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Self-Directed Learning: Measures and Models for Salesperson Training and Development

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by

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Dedication

This dissertation is dedicated to my family, who has played an instrumental role in my life. With the unconditional support of my fiancé, Hernan, my mother, Elissa, my father, Richard, and my aunt, Elana, attaining this degree has been possible. Hernan, I thank you for your love, patience, and for the sacrifices you have made. I thank my father and mother for their love and for teaching me to appreciate life, to work hard, and to be passionate about what I do. I thank my Aunt Elana for always encouraging me to reach for the stars.

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Table of Contents

List of Tables

List of Figures

Self-Directed Learning: Measures and Models for Salesperson Training and Development

Stefanie L. Boyer

ABSTRACT

Academic researchers and marketing practitioners are exploring methods to improve salesperson training. Recently, self-directed learning projects were proposed as a new paradigm for learning to take place in the sales domain (Artis & Harris, 2007). Current conceptual work provides a strong foundation for understanding salesperson self-directed learning; however, prior to quantitatively testing proposed models, scales must be created and modified to address salesperson specific learning endeavors.

The purpose of this dissertation is: 1) to develop scales to measure salesperson willingness to use self-directed learning projects (SDLP's), 2) to develop a conceptual model of salesperson self-directed learning, 3) to modify current scales to specifically examine salesperson self-directed learning, and 4) to test this model empirically. To accomplish this, the relevant theories and literature were analyzed to create a theoretical model that would test the following research questions:

1. What factors contribute to salesperson willingness to use SDLP's?
2. What is the relationship between salesperson willingness to use SDLP's and salesperson use of SDLP's?

3. What is the relationship between salesperson use of SDLP's and salesperson performance?

Two conceptual models were created to account for two categories of learning projects, induced and synergistic SDLP's. The following variables reflect the conceptual models: willingness to use induced/synergistic SDLP's, use of induced/ synergistic SDLP's, perceived supervisor/organizational support for induced/synergistic SDLP's, and self-regulation training and performance.

Data from 392 salespeople within the financial services industry fit the measurement model and suggest that use of synergistic (non-mandatory) SDLP's positively impacts performance (.396) and use of induced (mandatory) SDLP's does not impact performance. Willingness to use synergistic SDLP's positively impacts use of synergistic SDLP's. Support from the organization and supervisor positively impact willingness to use induced and synergistic SDLP's. Surprisingly, training in self-regulation did not positively impact salesperson willingness to use induced or synergistic SDLP's. The new measures for all constructs exhibit Cronbach's alpha reliability statistics over .7 and acceptable confirmatory factor analysis results. The study provides reliable measurement scales and empirical support for the future study of self-directed learning in a sales context.

CHAPTER ONE

INTRODUCTION

In the U.S., the sales industry prevails as a leader in both size and growth of employment. The Bureau of Labor Statistics (2007) reports that the sales industry provides over 15 million jobs each year, or about 10% of the workforce. This number is expected to grow 9.6% by 2014, increasing the total U.S. workforce by 1.5 million. The size of the existing job market and the need to prepare new hires highlights the need for effective sales training.

According to Lorge (1998), U.S. companies spend over $7.1 billion on salesperson training each year. For training directly related to sales, 99.5% of organizations report that they teach public speaking and presentation skills, 80% provide product knowledge training, 79% provide training relating to managing change, 65% teach ethics, and 23% provide time management training (Dolezalek, 2005). Clearly, training and developing employees is of great importance, as a substantial amount of money is spent on providing it. Consequently, research to facilitate training in becoming more effective would be a useful area of investigation.

Current State of Sales Training and Development

In an effort to identify the current state of the sales training paradigm, Cron, Marshall, Singh, Spiro, and Sujan (2005) reviewed the relevant sales training literature

and identified five key elements (classroom based, standardized, hierarchically structured, managerially controlled, and mandatory) that encompass salesperson training and development. Traditional approaches are hierarchically structured, whereby management (control) typically determines the types of training salespeople will undergo, the materials used, and the topics covered. These materials are typically standardized for all salespeople, and often training occurs in a classroom-based setting, rather than field coaching or mentoring. Training is usually mandatory for employees, but they rarely have any input into the material they are taught (Cron et al., 2005).

Criticisms of the Current Paradigm for Salesperson Training and Development

The current training paradigm has been called both inefficient and ineffective at meeting training needs of employees (Kaplan-Leiserson, 2005). An industry survey of human resource personnel (Kaplan-Leiserson, 2005) reports that only 52% of those surveyed believe that the organization effectively aids employee development. Less than half of those surveyed believe their current organization: 1) is successful in identifying and developing employees with high potential, 2) helps employees develop, and 3) effectively aligns organizational objectives with employee development and training. If these observations accurately describe training in the workforce today, then the current training models needs to be modified to better assist employees in achieving organizational and personal goals.

Importance of the Salesperson in Training

The current training paradigm disregards the unique needs of salespeople, which is especially problematic since salespeople are an important part of the selling organization given their boundary spanning role (Aldrich & Herker, 1977; Boyer & Edmondson, 2007; Sharma, Tzokas, Saren, & Kyziridis, 1999; Singh, Verbeke, & Rhoads, 1996). Boundary spanning employees, also known as frontline or customer contact employees, are of interest to both marketing academicians and managers for their unique responsibilities to the organization. First, boundary spanners are responsible for acquiring information from the external environment and relaying it back to the organization. Second, boundary spanners represent the face of the organization to the customer. These are considerable responsibilities, as the boundary spanner may be the only line of defense from competition and the primary contact for the customer. Because of this, boundary spanning employees are the link between the organization and the outside world (Aldrich and Herker, 1977) and may require training that is unique given their role. Therefore, salespeople have a distinctive view of the consumer and the changing environment. Consequently, salespeople should be given more autonomy to make decisions about their own training. This is in contrast to the current practice of using standardized training that is determined by top management and administered by human resource personnel. One possible solution is to design training that is individualized rather than standardized providing a more tailored approach and improving current practice. Since salespeople are instrumental and influential to the success of the business, the organization should make extra effort to provide salespeople with the tools necessary to make better decisions and assess their own learning and

performance needs. Thus, the traditional sales training paradigm seems inadequate at this point.

Importance of Research in Salesperson Training

Academicians (Attia, Honeycutt, & Leach, 2005; Cron et al., 2005; Honeycutt, Howe, & Ingram, 1993) have also recognized inefficiencies within the current sales training paradigm. In fact, in a recent analysis of the trends and opportunities for research (Cron et al., 2005) it is recommended that a new paradigm be created for sales training and development. The authors suggest that customers now expect increased knowledge, decreased response time, and customized solutions from salespeople. Hence, for firms to remain competitive, salespeople will need to continually add to their knowledge base. Salespeople must adapt to organizational and environmental changes (Marshall, Moncrief, & Lassk, 1999), provide unique solutions to customers (Homburg, Workman, & Jensen, 2002), and master new skills and technologies (Hunter & Perreault, 2006). In addition, the job path of the salesperson has changed. Rather than committing to a company for an entire career, salespeople are more likely to work for many different companies (Cron, 1984). Given recent research (Cron et al., 2005), it appears that organizations will need to provide more frequent training due to a greater influx of new employees stemming from increased turnover in the workplace. This training must improve given high customer expectations. Consequently, salespeople will be expected to learn the idiosyncrasies of new organizations and their customers with every job change.

As salespeople struggle to meet the needs of their customers and cope with new developments in technology, the value of traditional training approaches begins to decay (Cron et al., 2005). The traditional approach poses a problem for salespeople who are most familiar with their customers' needs and the sales environment. These salespeople may feel that training instructed by managers or human resources personnel is irrelevant and not useful for their current situation. This suggests that there may be a problem related to the training itself. If current training can be described as generic or standardized (i.e., meaning it does not meet the individual needs of the salesperson), then it is conceivable that training should be more individualized to meet the special needs of the salesperson, the customer, and the given situation.

In fact, Cron et al. (2005) suggest that successful sales training should focus on a variety of knowledge, skills and abilities (KSA's), and that sales managers collaborate with salespeople to make training voluntary and individualized rather than mandatory and standardized. Cron et al. (2005) analyzed the salesperson training and development literature in order to determine research opportunities and trends relative to various forms of KSA's. They identified three distinct groups of KSA's: task-related, growth-related and meta KSA's.

Task-related KSA's are fundamental skills required to function in a sales position such as selling skills, communication skills, and knowledge of the product and company. Task-related KSA's are easier to measure and assess than other KSA's making this area of research more attractive and, therefore, more complete.

Growth-related KSA's are related to problem-solving skills, coping skills, and skills that help salespeople continually adapt to circumstances and develop expertise. An

example of an outcome from research in this area is the suggestion for using scripts as sales pitches to reduce cognitive work, reduce stress, and increase effectiveness. There is limited research on growth-related KSA's (Cron et al., 2005).

Meta KSA's consist of the knowledge, skills, and abilities that enable salespeople to manipulate their own learning environment (Cron et al., 2005). In this way, salespeople can manage themselves by assessing their own learning needs, monitoring progress toward their goals, reinforcing their behaviors, and self-directing their learning (Frayne & Geringer, 2000). This type of learning is deliberate and can lead to increases in not only performance, but also knowledge, adaptation, and self-efficacy. Because traditional training focuses more directly on task-related KSA's, Cron et al. (2005) call for more research on growth and meta KSA's.

Given the outlined calls for research (Cron et al., 2005; Hurley, 2002), trends regarding industry data, changes in the environment, and the boundary spanning role of the salesperson, organizations must understand what they can do to meet the learning needs of salespeople. A new sales training paradigm may help businesses better meet the needs of their salespeople, so that they, in turn, can better meet the needs of their customers.

Self-Directed Learning

One line of research that addresses knowledge acquisition, which allows learners to have more autonomy, is self-directed learning (SDL). SDL has been studied in the adult education domain since the 1960's. Nevertheless, more research is necessary in

order to understand how SDL might be used to aid businesses in meeting the immediate training and learning needs of salespeople.

The conceptualization of SDL in the adult education domain was introduced by Tough (1967). He described SDL in terms of discrete units called self-directed learning projects (SDLP's). A learning project is a series of purposeful learning episodes adding up to at least seven hours in a six-month period intended to promote knowledge, skill, insight, or otherwise edify the individual. This type of learning is different from previous concepts in that learning is initiated by the learner instead of an outside source, thereby giving rise to the term self-directed learning. Tough (1967) created an interview schedule to investigate the type of learning adults perform in a self-directed manner.

In an effort to categorize the different types of learning projects vocationally oriented learners apply, Clardy (2000) introduced a classification of the learning projects using the Tough (1967) interview schedule. This classification is valuable to the sales domain given that participants in the study include salespeople. Clardy (2000) identified four SDLP's. These include induced, synergistic, voluntary, and scanning SDLP's. Below is a description of each SDLP.

Classifications of SDLP's

1.) Induced self-directed learning projects encompass the fundamental skills and knowledge a salesperson might acquire in order to perform a specific job in his or her respective industry. Examples of induced learning projects include unstructured on-the-job training, obtaining mandatory certifications required by the industry, and fulfilling continuing education requirements. For instance, pharmaceutical representatives are

often required to complete educational programs before they are allowed to sell a new drug. The role of the organization in induced SDLP's is obligatory in that the learning criteria and some relevant information for projects depend on the organization. Certification requirements for specific positions are established by the organization (Artis & Harris, 2007; Clardy, 2000).

2.) Synergistic self-directed learning projects consist of learning endeavors the employee undertakes to improve his performance that are not mandated by the organization. The organization presents learning opportunities or resources for employees, but does not monitor the employees' use of them. For instance, the organization may provide optional seminars, reading libraries, and company databases. The role of the organization is to provide the learning resources or opportunities. The role of the employee is to take advantage of the learning opportunities (Artis & Harris, 2007; Clardy, 2000).

3.) Voluntary self-directed learning projects are those learning endeavors or activities the employee initiates. These activities may or may not be related to improving the organization. Some examples of voluntary learning projects include attending a conference to improve skills, learning to play golf, or speaking with an expert to discover methods to improve communication skills. The role of the organization is absent in voluntary learning projects unless the employee uses voluntary learning projects with the intent of improving their performance in the organization, and the organization encourages this by offering rewards for voluntary learning endeavors related to work. The role of the salesperson is to determine what and how to learn (Artis & Harris, 2007; Clardy, 2000).

4.) Scanning self-directed learning projects are ongoing learning activities in which the salesperson has superior contextual understanding of his industry and continuously searches for relevant information that may help him improve performance or understand the environment. Often, employees lack knowledge of the specific information for which they are searching, but when they find relevant information, they can identify it as useful (Artis & Harris, 2007; Clardy, 2000). For instance, a real estate salesperson may read the newspaper and find that the local real estate market is underpriced. He can use this information to deduce that new investors will come to his market, and create strategies to adapt to the influx. This characterizes the continuous scanning for information. Though the salesperson was not looking for information related to his work, he was able to assess the information from the newspaper and find its usefulness.

Marketing and Sales Research

Recently, Artis and Harris (2007) proposed a framework (Figure 1.1) to examine SDLP's for salespeople emphasizing the usefulness of this type of learning in the sales domain. They proposed that given the boundary spanning and often autonomous role of the salesperson, self-directed learning can be used as a tool to supplement traditional training and learning methods to ultimately enhance salesperson performance. The framework they proposed and the conceptualization of SDL are founded in different concepts and research from adult education. Yet, they added a core construct to the model: willingness to use SDLP's, which is novel to the SDL domain.

Willingness to use SDLP's creates the link between factors that facilitate or impede the desire or likelihood of using SDLP's and the actual use of SDLP's. Artis and Harris (2007) proposed that a combination of an individual's motivation to learn, contextual understanding, learner self-directedness (trait), and confidence in SDL skills will contribute to willingness to use SDLP's, moderated by the organizational learning environment and environmental turbulence. Following this, willingness leads to use of SDLP's. Then, use of SDLP's leads to desired performance outcomes, partially mediated by achievement regarding managerial, human resource development, and salesperson objectives. The framework proposed by Artis and Harris (2007) encourages future investigation of salesperson training and learning using a self-directed learning perspective.

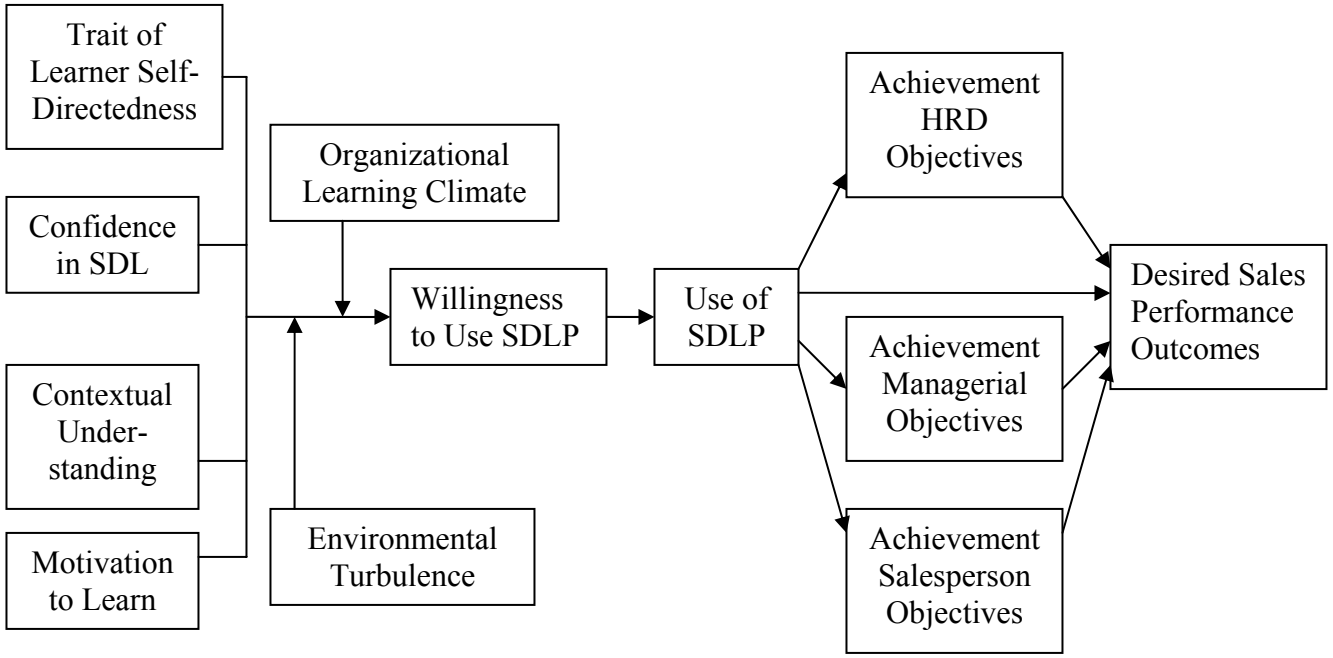

Figure 1.1 Framework for Examining Self-Directed Learning Projects for Salespeople (Artis & Harris, 2007)

The Focus of Previous Research

Previous research on SDL focuses on personal characteristics or traits that may predict an individual's readiness for SDL (Guglielmino, 1977; McCune, 1989). This may present limitations as the research does not take into account training related to self-direction such as learning to self-manage or factors present in the environment that may facilitate or impede the use of SDL. In fact, Salas and Cannon-Bowers (2001) suggest that learning to self-manage may alter learning styles. Salas and Cannon-Bowers (2001) reveal that individuals can change their own learning styles to meet the needs of the situation and the environment. Therefore, although salespeople have a tendency to learn a certain way as it relates to their work, it is possible to develop skills through training that will encourage the use of SDL behaviors. Consequently, research is necessary that investigates and identifies specific skill development and situational or environmental factors that influence SDL.

Measuring Self-Directed Learning

Since its early inception (Tough, 1967), SDL has encompassed learning that takes place at the learners' discretion. An interview schedule was set to determine whether a learning project was executed. In this way, participants were asked to discuss activities related to the learning that they initiated themselves. Learning projects were considered self-directed if, in the previous twelve months, participants had spent at least seven hours on that learning activity. One limitation of this concept for research adapted to specific activities, such as sales, is that the conceptualization of SDL encompasses all types of individual projects as "learning" and does not focus on the activity in question for

salespeople. For the purposes of this research, self-directedness needs to be redefined as directly related to the types of learning associated with positions in sales. In essence, typical SDL research does not provide the depth necessary for salesperson research because it is not topic specific. Further, much of the traditional SDL research fails to differentiate between work and leisure learning, although a salesperson's self-directedness in leisure learning may not necessarily transfer to the workplace.

Clardy's (2000) vocationally oriented classification of projects (induced, synergistic, voluntary, and scanning) helps to differentiate between work and leisure projects, although no formal scale is available to provide specific measurement of learning projects. In addition, the interview schedule is both time consuming and expensive to apply. Therefore, scales to measure various forms of SDLP's are necessary for use on larger samples to facilitate in model testing and theory development.

