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11
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A Measure of Selling Skill: Scale Development and Validation

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A Measure of Selling Skill: Scale Development and Validation

Joseph O. Rentz, C. David Shepherd, Armen Tashchian, Pratibha A. Dabholkar, and Robert T. Ladd

Selling skills are learned proficiency at performing tasks necessary for a sales job. They are among the most important predictors of sales performance. However, the research into selling skills has been hampered by the lack of an overall scale. To address this shortcoming the present paper identifies a model of sales skills consisting of three components of interpersonal skills, salesmanship skills, and technical skills. Using exploratory and confirmatory factor analysis, the authors report the development of a Selling Skill scale as a reliable and valid instrument. The authors suggest priorities for future research and potential uses of this instrument.

Introduction

In their meta analysis of the determinants of salesperson performance, Churchill, Ford, Hartley, and Walker (1985) analyzed the results of 116 articles that produced 1,653 reported associations between sales performance and the determinants of that performance. Using the model of the determinants of sales performance (Walker, Churchill and Ford 1977), researchers grouped salesperson performance research into five categories: motivation, sales aptitude, selling skills, role clarity, and personal, organizational and environmental variables. The results of this research indicated that selling skills were the second most important of the five variables seen in the researchers' models of sales performance, both in terms of average size of association with performance and in terms of real variation (that is, variation not attributable to sampling error). Despite the importance of selling skills as determinant of sales performance, the authors observed that research attention to the area of selling skills has been sporadic and limited (Churchill, Ford, Hartley, and Walker 1985).

Selling skills have been described as the individual's learned proficiency at performing the necessary tasks for the sales job, and it consists of three distinct components (Ford, Walker, Churchill, and Hartley 1987):

1. Interpersonal skills, such as *knowing how* to cope with and resolve conflicts.
2. Salesmanship skills, such as *knowing how* to make a presentation and how to close a sale.
3. Technical skills, such as *knowledge* of product features and benefits, engineering skills, and the procedures required by company policies (*italics added*).

In other words, selling skills essentially consist of knowing how to do certain things, often referred to as procedural knowledge, and knowing about certain things sometimes referred to as declarative knowledge (Szymanski 1988). Put at an even more basic level, to understand selling skills one must understand the knowledge possessed by the skillful salesperson.

Since the Churchill et al. (1985) meta analysis, a stream of research has focused on various aspects of the knowledge possessed by salespeople. For example, research has focused on the ability to adapt one's sales approach to fit the sales situation (Spiro and Weitz 1990), which could be classified as salesmanship. Other research has focused on aspects of interpersonal skill, such as effective listening skills (Comer and Drollinger 1999; Castleberry and Shepherd 1993) and technical skills, such as customer knowledge (Smith and Owens 1995). However, to date no research effort has attempted to isolate sales skills as a holistic construct (Bagozzi 1984).

An overall measure of sales skills should be useful to both practitioners and researchers. With such a measure researchers could separate the highly skilled salesperson (termed sales "experts" by Shepherd and Rentz 1990) from their lesser-skilled contemporaries. Recognition and identification of the experts should both facilitate and stimulate research into the mental processes and knowledge possessed by these highly skilled salespeople. Such research should prove invaluable to practitioners in the selection and training of salespeople.

The purpose of this study is to rectify this research shortcoming by providing an overall measure of sales skill. We will present a tri-component model of selling skills grounded on the sales performance literature and will report on the development and validation of this scale. We will then address the relationship between sales skills and sales performance and discuss how this measure can be used in the selection, training, and motivation of salespeople.

