-.450
γ_3	-.575 (.111)	-.655
γ_4	.441 (.221)	.317
γ_5	.314 (.215)	.173
γ_6	.538 (.206)	.355
ϕ_{11}	.905 (.176)	1.000
ϕ_{21}	-.109 (.073)	-.208
ϕ_{22}	.304 (.140)	1.000
ψ_{11}	.446 (.122)	.761
ψ_{21}	.363 (.083)	.474
ψ_{22}	.735 (.103)	.735
ψ_{31}	.056 (.062)	.088
ψ_{32}	.080 (.068)	.096
ψ_{33}	.243 (.091)	.349
$\phi_{\delta 1}$	.095 (.121)	.095
$\theta_{\delta 2}$	.622 (.095)	.622
$\theta_{\delta 3}$	.696 (.139)	.696
$\theta_{\delta 4}$	.561 (.169)	.561
$\theta_{\epsilon 1}$	.413 (.095)	.413
$\theta_{\epsilon 2}$	.492 (.093)	.492
$\theta_{\epsilon 3}$	.000*	.000*
$\theta_{\epsilon 4}$	.302 (.079)	.302
$\theta_{\epsilon 5}$	.436 (.079)	.436

NOTE.—Standard errors are in parentheses. $\chi^2 = 28.84$, $df = 18$, $p \approx .05$.

*Constrained parameter.

entire model based on the goodness-of-fit test: that is, $\chi^2 = 28.84$, $df = 18$, $p \approx .05$. One possible reason for the failure to accept the model could be due to a confounding of responses to the job-tension and self-esteem questions. Although the former asks how frequently one feels bothered, while the latter asks for self-attributions, a number of questions in both indexes address similar dimensions of the job. Hence, if some salespeople were not careful in reading the instructions, response error could have been present, producing a spurious correlation between job tensions and self-esteem. This would be reflected in correlated errors between the measures of job tension and self-esteem. Indeed, an inspection of the residual matrix for this model shows that

TABLE 4 Residuals ($S - \hat{\Sigma}$) for the Model with Job Tension and Motivation as Predicators of Self-Esteem, Performance, and Job Satisfaction

Variable	y_1	y_2	y_3	y_4	y_5	x_1	x_2	x_3	x_4
y_1	.000								
y_2	.000	.000							
y_3	.000	.000	.000						
y_4	.020	.055	.007	.000					
y_5	-.053	-.062	-.012	.000	.000				
x_1	-.021	-.013	-.011	.017	-.017	.000			
x_2	.225	.115	.107	-.081	.028	.000	.000		
x_3	-.040	-.022	.018	.024	-.063	.076	.116	.000	
x_4	.033	.006	-.012	-.012	.036	-.052	-.065	.000	.000

NOTE.—Excessive residuals are indicated in italics.

high values occur between y_1 and x_2 (the residual matrix is defined as $S - \hat{\Sigma}$) (see table 4). Hence, evidence exists rejecting the hypothesis that job tension is necessarily a valid predictor of self-esteem—at least given the measures used herein.

In sum, the results provide strong support for the hypotheses relating role ambiguity and motivation to the job-outcome variables of self-esteem, performance, and job satisfaction. The data do not support the propositions relating job tension to job outcomes, however. This may be the result of possible confounding in the wording of questions in the job-tension and self-esteem measures, as noted earlier.

VI. Discussion and Conclusions

Looking at the relative impact of role ambiguity and motivation on job outcomes, a number of points deserve mention. First, role ambiguity appears to have the greatest adverse effect on self-esteem. That is, it has a strong negative impact on the self-regard and attributions of self-competence on the job. Motivation, in contrast, has the strongest effect on job satisfaction. The more motivated the salespeople, the more highly they evaluate and the more positive they feel about specific dimensions of the job. Although somewhat lower in actual magnitude than other effects, the influence of role ambiguity and motivation appear to have about equal but opposite effects on performance.

In sum, role ambiguity and motivation have differential effects, depending on the particular job outcome examined. Although it might appear on the surface that the optimum action management could take is to reduce role ambiguity and increase motivation, such a policy may not always be possible. For example, the firm may have limited resources and be required to choose between one of two programs: one designed to reduce ambiguity, the second designed to enhance motivation. Under these conditions, then, the choice would depend on the

goals of the organization. If the goal were to increase the self-esteem of salesmen, then the reduction of role ambiguity should be the target; similarly, a program stimulating effort (say through incentives) would be the appropriate choice to increase job satisfaction. On the other hand, given the necessity of trade-offs, the firm would be indifferent between the two programs, if the increase in performance were the objective.

The choice between changing role ambiguity or motivation also depends on the nature of the selling job and the people involved. In many selling situations, for instance, motivation may be already relatively high because of a good selection and training program, an effective incentive system, a recent contest, or other factors. Under these conditions, the gain in motivation would be marginal, and management might focus on changing the uncertainty present in company policies, supervisor-salesman relationships, and other aspects of the organization. Future research should focus on the feedback and interaction, if any, among job outcomes. For example, performance may be enhanced indirectly through a program designed to increase job satisfaction. Although the present study was only concerned with the antecedents of job outcomes and made no assumptions as to the processes among them, the next logical step would be to study salesmen over time in order to identify sequences and interrelationships among self-esteem, performance, and job satisfaction.

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