Willingness

Artis and Harris (2007) proposed the SDL framework for salespeople with a new construct of willingness to use SDLP's. Nevertheless, the model cannot be tested or expanded until scales are created to specifically measure this variable. The construct must first be conceptualized in a way that accounts for the motivation, or desire to implement, each form of learning project (induced, synergistic, voluntary, and scanning). Reliable scales that measure willingness for each project must be created in order to test models of willingness and extend theory related to this construct.

Organizational and Supervisory Support

Research in adult learning (Candy, 1991) suggests that SDL may be influenced by contextual factors in the environment such as support or coaching from mentors. In this way, the support environment is instrumental in effecting employee use of SDL. Organizational researchers (Eisenberger, Huntington, Hutchinson, & Sowa, 1986; Kottke & Sharafinski, 1988) have identified relating constructs of support in the organization, such as support from the supervisor and the organization. These constructs have been applied to the sales domain (Boyer & Edmondson, 2007; Riggle, 2007).

Although previous research (Eisenberger et al., 1986; Kottke & Sharafinski, 1988) examines employee perceptions of support from the supervisor (PSS) and organization (POS), limited research has examined them related to learning. Therefore, in order to identify factors from the environment that influence a salesperson's willingness to use SDLP's, the constructs must be modified to relate specifically to the types of learning projects salespeople use. There are two major limitations with existing scales that measure support from the organization and the supervisor requiring specific attention. First, measures of organizational and supervisory support (Eisenberger et al., 1986; Kottke & Sharafinski, 1988) were not designed specifically for salespeople. Instead, Eisenberger et al. (1986) created the scale of perceived organizational support (SPOS) for a diverse range of employees including manufacturing firm white collar workers and secretaries, clerical workers, teachers, and line workers from a telephone company. Although the population used to create the scale included boundary spanning employees (teachers), salespeople were not specifically mentioned as participants in the study. In addition, the majority of the population was comprised of non-boundary

spanning employees. Later, Kottke and Sharafinski (1988) modified the original SPOS to account for the supervisor, rather than the organization. The scale was never modified to specifically account for salespeople. Therefore, existing scales may not reflect the salesperson's perspective of support regarding the specific activities that differ between salespeople and other organizational workers. Second, the scales do not reflect SDLP's as categorized by Clardy (2000). Accordingly, measures of support from the organization and supervisor must be modified to include meaningful statements that reflect the types of learning projects that are relevant to salespeople.

Purpose

This research will attempt to fill the aforementioned gaps in SDL research. Therefore, the purpose of this dissertation is twofold. First, the research aims to create reliable measurement scales for constructs related to SDLP's such as willingness to use, use of, and organizational and supervisory support for SDL projects. The second goal of this research is to formally test a model of SDL for salespeople that: 1) accounts for organizational factors that may influence willingness to use a specific learning project, and 2) provides information relevant to the outcomes of learning projects that are important in the sales domain. In an effort to create the most appropriate model for this study and find appropriate measures for salesperson willingness to use SDLP's, the following research questions are proposed.

Research Questions

1. What components best measure salesperson willingness to use SDLP's?

2. What factors contribute to salesperson willingness to use SDLP's?
3. What is the relationship between salesperson willingness to use SDLP's and salesperson use of SDLP's?
4. What is the relationship between salesperson use of SDLP's and salesperson performance?

Theory

Theory will be applied in this dissertation in two ways. First, expectancy theory (Vroom, 1964) will be used as a foundation to conceptualize and operationalize a scale that will measure salesperson willingness to use SDLP's. Expectancy theory appears to be a good fit to measure willingness given that expectancy theory is a motivational theory that has previously been applied in the sales literature in various forms (Bettencourt, 1997; Walker, Churchill, & Ford, 1977). Expectancy theory (Vroom, 1964) provides a clear basis for evaluating willingness given the three distinct facets of the theory: valence, expectancy, and instrumentality. Valence can be described as the importance or value of a specific outcome or goal. An example of this using an induced learning project is the importance a salesperson places on attaining certification requirements for the job. Expectancy is the salesperson's perception of their capability to perform the learning project (i.e., their ability to study resources or acquire information from a learning resource). Finally, instrumentality is the salesperson's perception that performing the learning project will lead to a specific goal. For example, it is important to assess whether the salesperson believes that studying learning resources will facilitate them in

passing certification requirements to work in the industry. These three facets of expectancy theory may help determine a salesperson's willingness to use a SDLP.

Second, expectancy theory (Vroom, 1964) and social exchange theory (Thibaut & Kelley, 1959) will be used to predict and explain the relationships among the distinct variables in the proposed conceptual model. Expectancy theory comprehensively explains the model and provides a unique view that takes into consideration aspects from the environment such as the training provided directly related to SDL and the support from the supervisor and organization that influence the salesperson's willingness to use SDLP's. Expectancy theory suggests that the level of willingness, as comprised from the willingness scale created by expectancy theory, may, in effect, influence the salesperson's actual use of SDLP's. Subsequently, using SDLP's should impact performance in a manner that reflects the employee's willingness to use SDLP's. In this way, use of SDLP's will mediate the relationship between willingness to use SDLP's and salesperson performance.

Although expectancy theory provides a comprehensive explanation for each of the links in the model, social exchange theory (SET) is used to provide more support for specific linkages. Social exchange theory (Thibaut & Kelley, 1959) elucidates that relationships are comprised of a series of exchanges or reciprocations. In other words, relationships are not one-sided; they are comprised of a series of mutual exchanges in which both parties will give and take. Due to the reciprocal nature of relationships, what one party perceives regarding treatment or benefits, he will then return to his exchange partner. If treatment is fair and positive, then the exchange partner will return fair and positive treatment. However, if the treatment is unfair, then the organizational partner is

likely to counter with negative treatment. Social exchange theory has been applied and adapted to explain various forms of organizational relationships, especially relating to employees and their supervisors or organizations (Bettencourt, 1997; Eisenberger et al., 1986; Kottke & Sharafinski, 1988; Rhoades & Eisenberger, 2002). Therefore, social exchange theory provides more theoretical support regarding the relationship between the support perceived from the organization and supervisor for learning projects and employees' subsequent willingness to use SDLP's and their actual use of SDLP's.

Contribution to Marketing

Research

This dissertation will aid researchers in understanding salesperson learning. Upon completion of the measurement scales, the research will facilitate future investigation to test and expand the salesperson SDL model. Therefore, future research can focus on testing SDL-related theories and models rather than developing scales to measure SDL and specific types of learning projects. The research will expand the domain of support literature and sales training to include salesperson self-directedness, coupled with organizational factors, that will enhance salesperson learning. The study of SDL answers the call for research regarding investigation in meta knowledge, skills, and abilities (KSA's) of salespeople. Finally, the model will elaborate on a new paradigm for sales training in which the employee has more control of his own training, rather than the current paradigm in which the organization or manager controls training.

Practitioners

Practitioners have much to gain from this research. First, it will identify new methods of enhancing salesperson training. Second, it will provide reliable measurement scales that will identify self-directed learning levels of salespeople relative to their willingness, use of, and perceptions of support for SDLP's regarding the organization and their supervisor. Managers and organizations can benefit from using such scales by identifying opportunities to assist employees in using self-direction related to their specific work requirements and immediately improve the work environments of their organizations. When organizations use SDL as a tool to facilitate individual salesperson learning, the organization as a whole should benefit. In fact, Argyris and Schon (1978) suggest that individual learning is necessary for organizational learning. Senge (1994) reconfirms this message and suggests that individual learning does not necessarily guarantee organizational learning; however, without it, organizational learning is not possible. Therefore, organizations and managers will benefit from this research by understanding facets of individual salesperson learning aiding the organization in learning.

Organization of the Dissertation

The dissertation is organized in the following way. Chapter Two integrates the literature on sales training, support, and SDL. Additionally, the models that will be tested in the dissertation are presented with hypothetical linkages. Chapter Three discusses the methodology and measures used to test the models of salesperson self-directedness.

Chapter Four provides detailed results of the empirical investigation. Chapter Five includes a discussion of the results and conclusions of the research.

CHAPTER TWO

LITERATURE REVIEW

The purpose of this chapter is to review the academic literature regarding theory and previous empirical research that will explain the role of self-directed learning (SDL) within the sales training context. In order to examine a model of SDL, constructs that relate to salespeople and the types of learning endeavors they undertake must first be conceptualized. The foundation for this conceptualization comes from Clardy (2000) and Artis and Harris (2007). They suggest that employees, including salespeople, use four distinct categories of self-directed learning projects (SDLP's): induced, synergistic, voluntary, and scanning. Induced SDLP's are those learning endeavors that a salesperson must perform in order to work in the industry, such as on-the-job training. Synergistic SDLP's are those learning endeavors in which the organization provides the material for learning, but the employee uses the material at his own discretion. Synergistic projects are not necessary basics that salespeople must master to work in the industry, but are those that increase knowledge, such as studying a company database of historical information relating to the industry. Voluntary SDLP's are learning endeavors that are initiated by the employee and may not be related to the organization, but add value to performance, such as learning to play golf. Scanning SDLP's are ongoing learning endeavors in which the salesperson continuously searches for relevant information that may help him improve or better understand his environment.

In order to examine a model of salesperson training using SDL, constructs must be created that relate specifically to these SDLP's. One such construct that has been identified in previous research is "willingness to use SDLP's" (Artis & Harris, 2007).

Since there is limited previous research regarding the construct, theory must be evaluated to determine what factors contribute to willingness. Theory is also used to identify potential antecedent constructs of willingness to use SDLP's and to predict the relationships between willingness to use SDLP's and use of SDLP's, along with the relationship between use of SDLP's and performance. Following this, previous empirical research is assessed to either support or refute the theoretical predictions and contribute to hypothesis building.

Two models are conceptually constructed in this chapter. The models reflect two types (induced and synergistic) of SDLP's. Since individual SDLP's have not received much previous research attention, the relationship between different categories of SDLP's is unknown at this time. Given that the relationship between the variables has not been tested, each SDLP is isolated within its own model to understand the main effects of the constructs. The models will look similar aside from the form of SDLP presented in each (e.g., induced, synergistic). Although there are four categories of SDLP's (e.g., induced, synergistic, voluntary, and scanning), only two of the four learning projects are assessed given the nature of the sales industry chosen for the study sample (insurance sales) and the novelty of the research. Induced and synergistic SDLP's are learning endeavors that every salesperson is expected to use or have the opportunity to use. Since induced SDLP's are necessary to work in the industry, it is foreseeable that each individual in the sample will have some experience with this type of SDLP. Given that synergistic SDLP's are learning endeavors in which salespeople freely use learning material provided by the organization (i.e., company databases and learning libraries), it is assumed that salespeople may use these forms of resources, or have access to them,

regardless of their level within the organization. Voluntary and scanning SDLP's are the focus of the study because they may not be applicable to all salespeople. For instance, novice salespeople may have no experience scanning the environment for information. Therefore, they may not have the skills, knowledge, or ability to perform voluntary SDLP's. Given the novelty of SDL research in sales, this study seeks to investigate those learning projects that are applicable to all salespeople and that the organization has more control over.

This chapter is arranged in the following ways. It contains two major literature-based sections, followed by tables and models to help create a comprehensive picture for the reader. Each research question from Chapter One is addressed, and theory is applied to predict relationships between the variables. Several theories are presented to determine their usefulness to the research. After theoretical consideration is given to each research question, a review of the literature follows. The literature review will assess research published in psychology, education, and marketing relating to the constructs of interest. Just as in the theory section, each research question is assessed according to relevant previous research. With each section, definitions and hypotheses are proposed as they relate to the constructs presented. Then, tables relating to construct definitions and hypotheses are presented, followed by two models of salesperson SDLP's (induced and synergistic).

THEORY

This section examines the four research questions addressed in Chapter One from a theoretical perspective. Relevant theory is examined as it relates to each research

question. Theory is analyzed for the purposes of developing new scales and testing the new construct (willingness to use SDLP's) in a model of self-directed learning. For scale development, several theories are examined to find the most suitable foundation for willingness to use SDLP's. Additionally, theory is used to explore potential antecedents of the construct and to explain and predict relationships between variables in the model.

Research Question One is intended to establish the concept of willingness to use SDLP's and develop a scale as the measurement tool. The research question is specifically stated as, "What components best measure salesperson willingness to use SDLP's?" First, the construct of willingness is defined. Next, previous willingness constructs are uncovered to understand how the construct has been examined previously. Then, the construct is defined and conceptualized for this investigation, which specifically relates willingness to the types of SDLP's used by salespeople. Once the construct is conceptually determined, theoretical investigation can begin to address possible theories that explain the construct.

Willingness to Use SDLP's

"Willingness" is a noun that describes the adjective "willing." To be willing is to be inclined to; to be favorably disposed in mind to; to be prompted to act or respond; to accept without reluctance or to relate to the will or the power of choosing (Miriam Webster Online, 2007). Therefore, willingness is traditionally viewed as an individual's inclination toward a specific behavior. This is consistent with previous research regarding the willingness construct.

Previous research on willingness is most prominent in the fields of economics and medicine. In economics, willingness is viewed in terms of costs versus benefits which determine an individual's level of willingness to pay. This is a heavily studied construct within the economic domain and the foundation of the economic theory of value (Ebert, 1993; Ebert & Tillman, 2006; Hobky & Soderqvist, 2003). The willingness to pay construct is defined as how willing an individual is to allocate resources toward a financial entity, which may be taxes or some other good or service (Ebert, 1993). Interestingly, in the economic domain, it is common to find the willingness to pay construct defined with its root word "willing" in the definition, a semantic technique that fails to contribute to the concept of the construct. Willingness is often conceptualized as a comparison of the costs and the benefits of paying in the economic forum. Therefore, an exchange between what the individual must give up and what the individual receives governs the willingness to pay variable. Although willingness in a cost versus benefit view fits the meaning of willingness of an individual's inclination to pay, this analysis may not provide the depth and explanation of the willingness construct that this research seeks to uncover.

Just as economics poorly defines and conceptualizes the construct of willingness, so does medicine. In many medical studies (Gupta, Romney, Briggs, & Benker, 2007; Kim, Bracha, & Tipnis, 2007; Schulman, 2007) willingness is not defined, but instead considered to be self-explanatory. Often, willingness items on survey instruments in medicine ask how willing an individual is to act in a specific way. This may pose problems as no theoretical foundation exists that explains what willingness means to participants as they complete questionnaires. When willingness is measured in this

context, the willingness scale offers no explanation of the motivation for willingness or why the willingness score is higher or lower. A more structured concept of willingness would likely help to unify the nature of the construct among future researchers so that any discussion of the topic can be readily understood. As it stands from the arena of medicine, this conceptualization of willingness is too vague to be of use in the development of scales that provide a strong theoretical understanding of the construct. This dissertation asserts that the topic most intrinsically related to willingness is motivation; therefore, motivational theories will be assessed to determine the most appropriate fit.

So, what is the most appropriate conceptualization of willingness for scale development based on the currently existing constructs? An explanation of willingness can be understood in terms of motivation. Motivation is a reason or a set of reasons for engaging in a particular behavior, such as participating in SDL endeavors. Its close relationship to willingness makes the concept of motivation ideal to define willingness.

Essentially, an individual's willingness to act is based on motivation according to the definition of motivation. Thus, motivation guides behavior and attitudes toward performing a specific behavior. This dissertation purports that an individual's willingness is driven by his motivation. The behavior of interest in this study is a form of adult self-directed learning called a self-directed learning project (SDLP). In this dissertation, willingness is examined in terms of an individual's motivation reflected in his level of willingness to perform these projects. This attitude or inclination to perform a specific act is manifest from his motivation to do it. Thus, to understand and create a

foundation for willingness, we must look first to motivational theories that will best help explain it.

Several theories of motivation were created in the domain of psychology and many have been used previously in marketing research. Popular motivational theories include path goal theory, intrinsic motivation theory, extrinsic motivation theory, acquired needs theory, and expectancy theory. Background on these theories will be presented and assessed to determine their usefulness in this dissertation to provide a theoretical foundation for the construct willingness to use SDLP's.

Path Goal Theory

Path goal theory (Evans, 1968, 1970; House, 1971) is a motivational theory that has been used in many applications within organizational settings. Path goal theory is based on expectancy theory, a motivational theory. It was modified by House (1971) to explain the manager's role in helping employees find their best path to match organizational goals. The "best" path is the path that will lead the employee to reach organizational goals. In this sense, it is the supervisor's job to assist employees and to support them in a way that aligns the employee's personal goals with the organization's goals so that the employee's actions will align with the organization's demands. The supervisor may influence motivation, satisfaction, and performance of employees by rewarding performance that is on path or by clarifying the paths and removing obstacles that will aid employees in achieving their goals. Path goal theory assumes that leaders are flexible enough to change their leadership style depending on the employee. In this way, one of four different leadership styles must be used depending on the situation,

which may be characterized by factors within the environment and the employee's personality. Although this theory predicts motivation for the subject of interest (the salesperson), it relies too heavily on the supervisor. Thus, is not appropriate for developing scales to measure salesperson motivation to use SDLP's. According to path goal theory, the willingness of salespeople would be directly influenced by management's leadership style rather than other factors specific to the employee. Since this research seeks to understand willingness outside of such a narrow scope, a motivation theory that revolves around the behaviors and cognitions of the salesperson is necessary to understand motivation.

Intrinsic and Extrinsic Motivation Theory

Intrinsic and extrinsic motivation theories have been used in sales to explain and predict the behaviors of salespeople (Johnston & Marshall, 2005). Intrinsic motivation (Deci, 1975; Deci & Ryan, 1985) is described as motivation that comes from internal factors to the individual. For instance, an employee may seek to perform his job well because it makes him feel good, or because he feels it is the right thing to do. Internal factors are intangible and typically very powerful motivators of behavior. Conversely, external motivation (Petri, 1991) is motivation that comes from external influences such as tangible rewards or pressure and is opposite that of internal motivation. Therefore, it is external drivers that contribute to an individual's behavior. External motivation is effective, but often creates a focus on the rewards rather than the behavior. Frequently, when rewards for behavior are taken away, the behavior stops. From a scale development perspective, intrinsic and extrinsic motivation theories are not appropriate to

form a foundation for the construct of willingness. In order to create a scale for willingness with respect to SDLP's and salespeople using internal and external motivation to determine how willing a salesperson is to use SDLP's, each internal and external motivator must be explored and identified. This is unrealistic as each participant would have his own personal motivators and the scale would have to reflect all motivators affecting all participants. Therefore, a more global application of theory is needed for the purposes of scale development.