Sales Skill and Salesperson Performance

Since the Churchill et al. (1985) meta analysis a considerable amount of research has focused on specific aspects of selling skills. This research can be divided into two primary areas: the micro-skill stream and the macro-skill stream. As shown in Table 1, the micro-skill stream of research has tended to focus on individual sales skills. For example, the Castleberry and Shepherd (1993) study of interpersonal listening skills is very typical of this stream of research. Note Castleberry and Shepherd's definition of interpersonal listening in the sales context, "the cognitive process of actively

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Table 1
Microskill Literature Relevant to Dimensions of Selling Skill

<i>Interpersonal Skills</i>	<i>Listening</i>	<i>Empathy</i>	<i>Optimism</i>	<i>Perceptive Observation</i>
Boorum (1994)	X			
Castleberry and Shepherd (1993)	X			
Comer and Drollinger (1999)	X			
Dawson, Soper, and Pettijohn (1992)		X		
Dreyfack (1991)			X	
McBane (1995)		X		
Pilling and Eroglu (1994)		X		
Plank, Minton, and Reid (1996)		X		
Ramsey and Sohi (1997)	X			
Schulman (1999)			X	
Seligman and Schulman (1986)			X	
Strutton and Lumpkin (1993)			X	
Sujan (1999)			X	X

<i>Salesmanship Skills</i>	<i>Adaptability</i>	<i>Consultative Selling</i>	<i>Negotiation & Questioning</i>	<i>Salesperson Cues & Communication Style</i>
Boorum (1994)	X			
Boorum, Goolsby, and Ramsey (1998)	X			
DeCormier and Jobber (1993)		X		
Fisher and Ury (1985)			X	
Goolsby, Lagrace, and Boorum (1992)	X			
Hannan (1990)		X		
Schuster and Danes (1986)			X	
Spiro and Weitz (1990)	X			
Stafford (1996)				X
Sujan (1999)	X			
Vink and Verbeke (1993)	X			
Weitz, Sujan, and Sujan (1986)	X			
Whittler (1994)				X
Williams, Spiro, and Fine (1990)				X

<i>Technical Skills</i>	<i>Customer Knowledge</i>	<i>Client Evaluation Cues</i>	<i>Buyer/Seller Relationship Management</i>	<i>Competitive Information</i>
Depaulo and Bella (1989)		X		
Donath (1993)	X			
Han, Wilson, and Dant (1993)			X	
Ring and Van De Ven (1992)			X	
Smith and Owens (1995)	X			
Smith and Prescott (1987)				X
Szymanski and Churchill (1990)		X		

sensing, interpreting, evaluating and responding to the verbal and nonverbal messages of present or potential customers" (p. 36). Castleberry and Shepherd researched a single aspect of the interpersonal skill component of sales skills. In a manner very consistent for this micro-skill stream of research, the authors posited a positive relationship between listening skills and sales performance.

Another variation on the micro-stream of research can be seen in Sujan's (1999) "street-smart" salesperson conceptualization. The street-smart conceptualization combined optimism (an interpersonal skill) with perceptive observation of customers, supervisors, and support staff (another interpersonal skill) and adaptation (a salesmanship skill).

Instead of an individual skill focus, the macro-skill stream of research has tended to focus on identifying the mental processes and knowledge possessed by highly effective salespeople. An overriding principle in this stream of research is the belief that salespeople's effectiveness is a result of these mental processes and knowledge. A significant portion of macro-skill research has borrowed concepts and approaches from cognitive psychology to study the knowledge possessed by highly effective salespeople (Porter and Inks 2000; Leigh 1987; Leong, Busch, and Roedder John 1989; Macintosh et al. 1992; Weitz, Sujan, and Sujan 1986). The findings of this stream of research have generally been encouraging. In fact, significant differences in the knowledge structures and men-

tal processes of effective and ineffective salespeople have been found (although the definition and measurement of effectiveness vary by study). For example, Sujana, Sujana, and Bettman (1988) found that effective salespeople had about the same number of categories in memory as did ineffective salespeople, but the richness of information in categories and the amount of overlap between categories were greater for effective salespeople. Szymanski and Churchill (1990) found significant differences in the structure of evaluation cues and in the weight placed on these cues by more and less effective salespeople. Leong, Busch, and Roedder John (1989) found that higher performing salespeople have more distinctive scripts and consider more contingencies in different selling situations than do those who do not perform as well. Methodologically, cognitive sales research has tended to draw its conclusions from analyses that compare effective with ineffective salespeople. Many of these studies have used performance-based measures to distinguish effective and ineffective salespeople.

