A THREE-STAGE MODEL FOR ASSESSING AND IMPROVING
SALES FORCE TRAINING AND DEVELOPMENT

Ashraf M. Attia, Earl D. Honeycutt Jr., and Mark P. Leach

This paper extends the growing body of research in the area of sales training evaluation by proposing a three-stage model that allows sales managers to determine: (1) training needs for salespersons; (2) training impact on trainees; and (3) training impact on the firm. When all three assessment stages are utilized to plan and evaluate sales training, sales managers can plan training interventions that are aligned with the firm’s strategic focus, identify training failures, make continuous improvements, and compute the value of training. As a result, the proposed model offers both sales managers and academicians with a simplified, yet comprehensive, tool for making training assessment decisions. The paper also provides implications for sales managers, discusses assessment research challenges, and proposes a future research agenda.

Increased levels of competition, rapidly changing technology, and a renewed focus on customer retention and relationships are but a few of the reasons why sales managers increasingly seek sales force training and development activities that lead to increased sales force productivity. It is estimated that U.S. companies spend $7.1 billion annually on training programs and devote more than 33 hours per year training the average salesperson (Lorge and Smith 1998). This figure increases to 73.4 training days for an average entry-level rep (Kaydo 1998), and in technical markets (e.g., computers, imaging systems, and chemicals), the costs associated with the development of a single salesperson can exceed $100,000 (Dubinsky 1996; Johnston and Marshall 2006). Today more than ever, salespeople must have a working knowledge across various topics in order to meet increasing customer expectations (e.g., changes in market dynamics, business enabling technologies, and business ethics). Firms are utilizing training programs to achieve and maintain this high level of salesperson competence (Galvin 2001).

Organizations investing resources in sales training want to see that training expenditures actually aid the firm in reaching its objectives. In fact, firms use a wide variety of training evaluation procedures that range from self-administered reports completed by the trainees, to informal debriefing sessions, to more elaborate calculations of enhanced sales revenue. The information and feedback emanating from these evaluation procedures are central to successful implementation of strategic organizational initiatives (Moore and Seidner 1998).

However, having the right information at the correct time, and using it wisely, are key challenges faced by firms. Most sales practitioners agree that firms lack an understanding of how best to measure and evaluate training efforts (Erffmeyer, Russ, and Hair 1991; Honeycutt, Howe, and Ingram 1993; Lupton, Weiss, and Peterson 1999). Perhaps the most critical issue facing sales force development efforts is how to effectively assess sales training programs (Leach and Liu 2003).

The purpose of this paper is to synthesize the growing body of research in the area of training evaluation and sales force development in order to provide an integrative framework that advances the state of the art in sales training assessment. This framework identifies eight assessment areas for sales managers to consider when planning and implementing sales training interventions (see Figure 1). These eight subareas are organized into three broad assessment stages: (1) training needs, (2) training impact on sales trainees, and (3) training impact on the sales firm. Each area is addressed, in turn, and we conclude with a discussion that outlines managerial implications and offers a research agenda for advancing this important area of sales management.

A SALES TRAINING ASSESSMENT FRAMEWORK

For the past 40 years, the fundamental assessment and evaluation framework employed by sales training practitioners has been the four-level model developed by Kirkpatrick (1959). The framework consists of four evaluation levels (i.e., reaction,
learning, behavior, and results) arranged in ascending order of information provided (Kirkpatrick 1959) and of difficulty to accomplish (Honeycutt and Stevenson 1989). This model has enjoyed widespread use and has the reputation of being a logical, practical, and useful model (Bramley and Kitson 1994; Kaufman and Keller 1994). Conversely, the model has also been criticized for being narrowly focused (Phillips 1998), for its simplicity (Alliger and Janak 1989), and for its limited use in developing propositions (Holton 1996). In addition, two meta-analyses of the vast amount of research undertaken to investigate Kirkpatrick’s framework provide relatively weak evidence for some of the model’s more intriguing assumptions; specifically, that the levels are causally linked and positively intercorrelated (Alliger and Janak 1989; Alliger et al. 1997). However, more contemporary studies demonstrate the presence of stronger intercorrelations among the evaluation levels (Leach and Liu 2003; Warr, Allan, and Birdi 1999).

Recent research has attempted to improve the original model by identifying more detailed subcategories (Alliger et al. 1997) or by adding additional stages (Burrow and Berardinelli 2003; Phillips 1998). That is, the two most recent sales training evaluation frameworks are extensions of the Kirkpatrick model. Lupton, Weiss, and Peterson adopted Kirkpatrick’s framework in their five-stage model of sales training evaluation; the authors include “trainer/trainee incompetence, poor employment and screening influences, and other contextual influences,” such as customer satisfaction, into a “catch-all” fifth category (1999, pp. 82–83). Likewise, Honeycutt et al. (2001) integrate economic utility theory and recommend evaluating the economic return of sales training as a fifth assessment level.

Other researchers have advocated moving away from Kirkpatrick’s taxonomic approach and toward the development of more testable models (e.g., Holton 1996; Kraiger, Ford, and Salas 1993). Subsequently, models have been developed that incorporate motivation, work environment, trainee ability (Holton 1996), and cognitive knowledge structures (Day, Arthur, and Getzman 2001). Even so, Kirkpatrick’s model remains the most accepted method of representing training evaluation criteria (Arthur et al. 2003; Salas and Cannon-Bowers 2001; Van Buren and Erskine 2002), serves as the fundamental typology for communicating understandings about training evaluation, and provides the backbone of the current, more comprehensive, framework.