Acquired Needs Theory

Acquired needs theory (McClelland, 1975; McClelland & Burnham, 1976) suggests that there are three different needs that affect behavior: achievement, affiliation, and power. Typically, one need is more prominent than the others and, therefore, more influential. Achievement needs come from the need to excel and receive recognition for progress. Achievers will typically avoid behaviors that are less likely to lead to gain or that have a high risk of failure. Affiliation needs are those that seek harmony and balance from relationships. Those who seek affiliation will more likely conform to norms and seek approval rather than recognition, which may set them apart from the group. Power needs come from the desire to control others. Those who seek power may attempt to control others to achieve their goals. The Thematic Apperception Test is used to identify these needs or tendencies by presenting pictures of emotional situations and allowing the individual to tell a story about the situation. Acquired needs theory could be used in this research to assess a salesperson's motivation or willingness to use SDLP's by explaining some of the emotional reasons an individual is or is not motivated or willing to use them.

Nevertheless, it is not appropriate for scale development since it disregards situational factors that also may influence willingness. For instance, an individual's need for power may influence his or her level of willingness to use SDLP's, but there may be many other factors also present that influence the individual in conflicting ways. Acquired needs theory does not take into account the whole context. A more comprehensive theory is needed for scale development.

Expectancy Theory

Previous research suggests that expectancy theory may provide a solid basis to assess the sales force (Evans, Margheim, & Schlacter, 1982; Futrell, Parasuraman, & Sager, 1983). Expectancy theory (Vroom, 1964) rests on three pillars: valence (perceived value of the outcome), instrumentality (actions will relate to expected outcomes), and expectancy (individual perception of the ability to successfully accomplish the task). When a person is faced with a task, these concepts present themselves in the form of three questions:

1. Can I perform that task?
2. Will that task lead to the goal?
3. Is that goal important to me?

In sales force management research, the concept of motivation is typically described as a process. In this process, a salesperson's motivation influences behavior or effort leading to an outcome of performance or some level of achievement. This

performance results in one or multiple rewards in the form of compensation, recognition, promotion, etc. The rewards then, in turn, influence the salesperson's motivation, which begins the cycle again. This model of motivation has been examined as a subject of research (Ford, Walker, & Churchill, 1985; Plank & Reid, 1994; Walker et al., 1977) in the context of marketing and sales.

Vroom's (1964) original work with expectancy theory proposed that three unique aspects (valence, instrumentality, and outcome expectancy) contribute to motivation, although his theory was modified by other researchers (Johnston & Kim, 1994; Oliver, 1974; Teas, 1981; Walker et al., 1977) seeking an adaptation better suited to the field of marketing. The adaptation addresses a salesperson's motivation to expend effort on a job-related task asserting that it is primarily dependent on two factors for the purpose of marketing research, expectancy and valence. Clearly, this concept downplays the role of instrumentality. Typically, valence is viewed as the salesperson's "perception of the desirability of attaining an improved level of performance" (Johnston & Kim, 1994). Expectancy is defined as the "salesperson's estimate of the probability that expending a given amount of effort on a task will lead to an improved level of performance" (Johnston & Kim, 1994). This definition noticeably veers from the original definition of the construct. Expectancy, according to Vroom (1964), is a measure of the individual's perception of his own capabilities such that he can perform the task. Vroom's (1964) original definition of the concept of expectancy and the adaptation of it made by marketers are fundamentally different. The marketing concept of expectancy considers the salesperson's effort as the primary means to the end result (in this case, improved performance) whereby the salesperson believes increasing his effort will improve his

performance. This is in contrast to the original construct of expectancy that used a salesperson's efficacy of a behavior as a means of motivation, in that a salesperson will be more motivated to perform a behavior if he believes he has the ability to do so. This fundamental difference illustrates that marketing scholars have tested modified versions of the theory, which may be useful in the sales domain and from a modeling perspective, but are not testing all three fundamental pillars of the theory.

This dissertation seeks to return to the original concept of expectancy theory using the original definitions of the three pillars (valence, expectancy, and instrumentality) as the foundation for scale development for the construct willingness to use SDLP's. This theoretical foundation will contribute to defining and operationalizing the scale measures.

Rationale for Choosing Expectancy Theory

Expectancy theory can provide rich detail regarding the foundation of willingness. The three tenets of expectancy theory (valence, instrumentality, and outcome expectancy) are easily conceptualized within the sales learning context and clearly defined. This theory is best suited for this research as it explains motivation in terms of a clear thought process: a) How well can I perform this task? b) How well will this task lead to the desired outcome; c) How desirable is this outcome to me? The theory's simplicity and its explanation of a person's evaluation of a task prior to performing it can be used to create a concept of willingness. The construct of willingness formed from this theory will be ideally suited for this dissertation's investigation of salespeople and how motivated they may be to use SDLP's. This theory with its three facets, which can be expressed as

questions, can be molded into a three-part scale each with its own outcome or score. Then, the overall assessment or score will reflect the measure of the salesperson's willingness to use SDLP's since the overall scale would represent the complete theory. An additional benefit of expectancy theories' adaptability lies in the fact that since each facet of the theory has its own score, the overall scale provides not only an overall measure of willingness, but also a breakdown of its components indicating which facets have the most positive and negative impact on overall willingness.

Conclusion

In this section, willingness to use SDLP's was defined in terms of expectancy theory. Willingness to use SDLP's is an employee's level of agreeableness or motivation to use one, some, or all of the four different types of learning projects (induced, synergistic, voluntary, and scanning). Motivation to use learning projects comes from the employee's valence of the outcome of the learning project such that the salesperson cares or finds the outcome valuable, instrumentality that using the learning project will lead to a specific outcome, and expectancy that the salesperson can perform the learning activity. Therefore, an individual's motivation was presented as the foundation for willingness and several motivational theories were analyzed to assess the theory of motivation that best meets the needs for this research. Expectancy theory was chosen based on its three distinct pillars, which provide not only a foundation for the level of willingness, but also rich conceptual detail regarding the pillars that make up the construct facilitating a better understanding of the construct.

Antecedents to Willingness to Use SDLP's

The second research question addresses contributors to willingness in terms of antecedents. Research Question Two is stated as "What factors contribute to salesperson willingness to use SDLP's?" Antecedents to willingness to use SDLP's are the factors that influence the salesperson's motivation to use SDLP's. This is because willingness is defined and conceptually constructed as an attitude or cognition of motivation regarding SDLP's. Therefore, the antecedents for willingness to use SDLP's must be unique and specific to the nature and circumstances of the SDL process. This dissertation will seek to provide an explanation for these antecedent factors using historically sound theories from different research areas including sales and training research.

Theory Applied in Training and Learning

Social cognitive theory. Social cognitive theory (SCT) has been applied in learning and training research and may provide a theoretical rationale for the antecedents that contribute to willingness. Social cognitive theory (Bandura, 1986) suggests that behavior is a function of continuous reciprocal relationships among cognitive, behavioral, and environmental constructs. Additionally, the environment partially determines which forms of one's behavior are developed and activated (Bandura, 1989). There is a person-behavior interaction in which expectations and beliefs shape and direct the individual's behavior (Bandura, 1986, 1989).

The connection between training and performance can be explained by SCT in terms of outcome expectancies. Social cognitive theory adapted from psychology used in training research is a useful theory to explain antecedents to willingness because SDLP's

in this research are intended to be used as a form of training. Outcome expectancies are short- and long-term expectations about consequences of behavior such that there are certain outcomes individuals expect from their actions. Outcome expectancies are specific to a task or situation. Bandura (1989) suggests that individuals are more likely to act on perceptions of self-efficacy when outcome expectancies lead them to believe that their actions will result in valued outcomes with favorable consequences. Thus, coupled together, when individuals feel that they can perform certain tasks and that those tasks will lead to favorable outcomes, they are more willing and likely to perform the desired tasks.

This concept is consistent with the construct of willingness previously discussed. Going back to specific projects that salespeople use and the consequences they perceive, a few major constructs appear important. First, expectancies, or a person's expectations of a certain outcome, may come from different avenues. It may be a person's own previous experience with the outcome or input from another source relating to it. If the employee has been trained to use SDLP's, then expectations should exist regarding how willing the individual would be to use SDLP's. A construct useful to this research is self-management or self-regulation training. For this research, self-management/regulation training is defined as the guidance the employee has received related to 1) setting clear, specific goals that are challenging, 2) understanding and planning to overcome obstacles, and 3) self-monitoring and self-reinforcement methods used for motivation.

In addition to training to perform projects, the organization may contribute to outcome expectancies. In this way, the manner in which the organization or direct supervisor supports the individual in using SDLP's may also contribute to expectations of

the outcomes of these projects. Thus, if employees feel the organization or supervisor does (not) support them and gives them (does not give them) what they need, then employees should be more (less) willing to use SDLP's.

Therefore, SCT explains that previous experience, such as efficacy from training, contributes to willingness to use SDLP's in partner with support from the organization and supervisor. Specific constructs within the literature that support this premise include self- regulation/self-management training, perceived organizational support, and perceived supervisor support.

Theory Applied in Sales and Organizational Settings

Social exchange theory. Social exchange theory (SET) has been applied in sales, organization, and exchange settings (Legace, 1990; Legace & Howe, 1988). Social exchange theory (Homans, 1961, 1978; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959) explains relationships from a reciprocal perspective. According to this theory, relationships are carried out through a series of social exchanges. Social exchanges are the reciprocation of valuable resources that promote the building and preservation of interpersonal relationships (Lynch, Eisenberger, & Armeli, 1999; Shanock & Eisenberger, 2006). Here, employees seek a balance in their exchange relationships with supervisors by exhibiting attitudes and behaviors commensurate with the degree of the supervisor's commitment to them. The SET perspective suggests that relationships are like a two-way street in that if the balance of the exchanges is not perceived to be equal, members in the exchange may try to shift the balance. Each member has expectations and acts in the relationship based on their perceptions of what is given and delivered. In

an organizational context, employees form global opinions about the way the organization will support and reward them, and then determine how much effort they will deliver back to the organization. If employees perceive they will gain much in return, then they will meet more of the organization's requests and demands. If employees perceive poor support from the organization, they may not offer much effort to meet its demands (Eisenberger et al., 1986). Social exchange theory is used by sales researchers to examine the support salespeople perceive from their organization and supervisor (Boyer & Edmondson, 2007; Riggle, Edmondson, & Hansen, 2007). SET is used in this dissertation to explain the relationship between the support employees perceive from their supervisor and the organization to use SDLP's and their subsequent motivation to use SDLP's. Therefore, the constructs that may predict employee willingness to use SDLP's, according to SET, are perceived organizational support (POS) and perceived supervisory support (PSS). *Perceived organizational support* is defined as an employee's global beliefs about how ready the organization is to help him in times of need and reward him for extra effort and hard work (Eisenberger et al., 1986). Perceived supervisory support is defined as an employee's global beliefs concerning how ready his supervisor is to assist him in times of need and reward him for extra effort and hard work (Kottke & Sharafinski, 1988). These two constructs are used heavily to assess and predict outcomes in organizational exchange settings regarding affective commitment and job satisfaction (Armstrong-Stassen, Mantler, & Horsburgh, 2001; Stinglhamber & Vandenberghe, 2004), performance (Lambert, 2000), turnover (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Stinglhamber & Vandenberghe, 2003), and autonomy (Beehr, 1976; Fu & Shaffer, 2001; Griffin,

Paterson, & West, 2001; Yoon & Lim, 1999), which are important constructs to sales managers. Research has also shown that PSS is positively related to perceived organizational support (Armstrong-Stassen et al., 2001; Lambert, 2000; Yoon, Seo, & Yoon, 2004) although there is a distinctive difference which makes them unique constructs (Boyer & Edmondson, 2007; Lambert, 2000; Yoon et al., 2004). Therefore, it is foreseeable that willingness may also be predicted and explained by perceptions of support from both the organization and supervisor. Social exchange theory suggests that a reciprocal relationship exists in which a positive perception of support for the employee would then lead to employee behaviors consistent with those that the organization and supervisor desire. Therefore, a positive relationship would exist between support and willingness such that higher (lower) levels of support would lead to higher (lower) levels of willingness, making POS and PSS antecedents of an employee's willingness to use SDLP's.

Expectancy theory. Expectancy theory has been applied in sales research for over four decades and is widely accepted (Churchill, Ford, & Walker, 1979a; Cron, Dubinsky, & Michaels, 1988; Johnston & Kim, 1994). The majority of expectancy theory research has investigated the antecedent variables of salesperson motivation based on the Churchill, Ford, & Walker (1979a; 1979b) model. Certain constructs identified in the previous theory sections appear to align with constructs investigated as antecedents to salesperson motivation using an expectancy theory approach. Relating to self-management/regulation training, a key construct, "participation in decisions," is a positive antecedent to motivation (Teas, 1981). "Participation in decisions" is related to training in self-management as self- management provides the salesperson with

autonomy over decisions related to his work. Thus, empirical work in expectancy theory provides evidence that a similar construct has a positive relationship with motivation. The support constructs appear to also be supported with previous empirical investigation of expectancy theory in sales research. Several constructs such as salary base, recognition opportunity rate, leader contingency approving behavior, leader upward influencing behavior, and management concern and awareness appear to align with previous definitions of support so that the employee feels rewarded for his extra effort by the supervisor and organization. Each was positively related to motivation (Ingram & Bellenger, 1983; Kohli, 1985; Tyagi, 1982). Therefore, empirical investigation using expectancy theory provides evidence that support variables are positively related to motivation, operationalized in the context of this research as willingness to use SDLP's. As a result, expectancy theory provides consistent support for both support and training constructs to willingness to use SDLP's and the directionality of the relationships. Although examining the problem strictly from a learning project behavior point is much narrower than a motivation to perform view, the extension appears to align.

Conclusion

A review of prominent theories applied in training, sales, organizational, and exchange settings revealed that social cognitive theory, social exchange theory, and expectancy theory had demonstrated several key constructs that may positively contribute to willingness to use SDLP's such that higher levels of key constructs will lead to higher levels of willingness with the inverse also being true. These constructs include self-

management/self-regulation training, perceived supervisory support, and perceived organizational support, and will serve as antecedents to willingness in the model.

Antecedents to Use of SDLP's

This section will investigate theory that may explain the relationship between willingness to use SDLP's and use of SDLP's. Relevant motivational theories will be explored. This section will attempt to provide insight into Research Question Three, "What is the relationship between salesperson willingness to use SDLP's and salesperson use of SDLP's?"

Attitude Behavior Consistency and Cognitive Dissonance

Two motivational theories, attitude behavior consistency and cognitive dissonance, may explain the relationship between willingness to use SDLP's and the use of SDLP's. Attitude behavior consistency theory (Kallgren & Wood, 1986) suggests that attitudes are predispositions to behavior. In this way, attitudes are likely to align with behavior, especially when attitudes and behavior are constrained to specific circumstances. In this research, willingness to use SDLP's and use of SDLP's are specific to the context in which salespeople operate. Additionally, attitude and behavior will be consistent when there are opportunities to express behaviors, when attitudes are based on personal experience, and when no social desirability bias exists that would lead the individual to behave in uncharacteristic ways. Consequently, it appears that attitude behavior consistency would predict that attitudes of willingness to use SDLP's will be

positively related to use of SDLP's. Therefore, higher levels of willingness to use SDLP's will lead to greater use of SDLP's, and the reverse is true for lower levels.

Cognitive dissonance (Festinger, 1957; Festinger & Carlsmith, 1959) is the discomfort created when attitudes conflict with behaviors. When an individual holds a specific attitude and his behavior is contradictory to that attitude, the individual feels tension that may cause him to change either his behavior or attitude. If behaviors cannot be changed or undone, then the individual will likely change his attitude. The tension or dissonance may increase when the topic holds more importance, when there are great differences between attitudes and behaviors, and when the individual is unable to rationalize the differences in his behavior from attitudes. To reduce dissonance, individuals change their behavior, change cognitions, or justify their behavior by adding new cognitions. Since individuals feel discontent when attitudes and behaviors conflict with each other, it is likely that when individuals feel willing to use SDLP's, they will most likely behave consistently by using SDLP's given the opportunity. Therefore, individuals will edit either their behavior or attitudes when inequities present themselves. Accordingly, there should be a positive relationship between willingness to use SDLP's and use of SDLP's. Higher levels of willingness to use SDLP's should lead to greater use of SDLP's and the inverse would be true for lower levels. According to both motivational theories, the relationship between willingness to use SDLP's and use of SDLP's is expected to be positive.

Conclusion

In this section, two theories were analyzed to explain the relationship between willingness to use SDLP's and use of SDLP's. Attitude behavior consistency and cognitive dissonance both predict a positive relationship between the variables. Therefore, it is expected that higher (lower) levels of willingness to use SDLP's will lead to greater (less) use of SDLP's.

Antecedents of Performance

This section will examine Research Question Four regarding the theories that explain the relationship between use of SDLP's and performance. Research Question Four states, "What is the relationship between salesperson use of SDLP's and salesperson performance?" Adult learning theory best explains this linkage. There is no one specific theory that comprises adult learning, just as there is no one theory that explains marketing. Instead, there are several branches of adult learning theory that may explain the relationship between use of SDLP's and performance. Specifically, theory involving self-directed adult learning may best provide the rationale for this link. Adult learning is central to this research as salespeople are adults, and they will learn in ways that are different from the learning styles of children. This is significant since general learning theories stem from research based on children and young adults. Adult learning theory is rooted in research based on adults and is more suitable for this research than general learning theories.

Prominent research in adult learning explains that adults learn more effectively when they are given autonomy over their learning. Speck (1996) states,

> "Adults want to be the origin of their own learning and will resist learning activities they believe are an attack on their competence. Thus, professional development needs to give participants some control over the what, who, how, why, when and where of learning" (Speck, 1996, p. 36-37).

The underlying tenet of SDLP's is that learners have control over their learning. Hence, those salespeople who use SDLP's will not resist this learning as it offers them discretion and autonomy. They would be expected to improve their performance on related endeavors. Salespeople who do not use SDLP's may learn in a more structured and managerially controlled fashion, which, according to adult learning theory, may cause them to resist this learning process. Other research corroborates the effectiveness of using SDL. Knowles (1975) explains that individuals who direct their own learning are more likely to retain what they learned than are passive learners. Thus, control over learning, like the use of SDLP's, will contribute to retention of learned material that may include the knowledge, skills, and abilities needed to attain higher performance levels. Finally, it is widely accepted in SDL theory and research that training and developing employees through self-directed learning is more efficient and effective (Durr, Guglielmino, & Guglielmino, 1992; Guglielmino & Murdick, 1997; Knowles, 1990; Merriam, 1993; Piskurich, 1993). In fact, one major advantage in training employees using SDL is a marked improvement in performance of individuals and teams (Guglielmino & Murdick, 1997). Consequently, SDLP's will contribute to greater

learning and information retention, resulting in better performance for salespeople who use them. It is this logic that suggests a positive relationship exists between use of SDLP's and salesperson performance. Therefore, greater use of SDLP's will relate to higher levels of performance, and the inverse will be true for reduce use of SDLP's leading to lower levels of performance.

