

IMPROVING SALES PERFORMANCE WITH SELF-DIRECTED LEARNING

STEFANIE L. BOYER, Bryant University

ANDREW B. ARTIS, University of South Florida

PAUL J. SOLOMON, University of South Florida

DAVID E. FLEMING, Eastern Illinois University

Superior training is required to develop a sales force with the expertise to achieve and maintain a sustainable competitive advantage in the tumultuous global marketplace. The use of self-directed learning (SDL) has been shown to be an effective method for providing essential training that individualizes employee learning to achieve organizational goals. Salespeople in careers where self-direction is vital for success (e.g., financial services) benefit from using self-directed learning projects (SDLPs) to acquire the skills, knowledge and abilities necessary to excel. This study shows that sales managers can have a positive influence on the self-directed learning efforts of salespeople by providing them with self-management training and supervisory support. In addition, use of non-obligatory self-directed learning projects—where salespeople can chose the projects they feel they need—lead to higher levels of perceived performance.

INTRODUCTION

“We don’t need another consultant or business professor preaching to us that we need to develop our salespeople... Instead, we need to know what the best training methods are and why we should use them... So, if you cannot explain specifically to me what our sales managers need to do to improve their training efforts and why we should even invest the effort to change, then don’t waste your time or mine by writing it down. I won’t read it, and I sure as hell won’t recommend it to our sales managers.” *The comments of a Vice President of a Fortune 500 Corporation on the role of sales training research.*

Sales executives, researchers and training experts agree that the creation of a world-class

sales force can provide a firm with a sustainable competitive advantage (Lambert, Ohai & Kerhoff, 2009), but there is disagreement on what role sales training should play in accomplishing this (Borna & Sharma, 2011; Chonko, Dubinsky, Jones & Roberts, 2003; Harris, Ladik, Artis & Fleming, 2013; Jantan, Honeycutt, Thelen & Attia, 2004; Pettijohn, Pettijohn & Taylor, 2009). As is evident in the quote above, practitioners often find that many of the recommendations provided by researchers are oversimplified, impractical, and often ineffective (Bennis & O’Toole, 2005; Chonko, Tanner & Weeks, 1993). Sales executives want specific, tangible direction that is supported by evidence so they know what to do and how it will benefit their organizations (Cron, Marshall, Singh, Spiro & Sujana, 2005; Honeycutt, 1996). Self-directed learning offers a promising new avenue for executives because it allows salespeople to craft their own learning efforts around their specific needs. Hence, the use of SDL provides a more efficient and effective approach to sales training. The purpose of this article is to explain one way to develop a highly competitive sales force with training that promotes individual self-directed learning (SDL) by salespeople, and to provide tangible evidence to justify the use of self-

management training and supervisory support to increase SDL.

Self-directed Learning

Self-directed learning (SDL) is an adult education teaching technique that shifts the loci of control for learning from trainer to salesperson. It advocates that when adult students receive greater control over selecting the educational topic, content, study method and evaluation criteria they will customize their learning behaviors and self-regulate efforts and emotions to effectively solve the most pressing and important problems within their lives (Edmondson, Boyer & Artis, 2012; Knowles, Holton & Swanson, 2005; Speck, 1996). This method can also be used for career development. Self-directed learning as a means of improving professional training has been shown to be highly effective (Boyer & Lambert, 2008; Bromfield-Day, 2000; Guglielmino & Murdick, 1997; Middlemiss, 1991; Yu, 1998). Its success derives from empowering the employee to manage his/her personal learning actions and attitudes, and simultaneously allowing the employee's supervisor to evaluate how well an employee's learning serves the organization's goals. It contrasts with traditional, standardized workplace training methods in two important ways. First, SDL allows adult learners to customize their expertise by developing skills, knowledge, and abilities to meet their unique needs and workplace situations. Second, it is a way to maximize organizational learning by decentralizing the training function and requiring individual employees to take charge of their professional development within guidelines set by supervisors.

Self-directed learning has been recommended as an alternative approach to training sales professionals due to their distinctive job requirements and personal characteristics. First, salespeople often require high levels of autonomy, as they operate with minimal supervision on the outer boundary of the organization (Boyer & Lambert, 2008). Second, salespeople typically need to be highly creative

to provide innovative and customized solutions to the unique problems of their clientele (Marshall, Moncrief & Lassk, 1999). Third, salespeople need to learn to continually cope and adapt to turbulent and competitive environments (Chonko, Jones, Roberts & Dubinsky, 2003). Finally, salespeople tend to already have a natural tendency to use SDL either because it is a pre-existing innate characteristic or because their work environment causes them to adopt it (Durr, Guglielmino & Guglielmino, 1996). Therefore, SDL can be used to tailor the training and development of salespeople to effectively achieve organizational goals (Hurley, 2002).

Self-directed learning projects. Self-directed learning *projects* are used within adult education to implement and measure this form of training. An SDL project is a series of intentional learning episodes conducted by an adult designed to obtain skills, knowledge or abilities that create a lasting change in the person. Tough (1967; 1971) stipulated that an SDL project needed to be a minimum of seven hours over a six-month period. While the general definition of SDL projects successfully encompassed most of the different types of autonomous learning, researchers were unable to explain why similar antecedents led to different results. Subsequent research showed that the conflicting results can occur when all SDL projects are treated as the same. We have come to learn they are not.

Two seminal works have rectified this problem and have generated renewed interest in SDL. First, Clardy (2000) recognized that there were different types of SDL projects being used in the workplace after he conducted in-depth interviews with employees in diverse jobs at multiple firms. His classification system showed that different actions were required by the trainer and trainee depending on which type of SDL project was being used, and it explained why previous research was often contradictory when the type of project was not taken into account. Second, Artis & Harris (2007) applied Clardy's classification schema to the sales domain. They identified the different actions

required by both the salesperson and the sales manager for different types of SDL projects. They argued that sales managers have to vary their support and assistance depending on the type of SDL project pursued by the employee, and that salespeople need diverse skills and incentives to effectively use the different SDL projects to achieve organizational goals.