Integrating Kirkpatrick’s four-level framework with the Xerox approach identified by Phillips (1991), the cognitive knowledge structures approach by Day, Arthur, and Getzman (2001), and the economic and value assessments offered by Honeycutt et al. (2001) and Phillips (1998), we propose a framework that consists of eight assessment areas (see Figure 1). Two areas pertain to assessing the need for training. These include an assessment at the firm and sales force levels to determine what capabilities of the sales force are interrelated with the strategic objectives of the organization and what changes need to occur, and an assessment at the salesperson level to ascertain who among the sales force should be targeted for training intervention. Four evaluation areas encompass the impact of training intervention on the sales trainee. These include Kirkpatrick’s evaluation of trainee reaction and learning. Also included are evaluations of transfer intentions and actual transfer of learning (i.e., behavior change). The final two assessment areas relate to training’s impact on the firm. These include an evaluation of the level to which orga-
nizational objectives were met and an evaluation of the economic value of the training intervention after accounting for costs. Together, and when conducted wisely, we propose that these eight assessment areas will allow sales organizations to (1) ensure that training interventions are aligned with the strategic focus of the firm, (2) more accurately identify reasons for training failures, (3) enable firms to make continuous improvements in their training efforts, and (4) determine the investment value of training programs.

**ASSESSMENT OF TRAINING NEEDS**

**Firm-Level and Sales Force–Level Needs Assessment**

Sales training offers a means for realizing change within the sales force required for sales success. Through training, the sales force can learn new skills and be introduced to contemporary ideas, perspectives, and ways of behaving. However, as seen in Figure 2, to be most effective, sales training should be aligned with organizational change initiatives and be understood within a strategic context. Our paper first discusses the usefulness of aligning training objectives with strategic organizational objectives and then examines the importance of assessing required salesperson competencies. By performing both, we propose that training interventions will more readily result in change appropriate to aiding organizational objectives; thus, training interventions will be more highly valued by the firm, and training dollars will be more effectively spent.

**Strategic Alignment**

Given the increasing strategic importance of sales in organizations today (Rackham 2000), aligning training objectives with organizational goals is critically important. However, past sales training research suggests that training objectives are not always formulated by selling organizations (Dubinsky and Hansen 1981; Honeycutt, Howe, and Ingram 1993). When stated, objectives are often “platitudes rather than real plans for action” (Erfner, Russ, and Hair 1991, p. 28), which leads to the development of inefficient training programs.

Kaplan and Norton (1996) developed the Balanced Scorecard as a framework for translating strategy into operational terms and for measuring business performance. This framework assigns the responsibility to senior management for setting strategic vision and communicating that vision across business units. Business units are then responsible for advancing tactics and actions to achieve these strategic objectives within the unit. Feedback and subsequent learning from resulting actions are used to clarify and adjust strategic goals, creating an iterative loop. Although strategic initiatives are communicated to sales executives, the development of the sales function has become an increasingly collaborative effort with top management (Rackham 2000). Organizational strategic
visions are becoming more “customer-centric” and embracing customer relationship management (CRM) or goals of enhancing competitive position in the marketplace by developing strong long-term-oriented relationships with customers. These objectives will fall, in part, on sales executives to implement. The effectiveness of their tactics often relies on the quality of the sales force, and its ability to convey and deliver value to customers (Rackham 2000). As a result, sales executives must evaluate the abilities of the sales force and determine if it possesses the capabilities required to fulfill its role in achieving organizational objectives. If not, managers must assess which skills, knowledge, and attitudes can be acquired through training, implement appropriate training programs, and in accordance with the Balanced Scorecard framework, provide accurate feedback to top management. As such, providing strategic sales training may necessitate changes in communication networks, roles and responsibilities of management, and the sales training budgeting processes. We propose that firms that can adapt in ways to provide more strategically aligned sales training efforts are more likely to attain goals that provide a competitive advantage to the firm.

By focusing on the attainment of strategic goals when identifying tactics and actions that can be changed through sales training efforts, sales managers are also assessing the critical behavioral and performance outcomes of training. Therefore, assessments made at this stage provide benchmarks by which assessments of the transfer-of-learning (stage 6) and the effect on firm-level objectives (stage 7) will be measured.

Assessing Sales Competencies
Sales force competencies are based upon salesperson performance on a task or in the sales job or role (Ennis 1998). Interest in job competencies began in the late 1970s and early 1980s when McClelland (1973) and Boyatzis (1982) began to focus on identifying and defining the thoughts, behaviors, actions, motives, and traits that predict successful job performance. This competency approach captures the essence of performance and uses it to create a measurement system (Edwards and Ewen 1996). The focus is on the abilities salespeople need to successfully perform assigned roles (e.g., initiative taking, listening to customers, strategic thinking, political savvy).

Abilities are categorized into three main levels (Ennis 1998): (1) minimum standard competencies establish baseline criteria to meet performance requirements; (2) descriptive competencies are strictly behavioral skills related to successful performance; and (3) differentiating competencies are aspects that separate high performers from others. Differentiating competencies also assume a broader view and include psychological characteristics and more ephemeral and deep-seated constructs, such as self-concept, cognitive processes, and motivation. Given the complexity of the sales job, salesperson performance may be less a function of knowledge, task-related skills, intelligence, or credentials and more a function of competencies such as motivating drive, positive self-image, and emotional intelligence (Leach, Liu, and Johnston 2005, this issue; Spencer and Spencer 1993). If this is true, sales managers need to concern themselves with assessing competencies at all levels.

To identify salesperson competencies, nearly every social science research method can be used: surveys, focus groups, brainstorming, interviews of all types, and personality tests (Ennis 1998). Furthermore, data can be gathered by measures using multiple perspectives from sales executives, other salespeople, internal and external customers, and observers. In fact, Ennis (1998) argues that the most valuable competency studies use multiple data gathering and analytical approaches designed to produce converging results. McClelland (1973) advocates the use of criterion samples, which compare people who have clearly demonstrated success to people who are less successful in order to identify characteristics associated with success. McClelland also argues that traditional methods of assessing aptitude and knowledge, including grades and credentials, are poor predictors of success. Thus, when assessing the competencies needed by a sales force to facilitate strategic change, it may be best to identify performers demonstrating success at moving the sales function toward the firm’s objective, study them to figure out what makes them successful, and use this information to train others.

Competency identification can be criticized for taking too long and costing too much (Ennis 1998). The more data collected, the more perspectives tapped, the more analytical approaches used, the more likely to identify the key behaviors and competencies; however, these efforts must be balanced with business schedules and their associated costs. Sales executives must also keep in mind the value of ensuring that the behaviors being assessed and targeted for training are likely to lead to organizational success, particularly given the costs associated with developing and conducting training interventions.