Conclusion

This section explored several theories that provide possible explanations for and predictions of answers to the posed research questions. For scale development, expectancy theory was chosen from many motivational theories to create the foundation of the willingness to use SDLP's scale because of the three pillars of valence, instrumentality, and outcome expectancy. This choice is operational and driven by theory. To address possible antecedents of willingness to use SDLP's, social cognitive theory, expectancy theory, and social exchange theory were explored and three constructs were identified: self- management/self-regulation training, perceived supervisory support, and perceived organizational support. All of these constructs positively contribute to willingness such that higher levels of the antecedent constructs lead to higher levels of willingness and the reverse is true for lower levels. Then, the relationship between willingness and use of SDLP's was assessed with attitude behavior consistency, cognitive dissonance, expectancy theory, and social cognitive theory. All four theories predict a positive relationship between the two constructs such that higher (lower) levels of willingness will lead to greater (less) use of SDLP's. Finally, adult learning theory was explored to assess the relationship between use of SDLP's and performance. Adult

learning theory predicts that adults will learn better when given autonomy over their learning. This is the main crux of SDL. Consequently, better learning is assumed to contribute to higher performance levels as long as the learning endeavors are set up within the organization to enhance the performance of salespeople in the forms in which performance is measurable. No reciprocal relationships were identified; instead, only positive relationships between the variables were predicted. In the next section, the literature regarding the variables discussed in this section and the relationships between them will be explored in order to create testable models with hypothetical linkages.

Literature Review

The literature review section addresses the construct of willingness, along with the relationships between the constructs (self-regulation training, POS, PSS, willingness to use SDLP's, use of SDLP's, and performance) identified for the models (Figures 2.3 and 2.4). A formal definition and background of each construct is presented, together with previous empirical research that is relevant to the study. When applicable, variables are modified for the context and defined. Hypotheses are presented within the discussion of each variable.

Willingness to Use SDLP's

This section discusses the foundation of the construct "willingness to use SDLP's" and its application to this research. It will outline the evolution of SDL, from its origins in education to its recent applications related to salespeople and organizations. The limitations of previous SDL research will be addressed and methods by which this

research project will attempt to avoid such limitations will be discussed. Then, there will be a dialogue concerning the selection of willingness as the basis for the creation of a scale to evaluate the introduction of a self-directed learning approach into a population of salespeople and measure its relationship to their job performance. Next, a comparison of the usefulness of creating a scale based on willingness to other already existing scales will be discussed. Finally, this section will discuss how willingness to use SDLP's as conceptualized by expectancy theory will benefit the scale development process.

Self-Directed Learning

Origination of self-directed learning projects. The main construct for this research, "willingness to use SDLP's," originates in self-directed learning. The conceptualization of SDL in the adult education domain was introduced by Tough (1967). He described self-directed learning in terms of discrete units called self-directed learning projects (SDLP's). A learning project is a series of purposeful learning episodes adding up to at least seven hours in a six-month period that are intended to promote knowledge, skill, insight, or otherwise edify the individual. This type of learning is different from previous learning concepts in that it is initiated by the learner instead of an outside source, thereby giving rise to the term self-directed learning. Tough (1967) created an interview schedule to investigate the type of learning adults perform in a self-directed manner. He later (1971) developed a measure from this interview process that captures the amount of time spent on learning projects. Both the interview schedule and the quantitative scale are used in current SDL research (Clardy, 2000; Dixon, 1991).

Classification of SDLP's. Clardy (2000) investigated professionals in management, sales, and human resources using an in-depth interview technique to understand how SDLP's are used by a variety of individuals in the workforce including salespeople. His research resulted in a classification system of four distinct SDLP's: induced, synergistic, voluntary, and scanning. The chart in Table 2.1 illustrates the classification of SDLP's with definitions and examples of each type of project. The information in the chart comes from information provided by Artis and Harris (2007) and Clardy (2000).

Table 2.1 Definitions of Categories of SDLP's and Examples

Induced SDLP's	
Definition	*Examples*
The fundamental skills and knowledge an employee must acquire in order to perform a specific job in his or her industry.	Unstructured on-the-job training, obtaining mandatory certifications required by the industry, and fulfilling continuing education requirements.
Synergistic SDLP's	
Definition	*Examples*
Learning endeavors the employee undertakes to improve his performance that are not mandated by the organization. The organization presents a learning opportunity or resources for employees, but does not monitor the employees' use of them.	Optional seminars, learning libraries and company databases, etc.
Voluntary SDLP's	
Definition	*Examples*
Learning endeavors or activities initiated by the employee that may or may not be related to improving the organization.	Attending a conference to improve skills, learning to play golf, or speaking with an expert to discover methods to improve communication skills.

Table 2.1 Definitions of Categories of SDLP's and Examples (Continued)

Scanning SDLP's	
Definition	*Examples*
Ongoing learning activities in which the salesperson continuously searches for relevant information that may help him improve performance or understand the environment. Often, salespeople lack knowledge of the specific information for which they are searching, but when they find relevant information, they can identify it as useful.	Reading newspapers, magazines, speaking with experts, watching television, surfing the internet, etc.

Quantitative measures of SDL. Many quantitative measurement tools or scales such as the self-directed learning readiness scale (SDLRS) (Guglielmino, 1977), Oddi continuous learning inventory (OCLI) (Oddi, 1984), and Bartlett-Kotrlik inventory of self learning (BISL) (Bartlett, 1999) also provide a means of measurement of some aspect of an SDL. These may be used as an alternative to or in conjunction with the Tough (1976) interview schedule. A discussion of the quantitative measures is presented below.

The self-directed learning readiness scale (SDLRS) measures an individual's readiness to use self-directed learning based on personal characteristics (Guglielmino, 1977). The SDLRS is a 58-item, 7-point Likert type scale comprised of eight key personal characteristics: 1) openness to learning opportunities, 2) self concept as an effective learner, 3) initiative and independence in learning, 4) informed acceptance of responsibility for one's own learning, 5) love of learning, 6) creativity, 7) future orientation, and 8) ability to use basic study skills and problem solving skills. When Guglielmino (1977) first tested the scale, she found an alpha reliability level of ($\alpha = .86$). Although the measure is widely used in the adult education literature, reliability measures for this scale are seldom reported. The scale is copyrighted and must be purchased from

Guglielmino and Associates for use in research. Moreover, the data collected to be analyzed with the scale must be processed by Guglielmino and Associates, the authors of the scale itself. Nevertheless, this scale has been used in a variety of research endeavors to examine the relationship between SDL and a wide range of variables in adult education and other domains more closely related to business. In a recent meta-analysis (Boyer, Edmondson, & Artis, 2008 WIP) that was performed to better understand the role of SDL in the literature, the SDLRS was used in studies to investigate relationships with over 50 variables including other scales measuring SDL. vSome of these variables include age, gender, tenure, income, performance, autonomy, locus of control, personality, dominance, dependence, creativity, and learning style. The meta-analysis found that the Guglielmino scale (1977) was the most widely used measure of SDL.

Two important additional measures of SDL are the Oddi continuing learning inventory (OCLI) (Oddi, 1984) and the Bartlet-Kotrlik inventory of self learning (BISL) (Bartlett, 1999). Oddi (1984) proposed that measuring adult continuous learning would be beneficial in identifying adult professional learning in the workplace. There are three major facets of the OCLI: 1) self confidence, 2) ability to work independently, and 3) learning through involvement with others. Additionally, two sub-factors emerged in the study: reading avidity and the ability to be self-regulating. The OCLI is a 24-item, 7-point Likert type indicator with an alpha reliability of $\alpha = .86$ using a sample of 271 graduate students in law, adult education, and nursing. The BISL is a 56-item, 7-point Likert type scale that measures constructs that influence the level of self learning. In his dissertation research, Barlett (1999) investigated Oddi's (1984) OCLI, as well as SDL according to secondary business educators, and created an integrated measure of SDL

that indicates variance in the level of self-learning. They found that learning resource experimentation such as on-the-job training, media, preparing to teach, and consultation help explain variances in the level of self-learning. The scale reported a reliability of α = .91.

Limitations of previous SDL work. Although the Guglielmino (1977) scale is one of the most widely used scales in SDL research, it is not appropriate for this research for several reasons. First, SDLRS is based upon personal characteristics. It assumes the level of SDL does not change, just as personality does not change. This is a limited perspective as it does not take into account situations such as training an individual receives in learning to use SDL or self-management. In fact, previous research suggests that learning styles may be altered by learning to self-manage (Salas & Cannon-Bowers, 2001). Salas and Cannon-Bowers (2001) reveal that individuals can change their own learning styles to meet the needs of the situation and the environment. Therefore, although salespeople have a tendency to learn a certain way as it relates to their work, it is possible to develop skills through training that will encourage the use of SDL behaviors. Second, there is no distinction between types of projects, such as those for leisure/hobbies or work. This is another limitation of the other scales currently in use as using SDL related to personal endeavors, such as learning to play tennis, may not transfer back to the workplace. Since the SDLRS does not distinguish between projects, it is impossible to understand any differences that may exist among salespeople who use certain forms of SDLP's more than others. Third, the scale is not related specifically to salespeople. This is problematic since this research seeks to specifically investigate the forms of SDLP's that salespeople use. Finally, biasing factors may exist when using the

scale given that it is copyrighted and must be purchased from and analyzed by Guglielmino and Associates, the authors of the scale. This poses a conflict of interest and could potentially limit researcher confidence in the scale as a reliable research tool.

Both the BISL and OCLI present valid measures of SDL; however, they fail to meet the requirements of this research. Just as in the SDLRS, the BISL and OCLI are general measures of SDL that do not discriminate among the different types of learning projects. Second, the scales are not related to the types of learning that salespeople use. Although the BISL and OCLI may not be subject to the biasing factors of the SDLRS, they are not appropriate for this research. Thus, a measure of SDL is needed that accounts for the types of learning projects salespeople use.

Clardy's (2000) classification based on Tough's (1967) interview schedule discriminates between learning projects that salespeople use. That research is qualitative and conducted in interview format making it impractical for organizations and researchers. Conducting research through qualitative interviews is expensive and time consuming imposing limitations on research endeavors as companies may be unwilling to use several hours of valuable salesperson work time on research. Additionally, interviewing large numbers of salespeople would be taxing on an individual researcher, thereby prompting a search for another more convenient method of data collection such as survey research. Thus, a quantitative scale is needed that can be distributed to a large number of salespeople at one time without consuming a large amount of the salesperson's time.

Overcoming limitations. This research seeks to address the aforementioned limitations and others associated with the in-depth interview format for specific learning

projects and propose a quantitative approach to collecting data. Scale development related to SDLP's will accomplish this task. The scales are important to sales research because they will quantify outcomes of specific types of SDLP's related to salespeople, provide rich details that are important to salespeople, sales managers, and organizations, and avoid commingling leisure and work learning projects. Contrary to previous research, the SDL scales in this research will be specific to salespeople and will quantify willingness to use learning projects, but will not address the role of personal characteristics in influencing the likelihood of using a project since this aspect has already been studied (Burns, 1995; Guglielmino, 1977). Scales that differentiate between types of SDLP's are necessary to provide details about what outcomes can be expected when different SDLP's are implemented. This, in turn, will provide researchers with concrete, reproducible measures necessary for solidifying gains in research, as well as providing practitioners with new information that could immediately improve the work environment of their organizations.

Willingness. At this point, now that SDLP's have been discussed at length, it is appropriate to investigate willingness as it relates to the use of SDLP's. The concept of willingness for this research is a construct based upon expectancy theory (Vroom, 1964) concerning aspects of valence, instrumentality, and outcome expectancy. Motivation to use learning projects comes from: 1) the employee's valence of outcomes for the learning project such that the salesperson cares or finds the outcome valuable, 2) expectancy that using the learning project will lead to that outcome, and 3) instrumentality, in the sense that the salesperson is capable of performing that learning activity.

Willingness to use SDLP's can be described as the employee's level of agreeableness or motivation to use a learning project. Willingness to use induced SDLP's is based on a salesperson's valence, instrumentality, and expectancy outcomes for learning endeavors relating to fundamental skills and knowledge a salesperson must acquire in order to perform a specific job in his respective industry. Willingness is also based on these same outcomes in which the salesperson intends to improve his performance for learning endeavors that are not mandated by the organization, although the organization provides the learning opportunity.

The following scenario is an example of willingness to use a synergistic project. A company provides databases available for the salesperson to search historical information about life insurance rates. In order to increase that salesperson's willingness to use the database, he must believe that he can use the database (instrumentality), that the database will help him achieve a goal such as making a sale or satisfying a customer (outcome expectancy), and that making a sale or satisfying a customer is important (valence). In this way, the more the salesperson experiences instrumentality, outcome expectancy, and valence, the greater will be his willingness to use a specific SDLP.

Therefore, to increase a salesperson's willingness to use an SDLP, the organization must recognize the importance of the elements of instrumentality, valence, and outcome expectancy in the sales environment. This will facilitate the salesperson's ability to stay focused and motivated while implementing SDLP's. Furthermore, organizations and supervisors must provide support to salespeople for using these learning projects. Feeling rewarded and aided in using learning projects will enable salespeople to feel comfortable and capable using SDLP's such as company databases.

When salespeople feel competent and comfortable using learning projects like databases, they may find using the databases to be more rewarding, thereby increasing the outcome expectancies and valences for those projects.

Willingness is fundamentally different from other measures of SDL as the foundation is derived from theory. The role of expectancy theory in the development of the construct will provide the research with a foundation that is clearly conceptualized, unlike the vague construct used in medicine or the inappropriate construct described by the field of economics. Furthermore, the concept of the theory itself, which describes motivation according to the three elements of valence, expectancy, and instrumentality, very closely matches the definition of willingness. Another important benefit that accompanies the use of expectancy theory as the primary component of this research's version of willingness comes from the three facet nature of the theory; each facet will become a component of the overall scale and contribute different information about the aspect of willingness it represents. This means that the scale will reveal three specific facets of willingness, or lack of it, in addition to the assessment of overall willingness. Finally, developing a new scale altogether that is based on the construct of willingness eliminates many limitations of the other scales such as intrinsic biases or assessments of a person's innate traits, which are not adaptable to variations in circumstances or environment.

Alternatives to using willingness include either a qualitative interview process or previously developed scales such as the SDLRS (Guglielmino, 1977), OCLI (Oddi, 1984), and BISL (Bartlett, 1999). Qualitative interviews present their weakness in terms of scope. Therefore, it would be difficult to conduct research on a large sample of

salespeople. Moreover, the cornerstone of this research is to create a measure of willingness to use SDLP's; therefore, using only an interview schedule would conflict with the purpose of this research. Previous SDL scales do not measure all the elements defined in this specific construct, and would not be adequate for the purposes of this study.

Conclusion. This section discussed the foundation of willingness to use SDLP's. Self-directed learning background was presented, as well as the limitations of the currently existing means of assessment and how this research seeks to overcome such limitations. Then, it was explained that only two (induced and synergistic) of the four types of SDLP's would be used in the investigation given that induced and synergistic projects may be more widely used by salespeople in the chosen context of insurance sales. Finally, the benefits of using willingness as a foundation for scale development was established specifying its freedom from many of the limitations that constrain currently existing scales.

Antecedents of Willingness to Use SDLP's

This section discusses empirical research regarding the antecedents (self-regulation/self- management training, POS, and PSS) of willingness to use SDLP's related to Research Question Two. First, the training and control constructs are discussed, followed by the support constructs. A formal definition and background of each construct are presented, along with previous empirical research that is relevant to this study. Then, POS and PSS are modified for the specific projects salespeople use and

new definitions are provided. Hypotheses are presented following the presentation of the previous empirical research, and relevant modifications to the construct are presented.

Self-Regulation/Management Training

Self-management training has been used as a tool to assist salespeople in managing their work efforts more effectively using self-assessment, goal setting, self-monitoring, self-evaluation, written contracts, maintenance, and relapse prevention. Frayne and Geringer (2000) define self-management as "an effort by an individual to exert control over certain aspects of his or her decision making and behavior."

Previous self-management/regulation training research. Previous research suggests that learning to self-manage one's learning may alter individual learning styles. Salas and Cannon-Bowers (2001) reveal that individuals can change their own learning styles to meet the needs of the situation and the environment. Therefore, although salespeople have a tendency to learn a certain way, and many already employ SDL skills informally, it is concluded from Salas and Cannon-Bowers (2001) that it is possible to develop skills through training that will improve SDL behaviors. Frayne and Geringer (2000) studied the use of self-management training as a means to assist salespeople in managing their work efforts more effectively using self-assessment, goal setting, self-monitoring, self-evaluation, written contracts, maintenance, and relapse prevention. This is similar to the self-regulation training construct used in sales research that is composed of self evaluation, self monitoring, and self reaction (Bandura, 1982; Kanfer, 1996; Leach, Liu, & Johnston, 2005). Self-regulation allows salespeople to monitor themselves continuously, thereby contributing to short-term motivation (Gist, Stevens, & Bavetta,

1991; Wood & Bandura, 1989), directing focus of effort (Bandura, 1982; Kanfer & Ackerman, 1989), and helping salespeople reach long-term goals (Gist, Schwoerer, & Rosen, 1989; Kanfer et al., 1994). Therefore, this research will discuss self-management training and self-regulation training synonymously.

Manz (1986) suggests that self-management is reflected as behavioral and cognitive strategies that assist individuals in understanding their environment and help them achieve certain performance goals and establish self-motivation. This is important since not all self-directed and self-managed behavior results in constructive outcomes. Karoloy (1993) points out that individuals may practice dysfunctional self-management, as some people do not know how to self-manage properly. Teaching the proper method of self-management can aid individuals in acquiring superior SDL skills. Given previous research (Gist et al., 1991; Manz, 1986; Wood & Bandura, 1989) suggesting that self-management helps establish motivation, constructed in this research as the willingness construct, it is expected that training in self-management/regulation will positively impact salesperson willingness to use self-directed learning projects. Therefore, more training in self-regulation will contribute to higher levels of willingness to use SDLP's and less training in self-regulation will contribute to lower levels of willingness to use SDLP's. From this logic the following hypotheses are created:

$H1_A$: Self-regulation training will positively impact willingness to use induced self-directed learning projects.

$H1_B$: Self-regulation training will positively impact willingness to use synergistic self-directed learning projects.

If self-regulation training has no impact on willingness to use induced and synergistic projects, then the null case will be supported.

$H1_{A0}$: Self-regulation training will have no impact on willingness to use induced self-directed learning projects.

$H1_{B0}$: Self-regulation training will have no impact on willingness to use synergistic self-directed learning projects.

Organizational and Supervisory Support

This section discusses the role of perceived organizational support and perceived supervisory support for SDLP's (POS for SDLP's and PSS for SDLP's) and how these organizational factors may influence the salesperson's willingness to use SDLP's. First, this section explains the empirical background for POS and PSS and how it relates to this research. Next, modifications of the constructs are presented and defined. Finally, hypotheses are presented, followed by the conclusion of the section.