The different types of SDL projects are classified based on the salesperson's ability to identify what needs to be learned and why it is important in a particular selling situation: this is referred to as "contextual understanding" (Artis & Harris, 2007). In general, when the contextual understanding of the salesperson is low he/she must rely on the sales manager to provide topics, content and evaluation of his/her learning. When the salesperson's contextual understanding is high, he/she can rely on his/her own judgment to choose an SDL project, find content, and evaluate his/her own learning. In these cases, the role of the sales manager is more of a coach or mentor. In all cases, it is important that the manager ensure that employee learning efforts are directed toward achieving organizational goals. However, because manager involvement varies depending on which type of SDL project is being used by the salesperson, it is important that sales managers be able to recognize the four types of SDL projects: induced, synergistic, voluntary and scanning. Actual examples from the real estate industry are used here to show how salespeople (agents) and managers (brokers) used various types of SDL projects to achieve professional and organizational objectives within a single industry where salesperson self-sufficiency is essential for success.

First, induced and synergistic SDL projects tend to be *exploitive learning*—existing skills, knowledge and abilities are transferred to the salesperson (March, 1991). Induced SDL projects give the salesperson the least amount of control over content. These projects tend to be required (e.g., certification programs, proof of minimal job skills, etc.). The content is prepared by an expert, and the evaluation is measured by others. Typically, the only control

given to the salesperson is the pace of learning, and sometimes the location (e.g., at home), to study the assigned materials. The salesperson needs only nominal contextual understanding to conduct an induced SDL project because it is provided by a manager, a company, a trainer and/or a regulatory agency. For example, real estate agents identified their studying independently and taking their state's real estate licensing examination as a typical induced SDL project. The role of the various brokers was to specify job requirements, how to acquire licensing, and stimulate action (e.g., one real estate broker pledged to reimburse the fee to take the exam once the agent passed it, a second one gave tips for taking the exam, and another provided study materials).

Second, synergistic SDL projects are similar to induced projects because the topic contents are also prepared by someone other than the learner, but there is an important difference: salespeople have more freedom to choose to participate. Hence, these types of SDL projects are not required, but a salesperson has enough contextual understanding to anticipate a benefit from completing the SDL project, and therefore he/she elects to participate. This subtle difference may have substantial benefits over induced SDL projects because when adult learners choose to participate in synergistic SDL projects they show increased motivation to initiate the process, greater perseverance in completing learning tasks, even when these tasks become tedious or strenuous, and are more likely to transfer what they learn into practice (Knowles, Holton & Swanson, 2005). For example, a licensed real estate agent reported that her broker encouraged her to take an optional training seminar on how to conduct "short sells" to improve her services to clients and value to her agency. The broker's role was to help identify a learning opportunity in line with the organization's goal (i.e., increase business by selling more distressed properties) and to secure an expert who would be appropriate to prepare the materials (a title company representative). The agent and broker attribute the knowledge gained from this self-directed learning project as directly leading to

increased work with local banks that prefer short sells to having to foreclose on residential properties.

Third and fourth, voluntary and scanning SDL projects are more advanced and tend to require more *exploratory* learning—the salesperson has to create the skill, knowledge and ability to be learned (March, 1991). Hence, these two types of SDL projects require that salespeople have progressively higher levels of contextual understanding, autonomous learning proficiencies, and motivation to act independently. For instance, successful implementation of voluntary SDL projects requires that salespeople: 1) understand their learning objective; 2) have the skills to acquire and use the information needed to fulfill that objective (a.k.a., information literacy); and; 3) the contextual understanding to determine when they have learned enough to apply it to improve their performance (Artis & Harris, 2007). An example of a voluntary SDL project was provided by a real estate agent who independently conducted an extensive property title search to determine the various parcel owners of a decaying city block within a downtown historic district. He then crafted a proposal to successfully attract a large retailer, a developer, financing from a local bank, and approval from local government authorities. The city block is now a revived economic area for shopping, entertainment, and urban living. This one voluntary SDL project has differentiated this salesperson: beyond the commissions he earned from the sell/purchase of the properties on the block, the retailer has asked that he look for other similar deals, the developer has asked that he identify additional opportunities, the bank has added him to its list of real estate agents, and the local historic district publicly recognized him with a civic award. Throughout this SDL project his broker acted as a coach who provided encouragement and ideas on how he might proceed during different phases of the project.

Scanning SDL projects require the greatest amount of contextual understanding, and the ability to scrutinize large amounts of

information to determine what is relevant and what is just distracting noise. “Unlike the other types of [SDL projects], scanning does not have a pre-identified learning goal but is a proactive process of monitoring the environment to identify and evaluate potential threats and opportunities” (Artis & Harris, 2007, p. 12). This type of SDL project is very important in professional selling because a valuable service provided to customers by world-class professional salespeople is to scan, identify and recommend countermeasures for threats and strategies to seize opportunities. An example of a scanning SDL project was provided by a real estate agent with over 30 years of experience who monitors the weekly discussion and actions of the local zoning board. She attributes her success with commercial clients to her ongoing scanning of the changes in the rules that govern the use of real estate in her community. Her extensive contextual understanding of local issues, zoning regulations, and the board’s anticipated actions has allowed her to see potential opportunities and threats for her clients. As she openly admitted, “It is an easy thing to say to do, but to do it well you have to have a great understanding of our community and dedication to continuously staying on top of lots of issues.” Her broker’s role is minimal: the agent discusses with her broker her interpretation of the zoning board’s staff reports, actions, and agenda items; he provides advice and monitors the board meetings when she cannot.