Salesperson Needs Assessment
There are two primary assessments for sales executives to make when selecting salespeople who will benefit most from training. The first is to identify salespeople who are deficient in desired competencies. This requires a process for measuring a salesperson’s knowledge, skills, behaviors, and personality traits (i.e., competencies) against predefined criteria. The second pertains to assessing whether or not a salesperson is able to benefit from training at this time. Those salespeople with deficiencies, and who are at an appropriate stage of readiness, are targets for training intervention.
Sales Trainee Stage of Readiness

One individual difference variable that is frequently overlooked when classifying salespeople by need is a salesperson's stage of readiness. In many circumstances, certain salespeople are more receptive to training than others. For example, in the area of sales research taking a career stages perspective (e.g., Cron 1984; Dubinsky et al. 1986; Ingram and Bellenger 1983), the effectiveness of specific managerial variables is believed to vary with job tenure as the needs of developing salespersons change. That is, older salespeople, salespersons with more experience, and trainees further along the socialization process are, in general, more likely to exhibit smaller knowledge gains from training (Kubeck et al. 1996; Warr, Allan, and Birdi 1999). This may be attributable to a variety of reasons including higher levels of proceduralized and crystallized knowledge (Leach, Liu, and Johnston 2005, this issue) or greater initial knowledge levels limiting enhancement, or older trainees may find training interventions more difficult (Warr, Allan, and Birdi 1999). The level of a trainee's learning motivation can positively affect outcomes (Warr and Bunce 1995; Warr, Allan, and Birdi 1999). However, this finding is not consistent across all studies (Mathieu, Tannenbaum, and Salas 1992; Tannenbaum et al. 1991). Thus, some assessments may be context specific and more relevant for distinct salespeople or in certain environmental conditions.

When salespeople do not have a level of mastery of core selling capabilities, training interventions designed to develop self-regulation capabilities and time-management capabilities are ineffective (Leach, Liu, and Johnston 2005, this issue). Still, this training adds value to sales trainees once core capabilities are well learned. This illustrates the need for sales managers to incorporate the salesperson socialization process into their trainee selection assessments (Dubinsky et al. 1986).

Trainee Segmentation

Ideally, the assessment of salesperson capabilities and deficiencies would be conducted on an individual basis, one salesperson at a time. However, this becomes increasingly problematic as the size of a sales force grows and sales managers become responsible for developing larger numbers of salespeople. Similarly, the autonomy of salespeople and the lack of significant direct contact with management make it difficult to assess salesperson needs. As a result, sales managers may rely upon performance measures (e.g., sales and customer satisfaction numbers) and myriad readily available characteristics to aid their decisions pertaining to whom should receive training. In effect, a segmentation strategy is utilized.

Segmentation of salespeople for training is conducted by employing geographic location, market/customer characteristics, individual difference characteristics, or some combination thereof. For example, if the objective of training is to enhance market penetration in geographic areas that are convenient for the firm to serve, then it makes sense that salespeople targeted for training are located in territories near distribution centers that service new accounts or have demonstrated recent trouble capturing new business. With the ever-increasing amount of data that is being collected by sales firms today, this is becoming easier, particularly for firms adopting sales force automation (SFA) technologies. In SFA firms, for example, management can easily evaluate a salesperson's sales pipeline, selling cycle, and close ratio and compare them across peers.

It is also important to remember that assessing salespeople's competencies and deficiencies is expensive. One Fortune 100 firm recently determined that a quality competency assessment costs about $1,000 per professional employee (Ennis 1998). In addition, sales managers must determine how assessment may affect morale or sales force anxiety. Since sales training potentially affects the future performance of those selected, sales executives must contemplate both the legal and ethical implications of their decisions.

ASSESSMENT OF IMPACT ON SALES TRAINEES

The four assessment areas addressed in this section pertain to measurements to determine how a training intervention affects sales trainees.

Reaction to Training

Reactions assess how sales trainees feel about various aspects of sales training (Honeycutt and Stevenson 1989). This measure is easily and readily obtainable, typically through survey responses from trainees after training (Honeycutt, Harris, and Castleberry 1987). However, the first and easiest to assess level in Kirkpatrick's four-level framework, reactions, has been strongly criticized for lack of validity and efficacy. Lupton, Weiss, and Peterson (1999) provide several criticisms of the use of reactions to evaluate sales training interventions. They state that reaction assessments can be unduly influenced through such extraneous factors as (1) training venue (e.g., the beach), (2) trainer personality, and (3) whether or not sales trainees value being away from work. Reactions are often assessed in the form of observation, discussion, and debriefing meetings. Each of these methods has questionable validity given the ease with which an instructor, sales manager, or other stakeholder might be able to influence the reaction measure (Morgan and Casper 2000).

It is assumed that when salespeople dislike a training intervention, little effort will be put forth to learn and use material. Likewise, if attendees enjoy the training, they will learn
more, be highly motivated to use the material, and participate in future training sessions (Leach and Liu 2003; Lupton Weiss, and Peterson 1999). However, empirical evidence suggests that reaction measures may be of limited value for sales managers.

Alliger et al. (1997) conducted a meta-analysis investigation of the relationships among the first three stages of Kirkpatrick's framework in the management literature. Their findings suggest that reactions modestly correlate with knowledge acquisition and transfer. Given that the strengths of the correlations were small, the authors cautioned that measures from one level could not serve as surrogates of other measures. Similarly, Leach and Liu (2003) reported that sales trainees with positive reactions were more likely to learn the material; however, reactions do not provide additional information explaining transfer. Conversely, Warr, Allan, and Birdi (1999) suggest that more specifically defined reaction assessments may be of greater usefulness than general ones. Specifically, they utilize three forms of reactions identified by Warr and Bunce (1995): enjoyment of training (affective reactions), perceptions of usefulness (utility reactions), and perceived difficulty. This suggests that specificity of measurement may be one reason for the relatively small impact of reaction in past studies and that more value can be derived from more specific reaction assessments.