Perceived organizational support (POS) is defined as employees' global beliefs concerning the extent to which the organization values their contributions and supports their goals and needs (Eisenberger et al., 1986). Perceived supervisory support (PSS) is defined as employees' global beliefs concerning the extent to which their supervisor values their contribution and cares about their well being (Kottke & Sharafinski, 1988). Eisenberger et al. (1986) first conceptualized perceived organizational support (POS) to explain the reciprocal relationship between employees' perceptions of support from the

organization and the amount of effort and level of commitment employees return to it. This was later modified to explain how similar outcome variables such as commitment, job satisfaction, and tenure could also be assessed by understanding employees' perceptions of support from their supervisor (Kottke & Sharafinski, 1988).

The notion of both PSS and POS stems from social exchanges between the individual and the supervisor and is based on social exchange theory and the norm of reciprocity. Social exchange theory, a motivational theory, posits that all relationships between individuals and organizations or supervisors are formed based upon a subjective cost-benefit analysis. If the benefits received from the relationship exceed the costs incurred, then the employee will opt to remain in the relationship. Furthermore, the norm of reciprocity states that employees will feel obligated to repay favorable treatment (Eisenberger, Lynch, Aselage, & Rohdieck, 2004; Mowday, Porter, & Steers, 1982; Rousseau, 1990). In other words, if an organization or supervisor treats their employees well, then the employees will feel obligated to act in ways that are of value (i.e., meeting the supervisor's goals and objectives) to the supervisor and the organization as a whole (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). An employee may evaluate the level of support the organization and supervisor provide through compensation and promotions, frequency and sincerity of praise and approval, and amount of job autonomy (Hutchison & Garstka, 1996; Shore, Barksdale, & Shore, 1995). Research has shown that employees develop exchange relationships with their organization and supervisor based on their perceptions of how the supervisor supports their work efforts (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Wayne, Shore, & Liden, 1997). Employees seek a balance in their exchange relationships with the organization and supervisors by having

attitudes and behaviors commensurate with the degree of organizational and supervisor commitment to them as individuals. In other words, employee commitment is a two-way street in that employees perceive that their effort and commitment to the supervisor/organization should be exchanged for 1) benefits and rewards and 2) help during times of need from the supervisor/organization that are both tangible and intangible (Kottke & Sharafinski, 1988).

The constructs PSS and POS are similar, although differences exist between them. Perceived supervisory support is support an employee perceives from a supervisor, while POS is the perception of support from the organization, which is a more general concept. Employees may not attach a specific person to their perceptions of the organization, given that the organization is an entity that may not have a specific face in the eyes of the employee. Previous research demonstrates a distinction between the two constructs (Boyer & Edmondson, 2007; Eisenberger et al., 2002; Kottkey & Sharafinsky, 1988). Greller and Herold (1975) suggest that employees put greater value on feedback that comes from those who are closest to them. In this sense, the employee can identify and interact more with the supervisor than the organization due to the personal nature of the relationship. Because differences exist between the two types of employee relationships, it is necessary to measure both PSS and POS as separate constructs.

Relationship to willingness to use SDLP's. Both POS and PSS stem from social exchanges such that the perception of support will translate into the amount of effort the employee is willing to put forth. Therefore, the level of support the employee perceives from the organization and the supervisor should positively impact the employee's level of willingness to perform certain tasks specific to the job. If these constructs are adjusted to

be specific to learning, it is possible that there will be a better prediction of willingness. Therefore, if the support the employee perceives is specific to the learning endeavors that are related to them, then that may directly impact their willingness to use SDLP's. Similarly, Jude-York (1991) empirically examined the impact the learning climate has on the relationship between SDL readiness and performance using a sample of 194 individuals within five manufacturing plants in the household cleaning products industry. The learning climate survey included information about support, reinforcement, and resources provided by each plant to encourage learning. Performance was measured by a standard 360-degree performance appraisal. The study aids in helping organizations identify self-directed learners through personal characteristics and traits, and found that when the learning climate is perceived as supportive by employees, the relationship between performance and SDL readiness is stronger. Therefore, the more support that is offered for learning endeavors, the greater the SDL readiness and performance is expected to be. With less support offered, the relationship between readiness and support would be weaker. Therefore, empirical research provides evidence that more supportive learning environments help individuals to be more ready to use SDL.

Modification of POS and PSS. The constructs of POS and PSS must be adapted to explain the salesperson's perceived organizational and supervisor support related to using learning projects given that overall support for the employee is not related to salespeople or the type of learning salespeople use. Therefore, if the salesperson perceives that the organization is supportive toward him in terms of providing rewards and providing aid in times of stress when using SDLP's, the employee will be more likely to use SDLP's in daily tasks. Due to this transition to focus specifically on learning

projects, the construct must be modified to include the new conceptualization relating specifically to each project.

The idea that the traditional measure of POS does not provide enough depth in salesperson research is reverberated in recent sales research (Riggle, 2007). In his dissertation research, Riggle examined salespeople and their subsequent levels of perceived organizational support. He found that the POS scale was not specific enough for salespeople and a new scale must be adapted to attend to the specific needs and situations of salespeople, especially since the scale was not originally created for the sales domain.

Importance of distinguishing different types of learning projects. Scales must be created to measure the distinction between SDLP's. There may be different premiums placed on different types of learning projects in different types of organizations. Therefore, it is important to consider the elements of support provided by the organization for different projects. This research assumes that the use and support of one project does not influence the support and use of a different project given the differences that exist between them. Thus, attention must be given to each type of SDLP individually. For example, the supervisor may promote and reward salespeople for getting certifications and on-the-job training, but that may not necessarily influence the salesperson to be more willing to use company databases.

Therefore, for the purposes of this research, POS for induced SDLP's is defined as the salesperson's global beliefs regarding how the organization values his contributions and will help him in times of need when using learning endeavors relating to fundamental skills and knowledge necessary to perform a specific job in his respective

industry. Perceived organizational support for synergistic SDLP's is defined as the salesperson's global beliefs regarding how the organization values his contributions and will help in times of need when using learning endeavors not mandated by the organization that are necessary to improve performance. Although the learning endeavors may not be required by the organization, the organization still provides the learning opportunity. Perceived supervisory support for induced SDLP's is defined as a salesperson's global beliefs regarding how the supervisor values his contributions and will help in times of need when using learning endeavors relating to fundamental skills and knowledge a salesperson must acquire in order to perform a specific job in his respective industry. Perceived supervisory support for synergistic SDLP's is defined as a salesperson's global beliefs regarding how the organization values his contributions and will help in times of need when using learning endeavors that are not required by the organization, although the opportunities may be offered in an effort to improve his performance.

Therefore, social exchange theory (Thibaut & Kelley, 1959) and empirical research on POS and PSS suggest that the impact support variables will have on willingness to use SDLP's is positive. As a result, higher levels of support will lead to higher levels of willingness to use SDLP's and lower levels of support will lead to lower levels of SDLP's.

$H2_A$: Perceived organizational support for induced SDLP's will positively impact salesperson willingness to use induced SDLP's.

$H2_B$: Perceived organizational support for synergistic SDLP's will positively impact salesperson willingness to use synergistic SDLP's.

$H3_A$: Perceived supervisor support for induced SDLP's will positively impact salesperson willingness to use induced SDLP's.

$H3_B$: Perceived supervisor support for synergistic SDLP's will positively impact salesperson willingness to use synergistic SDLP's.

If the support constructs have no impact on willingness to use SDLP's, then the null case will be supported. This is presented below.

$H2_{A0}$: Perceived organizational support for induced SDLP's will not impact salesperson willingness to use induced SDLP's.

$H2_{B0}$: Perceived organizational support for synergistic SDLP's will not impact salesperson willingness to use synergistic SDLP's.

$H3_{A0}$: Perceived supervisor support for induced SDLP's will not impact salesperson willingness to use induced SDLP's.

$H3_{B0:}$ Perceived supervisor support for synergistic SDLP's will not impact salesperson willingness to use synergistic SDLP's.

Conclusion. This section presented empirical research regarding several antecedents (POS for induced SDLP's, PSS for induced SDLP's, POS for synergistic

SDLP's, and PSS for synergistic SDLP's) of willingness to use induced and synergistic SDLP's. All constructs presented were predicted to have a positive impact on willingness to use SDLP's such that higher levels of the antecedents would lead to higher levels of willingness. The same is true for lower levels.

Use of SDLP's

This section seeks to establish a link between willingness to use SDLP's and the application or use of SDLP's. A review of the literature regarding variables related to use of SDLP's is presented, followed by an overview of how use of SDLP's is conceptually constructed for this study. Finally, hypotheses are presented within the discussion of each construct relationship.

In previous research, use of SDLP's or use of SDL is conceptualized using Tough's (1967) interview schedule. In this way, questions are presented regarding the number of hours over the previous six months learning projects were used to determine whether use of learning projects has occurred. According to Tough (1979), engaging in a learning episode for at least seven hours in the previous six-month period is considered a learning project. Seven hours constitutes one typical workday and six months captures intensity. Therefore, if an individual uses SDLP's to the extent to which it adds up to a workday over the previous six months, then that person is described as using SDL.

Research on the use of SDL as it relates to the previously used indicators of SDL, such as the self-directed learning readiness scale, Oddi's (1984) continuing learning inventory, and the Barlett-Kotlrik (1999) inventory of self-learning, may provide justification for the indicator of SDL use in this study, willingness to use SDLP's,

because there is enough similarity to form a basis of comparison. Since a measure for the construct of willingness does not currently exist, justification of its use in this research to form the basis of scales for SDLP studies is very important. An indicator for this research is defined as a variable that predicts likelihood, motivation, willingness, or capacity to use SDL.

The SDL literature provides several "indicators" of SDL. However, inconsistencies exist between indicators of SDL (OCLI, SDLRS, and SDL competency) and measures of actual use of SDL. For example, Oddi's (1984) continuous learning inventory does not form a consistent or strong link to use of SDLP's (West & Bentley, 1991). An analysis of this limited previous research will provide clarity to the proximity in which previous research has come to making a solid link between SDL and use of SDL. It is important to remember that it is useful to have an indicator measure of SDL since it may be necessary to evaluate an individual's likelihood of using SDL if measuring the application of it is impractical. Such is the case when there are limited organizational resources in which only one tool may be used to collect data. In choosing an indicator of SDL, clearly it is important to find one that is most closely correlated to use of SDL among the population of interest. The following section will review various indicators of SDL including OCLI (Oddi, 1984), SDL goal setting (Lock & Latham, 1990), self-directed learning competency (SDLC) (Savoy, 2004), and the self-directed learning readiness scale (Guglielmino, 1977).

Indicators of SDL and Use of Projects

In the limited previous research on the link between SDL indicators and use of SDL, the OCLI (Oddi, 1984) demonstrated a very low correlation to actual use of SDLP's. In a study to determine the relationships between various SDL indicator scales such as the OCLI, SDLRS, and continuing education participation, West and Bentley (1991) collected data from 648 teachers in the U.S. The average age was 41 years old, and average tenure on the job was 12.6 years. The sample consisted of mostly white (88% Caucasian) females (21% male). The 1986 24-item, 7-point OCLI (Oddi, 1984) was used in the investigation. They found gender differences in the SDLRS and the OCLI. They also found a very low correlation (.07) between the OCLI and the frequency of the use of SDL. In other words, the study suggests there was little correlation, though the continuous learning inventory intended to predict SDL tendency (OCLI) and actual application of SDLP's. Therefore, it suggests that the inventory presented by OCLI is not a good predictor of how frequently teachers will use a learning project though it must be noted that the correlation, although low, was positive.

Self-directed learning goal setting has also been implemented as an indicator of SDL. Yet, the link between SDL goal setting and number of hours spent using SDL is weakly positively correlated at $r = .05$ (Savoy 2004). In Savoy's (2004) U.S. study, 64 unionized metal workers who needed to learn additional skills to operate computerized machinery were sampled. Lock and Latham's (1990) measure of SDL goal setting was administered to the sample. Self-directed learning goal setting had a mean of 87.89 with a standard deviation of 9.98 and an alpha reliability of $\alpha = .69$. SDL goal setting was weakly correlated to the number of SDL activities used ($r = .05$) and the number of hours

in the past 12 months using SDL (r = .02). This suggests that SDL goal setting alone is not a good predictor of use of SDL.

To overcome this obstacle, Savoy (2004) used SDL goal setting as one of many measures of SDL to determine competency, an indicator of SDL. He suggested that quantifiable knowledge and skills are required of self-directed learners. He posited that those individuals high in quantifiable knowledge and skill, along with a positive attitude toward SDL, were SDL competent. Some measures of SDL competency include cognitive ability, the big-five personality factors, and job knowledge. The link between SDL competency and use of SDL in terms of number of hours spent in the previous 12 months was low and negative (r = -.03). This low negative result may be due to the type of workers chosen for the sample since the sample used in the study involved metal workers whose job is to be consistent, not self-directed. Therefore, Savoy's (2004) SDL competency showed poor prediction of use of SDL.

Finally, one last indicator, readiness, presents the most promising results in demonstrating a link between SDL indicators and use of SDL as demonstrated by the SDLRS. The SDLRS (Guglielmino, 1977) was used to evaluate the relationship between readiness to use SDL and use of SDL by end users to determine whether there is a relationship between end users' readiness and their use of SDL (Savoy, 2004). The sample under investigation included 108 various job types in the Alaskan oil industry, broken down into command level end users, menu driven end users, and programming end users. The 58-item, 5-point SDLRS (Guglielmino, 1977) indicated SDL, while number of hours spent on projects in the previous six months and number of projects completed were used to assess use of SDL. Insignificant results were found between

SDLRS and the number of hours spent on SDLP's by programming end users, although significant results were found between all other groups on both SDL hours and the number of projects. The correlations between SDLRS and the number of hours in the past 12 months ranged from r = .56 to r = .66. The correlations between SDLRS and the number of projects completed correlated in a range between r = .42 and r = .61. Number of SDL resources used, such as magazines, newspapers, and other media outlets, correlated positively with SDLRS ranging from r = .38 to r = .54 among the three groups. Although SDLRS is the best indicator to use to establish a link between SDL and use of SDL, as suggested by this example, there are a few caveats to this conclusion. First, this is only one study. Second, a conflict of interest may exist for the data analysis as previously mentioned in the dissertation. Furthermore, this scale measures personal characteristics, which are predetermined and not subject to influence by an organization making it better used as a diagnostic tool for hiring selection rather than a tool to manage existing employees. Finally, the scale is not specific to salespeople. Alternatively, one item on the SDLRS may be related to motivation, which is the foundation for the willingness to use SDLP's indicator of SDL. The last facet of the SDLRS measures ability to use learning such as basic study skills. This overlaps to some extent with the salesperson's perception of having the ability to use a learning project. Therefore, the SDLRS may address an overlapping issue. Although the willingness scale will not capture basic ability in general for learning, it will capture the salesperson's perception of his ability to perform a specific learning endeavor. Therefore, the strong positive relationship between the SDLRS indicator and the use of SDL lends conceptual insight to draw the conclusion that willingness to use SDLP's will positively impact use of SDLP's.

Before stating the hypotheses, the construct, use of SDLP's, must be defined for this research. Contrary to previous research, SDLP's are measured uniquely in this research so that more specific results can be acquired that relate to salespeople. In this way, SDLP's are examined based on the specific type of learning endeavor, rather than all learning projects together. Use of induced SDLP's is defined as the amount of time (hours) and the number of occasions (frequency) spent on learning endeavors relating to fundamental skills and knowledge a salesperson must acquire in order to perform a specific job in his respective industry. Use of synergistic SDLP's is defined as the amount of time (hours) and the number of occasions (frequency) spent implementing learning endeavors which the salesperson undertakes to improve his performance, but are not mandated by the organization although the organization provides the learning opportunity.

The role of willingness. This research proposes that scale development of "willingness to use SDLP's" will accomplish the following. First, the SDLP's take into account various learning projects (induced, synergistic, voluntary, and scanning). Second, these projects have been associated with salespeople. Third, the willingness is characterized by expectancy theory, which can be prescriptive as it clearly identifies the reason for a salesperson's unwillingness to use SDLP's, thereby enabling the organization to target potential obstacles to employee use of SDLP's. For example, when it is determined that the salesperson has low outcome expectancy, the supervisor can coach and mentor the salesperson to show him that using the project will lead to a valued goal. When instrumentality is low, the sales supervisor and organization can help facilitate the learning process by providing training in SDL and self-regulation. If

valence is low, the sales manager can show support for learning projects by rewarding salespeople for using them. Finally, a scale that predicts salesperson motivation to use projects is expected to predict salesperson use based on expectancy theory (Vroom, 1964). Using this logic, if a salesperson is capable of doing a project, and that project is expected to lead to a certain goal which is important, willingness to use the project will be high and use of the project will, in turn, likely be high. Therefore, willingness to use SDLP's will likely positively impact use of SDLP's such that lower willingness to use SDLP's will lead to less use of SDLP's. Based on expectancy theory and previous empirical research regarding indicators of SDL and their relationship with willingness to use SDLP's, the following hypotheses are created:

$H4_A$: Willingness to use induced SDLP's will positively impact salesperson use of induced SDLP's.

$H4_B$: Willingness to use synergistic SDLP's will positively impact salesperson use of synergistic SDLP's.

The null forms of the hypotheses suggest that willingness to use SDLP's will have no impact on use of SDLP's. This is formally stated below:

$H4_{A0}$: Willingness to use induced SDLP's will not impact salesperson use of induced SDLP's.

$H4_{B0}$: Willingness to use synergistic SDLP's will not impact salesperson use of synergistic SDLP's.

Conclusions

This section provides previous empirical research investigating the link between indicators of SDL and use of SDL. Overall, limited previous research predicts a positive relationship between indicators of SDL and use of SDL. This same logic can be transferred to willingness to use SDLP's because willingness to use SDLP's is intended to indicate the likelihood or motivation of a salesperson to use SDLP's, the same factor that revealed positive correlation in the previous studies. Moreover, developing the willingness to use SDLP's scale with expectancy theory also supports the positive linkage, along with attitude behavior consistency theory and cognitive dissonance from the theory section. Therefore, willingness to use SDLP's is expected to positively impact use of SDLP's. Specifically, willingness to use induced SDLP's will positively impact use of induced, while willingness to use synergistic SDLP's will positively impact use of synergistic SDLP's.

Use of SDLP's and Performance

This section discusses the relationship between use of SDLP's and performance. First, performance is defined. Next, performance and learning are discussed as they relate to sales training research. Subsequently, limitations to sales training research are presented, followed by methods by which this research seeks to avoid such limitations. Then, SDL research on performance is presented explaining previous research linking use of SDL and performance. Finally, hypotheses are presented, followed by concluding remarks.