Our premise is that both micro- and macro-sales skill research would benefit from direct measurement of overall selling skill, rather one that focuses on measures of performance. While we expect a positive correlation between selling skill and sales performance, it is important to remember that sales performance is a *consequence* of many variables, including not only skill, but also motivation, role clarity, territory assignment, management support, and many other variables (Shepherd and Rentz 1990). Thus, differences in skill are a purer and more direct surrogate for a salesperson's abilities. Although skill is an antecedent of performance, highly skilled salespeople may or may not perform effectively, depending on other antecedents of performance. For example, without motivation, even an expert salesperson may perform poorly. Thus, if objective performance is the only criterion used to separate salespeople, we may relegate an unmotivated, but expert, salesperson to the unskilled category. Conversely, we may have an unskilled, but high-performing, salesperson in the expert category (as a result of high motivation, an excellent territory, or some other variable unrelated to skill). Although selling skill is only one of several variables that may influence performance based on the Walker, Churchill and Ford (1977) model of the determinants of sales performance, and the Churchill, Ford, Hartley, and Walker meta-analysis (1985), we would expect a valid measure of selling skill to have a positive correlation with sales performance.

Scale Development

Development of the Selling Skill scale followed the standard psychometric procedures as suggested by Nunnally (1978) and Gerbing and Anderson (1988). The first step in the scale development process was the generation of a list of items for each component of the selling skill set. A review and synthesis of the relevant literature of micro skills of selling identified several areas that could contribute to overall selling skills. For example, adaptability (Spiro and Weitz 1990; Sujana 1999), communication style (William, Spiro, and Fine 1990), or salesperson cues and questioning (Schuster and Danes 1986; Stafford 1996; Whittler 1994) are posited as being representative of overall selling skills. Similarly, listening skills (Castleberry and Shepherd 1993; Comer and Drollinger 1999), empathy, and optimism (Dawson, Soper and Pettijohn 1992; McBane 1995; Seligman and Schulman 1986) are also perceived as impacting a salesperson selling skills. Finally, a number of researchers have looked at competitive informa-

tion (Smith and Prescott 1987), customer knowledge (Donath 1993; Smith and Owens 1995), or client evaluation cues and declarative knowledge (Szymanski and Churchill 1990) to be relevant to the impact of selling skills.

While the list of areas could appear to be wide and daunting, careful review allows one to group all these issues as subcomponents of the three main selling skill dimensions that were conceptualized by Walker, Churchill and Ford (1977) research—namely, interpersonal skills, salesmanship skills, and technical skills, which fully encompass the dimensions of selling skills. In light of the preliminary nature of this attempt at development of a selling skill instrument, it was decided that three dimensions of selling skill should be the basis for initial development and testing. Furthermore, we incorporated concepts from the various areas suggested in the literature and presented in Table 1 for item development and to provide a base for the face and nomological validity of the items.

Item Generation

The first dimension of selling skill, interpersonal skill, includes such skills as knowing how to cope with and resolve conflict and understanding, persuading and getting along with others, ability to listen, and empathy (Churchill, Ford, Hartley and Walker 1985; Dawson, Soper, and Pettijohn 1992; Castleberry and Shepherd 1993). Certainly a multitude of skills could be included under this rubric of interpersonal skill, and many instruments exist for measuring certain aspects of interpersonal skill (e.g., Davis 1980; Snyder 1974; Watson and Barker 1983). However, to be useful the items need to be both broad enough in scope and short enough to be practically useful. Our review and examination of relevant literature and existing scales resulted in selecting the social skill categories as described by Riggio (1986), which capture a wide range of interpersonal skills. The seven items reflect nonverbal expression, general speaking skills, awareness and understanding of the nonverbal communications of others, the ability to control and regulate nonverbal displays of emotion, the ability to present oneself socially (possibly through acting), the ability to manipulate others to control the situation, and awareness and understanding of the verbal communications of others (see Table 2).