This is not meant to imply that trainee reactions are wholly unimportant. Whereas positive reactions do not guarantee any level of organizational success, negative reactions can have adverse effects on trainee motivation to participate in future programs, as well as sales and training department morale (Alliger et al. 1997; Kirkpatrick 1996). Given the ease with which this information is collected, reaction assessments will continue to be gathered and utilized (Honeycutt and Stevenson 1989). Caution is warranted in drawing implications about the effectiveness of a training program, however, based solely upon reaction assessments. Said differently, reaction assessments appear to be best suited to aid delivery and make quality improvements to subsequent training programs.

Knowledge Level/Knowledge Acquisition

At this level, training assessments measure the acquisition and retention of declarative/procedural knowledge or attitude change depending upon the objectives of the training program (Lupton, Weiss, and Peterson 1999). When training objectives focus on providing information to salespeople (e.g., product information, competitor information, market dynamics, and economic conditions), trainee learning is often assessed through pencil-and-paper examinations. When training objectives involve the teaching of selling skills or other forms of procedural knowledge (e.g., handling objections, negotiation tactics, and time management), measurements may combine pencil-and-paper examination instruments along with behavioral evaluations (e.g., judged role-plays). In many cases, trainers attempt to improve the value of knowledge assessments for sales managers by utilizing more authentic (i.e., behavioral) assessments that resemble transfer-of-learning measurements. In all cases, knowledge assessments attempt to evaluate whether or not sales trainees acquired and retained the training material presented.

Unlike reactions, knowledge acquisition is a requirement for training initiatives to be effective. One can imagine a trainee having poor reactions to a training intervention yet still utilizing material to aid the firm. It is more difficult to imagine a trainee employing material that he or she failed to learn. Individual learning that includes changes in beliefs, schemas, and behaviors is a critical outcome of training (Weitz, Sujan, and Sujan 1986) and must occur prior to organizational learning taking place (Chonko et al. 2003). Like reactions, learning assessments are less important in today's business environment (Brown 1998). This is due to the business environment being an applied one where learning is synonymous with application or performance. This suggests that firms today are less interested in levels of knowledge but want to ensure that behaviors are being adopted.

An additional issue with knowledge assessments is that, primarily, two approaches have been taken. Researchers either (1) assess a difference score, such as changes from pretraining to postraining (e.g., Bretz and Thompsett 1992; Warr, Allan, and Birdi 1999), or (2) they consider only postraining assessments (e.g., Davis and Mount 1984; Leach and Liu 2003; Warr and Bunce 1995). In many sales organizations, the firm is concerned about which salespeople have reached certain levels of attainment, rather than being interested in the degree of learning that has occurred during a sales training program. However, prior differences exist among trainees with respect to the level of competence each brings to training (Dubinsky et al. 1986). Thus, when evaluating the effect of the training program, it is desirable to assess knowledge as a change or gain score, or as an assessment of the knowledge acquired (Leach and Liu 2003; Warr, Allan, and Birdi 1999). To best measure the effect of training in this stage, as well as when assessing the level of transfer of learning (stage 6) and the effect on firm-level objectives (stage 7), assessments should follow the same basic steps of performance evaluation: (1) determine what to measure, (2) develop an evaluation strategy, (3) gather baseline data prior to intervention, and (4) collect and compare outcome data after the intervention (Brown 1998).

Transfer Facilitation

Holton (1996) and Baldwin and Ford (1988) proposed models that stipulate that learning is one antecedent to the transfer of
learning. Trainee motivation to transfer is another important variable along with the transfer climate, transfer design, and trainee characteristics. Lupton, Weiss, and Peterson (1999) state that, in order for a transfer of learning to take place: (1) trainees must be motivated to apply the material, (2) trainees must have the knowledge of how and what to do, (3) sales management must provide a salutary environment, (4) sales management must encourage and help the trainees to apply the sales training material, and (5) sales management must reward desired behavior change.

Training investments are most often wasted because of inadequate transfer (Lorge and Smith 1998; May and Kahnweiler 2000; Wilson, Strutton, and Farris 2002). Leach and Liu (2003) suggest that, for sales organizations wanting to understand training effectiveness in terms of firm-level organizational outcomes, learning transfer measures may be the only type of evaluation to provide valuable insight. The authors further state that reaction measures are more valuable when the assessment instrument measures trainee expectations, valences, self-efficacy, or other variables that may enhance their motivation to transfer learning. A growing body of management literature advocates the critical importance of learning transfer in training design and assessment (Arthur et al. 2003; Colquitt, LePine, and Noe 2000; Tracey, Tannenbaum, and Kavanagh 1995). Given the importance of transfer to the attainment of organizational objectives, and the apparent inability of knowledge assessments alone to predict transfer, we propose that firms assess trainee transfer intentions as well as other variables that identify a training intervention’s effectiveness at facilitating learning transfer. Specifically, this includes investigating a sales trainee’s level of self-efficacy and motivation to transfer.

Sales Trainee Self-Efficacy

Self-efficacy is defined by Bandura as “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (1986, p. 391). Thus, self-efficacy can be thought of as one’s confidence in his or her abilities to attain success at a particular goal and can affect engagement in behavior in two ways. First, an individual is less likely to engage in sequences of behaviors that they see themselves as being less likely to perform. Second, when obstacles are encountered, the probability that the individual will successfully perform the behaviors decreases for those with low self-efficacy more than for those with higher self-efficacy.

A growing number of studies from management have shown self-efficacy to be enhanced through skills training (e.g., Gist, Schwoerer, and Rosen 1989; Saks 1995). Furthermore, this body of research supports Bandura’s (1986) social learning theory. For example, training that utilizes modeling enhances self-efficacy to a greater extent than standard classroom training methods (Gist 1989; Gist, Schwoerer, and Rosen 1989). Furthermore, several studies report that self-efficacy is particularly relevant for understanding training effectiveness. Self-efficacy plays an important role in the acquisition of computer software skills through computer skills training (Gist, Schwoerer, and Rosen 1989; Mitchell et al. 1994), idea generation among managers (Gist 1989), acquisition of salary negotiation skills (Stevens, Bavetta, and Gist 1993), and employee newcomer adjustment (Saks 1994; 1995).