Performance

Performance, for the purposes of this dissertation, is defined as "the salesperson's value to the firm provided by the salesperson's past actions" (Leach, Liu, & Johnston, 2005).

Salesperson Training & Performance

In the sales training and learning literature, a strong link between learning/training and performance is not widely understood, specifically where it relates to learning orientation. For example, Sujan, Weitz, and Kumar (1994) took a dual approach to understanding salesperson performance. In their model, they hypothesized that learning goal orientation and performance goal orientation are positively related to salesperson performance, as depicted in Figure 2.1.

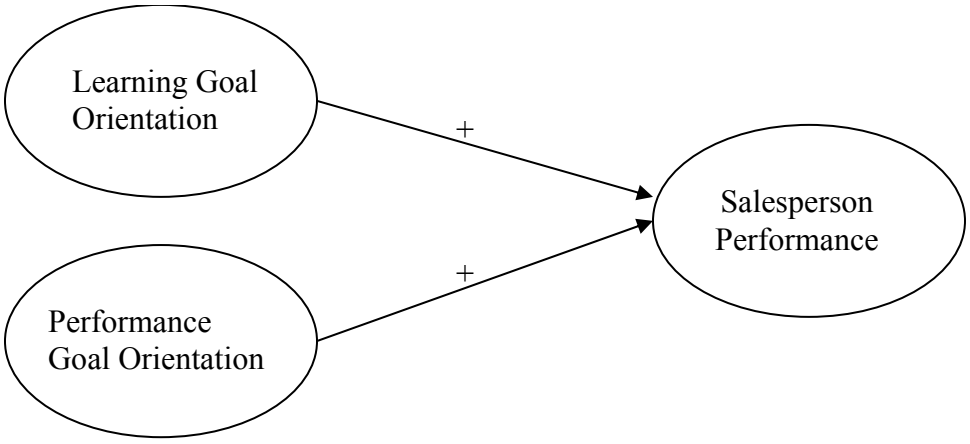

Figure 2.1 Learning Orientations and Performance Orientation Model (Sujan et al., 1994)

Limitations with sales performance and learning research. These types of learning and performance goals are conceptualized to result in positive performance outcomes. These are both approach forms of orientations, conceptualized based on motivation resulting in positive performance outcomes (Dweck & Leggett, 1988). One criticism to this model is that it is not consistent with typical achievement motivation models (Atkinson, 1964; McClelland, 1951) resulting in both positive and negative outcomes (Silver, Dwyer, & Alford, 2006). In this sense, approach orientations and avoidance orientations should be examined when investigating learning orientation research leading to salesperson performance. Accordingly, approach orientations are those in which salespeople attempt to achieve success and avoidance orientations are those in which salespeople attempt to avoid failure (Silver et al., 2006; Verbeke & Bagozzi, 2000). Moreover, researchers have had limited success in assessing similar findings because the performance orientation linkage is weak (Silver et al., 2006). To accommodate this motivational theory, Silver et al. (2006) proposed a model with a dichotomous path for performance orientation while maintaining the learning orientation variable in its original version. The new model is listed in Figure 2.2.

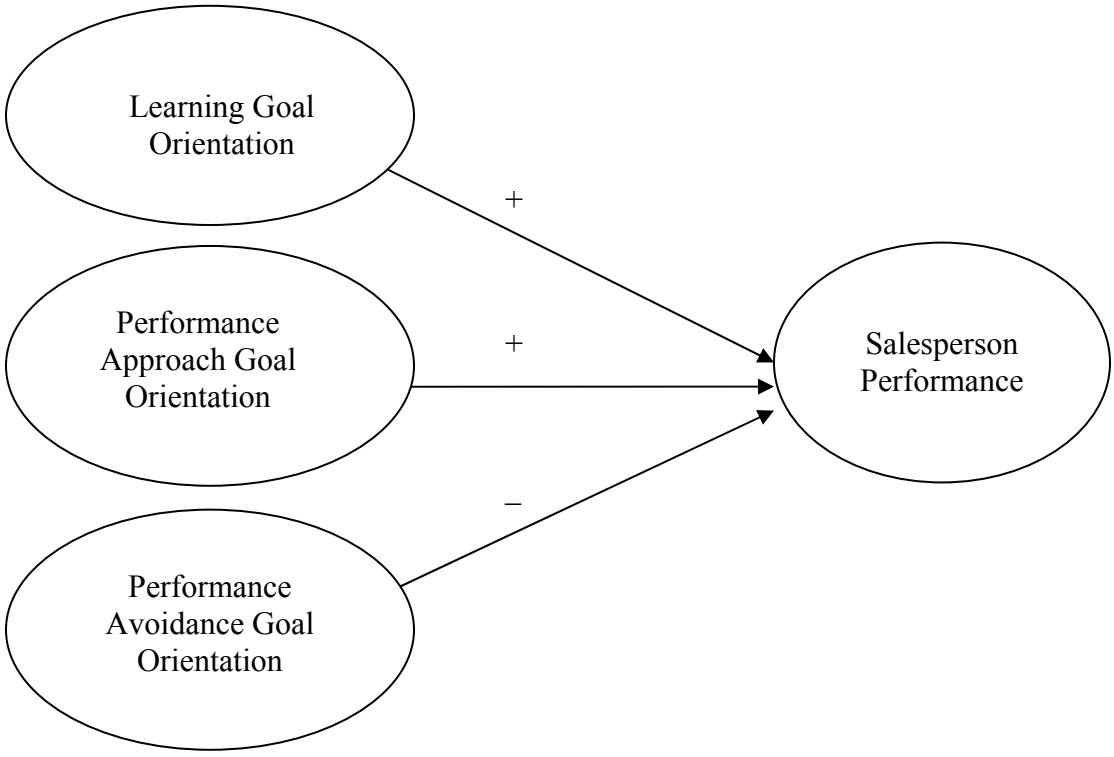

Figure 2.2 Classic Model of Learning and Performance Goal Orientations (Silver et al., 2006)

These two models are examples of how learning and performance are conceptualized in the sales literature. Although the debate about learning orientation and performance orientation continues, it is important to ask whether this is the appropriate method of examining learning in relation to performance. First, the model does not address current issues within sales training such as growth-related and meta knowledge, skills, and abilities. Second, the model suggests that individuals have a specific orientation toward learning and the aspect of training and development is ignored. Therefore, situational variables such as the environment, training, and support are not

expected to influence learning orientation. Since the constructs under investigation in those studies focus on orientation of learning and performance that are innate personal characteristics, and since organizations cannot train individuals to have different personalities or innate human traits, the research is not helpful as a tool in salesperson training. This poses a problem for organizations that have existing employees who do not fit the appropriate learning or performance orientation. Additionally, it does not address training and how salespeople learn. Instead it examines specific orientations that are conducive to performance. Although these models are useful in solving the debate about performance according to orientation, they provide limited assistance in moving the literature forward concerning salesperson training.

Avoiding limitations of previous sales research. It is necessary to develop models that accommodate the needs of both organizations and salespeople jointly; this research seeks to accomplish this. Specifically, these models address behaviors that salespeople can perform to help themselves in their jobs and in an individualized capacity rather than having managers require skills that individuals may or may not need. Additionally, these models (Figures 2.3 and 2.4) are useful tools for seasoned salespeople as well as newly employed ones. This is a benefit lacking in previous models, which are better suited to the organization as a tool for selecting worthy new salespeople. Therefore, these models allow researchers and organizations to influence salespeople to use SDLP's during training and after hire, rather than only during the selection process. This wider range of benefits selection would clearly provide greater utility for organizations. These models may facilitate the organization in understanding how to help salespeople learn. The models in this dissertation incorporate training that salespeople receive, types of learning

related to salespeople specifically, the support the organization and supervisor provide to salespeople to facilitate the learning, and the motivation to use methods of learning for the sake of improving performance. Finally, the models demonstrate how using different types of learning techniques and projects relates to levels of salesperson performance.

SDL and Performance

There is limited research regarding the correlation between use of SDL and performance. Previous literature focuses on measures of SDL such as OCLI, SDLRS, and learning activities. Additionally, none of the studies reported investigated salespeople or studied the types of SDLP's salespeople use. Nonetheless, these studies form the primary existing link between SDL and performance justifying their examination in this research.

Literature in adult education suggests that SDL is a better or more effective learning or training model than traditional classroom based methods. This is based on previous research examining the linkage between SDL and adult learner outcomes like grades and tests, typical indicators of performance. Previous research demonstrates that the correlation between SDL indicators (e.g., SDLRS and OCLI) and performance outcomes in academic settings (e.g., end of semester grades and tests) is positive (Bryan, 1995; Corbeil, 2003; Price, Kudrna, & Fegal, 1992; Reio, 2004). Corbeil (2003) examined 98 primarily white (71%) and female (67.4%) masters' students with an average age of 40. The correlation between the Oddi (1984) 26-item, 7-point OCLI and the final course grade on a scale from 0-100 was $r = .52$. Bryan (1995) examined 65 students enrolled in distance education using the SDLRS. The average age of the sample

was 38.6 and the average years of education were 12.606. The sample consisted of primarily white (89%) males (83%). The 58-item, 5-point SDLRS was used to measure SDL. Grades were measured on a 5-point scale, a (90-100), b (80-89), c (70-79), d (60-69) and f (0-59). The correlation between SDLRS and course grade was r = .304. Therefore, the link between SDL and academic performance was positive and fairly consistent.

One study tested three SDL scales in relation to job performance (Jude-York, 1991). The OCLI, SDLRS, and learning activities scales were used to explain the link between SDL and job performance. The results of the study demonstrate the relationship between organizational learning climate, self-directed learners, and performance in the job setting. More specifically, the study investigated the influence of the organizational learning climate within the organization on the relationship between self-directed learners and their performance at work. Significant positive correlations were found between all measures of SDL and workplace performances indicating that the more self-directed an individual was while learning, the better he would perform in the organization. The study was conducted in the household cleaning products industry in the U.S. The sample consisted of 194 individuals of which 72% were male and 13% white; average tenure was 7.17 years and the average age was 35.314. The 27-item, 7-point OCLI was used with a mean of 89, standard deviation of .47, and reliability of $\alpha = .83$. Guglielmino's (1977) SDLRSwas also used to examine the relationship between SDL and performance. In this study, the mean SDLRS was 230 with a standard deviation reported of .45, and reported reliability of $\alpha = .94$. Learning activities were defined as the extent to which each individual had participated in specific learning activities during the previous year

measured on a 5-point, 20-item scale. The reported mean was 62, with a standard deviation of .71, and reliability of $\alpha = .89$. Performance was measured using Broomfield-Day's (2000) manager rating form (MRF). The questionnaire provided a checklist of questions relating to observable behaviors, which the manager was expected to use to evaluate each employee. Some of the behaviors measured by the MRF were considered to be self-directed. The MRF is a 16-item, 5-point scale. Jude-York (1991) found a mean of 54, standard deviation of .68, and reliability of $\alpha = .93$. Correlation between SDL and job performance, as measured by the MRF, were all positive (OCLI $r = .24$, SDLRS $r = .32$, and learning activities $r = .18$). Therefore, according to this research, the link between SDL and job performance is positive.

Three additional studies examined the relationship between SDLRS and job performance (Bromfield-Day, 2000; Middlemiss, 1991; Yu ,1998). All of the research used the 58-item scale developed by Guglielmino (1977) in her dissertation. Bromfield-Day (2000) adapted the survey to have seven points rather than the original five points. Each of these found a positive relationship between the two variables. Middlemiss (1991) examined the relationship among SDL, job characteristics with job satisfaction using a sample of 115 various employees in the U.S. health care industry. The sample consisted of mostly women (93% female). The average age of the sample was 43 and the average education level was 17 years. The mean of SDLRS was 237, with a standard deviation of 23, and reliability of $\alpha = .95$. The measure of performance was the job diagnostic survey (JDS) by Hackman and Oldham (1974), which is a three-item, 7-point scale. The reported mean was 5.25 with a standard deviation of 1.1, and scale reliability of $\alpha = .68$. The correlation between SDLRS and performance was positive (.31).

Another study used the same scales to measure readiness and performance (Bromfield-Day, 2000). The purpose of the Bromfield-Day (2000) study was to determine what relationships exist among employees' self perceived readiness for SDL, employees' perception of the supervisors' management style, employee job satisfaction, and employee job performance. Significant relationships were found between job satisfaction, performance, and management styles with SDLRS scores. The sample used in the study consisted of employees in the food and nutrition department of a hospital in southern Mississippi. The mean for the SDLRS in this study was 214.6, and the correlation between SDL and job performance was positive ($r = .206$). Therefore, this presents another example in which the relationship between SDL and performance is positive.

A final study linking SDL and job performance used a self-reporting measure of performance (Yu, 1998). The purpose of this study was to determine the significance of readiness for SDL, perception of job performance, and demographic characteristics among high school principals serving public, private, and vocational high schools in Ohio. The sample was predominantly white (87.8%) and male (77.6%), with a mean age of 50. The average number of years of education reported for those participating in the study was 19. The mean of the SDLRS scale was 234.82 with a standard deviation of 14.15. Job performance was measured by self-assessment. Principals evaluated themselves in the areas of problem analysis, judgment, organizational ability, decisiveness, leadership, sensitivity, stress, tolerance, oral communication, and written communication. The 14-item, 5-point scale reported a mean of 4.31. No standard

deviation was reported. The correlation between job performance and SDLRS in this study is also positive (r = .288).

These studies demonstrate a promising link between various indicators of SDL and performance. Though similar to the studies linking SDLRS to use of SDLP's, there are a few caveats to this conclusion. These studies do not examine salespeople or the SDLP's used by them. This could mean that the relationship may be different in a sales context and with sales specific variables. Nonetheless, the evidence is useful because it provides empirical support for the relationship between SDL and performance, thereby providing a foundation on which to build hypothetical linkages for this research.

Although previous linkages between SDL and performance have their stipulations, one study is of particular importance as it relates specifically to salespeople. First, it examines a link between performance and learning in a self-directed manner. Second, it examines self-directed behaviors pertaining to salespeople. In this study, Frayne and Geringer (2000) provided self-management training to half of the sample of salespeople and used a social cognitive theoretical perspective to predict variances in performance. They predicted that providing training to salespeople with regard to self-management skills like goal setting and self assessment would help salespeople become more self-directed and would foster a greater sense of self efficacy that might get them to perform those same types of self-directed behaviors when left to work independently. This resulted in higher levels of performance for the treatment (self-managed) group. In fact, in an assessment 12 months after the initial study, the training group, on average, made 50% more calls, sold twice as many policies, generated 150% more in sales revenues, and scored much higher on performance appraisals than the control group.

Therefore, SDL can be distinctly linked to performance. It can be concluded that use of SDLP's would be expected to positively impact performance. In this way, greater use of SDLP's will result in higher performance and less use of SDLP's will lead to lower performance. It is from this logic that the following hypotheses are created:

$H5_A$: Use of induced SDLP's will positively impact salesperson performance.

$H5_B$: Use of synergistic SDLP's will positively impact salesperson performance.

The null form of these hypotheses suggests that use of SDLP's will not have any impact on salesperson performance.

$H5_{A0}$: Use of induced SDLP's will not impact salesperson performance.

$H5_{B0}$: Use of synergistic SDLP's will not impact salesperson performance.

Conclusion

This section introduced literature from sales and education to explore the link between learning and performance. The current sales literature fails to establish a strong link between learning and performance, which could be due to the focus on learning orientation. Literature of SDL provides several positive linkages between SDL and

performance. Therefore, it was concluded that use of SDLP's would positively impact performance.

Conclusions for the Literature Section

The literature section presented previous empirical research that resulted in the following conclusions relating to the relationships between the relevant variables. Self-regulation training, POS for SDLP's, and PSS for SDLP's is expected to positively impact willingness to use SDLP's. Higher levels of willingness to use SDLP's is expected to lead to higher levels of use of SDLP's, while lower levels of willingness to use SDLP's is expected to lead to lower levels of use of SDLP's. Finally, use of SDLP's is expected to positively impact performance, so that greater use of SDLP's will lead to higher levels of performance while less use of SDLP's will lead to lower levels of performance. Two models (Figures 2.3 and 2.4) were conceptualized, one relating to induced SDLP's and the other to synergistic SDLP's.

Definition of Terms

This section provides definitions to the key constructs used in the study. The definitions are provided in one cohesive table to give the reader a single resource to access definitions immediately. The constructs in the conceptual model are provided and operationally defined in Table 2.2. Following the definitions, hypotheses and conceptual models are presented.

Table 2.2 Definitions of Constructs Used in the Model

POS for SDLP's	Employee's global beliefs about how ready the organization is to help him in times of need and reward extra effort and hard work related to the use of a specific type of SDL activity.
POS for Induced SDLP's	Employee's global beliefs about how ready the organization is to help him in times of need and reward extra effort and hard work related to learning endeavors relating to fundamental skills and knowledge he must acquire in order to perform a specific job in his industry.
POS for Synergistic SDLP's	Employee's global beliefs about how ready the organization is to help him in times of need and reward extra effort and hard work related to learning endeavors undertaken to improve his performance which are not mandated by the organization, although the organization provides the learning opportunity.
PSS for SDLP's	Employee's global beliefs about how ready his supervisor is to help in times of need and reward him for extra effort and hard work related to the use of a specific type of SDL activity.
PSS for Induced SDLP's	Employee's global beliefs about how ready his supervisor is to help in times of need and reward him for extra effort and hard work related to learning fundamental skills and knowledge he must acquire in order to perform a specific job in his industry.
PSS for Synergistic SDLP's	Employee's global beliefs about how ready his supervisor is to help in times of need and reward him for extra effort and hard work related to learning endeavors he undertakes to improve his performance which are not mandated by the organization, although the organization provides the learning opportunity.
Self-Regulation Training	Training the employee has received related to: 1) setting clear, specific goals that are challenging, 2) understanding and planning to overcome obstacles, and 3) self-monitoring and self-reinforcement methods used for motivation.
Willingness to Use SDLP's	Employee's level of agreeableness or motivation to use one, some, or all of the four different types of learning projects (induced, synergistic, voluntary, and scanning). Motivation to use learning projects comes from the employee's valence of the outcome of the learning project, such that he cares or finds the outcome valuable, instrumentality that using the learning project will lead to that outcome, and expectancy that he can perform that learning activity.
Willingness to Use Induced SDLP's	Salesperson's valence, instrumentality, and expectancy outcome for learning endeavors relating to fundamental skills and knowledge he must acquire in order to perform a specific job in his industry.