While the authors recognize the importance of all four types of SDL projects, synergistic SDL projects are of primary concern within this research for three important reasons. First, these projects can be used by all salespeople, even those with diverse experiences and different amounts of time spent within professional selling. So by addressing these types of projects, the adoption of SDL by a sales manager is more likely to have broad appeal to most of the members of a sales force. Second, the role of the sales manager is essential in providing support and motivation for these learning opportunities, which is the central point of this research. Sales managers who

understand how to use these types of projects can promote their organization's learning goals. Finally, the use of synergistic SDL projects act as "gateway opportunities" for both salespeople and their managers to become proficient at using higher forms of SDL projects (e.g., voluntary and scanning projects). Therefore, we have placed the construct of synergistic SDL project use at the very center of our model (Figure 1).

Self-management Training

Within professional selling literature, self-management is the combined use of behavioral, emotive and cognitive strategies that help the salesperson understand how to interact within his/her selling environment. Self-management skills are used to pursue and attain personal and organizational goals with effective planning, self-evaluation, self-motivation and resolve (Manz, 1986). For example, self-management training has been used as a tool to assist salespeople to more effectively manage their work efforts with goal setting, self-monitoring, self-regulation, maintenance, and relapse prevention (Frayne & Geringer, 2000; VandeWalle, Brown, Cron & Slocum, 1999). Therefore, we use the term "self-management" as an overarching construct that encompasses many similar skills investigated by many researchers: self-regulation (VandeWalle, Brown, Cron & Slocum, 1999); self-evaluation, self-monitoring, and self-reaction (Bandura, 1982; Kanfer, 1996; Leach, Liu & Johnston, 2005); self-motivation (Gist, Stevens & Bavetta, 1991; Wood & Bandura, 1989); directing focus of effort (Bandura, 1982; Kanfer & Ackerman, 1989); and goal planning (Gist, Schwoerer & Rosen, 1989).

Self-management skills can be acquired without training, and not all self-managed behavior results in constructive outcomes. Karoly (1993) points out that adults may practice dysfunctional self-management. For example, procrastination is a negative form of time management, and avoiding long-term planning is an ineffective way to achieve personal goals, but both are common self-management

methods (Castaneda, Kolenko & Aldag, 1999). Hence, sales managers want to provide self-management training that models the approaches thought to improve performance. For example, Frayne and Geringer (2000) provided self-management training—self-assessment, goal-setting, self-monitoring, self-evaluation, written contracts, maintenance, and relapse prevention—to half of a sample of insurance salespeople. Twelve months after the training was provided, the treatment and control groups were compared. Those who received the self-management training, on average, made 50 percent more calls, sold twice as many policies, generated 150 percent more in sales revenues, and scored much higher on performance appraisals than those who did not receive the training.

Further, while self-management skills are beneficial by themselves, we intend to show that these skills can achieve greater performance outcomes if they are used to pursue synergistic SDL projects. Self-management is a necessary skill for effective implementation of SDL projects (Knowles, Holton & Swanson, 2005). For example, Oddi (1984) found a correlation between the use of SDL projects and an adult's ability to self-regulate his/her learning efforts. Artis and Harris (2007) advocate that self-management skills can be "acquired through study, and therefore, salespeople can be encouraged to be more autonomous learners by being taught the tools necessary for self-directed learning" (p. 13). Therefore, salespeople should be taught appropriate self-management techniques for effective use of SDL.

Perceived Supervisor Support for Synergistic SDL Projects

Adult education scholars emphasize that self-management training may not be enough for effective SDL. Artis and Harris (2007) argue that "teaching these skills is important, but creating a safe environment where salespeople feel comfortable in practicing those skills may be an additional requirement for [effective use of] self-directed learning methods" (p. 14). For

instance, it is of paramount importance that sufficient motivation be provided for SDL projects to be used to achieve meaningful results. Artis and Harris (2007) point out that motivation is the over-riding factor: with it salespeople will overcome many barriers, but without it even those with superior SDL skills may not invest sufficient effort. Hence, salespeople have to believe that their sales managers will support (e.g., provide tools, resources, etc.) and will reward (e.g., recognize, appreciate, compensate, etc.) their use of synergistic SDL projects.

Kottke and Sharafinski (1988) define perceived supervisory support as an employee's global beliefs that his/her supervisor values the employee's contribution and cares about his/her general welfare. Previous research has shown a positive relationship between perceived supervisory support and job satisfaction (Karatepe & Kilic, 2007; Stinglhamber & Vandenberghe, 2004), organizational commitment (Stinglhamber & Vandenberghe, 2004), and performance (Chan, 2006). Predominantly, two theories have been used to explain and predict how perceived supervisory support influences employee behavior: social exchange theory and the norm of reciprocity.

First, social exchange theory states that employees use a simple cost-benefit analysis: if the employee perceives that the benefits (i.e., recognition, compensation, personal fulfillment, etc.) to be received from the relationship will exceed the costs incurred (i.e., effort, time, commitment, etc.) then the employee will remain in the relationship (Emerson & Cook, 1978). Second, the norm of reciprocity states that employees feel obligated to repay favorable treatment (Eisenberger, Lynch, Aselage & Rohdieck, 2004). Hence, when supervisors treat their employees well, those employees feel an obligation to act in ways that benefit the supervisor (Eisenberger, Armeli, Rexwinkel, Lynch & Rhoades, 2001). Both theories emphasize the employee's need to try to obtain a balance between the treatment they receive and the performance they give. Hence, if salespeople perceive that their supervisors are

increasing their support for SDL projects, then salespeople will increase their adoption of those projects.