Traditionally, the measurement of self-efficacy requires that an individual provide dichotomous responses to questions addressing whether or not he or she believes themselves capable of performing a specific task at multiple performance levels (Bandura 1986). The sum of the affirmative responses is the magnitude of self-efficacy. For each affirmative (yes) response, the individual provides a measure of confidence. This measure is usually on a 1 to 100 (1 point intervals) or a 10 to 100 (10 point intervals) scale (Gist 1989). The sum of the confidence rating is the strength of self-efficacy. An alternative method to obtain self-efficacy strength is accomplished by collecting confidence measures for all task performance levels (cf. Locke et al. 1984). Although both magnitude and strength can be used in analysis, strength seems to be preferred for analyses because of its wider variance (Gist and Mitchell 1992).

In management and in marketing, such direct methods of assessing self-efficacy have been ignored in lieu of scales that ask individuals to assess their aptitude on several of the subskills necessary to perform the task. For example, to be an effective salesperson, it is believed that one must discover customer wants and needs, be adaptive (Weitz, Sujan, and Sujan 1986), be credible (Liu and Leach 2001), have established schema to perform correctly in selling situations (Leigh and McGraw 1989; Szymanski and Churchill 1990), and be persuasive. Therefore, salesperson self-efficacy can be measured by asking individuals to respond to questions such as: “I know the right thing to do in selling situations,” “It is difficult for me to put pressure on a customer,” “I am good at finding out what customers want,” and “It is easy for me to get customers to see my point of view” (Sujan, Weitz, and Kumar 1994). Given the importance of salesperson self-efficacy to learning transfer (Wilson et al. 2002) and sales performance (Chowdhury 1993), we propose that research that investigates the relationships among self-efficacy measures may provide helpful guidance about how best to assess this construct. Still, regardless of the assessment tool, self-efficacy judgments can be easily obtained from sales trainees (e.g., using survey responses gathered along with posttraining reactions), yet they may provide sales managers with valuable information regarding transfer potential.
Sales Trainee Motivation to Transfer

A key affective state deserving attention is the extent to which individuals are motivated to apply the material they have learned (Warr, Allan, and Birdi 1999). Motivational differences between sales trainees at the end of a program may be linked to variations in subsequent job behavior (Noe and Schmitt 1986). Clark, Dobbins, and Ladd (1993) report that trainees who perceive training to have more job and career utility were more motivated. Likewise, Tannenbaum et al. (1991) provide evidence that when training meets or fulfills expectations and desires, trainees are more highly motivated to transfer learning. These findings are consistent with both expectancy theory and goal-setting theory (Yamnill and McLean 2001). Trainees who perceive that (1) their efforts will lead to rewards they value, and (2) what they have learned is relevant to the attainment of their goals, will be more motivated to transfer learning to the work environment. Subsequently, they will be more likely to favorably alter their work behaviors.

Like self-efficacy, utilizing survey-based procedures to assess motivation to transfer requires very little effort, yet appears to provide substantial value to sales managers. However, there is currently no universally accepted assessment tool that evaluates motivation to transfer learning. Warr, Allan, and Birdi (1999) developed a three-item scale to assess motivation to transfer (e.g., “I feel very committed to apply what I have learned to my job”). However, items were found to be conceptually similar to those used to assess trainee reactions to the perceived usefulness of training; therefore, this scale was deemed to have limited discriminant validity. As such, we propose that future assessment research investigate how best to measure a salesperson’s motivation to transfer learning. With an effective assessment tool, sales firms will be able to better predict the efficacy of training interventions at changing what salespeople do in the field.

Transfer of Learning

Behavior change assessments measure the extent to which salespeople modify their job-related behaviors due to training. This level of evaluation is also referred to as the “transfer of learning” (Kirkpatrick 1994). Leach and Liu (2003) found that assessments of learning transfer are the only type of evaluation that consistently facilitates organizational objectives.

Learning transfer assessments most often involve the direct observation of the sales trainee in the workplace. That is, trainee behavior changes are seldom assessed by outsourced training firms because they do not have the opportunity to observe future trainee sales calls. When firms do assess behavior change, they are measured by (1) sales managers observing calls during “ride-alongs,” (2) using self-reported behavior change measures, or (3) content analysis of salesperson dia-

ries and logs. This latter technique may become more prevalent as sales organizations adopt commercial SFA and CRM software packages that make access to salespeople’s field logs more easily available. As such, data collected are typically qualitative rather than quantitative in nature.

There is a long history of assessing salesperson behavior and performance utilizing qualitative methods and data (e.g., Ermeyer and Johnson 2002; Johnston, Hair, and Boles 1989). What is apparent from these studies is that managers perceive that qualitative measures provide greater insight about training effectiveness than quantitative measures. For example, senior sales managers reported the ten most important measures are qualitative, followed by a quantitative measure: sales volume in dollars (Morris et al. 1991). Perhaps sales managers value qualitative behavioral data because they believe that specific behaviors lead to salesperson success (Morris, LaForge, and Allen 1994). However, because behavioral outcomes are susceptible to extraneous environmental influences (e.g., supervisor attitude, work environment, etc.), there can be difficulties linking training to desired behavioral changes (Attie, Honeycutt, and Attria 2002).

ASSESSMENT OF IMPACT ON THE FIRM

Success in any area of strategic importance is highly dependent upon the capabilities of organizations and the ability of employees to learn and change (Moore and Seidner 1998). However, the real test of all training intervention is the extent to which it aids the firm in reaching organizational goals (Leach and Liu 2003). The final two assessment areas pertain to training’s impact on firm-level objectives.

Impact of Training Intervention on Firm-Level Objectives

Evaluations at this stage measure the extent to which a training program aided the attainment of objectives set forth by the organization. Training objectives can be very specific to individual training programs (Lupton, Weiss, and Peterson 1999), and specific training objectives are necessary to guide training efforts (Johnston and Marshall 2006). However, a lot of sales training efforts appear to have similar broad general organizational objectives (Honeycutt, Howe, and Ingram 1993; Honeycutt et al. 2001). Honeycutt, Howe, and Ingram (1993) systematically developed a list of common sales training objectives by soliciting key objectives from sales managers, sales trainers, and salespeople. Six organizational sales training objectives were identified: increase sales volume, decrease turnover, improve customer relations, decrease selling costs, control the sales force, and improve use of time.