The second dimension of selling skill, salesmanship skill, is captured by the six items presented in Table 2. The schema suggested by Walker, Churchill and Ford (1977), along with items suggested by others (Moncrief 1986; Williams and Seminerio 1985), were used to develop the items which span the various stages of the selling process to include prospecting for customers, opening the account, qualifying the prospect, presenting the sales message, closing the sale, and servicing the account.

The final dimension of selling skill, technical knowledge, includes salesperson's knowledge of product features and benefits, engineering skills, and the procedures required by company policies (Walker, Churchill and Ford 1977; Donath, 1993; Smith and Owens 1995). This list was bolstered through discussions with various salespeople and their managers to derive the six technical knowledge items shown in Table 2. The items reflect knowledge of customers' markets and products; knowledge of one's own company's procedures; knowledge of competitors' products, services, and sales policies; knowledge of product line; knowledge of customers' operations; and imagination in supplying products and services that meet the customers' needs.

Table 2
Initial List of Selling Skill Scale Items

Item	Interpersonal Skills
1	Ability to express yourself nonverbally.
2	Ability in general speaking skills.
3	Awareness and understanding of the nonverbal communications of others.
4	Ability to control and regulate nonverbal displays of emotion.
5	Ability to present yourself socially, possibly through acting.
6	Ability to manipulate others to control the situation.
7	Awareness and understanding the verbal communications of others.
	<i>Salesmanship Skills</i>
1	Ability to prospect for customers.
2	Ability to qualify prospects.
3	Ability to open relationships with prospects.
4	Ability to close the sale.
5	Ability to present the sales message.
6	Ability to service the account.
	<i>Technical Knowledge</i>
1	Knowledge of customers' markets and products.
2	Knowledge of your own company's procedures.
3	Knowledge of competitors' products, services, and sales policies.
4	Knowledge of product line, including product features and benefits.
5	Knowledge of customers' operations, such as store and shelf layout, and employee training.
6	Imagination in supplying products and services that meet the customers' needs.

The nineteen items discussed were included in a pre-test survey presented to a group of 12 food broker salespeople who operated in several cities in the south. The respondents completed the survey and subsequently interviewed with a member of the research team. The purpose of the interview was to determine if the respondents felt that the items on the questionnaire were clear in meaning and relevant to respondents. Several comments and suggestions were solicited and incorporated in the final survey instrument.

The final questionnaire included the 19 items presented in Table 2. The items were arrayed on a Likert type response format (1=highly unskilled to 7=highly skilled). To assess the nomological validity of the scale, a number of items were included to measure a salesperson's mathematical abilities, verbal competence, perceived sales expertise, aggressiveness, dominance, and empathy (Churchill, Ford, Hartley, Walker 1985; Donath 1993; Dreyfack 1991). Response categories for each item were anchored from 1=extremely low to 7=extremely high. The last section of the questionnaire included questions on quota achievement, years of experience in the company, industry, and sales in general.

Sample and Data Collection

The subjects for the study were food broker salespeople from four companies in four cities in the southeastern United States. Each of the four food broker companies carries similar broad product lines (approximately 800-900 items) and uses geographic territories to organize its sales forces. Food broker salespeople call primarily on supermarket accounts, selling both food and nonfood products. Most of their activities revolve around the introduction of new products and servicing existing accounts through programmatic support of existing products. The salespeople in this study were

often located some distance from the home office, having relatively little contact with first-line management beyond weekly sales meetings. (For more detail on food broker salespeople, see McNeilly and Russ 1992.)