Perceived Performance

Sales managers are concerned with justifying the expense and effort invested in sales training, and they require measures to show how specific sales training leads to desired outcomes. Traditional training metrics tend to be provided by those who provide the training, and are inclined to be inadequate. For example, a criticism of this approach is that human resource departments have a tendency to measure the amount of training delivered (e.g., number of participants, number of seminars provided, number of hours of training, etc.), instead of reporting on the personal or organizational results achieved as a result of the training (Tobin, 2000). It is therefore left up to the sales managers and the salespeople who participate in training to evaluate its effectiveness.

It is a goal of this research to determine the impact of synergistic SDL projects on a salesperson's perceived performance. Therefore, the most meaningful evaluation of sales training requires that salespeople who receive it evaluate how it influences their performance. As obvious and straightforward as this may sound, not all salespeople may have had enough experience to effectively evaluate the benefits of different forms of training. To combat this weakness, salespeople can be asked to compare their perceived sales performance to their peers and to report their use of SDL projects to measure a correlation between the two. Professional selling is a competitive endeavor, and salespeople have to be able to assess their own performance against their peers.

Hypotheses

As depicted in Figure 1, we propose that self-management training and supervisory support follow a mediated path through the use of synergistic SDLPs to perceived performance.

We hypothesize the mediated paths based on the following logic. Previous research provides support for the positive relationship between self-management training (SMT) and performance (Leach, Liu & Johnston, 2005) and between perceived supervisory support (PSS) and performance (Chan, 2006). However, organizational climate and employee training do not result directly in performance; rather they influence salesperson behaviors which, in turn, lead to the performance improvements sought by the firm (Artis & Harris, 2007). The model we propose is one that fully mediates the relationships between SMT and performance, and PSS and performance, through the behavior of using synergistic SDL projects to create the desired performance outcomes. Therefore we propose the following hypotheses:

- H₁:** Higher levels of self-management training will lead to greater use of synergistic self-directed learning projects.
- H₂:** Higher levels of perceived supervisory support for synergistic self-directed learning projects will lead to greater use of synergistic self-directed learning projects.
- H₃:** Use of synergistic self-directed learning projects will lead to higher levels of perceived performance.

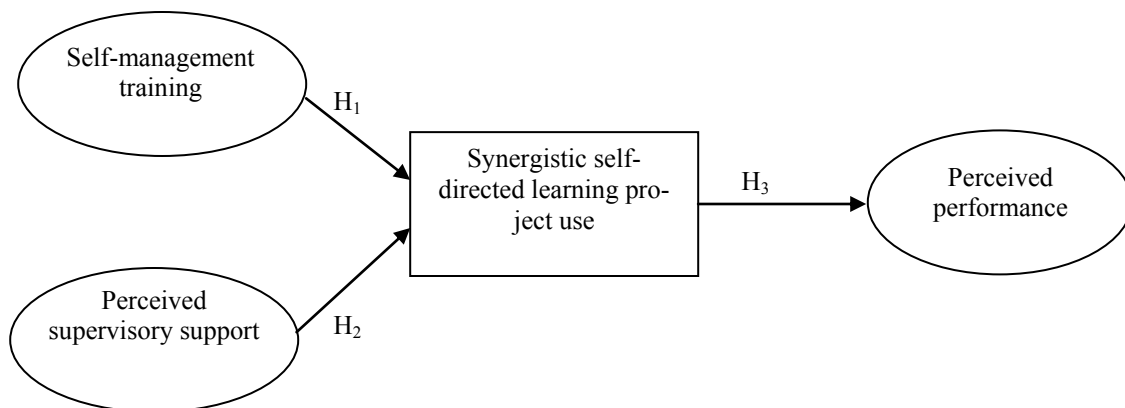
These can be seen graphically in Figure 1.

Research Method

Sample

Salespeople within the insurance industry were selected to test the model because individual learning and self-management are highly valued and considered essential for successful performance (Frayne & Geringer, 2000). A North American-based provider of insurance training, information and research sent an e-mail to 5,000 of its clients, requesting they complete an on-line survey, and 392 completed surveys were returned for a 7.8% response rate. If a survey was returned lacking a response to any of the items for SDL project use or more than two items from the reflective scales, the response was eliminated; for those responses missing 1 or 2 items from the reflective scales, a mean score replacement method was used on the missing data. This resulted in 381 responses that were used for statistical analysis (7.6% usable response rate). Due to our research agreement, the provider maintained control of the client email list. Because of this, we were unable to use software that would provide information about whether the email was viewed, bounced back, or received. Therefore, we report the lowest response rate, assuming all emails reached the intended party, even though the provider mentioned that email addresses often change and that mass emails, like the one sent, often get marked as spam and do not reach

FIGURE 1:
Synergistic SDL Projects Mediated Model of Performance



the intended party. Of these respondents, 62.5 percent were male, while 37.5 percent were female. Most participants fell between the ages of 36 and 55 years. The majority of the sample had been in their current position for over four years (68.4%). Average income for the sample fell between \$50,000 and \$100,000 (44%). On average, the salespeople in the sample had worked in sales for over 13 years (58.9%). Typically, participants had completed at least a four-year degree (55.1%).

Measures

The scale to measure the types of self-management training obtained by salespeople was developed based on Leach et al. (2005). Additional items were added to cover goal formation, self-assessment, motivation, time management, anticipation of problems, and personal resolve which resulted in a total of ten items. The items were measured on a seven-point Likert scale (1=strongly disagree, 7=strongly agree). This scale showed good internal consistency with a Cronbach's alpha of .970.