Firm-level training outcomes are generally perceived to be the most tangible and objective measures of training effec-
tiveness; however, researchers consider these evaluations to be the most difficult to attain (Honeycutt and Stevenson 1989; Kirkpatrick 1994; Lupton, Weiss, and Peterson 1999). In fact, measurement difficulties are cited as the primary reason for the lack of research in this area (Warr, Allan, and Birdi 1999). The American Society of Training and Development (ASTD) recently reported that 78 percent of organizations assess reaction measures, 32 percent evaluate learning, 9 percent assess behavioral change, and 7 percent evaluate organizational results (Van Buren and Erskine 2002). Given the need to justify training expenditures and the demands of sales firms that are outsourcing their training needs, training departments and training organizations are increasingly finding interesting and creative ways to assess and report the organizational impact of training (Bakken and Bernstein 1987; Becker 1989).

Three factors may account for potential problems. First, the autonomy of salespeople has made evaluating their behaviors in the field notoriously difficult. Second, it is often impossible to single out extraneous influences when measuring the effects of a training program on final outcomes (e.g., changing economic conditions, marketing programs, and competitive actions). Third, bottom-line tangible measures and actual dollar contributions of a sales training program are difficult to calculate (Leach and Liu 2003). For example, evaluators find it problematic to assign dollar values to measured improvements in customer satisfaction or salesperson loyalty. Many of these issues are becoming less troublesome as firms begin collecting and utilizing greater amounts of data, particularly on their customers and their customers’ interactions with the firm (Reinartz and Kumar 2002; Speier and Venkatesh 2002). Firms engaged in CRM initiatives are also finding new ways to utilize this data to assess benefits and costs by employing activity-based costing/management (ABC, ABM) initiatives that can be utilized to enable the evaluation of training’s impact on the firm (Ness et al. 2001a; 2001b).

In addition, utility analysis models are being developed to translate skills and knowledge gained through training into dollar-based estimates of training effectiveness (Honeycutt et al. 2001).

Also, successful rigorous and systematic evaluations of sales training have already been reported on in retailing organizations. Meyer and Raich (1983) incorporated an experimental design that matched 14 retail stores into seven groups based upon market characteristics and location. Employees who received training earned a statistically higher commission rate and employee turnover was lower at stores that received sales training. In a second example within the UK retailing environment, Doyle and Cook (1984) employed a before and after control group experimental design procedure that matched pairs of stores from a major UK chain of 263 fashion boutiques. In this experiment, the average weekly sales in stores receiving training were significantly higher than in control group locations. Moreover, trained salespersons accomplished multiple sales at a significantly higher level. These are two of the most successful attempts at evaluating a sales training program that have been published.

Value and Return on Investment of Training Intervention

A final stage of assessment evaluates the value of the training intervention. There has been an increasing trend toward accountability in organizations, with every support function attempting to demonstrate its worth by assessing the value it adds to the organization (Geber 1995). Phillips (1998) advocates capturing the return on investment (ROI) of training. This involves the systematic conversion of behavioral change and organizational results captured in previous stages (i.e., stages 6 and 7) into dollar amounts, isolating the effects of training, and calculating and comparing to training costs (Honeycutt et al. 2001; Phillips 1998).

As mentioned earlier, a well-accepted method of expressing the financial outcomes of personnel actions, including training programs, in terms of dollars, is utility or cost–benefit analysis. From an economic perspective, sales management researchers state that sales training must be cost effective (Anderson 1993; Dubinsky 1981), profitable (Shipp 1980), and worth the investment (Caffarella 1988; Phillips 1991). Conducting utility analysis allows managers to better understand the value of training as well as helps to explain salesperson failure (Dubinsky 1999; Jolson 1999). To date, utility analysis has been used to demonstrate the economic value of personnel programs in the area of selection (Cascio 1989) as well as to calculate the economic and financial impact of sales training programs (Honeycutt et al. 2001). Similarly, Boles, Donthu, and Lothia (1995) show how data envelopment analysis, which evaluates inputs relative to outputs, can be utilized in sales force evaluation.

In order to isolate training effects from others (e.g., market conditions, seasonality, marketing efforts), four key techniques have been utilized by organizations (Phillips 1998). The most effective way to isolate the impact of an intervention is to utilize experimental design and a control group; this technique involves providing training to one group while another similar group does not receive training (Dubinsky 1981; Warr, Allan, and Birdi 1999; Zenger and Higgins 1987). However, it is usually more practical for organizations to train similar salespeople simultaneously. In these situations, a second technique can be utilized where firms use trend lines to project output variables if training had not been undertaken and compare them to actual data after training. In a third technique, when the mathematical relationships between input and output variables are known, firms can use forecasting models. This approach involves the prediction of outcome
variables using a forecasting model with the assumption that no training is conducted. Then actual posttraining performance is compared to the forecasted estimate. The fourth technique is to acquire estimates from credible informants. This approach involves providing informants with the total amount of improvement and asking them to indicate the percent of the improvement that is actually related to the training program. Depending on who is thought to provide the most valid estimates, informants can be the sales trainees, frontline sales managers, senior managers, or experts and training consultants.

Once training outcomes are isolated and converted into a monetary value, the return on training investment can be readily calculated after training costs are assessed. Costs include the direct costs of designing, developing, and conducting the training, as well as all materials provided and travel, facilities, lodging, and meal expenses. Administrative, overhead, and specific costs related to needs assessment/evaluation should also be included in calculations. Finally, opportunity costs of salespeople must also be considered (Honeycutt et al. 2001).

When performed correctly, assessment at this level provides the firm with the most comprehensive information for evaluating past training efforts and for planning future expenditures. For example, in a case study of a global firm's training program, a utility analysis-based approach indicated that every $1 spent on the evaluated sales training program generated $2.63 in revenue and resulted in $1.63 in profit (Honeycutt et al. 2001). Once firms assess sales training with respect to the value it provides the firm, the relative impact of training programs and interventions can be compared in order to maximize the time and dollar investments made when developing the sales force (Cascio 1989). Honeycutt et al. (2001) suggest a net utility approach to sales training assessment that focuses on comparing results of several strategic training options.