The questionnaires for the main study were distributed by first-level sales management. Questionnaires were distributed to 146 salespeople. To ensure confidentiality, completed questionnaires were mailed directly to the researchers. A total of 106 completed questionnaires were returned, resulting in a 73 percent return rate. Several ANOVAs were conducted to determine the appropriateness of pooling the data across the four companies. The company was the independent variable, and each of the three proposed components of the selling skill constructs were the dependent variables. Given that all of the ANOVA results were nonsignificant, the remainder of the analyses was based on pooled data.

Scale Refinement

Exploratory Factor Analysis

To assess the structure of Selling Skill scale, all the 19 items were factor analyzed, using the principal components analysis followed by a varimax rotation. The initial factor solution resulted in three factors with eigenvalues greater than one. The three-factor solution accounted for 71.5 percent of the variance. In order to purify the list, items with loadings of 0.30 or greater on more than one of the factors were eliminated. This resulted in removing two items from the interpersonal skills (# 5 and # 7) and one item (# 3) from the salesmanship skills dimensions. The final items derived from factor analysis were tested for their reliability by submitting them to item analysis using item-to-total correlations. The items for each subscale were analyzed separately. To obtain a

Table 3
Means, Standard Deviation and Correlation Matrix for the Selling Skill Scale Items *

Items	IS01	IS02	IS03	IS04	IS05	SS01	SS02	SS03	SS04	SS05	TK01	TK02	TK03	TK04	TK05
IS01	0.576														
IS02	0.548	0.547													
IS03	0.581	0.642	0.646												
IS04	0.502	0.504	0.683	0.424											
IS05	0.486	0.361	0.478	0.432	0.355										
SS01	0.465	0.284	0.313	0.247	0.256	0.354									
SS02	0.534	0.384	0.413	0.391	0.356	0.607	0.483								
SS03	0.471	0.431	0.419	0.231	0.433	0.587	0.615	0.739							
SS04	0.488	0.538	0.449	0.395	0.415	0.483	0.597	0.745	0.714						
SS05	0.431	0.426	0.539	0.314	0.333	0.408	0.481	0.698	0.639	0.635					
TK01	0.464	0.439	0.419	0.232	0.349	0.437	0.569	0.566	0.588	0.584	0.610				
TK02	0.468	0.385	0.524	0.417	0.355	0.378	0.443	0.610	0.563	0.638	0.589	0.625			
TK03	0.317	0.239	0.352	0.251	0.256	0.354	0.430	0.560	0.492	0.594	0.636	0.645	0.564		
TK04	0.518	0.448	0.532	0.374	0.394	0.507	0.599	0.710	0.725	0.682	0.720	0.724	0.657	0.841	
TK05	0.449	0.364	0.431	0.342	0.362	0.391	0.487	0.575	0.662	0.673	0.626	0.641	0.673	0.754	0.680
Mean	4.953	5.143	5.028	4.953	4.783	4.817	4.798	5.321	5.358	5.708	5.471	5.547	4.840	5.476	5.321
Standard Deviation	0.970	1.023	1.000	1.090	1.069	1.012	0.969	1.159	1.123	1.129	1.088	1.043	1.122	1.127	1.215

* Diagonal entries are item reliabilities.

Table 4
Item and Construct Reliability, Interconstruct Correlation, and Average Variance Extracted for the Three Dimensions of the Selling Skill Scale