The items used to operationalize perceived supervisor support for synergistic SDL projects were modified from Eisenberger, Huntington, Hutchison & Sowa's (1986) perceived organizational support scale. This resulted in six items that reflect the employee's perception of supervisory support of synergistic SDL projects. The items were measured on a seven-point Likert scale (1=strongly disagree, 7=strongly agree). The Cronbach's alpha for the scale is .963.

The outcome measure of performance was based on the participants' assessment of their performance relative to their peers within their industry. Items included personal sales objectives and organizational goals from scales provided by Leach et al. (2005), Behrman and Perreault (1982), and Sujan, Weitz & Kumar (1994), such as standard questions about selling volume, exceeding sales quotas, acquiring market share, increasing profit margins, identifying new accounts, and assisting the

sales supervisor in meeting organizational goals. This resulted in a scale consisting of seven items measured on an eleven-point Likert type scale (from -5 to +5 with 0 as a midpoint). The Cronbach's alpha for this scale was .941. Salespeople reported no problems in comparing their performance to peers in their industry during interviews held prior to data collection.

The measure of synergistic SDL project use is not conducted as a reflective measure; rather, it is a count of the number of these projects the respondents have engaged in over the last six months. The participants were given a list of the five most commonly used synergistic SDL projects based on interviews with highly autonomous salespeople across multiple industries (e.g., real estate, pharmaceuticals, financial services, manufacturing, etc.). They were then asked to estimate how much time they had spent on that particular activity. If their response met the minimum threshold of seven hours, as defined by Clardy (2000), then it was scored as a "1"; if not, then it was scored as a "0." The final measured variable for use of each type of SDL project was calculated by summing each of the five items to give a count of the number of different synergistic SDL projects the respondent had engaged in over the past six months (Mean 1.48, Median 1.00, Mode 0, Std. Deviation 1.612). This is an observed count variable, thus no internal consistency data is available. As expected, insurance salespeople reported extensive use of synergistic SDL projects. In the six months prior to completing the survey, 60.8 percent of the sample reported completing at least one synergistic SDL project: used company education materials, sales materials, optional seminars, intranet, or training seminars. Of these respondents, 21.6 percent used only one synergistic SDL project, 14.2 percent used two, and 25 percent used three or more.

To establish face validity and content validity, we asked 10 salespeople to read the definitions of the self-directed learning projects and identify the activities that fit each category. We later asked five different salespeople to match the activities with the type of self-directed

learning project. All salespeople categorized the activities in the same way. Next, a team of seven academic researchers familiar with psychometric properties reviewed all scales used in the study. At least two researchers were familiar with each of the literature bases from which the psychometric measures were drawn. Finally, the scales were reviewed by five individuals from the sample population. In addition, the reflective scales were subjected to a confirmatory factor analysis to further assess their psychometric properties, including convergent and discriminant validity, which is discussed in the analysis section below.

Analysis/Results

Confirmatory Factor Analysis. In order to confirm the psychometric properties of the reflective scales to measure SMT, PSS, and relative performance, all were subjected to a confirmatory factor analysis. The results support the unidimensionality of the scales as well as provide evidence of the convergent and discriminant validities of the measures. Table 1 outlines the measurement model fit, standardized loadings of the items, and correlations between the constructs. In terms of overall fit, the model performed extremely well with the standard fit indices well above the .90 mark and with RMSEA below .06 (Diamantopoulos & Siguaw, 2000). According to Bagozzi, Yi & Phillips (1991), for evidence of discriminant validity, correlations between constructs should be significantly different from 1.0. There is some concern in the measurement model about convergent validity due to some statistically significant correlations between the constructs; however, the significant correlations between PSS, SMT and performance can be discounted given that they are expected to be related in the nomological network of the hypothesized model. The main cause for concern is the significant correlation between PSS and fashion consciousness in the measurement model. Fashion consciousness was included as a marker variable to test for common method bias based on the recommendation of Lindell & Whitney (2001). The fact that this construct, which should be

nomologically distinct from the other variables in the model, shows correlation may indicate the existence of some common method bias, but giving the small magnitude of of the relationship, the significance is more likely due to the large sample size. As an additional test of common method bias all reflective measures were loaded on to a single construct to see if the model and standardized loading revealed any common method bias. The model fit statistics were awful with most below .5 and RMSEA above .19. Additionally, the standardized loading of the items outside of those expected to be related to the item used to set the scale by fixing its loading to 1.0 were between .441 and .095 which provides further evidence of both discriminant validity and a lack of common method bias. For evidence of convergent validity, the standardized loadings of each item on the hypothesized measurement model must be greater than .5 on its respective construct (Fornell & Larcker, 1981), and each of the factor loadings are well above this threshold with the lowest being .732. Given the preponderance of the evidence in the CFA for each model, it appears that each scale works well and is psychometrically sound, which allows them to be used in the next phase of the analysis.

Structural Model. The next phase in the analysis was to test the hypotheses via structural equation modeling. The models were tested using AMOS 19 with a maximum likelihood extraction technique. While this is not the typical technique utilized for analysis involving count variables, it was selected to allow the analysis of all constructs simultaneously to examine how they work as a system, to avoid inflated error that would result from running separate regressions and for ease of interpretation. The data was also analyzed using Poisson and negative binomial regressions for the links involving count data as is typical, and the same results and interpretations were found; therefore only the results of the SEM analysis are presented here. The first result of note is that the model failed to pass the Chi-square test of model fit; however, this can be attributed to the large