MANAGERIAL IMPLICATIONS

What is the most effective and efficient means to develop a highly skilled sales force? How does one ensure that training dollars are not wasted and spent on the right things? How do sales managers ensure that they capitalize on sales force strengths while improving weaknesses? The answers to these questions will differ from firm to firm depending upon the industry, selling cycle, method and content of training, degree of team selling, and position in the supply chain, to name but a few variables. However, today's sales managers realize that to be able to answer these questions, the evaluation and assessment efforts of sales training must improve.

Firms wanting to develop more strategically focused sales training efforts should agree that their training efforts must effectively change the behaviors of salespeople in the field in ways that aid the sales force in cost effectively meeting the strategic objectives of the firm. The proposed framework helps sales managers determine how well training efforts meet this objective. It further suggests that sales firms must evaluate their sales training efforts in three broad areas. First, firms must clarify their objectives and determine what training is most appropriate. Second, they must evaluate the impact of training on salespeople, focusing on the level of behavior change that results. Third, firms must assess whether objectives were reached and if this was done cost effectively.

In today's business environment, firms critically evaluate the feasibility, costs, and payoff of retaining customers (Liu, Leach, and Bernhardt 2005). As current customers limit the number of suppliers they work with, supply firms have to commit to substantially increasing the value of their offering, or decide that the payoff is too minimal or too risky and forgo future business. Increasing value involves elevating the role of the salesperson within the exchange relationship (Liu and Leach 2001). For these and other related reasons, a firm's sales strategy is increasingly becoming a vital element of an organization's overall competitive strategy.

Therefore, sales training must also become more strategic in nature. Sales firms must determine how best to assess the needs of the sales force, ascertain the most effective ways to communicate vision and strategic agendas to the sales function, determine who is responsible and accountable for implementing strategic initiatives within the sales function, and assess how to most effectively budget for sales force development efforts. Most importantly, the framework proposes that sales firms manage their sales force development activities in a closed-loop system whereby various assessments are made that allow for change and continuous improvement.

Many firms today do not view sales force development activities to be strategic in nature, but instead treat training on an ad hoc basis. That is, firms continue to allocate training dollars as a simple percent of revenue (Rosen and Ruiz 2003) or allow managers to approve training programs on a "willy-nilly" basis, often when they are forced to "spend or lose" training budgets or when asked by salespeople. For example, a recent trade article highlighting sales seminars suggests: "As students go back to school this month, this may be a good time to give your sales team a little class time as well" (Beck 2003, p. 51). For firms that take a more strategic view of training, however, there is evidence that strategic sales force development is effective and can provide a source of competitive advantage. For example, the director of global sales training for Lucent Technologies recently attributed increased profitability and customer loyalty to more strategic training initiatives: "We've found it just makes more sense to invest in fewer things that are explicitly tied to business objectives and have senior leadership support behind them" (Johnson 2004,
p. 37). Likewise, Pfizer reports that a strategic training objective to reduce salesperson turnover cost the pharmaceutical company $150,000; yet, through the resulting turnover reduction, a return of $3.6 million was realized in cost avoidance—that is, not training larger groups of new hires—and increased productivity (Galvin, Johnson, and Barbian 2003).

When specifically assessing the impact of training on salespeople, we advise sales managers to focus on learning transfer. Without learning transfer, a firm cannot realize any gains from training expenditures. Sales firms may want to adopt SFA technologies for various reasons. We suggest these systems can also benefit sales training programs by allowing some form of unobtrusive evaluation of salesperson field behaviors. Empirical evidence is mounting that other forms of assessment (e.g., Kirkpatrick’s levels one and two) are not particularly valuable at predicting organizational results; however, they can be valuable tools for improving training programs. Any improvements should result in training programs that move trainees toward greater levels of transfer.

When assessing the impact of training on the firm, sales firms must ensure that training expenditures provide results. Furthermore, given the costs associated with sales training, firms must determine the most cost-effective way to obtain these results. This has become particularly critical as technologies are providing various forms of training with highly variable costs. Determining when Web-based training is effective and when instructor-led is best has become one more question that sales firms must ask themselves. Lucent Technologies discovered firsthand that using a “cost-only mentality” instead of a “learning-effectiveness mentality” was problematic when trainees failed to transfer learning. Lucent now reports using approximately 65 percent instructor-led and 35 percent Web-based training in 2004 compared to trying to cut costs with 92 percent Web-based training in 2002 (Johnson 2004).

**FUTURE RESEARCH AGENDA**

A secondary goal of this paper is to stimulate further interest and research in the area since multiple investigators have advocated the importance of sales training assessment research (Honeycutt and Stevenson 1989; Lupton, Weiss, and Peterson 1999). To facilitate future research efforts, we identify areas that deserve additional investigation and include inherent limitations and challenges faced by sales management researchers.

**Research Directions**

The study of sales training assessment is important for many reasons. First, as is evident from the framework presented, training can be assessed at multiple levels. It is of significance to understand the relative importance of these assessment areas and how they are interrelated. As such, researchers have previously called for investigating the interrelationships among evaluation levels (Honeycutt et al. 2001; Warr and Bunce 1995; Warr, Allan, and Bird 1999). For example, Leach and Liu (2003) studied training offered to salespeople in the life underwriting industry and found that the four Kirkpatrick stages were interrelated in the hypothesized manner. That is, reactions facilitate learning, which promotes transfer, which facilitates firm-level goals. One reason to study these interrelationships is to determine which levels of evaluation are required and the lowest level of assessment that provides valuable insight. If, for example, reaction measures are the easiest to collect, then it would be highly beneficial if reaction was a surrogate measure of salesperson learning and transfer. It would also be helpful if reaction measures were highly predictive of desired organizational outcomes. To date, empirical evidence suggests that reactions are not efficacious, but that the transfer of learning is of key importance (Alliger et al. 1997; Leach and Liu 2003).