		Factor Loadings
<i>Interpersonal Skills</i>		
IS1	Ability to express yourself nonverbally	0.76
IS2	Ability in general speaking skills	0.74
IS3	Awareness and understanding of the nonverbal communication of others	0.80
IS4	Ability to control and regulate nonverbal displays of emotion	0.65
IS5	Ability to manipulate others to control the situation	0.60
	<i>Construct Reliability</i>	0.86
	<i>Average Variance Extracted</i>	0.71
	<i>Construct Correlation Interpersonal Skills / Salesmanship Skills</i>	0.73
<i>Salesmanship Skills</i>		
SS1	Ability to prospect for customers	0.60
SS2	Ability to qualify prospects	0.70
SS3	Ability to close the sale	0.86
SS4	Ability to present the sales message	0.85
SS5	Ability to service the account	0.80
	<i>Construct Reliability</i>	0.88
	<i>Average Variance Extracted</i>	0.76
	<i>Construct Correlation Salesmanship Skill / Technical Knowledge</i>	0.91
<i>Technical Knowledge</i>		
TK1	Knowledge of customers' markets and products	0.78
TK2	Knowledge of your own company's procedures	0.79
TK3	Knowledge of competitors' products, services, and sales policies	0.75
TK4	Knowledge of product line, including product features and benefits	0.92
TK5	Knowledge of customers' operations (e.g., store and shelf layout, employee training, etc.)	0.83
	<i>Construct Reliability</i>	0.91
	<i>Average Variance Extracted</i>	0.81
	<i>Construct Correlation Technical Knowledge / Interpersonal Skill</i>	0.69
	<i>Reliability of the Selling Skills Scale</i>	0.94

Figure 1
Confirmatory Factor Analysis Model for the Three Dimensions of the Selling Skill