**TABLE 1:
Confirmatory Factor Analysis Results**

Fit Statistics				
	Chi Square		692.111	
	df		293	
	Chi/df		2.362	
	NFI		0.929	
	RFI		0.915	
	IFI		0.958	
	TLI		0.949	
	CFI		0.958	
	RMSEA		0.059	
	ECVI		2.194	
Factor Loadings				
	<i>Self-management Training</i>		<i>Perceived Supervisor Support</i>	
Item	standardized loading	Item	standardized loading	
SRT1	0.836	PSSS1	0.944	
SRT2	0.907	PSSS2	0.842	
SRT3	0.807	PSSS3	0.925	
SRT4	0.800	PSSS4	0.827	
SRT5	0.909	PSSS5	0.927	
SRT6	0.911	PSSS6	0.935	
SRT7	0.893		<i>Perceived Performance</i>	
SRT8	0.918	Perf1	0.867	
SRT9	0.906	Perf2	0.816	
SRT10	0.836	Perf3	0.903	
	<i>Fashion Conscientiousness</i>		Perf4	0.809
FC1	0.732	Perf5	0.774	
FC2	0.850	Perf6	0.864	
FC3	0.781	Perf7	0.811	
Interfactor Correlations				
Relationship	Correlation	p-value		
SMT ↔ PSS	0.419	0.000		
SMT ↔ Perf	0.313	0.000		
SMT ↔ FC	0.093	NS		
PSS ↔ Perf	0.213	0.000		
PSS ↔ FC	0.146	0.017		
Perf ↔ FC	0.031	NS		

sample size employed, and the ratio of Chi-square to degrees of freedom is below 3.0, which typically indicates good model fit. Additionally, all of the standard fit indices for each model are well above the suggested .90 minimum cut off and the RMSEA is well below the suggested maximum of .08 (Diamantopoulos & Siguaw, 2000). Taken together, the implication is that each model is a good fit for its respective data set. To test the hypotheses, each path in the model was examined for significance. The path in support of each hypothesis was significant at the .01 level of significance. The results of the structural model can be seen in Table 2.

Limitations

As with any research, this study has its flaws. The first is that, like many other studies, it is cross-sectional, so it is not possible to draw any causal conclusions from the findings. In addition, this makes it impossible to determine the impact these antecedent variables have overtime on performance (i.e., is it a short term

boost to performance or is it more enduring as managers would hope). A second limitation to this study is that it is concentrated in one industry (financial services), and this limits the generalizability of the findings to other sales or services personnel. Because a cross industry study is beyond the scope of this initial foray into this topic in business (specifically marketing), it is up to future researchers in this area to explicate the usefulness of these findings across industries. A final limitation of this study is the low response rate which raises the question of whether these findings are reflective of the population or the result of a self-selected subsample of the population. Future research on the topic should elucidate the answer to this; however this concern seems minor as noted in the sample section. Overall, the results of this study present an interesting story and even with the flaws are compelling. The meanings and implications of these findings are discussed below.

Discussion/Implications

An assessment of the current state of sales training suggests that firms can generate greater profits by developing a smarter sales force via improved sales training methods (ASTD, 2009). Adoption of effective employee learning strategy is likely to be an organizational strength and can evolve into a core competency that is valued by customers and difficult for competitors to duplicate (Calantone, Cavusgil & Zhao, 2002; Lambert, Ohai & Kerhoff, 2009). Self-directed learning allows for that strategy to be highly tailored to the needs of individual salespeople, sales force departments, and clientele (Artis & Harris, 2007). Hence, a culture and climate has to be created and maintained by different stakeholders for a SDL strategy to be effective.

First, to create a supportive culture for SDL, top management needs to openly embrace SDL strategy and establish expectations that it must be linked to improved organizational performance. For example, executives have to recognize that organizational learning derives

**TABLE 2:
Structural Model Results**

Model Fit Statistics	
Chi Square	718.065
df	250
Chi/df	2.872
NFI	0.923
RFI	0.908
IFI	0.949
TLI	0.938
CFI	0.948
RMSEA	0.069
ECVI	2.209
Structural Paths	
SMT à SDLPU	0.169 (p<.01) H₁
PSS à SDLPU	0.304 (p<.01) H₂
SDLPU à Perf	0.166 (p<.01) H₃

from the collective learning behaviors of individual employees. Executive training is needed to show how to use existing policies and procedures to adopt all four types of SDL projects—induced, synergistic, voluntary and scanning. For instance, managers need to learn how to implement the various types of SDL projects as part of an employee's annual review/goal setting process.

Second, the role of the human-resources department needs to be clarified, and how its efforts are measured need to be redefined. Human resources professionals need to be instructed to support the use of SDL projects by providing skills that empower independent learning efforts by employees: teach employees how to design, implement and diagnose their own SDL projects. Appropriate metrics and procedures are needed. Traditional training is often measured by how many seminars were conducted; results of the training are not typically measured. However, by inserting the evaluation of SDL into the ongoing employee performance review process, managers can assess the salesperson's effort and progress toward individual and organizational goals. Human-resource training can be evaluated based on feedback from employees and managers who rely on the training provided to use SDL projects.

Third, evaluation and incentives are needed to get sales managers' actions aligned with organizational learning goals. Sales managers have to be encouraged and rewarded for the independent learning and success that their subordinates achieve. Traditional top-down command-and-control models that restrict the downward flow of information to a "need to know basis" will restrict SDL. For example, sales managers have to be willing and able to relinquish control to salespeople (Artis & Harris, 2007). Therefore, reward systems need to recognize the valuable input of sales managers—facilitating, coaching, and mentoring—to the successful use of SDL projects by members of their sales force.