Although assessing interrelationships among training assessment levels may provide interesting insights; contemporary assessment is being transformed by data and market conditions that may require future research to take a different focus in order to be most beneficial to sales managers. With the vast amount of data being collected by today’s “customer-centric” organizations, firm-level assessments of sales training will become easier to accomplish. As such, we foresee the assessment of training interventions moving toward the firm-level and training programs being evaluated relative to one another based upon their impact at reaching training goals effectively and efficiently. That is, assessment of reaction, knowledge/learning, and transfer will be valuable primarily to the extent that they facilitate the development of ever more effective training interventions. These measures will remain invaluable at assessing training shortcomings or failures. Likewise, with renewed interest in assessing firm-level goal achievement, evaluating the needs of the organization and of individual salespeople may also become more critical to sales force development efforts. Thus, future efforts may best aid tomorrow’s sales force by providing guidance in the following four areas: (1) how to conduct needs assessments most effectively, (2) how to best identify and select sales trainees, (3) how training can enhance the transfer of learning, and perhaps most critically, (4) how to best use today’s data and analytics to assess the value of sales training at the firm level.

**Research Challenges**

Researching training assessment is difficult for myriad reasons; among them are access to certain data and the longitudinal nature of the sales training being evaluated. In addition,
research in this area is hampered by study design issues and measurement concerns.

Issues with Study Design

The generalizability of findings is a concern when conducting research. However, because of the context and content specificity of most sales training interventions, this concern is of primary importance when assessing sales training because there is a substantial trade-off between the richness of data and generalizability of findings. That is, most training assessment studies have relied upon reporting findings from a single case study (e.g., Warr, Allan, and Birdi 1999). It has been argued that case study methodology can be particularly insightful for business-to-business research (Johnston, Leach, and Liu 1999); however, generalizability requires evidence of a consistent pattern of findings across case studies. For example, Honeycutt and colleagues (2001) investigated a specific training intervention and obtained rich and specific information that allowed them to demonstrate the use of utility analysis to assess the value of the training effort. Conversely, Leach and Liu (2003) investigated a salesperson's last immediate training intervention, thus enhancing the generalizability of findings that were limited by objective and subjective self-reported measures.

As mentioned previously, a second important research design issue of training studies is the use of experimentation involving before and after measures with control groups. Experimental design is the most powerful and advantageous way to evaluate sales training outcomes (Dubinsky 1981; Warr, Allan, and Birdi 1999; Zenger and Hargis 1987). For example, a firm can train different locales and compare results of trained and untrained groups (Cavusgil 1990; Doyle and Cook 1984; Meyer and Raich 1983). Yet, especially for academic research, published experimental and longitudinal studies remain rare.

Issues with Measurement

In order to evaluate salesperson behavior, at least five different assessment methods have been employed: customer evaluation (Erfemeier, Russ, and Hair 1991; Lambert, Sharma, and Levy 1997), self-evaluation (Leach and Liu 2003), supervisory evaluation (Bolar 1975; Law 1990; Tannenbaum and Woods 1992; Tziner and Falbe 1993), peer evaluation, and subordinate evaluation (Erfemeier, Russ, and Hair 1991). From these examples, it is clear that a better understanding of measurement efficacy in general and across various situations is critical when conducting training assessment research.

How valid are self-assessments relative to objective data? When should multiple raters be utilized? These are but two of the measurement issues facing valid training assessment research. According to Bolar (1975), the salesperson, the salesperson's supervisor, and the trainer are valid evaluative sources for sales training. Mezoff (1987), Connolly (1987), and Zemke (1996) also recommend the use of trainee self-evaluation, as well as trainee supervisors, to assess training. However, Chonko, Howell, and Bellenger (1986) reported insignificant correlations between the sales supervisor's assessment and salesperson self-evaluations. That is, trainees tend to rate themselves higher than their supervisors (Connolly 1987). So, sales managers and executives should understand that consistent ratings are unlikely when comparing the evaluations of trainees, supervisors, and trainers. However, that is not to say that single indicators are preferred, because a single measurement of sales revenue or turnover may not be the most accurate means of assessing training effectiveness (Rich et al. 1999).

When assessing knowledge (stage 4) and transfer of learning (stage 6), an important measurement issue is whether to assess the sales trainee's knowledge level and level of behavior exhibited, or to measure the change variables of knowledge acquired from training and behavior change. The former requires one measurement period, whereas the latter requires that a pre- and postassessment be made. This distinction is important for several reasons. First is that they have different uses for the organization. In order to test propositions regarding the effectiveness of a training program, a measure of change is desirable. However, for the more practical purposes of the sales manager, it may only be important that members of the sales staff have a certain level of knowledge and exhibit consistent behaviors in the field. Second, evaluations are likely to interact differently with other assessments in the framework. For example, reactions to training (stage 3) are likely to be more heavily correlated with change in knowledge than with an absolute level of knowledge; particularly, when there is a high level of variance in pretraining knowledge levels among sales trainees. Likewise, an assessment of behaviors exhibited may be more heavily correlated with meeting firm-level objectives than a measure of behavior change. However, behavior change variables may be more useful when computing training value assessments and return on training investment's (stage 8).

A final issue is how to assess and use change or difference variables. Using raw change scores (i.e., posttraining minus pretraining evaluations) is problematic for several disparate reasons. First, individuals with different initial levels have varying potential for movement during training. Second, it is unclear whether associations between change scores and other variables are a result of a relationship between the pretest value, the posttest value, or the change between them (Warr, Allan, and Birdi 1999). Simply examining raw change scores can yield potentially misleading results. Thus, when investigating sales training effectiveness, it is important to examine change after controlling for initial (pretraining) levels (Cronbach and Furby 1970; Wall and Payne 1973).
The strategic importance of the sales force continues to grow as firms evolve toward managing customer relationships by analyzing voluminous customer data, becoming more customer-centric, and wanting to deliver “one face” to the customer through integrated marketing communications (IMC) initiatives. To develop this highly skilled sales force, sales training must be increasingly strategically focused. Furthermore, training assessments must be formalized and scrutinized in order to provide sales training efforts with a closed-loop system of continuous improvement. There is little argument regarding the importance of this issue or of the difficulties and challenges required. It is our belief that the multistage framework developed here can help guide sales firm efforts toward reaching these goals.

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