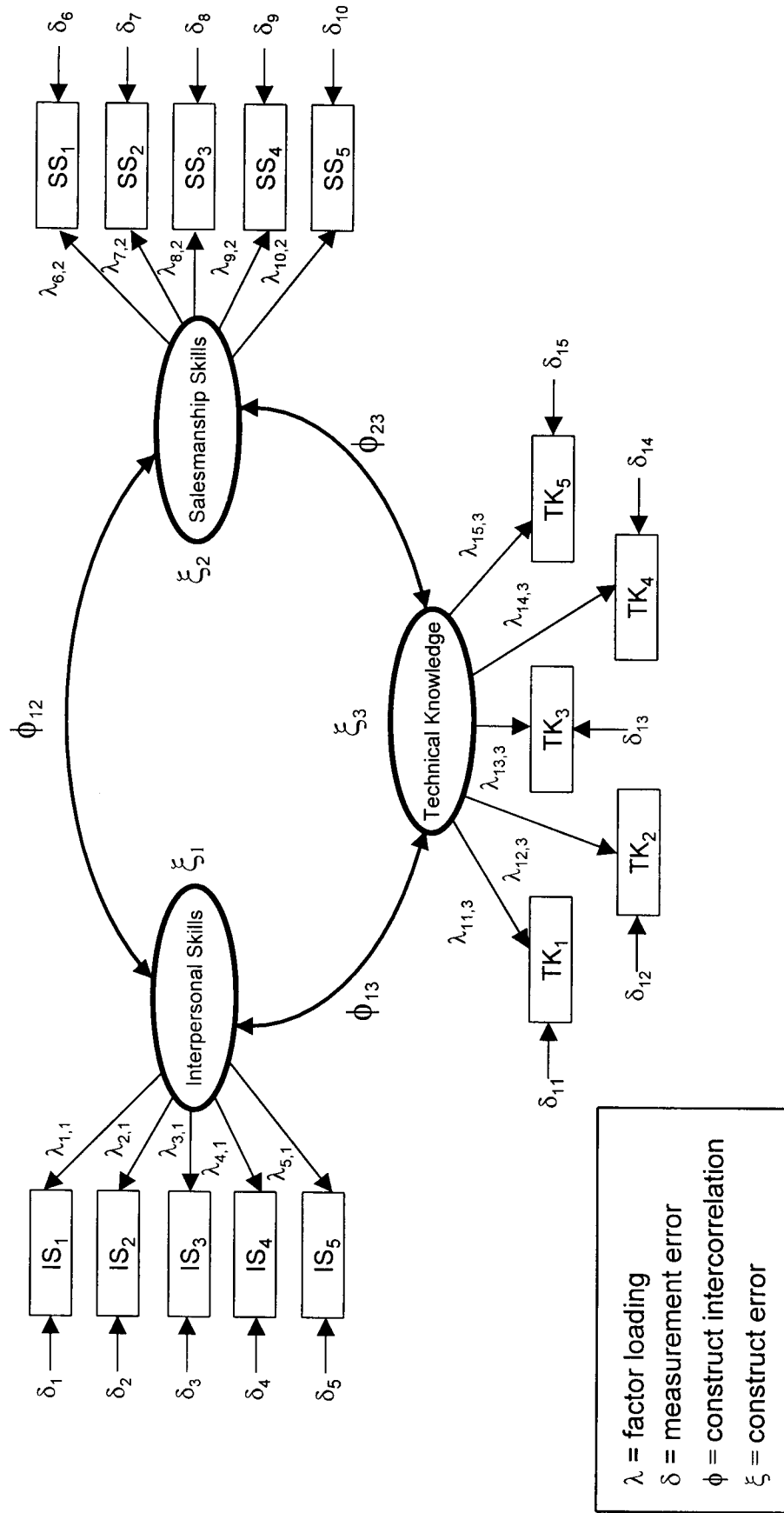


Table 5
Correlations Among Three Selling Skill Factors and Several Self-Report Validity Measures

	<i>Interpersonal Skills</i>	<i>Salesmanship Skills</i>	<i>Technical Knowledge</i>
<i>Acquired Skills</i>			
Mathematical Ability	0.40**	0.35**	0.41**
Verbal Competence	0.58**	0.28**	0.24**
<i>Interactional Tendencies (Personality)</i>			
Aggressiveness	0.22*	0.38**	0.29**
Dominance	0.28**	0.26**	0.21*
Empathy	0.33**	0.42**	0.23*
<i>Performance Measures</i>			
Overall sales expertise	0.26**	0.55**	0.37**
Assigned sales quota achieved	0.35**	0.37**	0.34**
<i>Background Information</i>			
Age	-0.09	0.14	0.00
Years worked in sales with this company	-0.03	0.09	0.12
Years worked in sales in this industry	-0.09	0.05	0.04
Years worked in sales	-0.11	0.18	0.01

** $p < 0.01$

* $p < 0.05$

practical size scale (five items per dimension), one item (# 6) with the lowest item-to-total correlation was eliminated from the technical skills.

Confirmatory Factor Analysis: Dimensionality and Item Reliability

It is widely recognized that exploratory factor analysis is useful in early stages of scale development. However, as more knowledge is acquired about the nature and structure of the scale, more rigorous statistical techniques should be applied to confirm or disprove the results obtained in the exploratory phase.

The 15 items selected from the exploratory phase were used in a confirmatory factor analysis model to verify the tri-component structure of the Selling Skill Scale. The concept of confirmatory factor analysis is as follows: Given a set of observable response variables (i.e., the 15 items for interpersonal skills, salesmanship skills, and technical skills), the process attempts to identify a set of underlying latent factors or dimensions.

Using the procedure suggested by Jöreskog (1979), Figure 1 presents the confirmatory factor analysis model for the 15 selling skills items. Table 3 presents the input correlation matrix, mean, and standard deviation for each item. Using structural equation modeling (Jöreskog et al. 2000), the measurement model summarized in Figure 1 was tested to verify the relationship between observable variables and latent constructs. The χ^2 statistic was nonsignificant for the overall model, indicating an adequate fit for the confirmatory model to the data ($\chi^2=99.25$, $df=87$, $p=0.138$). Furthermore, the plot of the normalized residuals approximated a straight line, indicating that there were no specification errors or departures from normality in the data. The root mean square residual (RMR) was 0.049, the normed fit index (NFI) was 0.890, the non-normed fit index (NNFI) was 0.965 and the comparative fit index (CFI) was 0.972, verifying the good fit of data to the hypothesized model Bentler (1990).