Fourth, new training efforts have to be directed at sales managers. They need to learn how to provide both supervisory support for SDL and self-management training to salespeople. In addition, sales managers need to be trained to use the four types of SDL projects. They then need to be taught how to be coaches and mentors who can show salespeople how to implement SDL projects. Sales managers will need to learn how to find each salesperson's natural level of independent learning. Research into the use of SDL projects should guide the training efforts targeted at sales managers. For example, the findings reported here support the idea that salespeople who used synergistic SDL projects report better performance outcomes than those who did not, but the amount of time invested in these types of SDL projects may need to meet only a minimum threshold to maximize effectiveness. For example, those who invested 1-6 hours in synergistic SDL projects reported lower performance than those who invested between 7-12 hours per project, and there was a slight dip in performance as projects required more time (i.e., 13+ hours). Therefore, sales managers should promote synergistic SDL projects that require sufficient mental involvement and dedication by the salesperson, but these projects need not be overly long to achieve desired performance outcomes (approximately 7-12 hours). Hence, it may be more helpful to design many smaller, but targeted, SDL projects instead of a few large ones.

Fifth, it is imperative that salespeople be empowered and not abandoned as organizations implement SDL projects (Tobin, 2000). Salespeople need to see that sales managers support SDL projects, and they need to understand how their efforts help to achieve organizational goals. Foundational training in SDL skills (e.g., self-management training) will help to remove initial barriers. For instance, self-management training that requires salespeople to develop a personal mission statement, a list of performance goals, and a comprehensive learning plan to achieve those goals are ideal steps to enable employees to see how they can own the process and achieve outcomes

beneficial to themselves, their clientele, and their organizations. Sales managers can then use the four types of SDL projects to set salespeople up for success by moving individual salespeople from less sophisticated SDL projects to more complex ones.

Finally, researchers and professional sales trainers need to continue to provide a stream of research to support the development and adoption of new SDL methods. As reported by ASTD (2009), the amount of traditional training provided to salespeople drops considerably after the third year. Research is needed into how SDL projects and strategies can be used to complement traditional training methods so that once salespeople have maximized the gains from lecture-based training methods they can continue their individual career development by mastering the use of SDL projects. Specifically, researchers need to develop and test practical methods to help executives and salespeople to understand the potential benefits of SDL, to see the ease with which SDL methods can be adopted, and to aid salespeople to realize that they have the potential to be their own best teacher.

REFERENCES

- Artis, A. B. & Harris, E. G. (2007). Self-directed learning and sales force performance: An integrated framework. *Journal of Personal Selling and Sales Management*, 27 (1), 9-24.
- ASTD (2009). *State of sales training*. American Society for Training and Development, Alexandria, VA.
- Bagozzi, R. P., Yi, Y. & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36 (3), 421-458.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *The American Psychologist*, 37 (2), 122-147.
- Behrman, D. N. & Perreault, W. D., Jr. (1982). A role stress model of the performance and satisfaction of industrial salespeople. *Journal of Marketing*, 48, Fall, 9-21.
- Bennis, G. B. & O'Toole, J. (2005). How business schools lost their way. *Harvard Business Review*, (May), 96-104.
- Borna, S. & Sharma, D. (2011). Train your salespeople to be skilled actors: A mantra for success. *Marketing Management Journal*, 21 (1), 160-168.
- Boyer, S. L. & Lambert, B. (2008). Take the handcuffs off sales team development with self-directed learning. *Training and Development*, (November) 62-66.
- Bromfield-Day, D. (2000). *Employee readiness for self-directed learning and selected organizational variables as predictors of job performance*. Unpublished doctoral dissertation, University of Southern Mississippi, Mississippi.
- Calantone, R. J., Cavusgil, S. T. & Zhao, Y. (2002). Learning orientation, firm innovation capability and firm performance. *Industrial Marketing Management*, 31, 515-524.
- Castaneda, M., Kolenko, T. A. & Aldag, R. J. (1999). Self-management perceptions and practices: A structural equations analysis. *Journal of Organizational Behavior*, 20, 101-120.
- Chan, D. (2006). Interactive effects of situational judgment effectiveness and proactive personality on work perceptions and work outcomes. *Journal of Applied Psychology*, 91 (2), 475-481.
- Chonko, L. B., Tanner, J. F. & Weeks, W. A. (1993). Sales training: Status and needs. *Journal of Personal Selling and Sales Management*, 13 (4), 81-86.
- Chonko, L. B., Dubinsky, A. J., Jones, E. & Roberts, J. A. (2003). Organizational and individual learning in the sales force: An agenda for sales research. *Journal of Business Research*, 56, 935-946.
- Chonko, L. B., Jones, E., Roberts, J. A. & Dubinsky, A. J. (2003). The role of environmental turbulence, readiness for change, and salesperson learning in the success of sales force change. *Journal of Personal Selling and Sales Management*, 22 (4), 227-245.