Table 2.2 Definitions of Constructs Used in the Model (Continued)

Construct	Definition
Willingness to Use Synergistic SDLP's	Salesperson's valence, instrumentality, and expectancy outcome for learning endeavors he undertakes to improve his performance, which are not mandated by the organization, although the organization provides the learning opportunity.
Use of SDLP's	Amount of time (hours) spent implementing a specific category of self-directed learning activities (induced, synergistic, voluntary, and scanning).
Use of Induced SDLP's	Amount of time (hours) spent implementing learning endeavors relating to fundamental skills and knowledge a salesperson must acquire in order to perform a specific job in his industry.
Use of Synergistic SDLP's	Amount of time (hours) spent implementing learning endeavors the salesperson undertakes to improve his performance which are not mandated by the organization, although the organization provides the learning opportunity.
Performance	The salesperson's value to the firm determined by his past actions.

List of Hypotheses

The following chart is a comprehensive list of all hypotheses in the models (Figure 2.3 and 2.4). The chart is provided so that the reader can easily reference each hypothesis as related to the comprehensive models listed in Figures 2.3 and 2.4.

Table 2.3 List of Hypotheses

H1A	Self-regulation training will positively impact salesperson level of willingness to use induced SDLP's.
H1B	Self-regulation training will positively impact salesperson level of willingness to use synergistic SDLP's.
H2A	Perceived organizational support for induced SDLP's will positively impact salesperson willingness to use induced SDLP's.
H2B	Perceived organizational support for synergistic SDLP's will positively impact salesperson willingness to use synergistic SDLP's.
H3A	Perceived supervisor support for induced SDLP's will positively impact salesperson willingness to use induced SDLP's.

Table 2.3 List of Hypotheses (Continued)

H3B	Perceived supervisor support for synergistic SDLP's will positively impact salesperson willingness to use synergistic SDLP's.
H4A	Willingness to use induced SDLP's will positively impact use of induced SDLP's.
H4B	Willingness to use synergistic SDLP's will positively impact use of synergistic SDLP's.
H5A	Use of induced SDLP's will have a positive impact on salesperson performance.
H5B	Use of synergistic SDLP's will have a positive impact on salesperson performance.

Models

Next is a presentation of the two models under investigation in the study with the hypothetical linkages previously discussed in the literature review. The first model examines specific constructs modified to include induced SDLP's, and the second model is related to synergistic learning projects. Following the model is a list of hypotheses presented throughout the chapter. Again, this will help the reader make the connection between the model and the relationships that are expected to exist between each of the constructs presented.

Two models are necessary for two reasons. First, learning projects are unique and distinct. Therefore, two models are included in the research to understand both induced and synergistic SDLP's. The research is designed to investigate induced and synergistic projects, but not voluntary and scanning projects. This is because the sample may not be suited for those types of projects. More qualitative research is necessary prior to developing scales for voluntary and scanning SDLP's and testing them in a model. This research is the first test of an SDL model in sales research. Thus, the main effects need to

be examined prior to examining covariances between learning projects and their related variables.

Second, at this point, it is not assumed that one project influences the other in terms of support and willingness. For instance, if a salesperson believes using a learning library (synergistic) to access information will be useful in enhancing performance and that he can do it, then that does not necessarily influence how willing he may be to participate in a completely different project such as certification attainment (induced). In another example, the supervisor's support for induced projects (e.g., earning continuing education hours as required by the industry) may not influence a salesperson's willingness to engage in a synergistic project (e.g., using company databases to find historical information). At this point, the interrelationships between the two models are outside of the scope of this study, but should probably be considered at a future time when more information is known about the constructs individually as they relate to sales. The models in Figures 2.3 and 2.4 are based on the literature review, theory, and discussion outlined in this chapter.

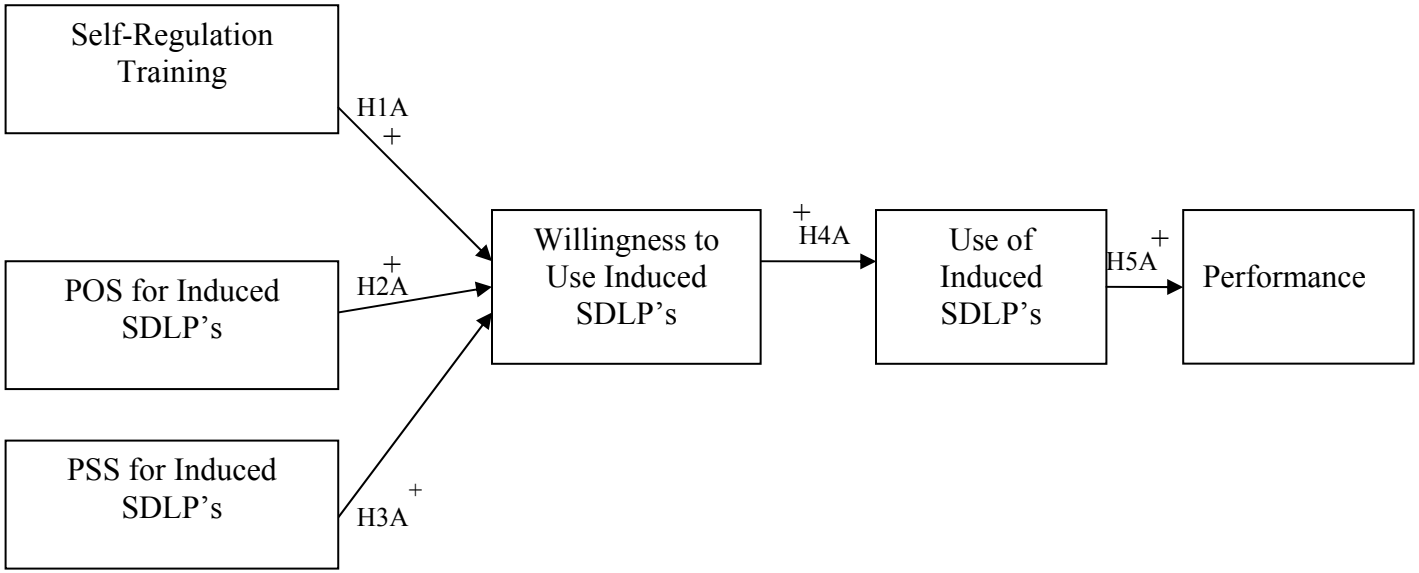

Figure 2.3 Model of Induced Self-Directed Learning for Salesperson Performance

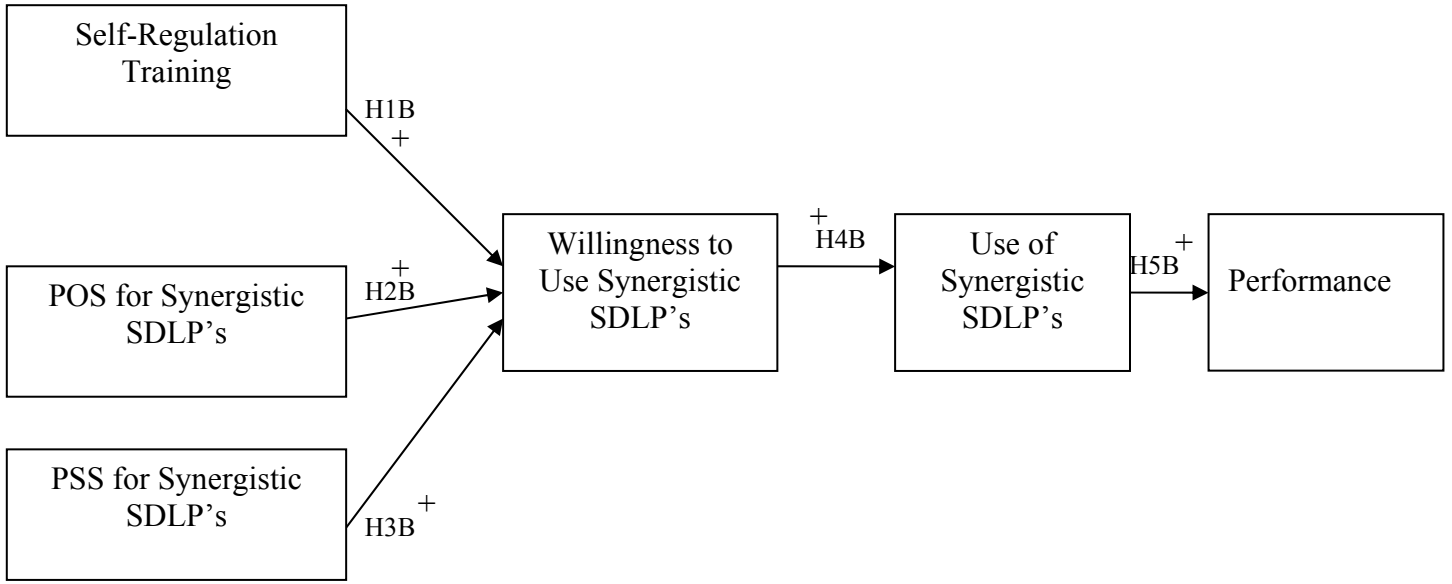

Figure 2.4 Model of Synergistic Self-Directed Learning for Salesperson Performance

Conclusion/Discussion

Theory, literature, and logic were used to determine appropriate scale development foundation, constructs for investigation, and to predict and explain the relationships among the variables in the model developed for this research project. Many theories (social exchange theory, social cognitive theory, cognitive dissonance, attitude behavior consistency, adult learning theory, and expectancy theory) and streams of research (adult education, psychology, marketing) were used to create a comprehensive view of two models (induced and synergistic) of SDL relating specifically to salespeople and the types of learning projects they use. The antecedents were carefully chosen based on a varied selection of theories from the fields of psychology and adult education. Not only does this compiled construct provide academic advantages over its predecessors, it offers the dual benefit of new practical applications available to the sales industry, particularly from the adaptable nature of the antecedents. This adaptability, which offers more than one advantage, is characterized by the fact that the antecedents are based on factors that can be moderated and controlled externally to the individual. This would provide organizations with an unprecedented opportunity to be actively involved in evaluating and promoting the willingness of employees to undertake a self-directed approach in which they would constantly strive to improve their work endeavors. A further extension of this opportunity is based on the appropriateness of the construct to edify new, as well as seasoned employees, and provide screening criteria for potential hires. Chapter Three explains the methodology proscribed to test these models, the scale development, and modification process.

CHAPTER THREE

METHODOLOGY

This chapter describes the methodology used to test induced and synergistic models of salesperson self-directedness presented in Chapter Two. This chapter is comprised of two major sections. First, the research setting, sample characteristics, demand characteristic, and reliabilities are described. Second, the measures and data collection procedure are explained, along with justification of the analytical techniques.

Research Setting and Sample Characteristics

Sample

The data for the study came from salespeople in the financial services industry such as mortgage, securities, and insurance salespeople. Collecting data from salespeople within this industry has many benefits. First, salespeople who sell financial services must take examinations and earn certifications to work in the industry. For salespeople to earn certifications, they must perform induced SDLP's (study materials for certification requirements). Second, the insurance industry utilizes historical databases to train employees, thereby providing a readily available resource for employees to use at their discretion in order to serve their customers more effectively; this is an example of a synergistic project. Consequently, testing models of both induced and synergistic SDLP's is viable with this sample. Third, salespeople in the insurance industry have a

variety of roles. The financial services sample will be comprised of salespeople who spend various amounts of time in the office. It is expected that salespeople who spend time only in the office, only outside of the office, and a mixture of both will comprise the sample. This provides the research with different types of boundary spanning roles and levels of organizational influence. Finally, the financial industry was selected for the type of sales it conducts. The financial industry provides sales for products that are intangible, technical, constantly changing, and related to service. These qualities affect the nature of the relationship between the customer and the salesperson, whereby the customer must completely depend on the salesperson's expertise since the customer cannot tangibly experience a product like insurance. For this reason, salespeople in this industry must not have lapses in their knowledge base and must constantly stay current with changes in the industry. Therefore, the nature of financial products makes the financial industry one in which performance in sales is clearly related to the amount of effort salespeople invest in knowledge of the industry. It is expected that this link will make the insurance industry an ideal testing ground for the introduction of SDL as a model for training and developing salespeople.

Investigating SDL in this Research

Self-directed learning was investigated in this research in the form of SDLP's. Only two (induced and synergistic) of the four learning projects were investigated in this dissertation for several reasons. Since the study investigates salespeople in the financial industry, it is expected that all salespeople had the opportunity to use both induced and synergistic projects. These individuals are required to take certification exams in order to

work in the industry satisfying the criteria for induced projects. Additionally, financial agencies provide salespeople with databases and other resources that may facilitate the salesperson in serving customers. Many of these resources are used at the discretion of the salesperson and are not mandatory. This meets the criteria of synergistic projects. With respect to voluntary and scanning projects, it is assumed that the majority of salespeople in the insurance industry will not use these projects. In fact, it is possible that only seasoned or outside salespeople use scanning projects, whereas all salespeople are expected use induced and synergistic projects. Research is necessary to understand how voluntary and scanning projects are used, but they are outside of the scope of this dissertation. Therefore, it is important to first understand projects that a majority of salespeople use in this industry before investigating a population (only seasoned salespeople) that is less generalizable.

Procedure

Pretest

Prior to final administration, the survey was pretested with a small sample that included salespeople in the financial services industry (25) including life insurance agents, securities dealers, and mortgage brokers. The pretest was used to assess the clarity of the instructions and individual scale items and to measure the time required to complete the survey. The results of the pretest indicate that the link to the survey was operational, the survey instructions and wording were comprehensible, the scale items were appropriate, and the average completion time was 15-25 minutes.

Research design

Salespeople were asked to participate in the study via email from the National Alliance of Insurance group. The survey design incorporated each of the constructs tested in the model. The survey format was administered through the electronic software program Qualtrics. The electronic survey was sent out to salespeople who are customers of the national insurance sales group.

Electronic survey software has many benefits. First, turnaround time is quick. In fact, usually half of surveys sent out are returned in the same day (Churchill & Iacobucci, 2005). Also, the electronic survey does not allow for missing data that may result from paper and pencil formats when respondents forget to answer a question. This is due to a function within the survey software that does not allow participants to move to the next page of questions until all questions are complete. The electronic survey is also beneficial because participant responses are transferred directly into a data analysis file preventing any data entry errors by the researcher. Although no missing data is due to skipped questions, dropout due to survey length and not applicable items resulted in 392 of 518 completed surveys.

Table 3.1 displays the demographic components of the sample. Of the completed surveys, 62.5% of participants were male while 37.5% were female. Most participants fell between the age ranges of 36 and 55. 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-$100,000 (44%). On average, the salespeople in the sample worked in sales for over 13 years (58.9%). Typically, participants had completed at least a four-year degree (55.1%).

Table 3.1 Demographic Statistics for the Sample

Demographic Factors	Category	Frequency	% of sample
Gender	Male	245	62.5
	Female	147	37.5
Age	18-25	11	2.8
	26-35	57	14.5
	36-45	104	26.5
	46-55	130	33.2
	56+	90	23
Tenure Position (months)	Less than 6	12	3.1
	6-12	20	5.1
	13-18	25	6.4
	19-23	7	1.8
	24-48	60	15.3
	+48	268	68.4
Income	Less than 50,000	86	21.9
	50,000-100,000	175	44.6
	101,000-150,000	66	16.8
	151,000-200,000	26	6.6
	+200,000	39	9.9
Years in Sales	Less than 1	7	1.8
	1-3	39	9.9
	4-6	42	10.7
	7-9	29	7.4
	10-12	42	10.7
	13+	231	58.9
Education Complete	High school	90	23
	2-year college	46	11.7
	4-year college	216	55.1
	Graduate degree	38	9.7

Demand characteristics

Demand characteristics are those features of the experimental situation that may affect the subjects' behavior. In particular, participants may have expectations about what they are required to do or have worked out what the experimenter "wants" to happen. In this way, participants may change their behavior or responses to be consistent with what they believe the experimenter desires. It is for this reason that questions were

carefully considered to ensure participants were unable to determine the purpose of the research. When participants filled out the questionnaires, there was a section at the end that allowed them to leave other relevant comments. The respondents typically viewed the survey as requesting information regarding general learning in the workplace, based on their comments.

Common method variance

Research is divided regarding the biasing effect on the relationship between variables that are measured with the same method, such as self-report surveys. This is an important topic to the research given that self-report was used as the data collection method. Common method variance, also known as monomethod bias, is the inflation of the relationship between two variables that are measured with the same method. Some researchers suggest that this inflation is a potential problem in research (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Others (Crampton & Wagner, 1994; Spector 1987, 1994, 2006) agree that the problem is overstated. Spector (2006) suggests that:

> "if we measure two or more variables with the same method, such as self-report, some of the observed correlations might be inflated due to shared biases…however, just because some variables share biases does not mean that all variables share biases."

Overall, Spector (2006) suggests that certain variables may share a common bias such as social desirability; however, the method alone is not sufficient to produce a

biasing effect. Therefore, to account for the method, self-report, and to provide evidence that common method variance is not artificially inflating the relationships between variables, a scale was included in the survey that should not relate to the performance variable. This is also known as the marker-variable technique. Lindell and Whitney (2001) proposed this technique to account for problems with a single-method research design such as the one in this study using self-report. The marker variable was specifically incorporated into the survey with the variables of interest. The marker variable was theoretically unrelated to performance. This way, common method variance is evaluated based on the correlation between the marker variable and the theoretically unrelated variable. Just as in Malhotra et al. (2006), the correlation between the marker variable and the unrelated construct indicates common method variance and is represented as $r_{M.}$ Given that the marker variable approach does not force a multi-method approach and provides a specific estimate of common method variance, a marker variable was applied in this research to account for common method variance.

The marker variable used in the study was fashion consciousness. Fashion consciousness is the extent to which an individual places importance on being fashionably dressed (Lumpkin & Darden, 1982; Malhotra, Kim, & Patil, 2006; Wells & Tigert, 1971). Fashion consciousness does not theoretically link to salesperson performance and, therefore, was not expected to vary with the level of performance. Since the two variables are unrelated, the extent to which they correlate is a measure of common method variance or bias from using self-report measurement. In Appendix 4, a correlation table is presented providing evidence that there is no significant correlation between fashion consciousness and either measure of performance. The correlation

matrix was created by comparing the mean score for each scale. Consequently, the measurement itself, or self-report, is not expected to inflate the relationships between the variables in the study, specifically performance. The scale items for fashion consciousness are located in Appendix 1.

Measurement

This section presents an overview of the measures used in the study. Two scales measuring performance were taken from the extant sales literature. Measures for POS/PSS for induced and synergistic SDLP's and use of induced and synergistic SDLP's were modified from their original form. Two different scales of willingness to use induced and synergistic SDLP's were created; one is based on expectancy theory and the other by asking how willing the participant was to use a specific type of SDLP (induced or synergistic). Table 3.2 reports the original authors of the scales, the number of items, and any modifications made to the scale. Specific examples of these modifications and additions are included in Appendix 1. Appendix 2 is the survey instrument. Appendix 3 presents each scale and its relative reliabilities and loadings from the factor analysis. Appendix 4 demonstrates the means, standard deviations, and correlations among the constructs.