The factor loadings of each item and reliability coefficients (Cronbach and Meehl 1955) are shown in Table 4. As can be seen, each of the three subcomponents and the overall scale appear to be reliable. The reliability for the three dimensions of selling skills was in the range of 0.864 to 0.911, with the overall Cronbach's alpha for the scale equal to 0.941. In addition, the average variances extracted by each dimension are well above the 0.50 cut-off point. Thus, the explained variance by each dimension is significantly higher than the variance due to measurement error, indicating adequate convergent validity for each dimension (Fornell and Larcker 1981).

Nomological Validity

Nomological validity represents how scores on one instrument relate to scores on other constructs or behaviors. If the expected relationships between constructs are empirically supported, then it is assumed that the measures of those constructs have a certain degree of nomological validity (Bagozzi 1980; Peter 1981).

In the present study the nomological validity was tested by relating the scores on each dimension of interpersonal skills, salesmanship skills, and technical knowledge to several self-reported behaviors. Given that the validation measures were single-item scales, Pearson Product Moment correlations were determined to be more appropriate for use than the more rigorous structural equation modeling approach for the assessment of nomological validity. Table 5 shows the correlation coefficients for these analyses.

For the most part correlations were logical and in the expected direction. Both the self-reported mathematical and verbal abilities were significantly related to the three dimensions of selling skills construct. This is an encouraging finding for the nomological validity of Selling Skill scale, since cognitive abilities such as verbal and mathematical abilities are suggested to be related to relationship development in selling (Macintosh et al. 1992). Similarly, the salesperson's

manner of interaction with others—aggressiveness, dominance, and empathy—was also positively related to interpersonal, salesmanship, and technical skills. Finally, salespeople with high scores on the three dimensions of selling skills tended to rate themselves high on overall sales expertise and reported having achieved higher percentage of their assigned sales quotas.

Several articles have posited a relationship between selling skill and these noncognitive aptitude items (Dawson, Soper, and Pettijohn 1992; McBane 1995; Ramsey and Sohi 1997). In particular, the positive correlation between sales performance and the selling skill items is consistent with Churchill et al. (1985) research and is higher than the average correlation that was reported in their meta-analysis of selling literature.

Finally, the background variables of a salesperson had no relationship to selling skills. Of particular interest is the lack of a significant relationship among the selling skill dimensions and the salesperson's age or years of experience in the industry. The lack of correlation between selling skill items and the background variables may appear puzzling. However, sales managers often report that the better salespeople tend to be promoted or migrate to other industries. As a result, those remaining in sales jobs in the industry after a number of years tend to be the less expert salespeople. The assertion that experience is not an adequate surrogate variable for selling skill is consistent with the findings of Jacoby, et al. (1986) in a consumer context.

Discussion

The present study proposed and evaluated the validity of a three dimensional measure of selling skill. Results support a tri-component scale.

Further development and evaluation of the measure is needed for several reasons. Data used for the current study is industry-specific. Replication across industries is an obvious priority for future research. Sales tasks are thought to be industry-specific. However, the measure seems to possess some degree of generality across industries.

The evolving nature of research in sales and sales management appears to suggest additional dimensions of selling skill. For example Churchill, Ford, and Walker (2001) expanded their conceptualization of selling skills by adding a general management skills and vocational esteem to their classification of sales skill variables. As more research to the relevance of these dimensions appears, it would be necessary to systematically expand the instrument presented in this research by judiciously testing and adding additional items from those being proposed by other researchers.

The measure of selling skills should prove useful to the researchers investigating the behaviors and the underlying mental processes of highly skilled "expert" salespeople. Isolating the behaviors and mental processes that make expert salespeople unique should prove very useful in the selection and training of salespeople. That is, sales managers could begin to select sales candidates that possess these behaviors and mental processes and could also train their existing sales force to emulate these positive attributes.

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