- Clardy, A. (2000). Learning on their own: Vocationally oriented self-directed learning projects. *Human Resource Development Quarterly*, 11 (2), 105-125.
- Cron, W. L., Marshall, G. W., Singh, J., Spiro, R. L., & Sujan, H. (2005). Salesperson selection, training, and development: Trends, implications, and research opportunities. *Journal of Personal Selling and Sales Management*, 25 (2), 123-136.
- Diamantopoulos, A. & Sigaw, J.A. (2000). *Introducing LISREL: A guide for the uninitiated*. London, UK: Sage Publications.
- Durr, R., Guglielmino, L. & Guglielmino, P. (1996). Self-directed learning readiness and occupational categories. *Human Resource Development Quarterly*, 7 (4), 349-358.
- Edmondson, D. R., Boyer, S. L., Artis, A. B. (2012). Self-directed learning: A meta-analytical review of adult learning constructs. *International Journal of Educational Research*, 7 (1), 40-48.
- Eisenberger, R., Huntington, R., Hutchison, S. & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500-507.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D. & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86 (1), 42-51.
- Eisenberger, R., Lynch, P., Aselage, J. & Rohdieck, S. (2004). Who takes the most revenge? Individual differences in negative reciprocity norm endorsement. *Personality and Social Psychology Bulletin*, 30 (6), 787-799.
- Emerson, R. M. & Cook, K. S. (1978). Power, equity and commitment in exchange networks. *American Sociological Review*, 43 (5), 721-739.
- Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
- Frayne, C. & Geringer, J. M. (2000). Self-management training for improving job performance: A field experiment involving salespeople. *Journal of Applied Psychology*, 83 (3), 361-372.
- Gist, M. E., Schwoerer, C. & Rosen, B. (1989). Effects of alternative training methods on self-efficacy in computer software training. *Journal of Applied Psychology*, 74, 884-891.
- Gist, M. E., Stevens, C. K. & Bavetta, A. G. (1991). Effects of self-efficacy and post-training intervention on the acquisition and maintenance of complex interpersonal skills. *Personnel Psychology*, 44, 837-861.
- Guglielmino, P. J. & Murdick, R. G. (1997). Self directed learning: The quiet revolution in corporate training and development. *SAM Advanced Management Journal*, 62 (3), 10-18.
- Harris, E.G., Ladik, D., Artis, A.B. & Fleming, D.E. (in press 2013). Examining the influence of job resourcefulness in sales performance. *Journal of Marketing Theory and Practice*.
- Honeycutt, E. D. (1996). Conducting a sales audit. *Industrial Marketing Management*, 25, 105-113.
- Hurley, R. F. (2002). Putting people back into organizational learning. *Journal of Business and Industrial Marketing*, 17 (4) 270-281.
- Jantan, M. A., Honeycutt, E. D., Thelen, S. T. & Attia, A. M. (2004). Managerial perceptions of sales training and performance. *Industrial Marketing Management*, 33, 667-673.
- Kanfer, R. (1996). Self-regulatory and other non-ability determinants of skill acquisition. In P.M. Gollwitzer & J.A. Bargh, (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (404-432). New York, NY: Guilford Press.
- Kanfer, R. & Ackerman, P. L. (1989). Motivation and cognitive abilities: An integrative/aptitude-treatment interaction approach to skill acquisition. *Journal of Applied Psychological Monographs* 74 (4), 657-690
- Karatepe, O. M. & Kilic, H. (2007). Relationships of supervisory support and conflicts in the work-family interface with the selected job outcomes of frontline employees. *Tourism Management*, 28 (1), 238-252.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems review. *Annual Review of Psychology*, 44, 23.

- Kottke, J. & Sharafinski, C. (1988). Measuring perceived supervisory and organizational support. *Educational and Psychological Measurement*, 48, 1075-1079.
- Knowles, M. S., Holton, E. F. & Swanson, R. A. (2005). *The adult learner: The definitive class in adult education and human resource development*, sixth edition, Elsevier Inc., Burlington, MA.
- Lambert, L., Ohai, T. & Kerhoff, E. (2009). *World-class selling: New sales competencies*. American Society for Training and Development, Alexandria, VA.
- Leach, M. P., Liu, A. H. & Johnston, W. J. (2005). The role of self-regulation training in developing the motivation management capabilities of salespeople. *The Journal of Personal Selling and Sales Management*, 25 (3), 269-281.
- Lindell, M. K. & Whitney, D.J. (2001). Accounting for Common Method Variance in Cross-Sectional Research Designs. *Journal of Applied Psychology*, 86 (1), 114-121.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2 (1), 71-87.
- Marshall, G. W., Moncrief, W. C. & Lask, F. G. (1999). The current state of sales force activities. *Industrial Marketing Management*, 28 (1), 87-98.
- Manz, C. (1986). Self leadership: Toward an expanded theory of self influence processes in organizations. *Academy of Management Review*, 11 (3), 585-600
- Middlemiss, M. A. (1991). *Relationship of self-directed learning readiness and job characteristics to job satisfaction for professional nurses*. Unpublished doctoral dissertation, Syracuse University, New York.
- Oddi, L. F. (1984). *Development of an instrument to measure self-directed continuing learning*. Ph.D. dissertation, Department of Leadership and Educational Policy Studies, Northern Illinois University, Dekalb, IL.
- Pettijohn, L. S., Pettijohn, C. E. & Taylor, A. J. (2009). Retail sales training: Activities and effects on job satisfaction, organizational commitment, turnover and customer-orientation. *Marketing Management Journal*. 19 (1), 46-57.
- Stinglhamber, F. & Vandenberghe, C. (2004). Favorable job conditions and perceived support: The role of organizations and supervisors. *Journal of Applied Social Psychology*, 34, 1470-1493.
- Speck, M. (1996). Best practices in professional development for sustained education change. *ERS Spectrum*, 14 (2), 33-41.
- Sujan, H., Weitz, B. A. & Kumar, N. (1994). Learning orientation, working smart, and effective selling. *Journal of Marketing*, 58, July, 39-52.
- Tobin, D. (2000). *All learning is self-directed: How organizations can support and encourage independent learning*. American Society for Training and Development, Alexandria, VA.
- Tough, A. (1967). Learning without a teacher. *Educational Research*, 3, Ontario Institute for Studies in Education.
- Tough, A. (1971). *The adult's learning projects: A fresh approach to theory and practice in adult learning*. Toronto: Ontario Institute for Studies in Education.
- VandeWalle, D., Brown, S. P. Cron, W. L. & Slocum, J. W. (1999). The influence of goal orientation and self-regulation tactics on sales performance: A longitudinal field test. *Journal of Applied Psychology*, 84 (2), 249-259.
- Wood, R. & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 44 (4), 361-384.
- Yu, C. (1998). *A study of the relationship between the self-directed learning readiness and job performance for high school principals*. Unpublished doctoral dissertation, Ohio State University, Ohio.