Instruments

Limitations in self-directed learning measurement

Several limitations exist in SDL measurement. First, SDL measured as a whole does not differentiate between work and leisure types of SDL. Second, SDL originated in

the field of adult education. Consequently, the means of measurement that are currently in use were adapted specifically for that field with only a few applications to the business field. Clardy (2000) was the first to create a classification system for SDLP's applicable to business by conducting in-depth interviews as an extension of Tough's (1967) interview process. Prior to this study, no scales have been created to measure SDLP's in a quantitative manner. Thus, quantitative measures were needed.

Instrument development process

The overall goal in the instrument development process was to create valid and reliable scales to test the constructs within the model. There were scales relevant to the models in the study, self-regulation training, and two measures of performance. Other scales (self-regulation training, perceived organizational support for induced and synergistic SDLP's, perceived supervisory support for induced and synergistic SDLP's, use of induced and synergistic SDLP's, and one measure of performance) required modification to be consistent with conceptual definitions of the constructs and to relate to the sales population. Finally, two scales were created for the study: willingness to use induced SDLP's and willingness to use synergistic SDLP's. Table 3.2 displays the measures used in the study with their reliabilities.

Table 3.2 Measurement Scales and Relevant Modifications

Construct	Author	Description	Modification
Self-Regulation Training	Leach et al. 2005 *JPSSM*	5-item, 7-point Likert type scale	None
Performance 1	Leach et al. 2005 *JPSSM*	3-item, 6-point scale	Add 1 question
Performance 2	Behrman and Perreault 1984 *JM*	Seven-item, 11-point scale	None
POS	Eisenberger et al. 1986 JAP	36-item, 7-point Likert type scale	SDLP's and shortened version
PSS	Kottke & Sharafinski 1988 Ed. & Psych. Measurement	36 item, 7-point Likert type scale	SDLP's and shortened version
Use of SDLP's	Boyer 2008	5 items each categorical	New
Willingness to use SDLP's	Boyer 2008	13 and 9-item, 7-point induced and synergistic	New expectancy
Willingness to use SDLP's	Boyer 2008	5-item, 7-point induced and synergistic	new

Instrument development process for new and modified measures

This section discusses the process of developing new measures and modifying current measures for the research. This process is broken up into six steps. Step One is a review of the literature relating to those constructs. Step Two uses in-depth interviews to generate measurement items. Step Three generates and refines scale items. Step Four is a preliminary test of the scales. Step Five is item purification. And finally, Step Six is an analysis of the pilot study data after factor analyzing the data. Each step is explained in further detail below.

Chapter Two provided the review of the literature. Each construct was assessed and conceptually defined using resources from the literature. Then, scales that were deemed acceptable were evaluated using the criteria listed above. Finally, a decision was made determining evaluative fit and whether further investigation was necessary in the literature. Since willingness to use SDLP's did not exist in the appropriate form in the literature, a new scale was developed. The following scales, self-regulation training, POS, PSS, use of SDL, and one scale of performance, did not satisfy the evaluative criteria. Thus, modifications of the existing scales were necessary. The new modified scales are self-regulation training, POS for induced SDLP's, POS for synergistic SDLP's, PSS for induced SDLP's, PSS for synergistic SDLP's, use of synergistic SDLP's, use of induced SDLP's, and performance.

A review of the literature confirmed that willingness is conceptualized as a form of motivation. Therefore, a motivation theory was the most useful form of conceptualizing a willingness scale. The theory that appeared most appropriate and explanatory in the literature was expectancy theory by Vroom (1964). Related to this research, this is made up of three precepts: 1) a salesperson's ability to use a learning project, 2) belief that the project will meet a specific outcome, and 3) the perception that the outcome is important.

During the in-depth interview process, the researcher examined salespeople within the financial industry, which encompassed individuals in the insurance industry. Individuals participating earned certifications to work in the industry and participated in on-the-job training. Following research by Clardy (2000), during each interview session, participants were asked to write down activities related to specific learning projects that

were defined for them. A few examples were given for the participants to use as a reference.

Participants were asked to identify activities related to specific learning projects. The researcher discussed the activities with the participant, requesting clarification and more detailed information by asking questions such as "how are these items you list different" and "what do you mean by (specific verbiage used to describe activity)?" This helped the researcher to understand the differences between the constructs and move on to Step Three.

Additionally, the researcher asked participants whether their willingness to perform an activity was based on the three principles from expectancy theory. Participants agreed that when they feel they can do a project, that project will lead to a specific outcome, and the specific outcome is important, they would be willing to do that project. This helps confirm the researcher's assumption that expectancy theory may provide a solid foundation for the conceptualization and items used to measure willingness to use SDLP's. Moreover, items that assess willingness by asking participants how willing they are to use a SDLP were included as a comparison for the expectancy theory driven measure.

The item pool was generated using previous scales, the literature search, and data from the in-depth interviews. Each item and scale was assessed for substantive and content validity when adding it to the item pool. Once scale items were created, they were refined for interpretability of the sample. The researcher examined items to determine whether questions would make sense to those in the population and whether modification would harm validity. If questions were not interpretable to the population,

then the study would be corrupt. Therefore, readability for the sample was vitally important. The researcher and committee members examined questions several times prior to running preliminary tests of the scales in Step Four.

The entire survey, in the form of 20 pages, including constructs for all four different types of learning projects, were pretested on participants from the larger population of the financial industry including life insurance agents, managers in the insurance agency, and mortgage brokers. The pretests were used to determine the appropriateness of the length, format, and questions.

Several versions of the questionnaire were pretested. First, the twenty-page version that included all four types of learning projects was tested. Participants took, on average, at least one and a half hours filling out the survey and another two to three hours discussing the survey with the researcher. Overall, it was determined that the survey should be broken down to less than half or even a quarter of the number of pages. In addition, several items were modified to enhance interpretability for the reader. Finally, a five-page version of the original survey was created that used page space more efficiently, and only included analysis of two of the types of learning projects: induced and synergistic. Managers of the salespeople, the researcher, and committee members decided this version was more realistic and each item was interpretable to the population. This lead to Step Five, the pilot study.

The data was purified through factor analysis to filter the items into the most useful and applicable measures for the study. Factor analysis of the scales is included in Appendix 3 and described below in further detail in each of the variables sections of this chapter. First, exploratory factor analysis was used to calculate factor loadings. For all

of the constructs, with the exception of willingness to use induced SDLP's and willingness to use synergistic SDLP's stemming from expectancy theory, principal axis factoring was used as the extraction method due to its unidimensionality. The willingness constructs rooted in expectancy theory were multidimensional and used the maximum likelihood extraction method with varimax rotation to determine factor loadings. These results can be found in Appendix 3. The factor loadings represent the correlations of each scale item and the underlying construct, and can be used to purify the constructs' measurement items (Hair, Bush, & Ortinau, 1998). The factor loading used for scale elimination was set to .4, which is .1 above that of previous recommendations from Hair et al. (1998). As demonstrated in Appendix 3, all of the scale items had factor loadings above .4 except the willingness to use induced SDLP's based on expectancy theory, which only had one item that did not meet this criterion.

Second, Cronbach's α was used to assess the reliabilities of each of the scales. Reliabilities were calculated for self-regulation training ($\alpha = .97$), performance 1 ($\alpha = .87$), performance 2 ($\alpha = .94$), POS for induced SDLP's ($\alpha = .93$), PSS for induced SDLP's ($\alpha = .95$), POS for synergistic SDLP's ($\alpha = .96$), PSS for synergistic SDLP's ($\alpha = .96$), willingness to use induced SDLP's with expectancy theory ($\alpha = .91$), willingness to use synergistic SDLP's with expectancy theory ($\alpha = .92$), willingness to use induced SDLP's ($\alpha = .94$), willingness to use synergistic SDLP's ($\alpha = .93$), use of induced SDLP's ($\alpha = .73$), and use of synergistic SDLP's ($\alpha = .81$). All measures fall within the acceptable range for Cronbach's alpha reliability of .7 and above (Nunnally & Bernstein, 1994). Reliability for the instruments self-regulation training and two

measures of performance are consistent with the literature (Behrman & Perreault, 1994; Leach et al., 2005).

To analyze the hypothesized relationships, several structural equation models were used. Even though some latent variables had more than one scale to measure the construct, only the most reliable measures for the constructs were used in the measurement models. This is described in detail in Chapter 4.

Evaluative criteria for assessing measurement scales

Each of the measurement scales were examined using evaluative criteria to determine whether they were a good fit for the study or required modification. First, the scales were assessed for consistency with the conceptual definition of the construct. Then, each scale was assessed based on statistical and psychometric adequacy. Table 3.3 illustrates these forms of evaluative criteria and how they are assessed in the dissertation.

Table 3.3 Evaluative Criteria

Evaluative Criteria	Definition	How Tested in Dissertation
Content/Face Validity	The extent to which the construct is represented by the items in the scale on face value.	Examination of scale items and conceptual definition by researcher and respondents.
Substantive Validity	Theoretical linkage between the latent variable and the scale items.	Examination of scale items by researcher after pretest and scale item deletions.
Unidimensionality	The extent to which the scale items load on only one factor of the latent variable.	Confirmatory factor analysis.
Reliability	Internal consistency of the scale.	Cronbach's alpha.
Convergent Validity	The degree to which the latent variable (scale) correlates to other items (scales) designed to measure the same latent variable.	Confirmatory factor analysis, additional scales are measured for performance.
Discriminant Validity	The degree to which the measure (scale) of the latent variable is different from other scales that measure different latent variables.	Confirmatory factor analysis.

In determining consistency with the conceptual definition, the scale had to meet both content and substantive validity. Content validity, also known as face validity, assesses whether the scale items appear to be consistent with the definition of each construct. For each scale, the researcher compared the construct definition to the items in the scale and either confirmed or denied that the two were consistent. Additionally, individuals from the population were provided with the definitions and asked whether the items used were consistent with the definitions. When inconsistencies were found, the scale was modified, a different scale was uncovered from the literature, or a new scale was created to be consistent with each definition.

While content validity examines consistency between items in the scale with the conceptual definition, substantive validity addresses the linkage between the items and

the construct at hand. In this sense, when content validity exists, substantial validity exists. Therefore, it was vitally important for the researcher to keep in mind theoretical and conceptual inclusion of each scale item, even if statistical analysis recommended dropping items to maintain validity of the construct. When items were dropped, a second check for content validity of the construct was employed to ensure that the construct maintained consistency with the conceptual definition after any deletions.

Whether the scales were pre-existing, new to the literature, or newly modified, they all were evaluated based on statistical standards. These standards include unidimensionality, reliability, and construct validity. Some scales were multidimensional. This means that more than one unidimensional scale makes up the overall scale. Although this may be useful for some research, each scale must be taken in its own unidimensional form in order to assess the reliability of the construct (Gerbing & Anderson, 1988). Each scale proposed in this study is assumed to be unidimensional with the exception of the two scales measuring willingness to use SDLP's based on expectancy theory. In this case, the scales had three dimensions related to valence, instrumentality, and expectancy. The willingness scales were broken down into three subscales and unidimensionality was assessed. In this dissertation, confirmatory factor analysis was used to determine unidimensionality. To assess whether unidimensionality had been established through confirmatory factor analysis, criteria such as the overall measurement model and components of the measurement model were examined (Steenkamp &VanTrijp, 1991). These components include standardized residuals and modification indices, direction of the parameter estimates, and significance of the

parameter estimates. When scales are considered unidimensional, tests for reliability began.

To assess reliability of the scales, a measure of internal consistency using Cronbach's alpha was obtained. To assess internal consistency using Cronbach's alpha, at least three items in a scale were required. Therefore, two items would not yield accurate reliability measurements (Dunn, Seaker, & Waller, 1994). Typically, scales with an alpha reliability over .7 are considered reliable (Nunnally, 1978). Scores lower than .7 may not be internally consistent meaning that the scale items may not be the most appropriate indicators of the construct.

There are some limitations to using Cronbach's alpha as a measure of reliability in addition to the parameters presented above. First, the coefficient alpha can become artificially inflated when increasing the number of items in the scale (Churchill & Peter, 1984; Dunn et al., 1994). The researcher must avoid adding items to reach a specific level of reliability for the scale as this may create problems for construct and content validity. Alternatively, coefficient alpha may underestimate the reliability of the scale (Bollen, 1989; Steenkamp & Van Trijp, 1991). Although both problems pose many threats to the research, the former issue of inflating the validity is most severe. Conversely, decreasing validity estimates may create inaccurate unfavorable evaluations of the scale. Increasing the validity artificially may create inaccurate favorable evaluations of the scale. Finally, Cronbach's alpha is only appropriate with a single factor or unidimensional construct (Cotton, Campbell, & Malone, 1957). Therefore, it is unclear how alpha is affected by dimensionality (Cortina, 1993). This poses an issue for the measure of willingness to use SDLP's given the multidimensional scale derived from

expectancy theory. Thus, the scales were broken down into three smaller unidimensional scales.

Construct validity was determined by assessing both convergent and divergent validity. Overall, construct validity determined the extent to which the scale measures what it intends to measure (Churchill, 1979; Churchill & Surprenant, 1982). Convergent validity assessed the degree to which the scale correlated to other scales designed to test the same construct (Dunn et al., 1994). Discriminant validity assessed the degree to which the scale measured only the construct that it intended to measure and not others. This was assessed through confirmatory factor analysis. This can be established by examining factor loadings on scale items. When scale items load together at a specific magnitude for the construct, convergent validity is achieved. To test for discriminant validity, items from one scale were analyzed along with items from another scale. In this way, scale items for one construct should not load high with other constructs tested in the model. Low correlations between constructs indicate discriminant validity (Gerbing &Anderson, 1988). This is displayed in Appendix 4.

Therefore, following Gerbing and Anderson (1988), confirmatory factor analysis (CFA) was administered to investigate the validity of each construct used with attention given to the scales that were developed. Items that load weakly on the construct were eliminated. The CFA revealed an excellent fit between the model and the data set when the items loaded on the hypothesized construct significantly and the findings for convergent and discriminant validity were acceptable. According to Bagozzi, Yi, and Phillips (1991), correlations between constructs should be significantly different from one. In terms of construct level discriminant validity for the model, all correlations

between constructs were significantly less than one. For convergent validity not using a comparison scale, the standardized loadings of each item must be greater than .5 (Fornell & Larcker, 1981). This information is displayed in Appendix 3.

Evaluation of existing scales

Two popular measures of performance are widely used in the sales training and performance literature (Behrman & Perreault, 1984; Leach et al., 2005). Performance by Leach et al. (2005) is a 6-point, 3-item scale measuring salesperson self-report of performance regarding attaining high profit customers, average goal attainment, and last performance evaluation. A sample of 411 salespeople in the insurance underwriting industry was used in their study and this scale received an alpha of $\alpha = .66$. The scale was modified for the current study to include one additional item and rate performance compared to peers. The additional question was, "how do you rate compared to your peers at performing your job well?" The reliability reported for the data collected in the current study was higher at $\alpha = .79$. These items are listed in Appendix 1. Behrman and Perreault's (1984) self-assessed measure rates performance compared to peers on an 11-point, 7-item scale on items relating to market share, profit, sales dollars, sales targets, and meeting goals. These items are listed in Appendix 1. Behrman and Perreault (1984) used a holdout sample to assess reliability over $\alpha = .75$. The scale was later adapted by Sujan et al. (1994) and received a reliability of $\alpha = .91$. Both measures of performance fell within the acceptable alpha range over .7. The factor analysis in Appendix 3 displays factor loadings for both measures. The evaluative criteria assessment for each of the scales is included in Table 3.4.

Table 3.4 Evaluation of Performance Measures

Performance	Leach et al. 2005	3-item, 6-point scale	Not clear to reader, low reliability	Acceptable
Performance	Behrman and Perreault (1984)	7-item, 11-point scale	Acceptable	Acceptable

Self-regulation training was measured by Leach et al. (2005) and defined as "sales training that intends to improve the self-regulation capabilities of salespeople" (Leach et al., 2005). This scale appears consistent with the conceptual definition for self-regulation training in this study, although more items on goal setting would better represent the construct. Leach et al. (2005) used a 5-item 7-point measure of self-regulation training. These items are included in Appendix 1. Leach et al. (2005) examined salespeople in the insurance industry, specifically, life insurance salespeople. Four hundred eleven usable questionnaires were returned via a mailed survey instrument. On average, salespeople had 14 years of experience, held both consumer and business accounts, and were 79% male. Forty-five percent of the population reported having training in self-regulation. The scale reported an alpha reliability of $\alpha = .92$. This study used a modified version of the scale, adding five items, in Appendix 1.

Table 3.5 Evaluation of Self-Regulation Training

Construct	Author	Description	Content and Substantive Validity	Psychometric Properties
Self-regulation training	Leach et al. 2005	5-item, 7-point Likert type scale	Acceptable, may want to add items	Acceptable

Perceived organizational support and perceived supervisor support reflect the employee's perception of how valued he is by the organization or the supervisor. Stemming from the psychology literature, these scales are not specific to salespeople and not specifically related to the types of learning projects they employ. Eisenberger et al. (1986) created the perceived organizational support (POS) scale and it has received a great deal of research attention (Eisenberger et al., 2001; Eisenberger et al., 2002; Shore & Tetrick, 1991; Settoon, Bennett, & Liden, 1996). The scale was created to understand the employee's view of the organization's commitment to them. Eisenberger et al. (1986) found underlying patterns of employee agreement with items relating to whether the organization appreciated employee work efforts and would treat employees favorably or unfavorably in different circumstances. The original 36-item scale (Eisenberger et al., 1986) had a strong internal reliability, Cronbach's alpha of $\alpha = .93$, and demonstrated unidimensionality. Shorter versions were created due to this high internal consistency (Armeli, Eisenberger, Fasolo, & Lynch, 1998; Eisenberger, Fasolo, & Davis-LaMastro, 1990; Lynch et al., 1999; Shore & Tetrick, 1991; Shore & Wayne, 1993). POS has been found to be related to effort-reward expectancies (Eisenberger et al., 1990), job satisfaction (Shore & Tetrick, 1991) and organizational commitment (Eisenberger et al., 1990; Rhoades, Eisenberger, & Armeli, 2001; Settoon, Bennett, & Liden, 1996; Shore & Tetrick, 1991). The majority of studies use the 17-item short form using only the highest loading items in the POS scale (Eiseberger et al., 1986). A shorter form was created using high-loading items from the original POS scale. Rhoades and Eisenberger (2002) justify this usage by saying:

> "Because the original scale is unidimensional and has high internal reliability, the use of the shorter version does not appear problematic. Prudence nevertheless dictates that both facets of the definition of POS (valuation of employees' contribution and care about employees' well-being) be represented in short versions of the questionnaire."

Items from the Eisenberger et al. (1986) original scale that should be considered when using the shortened 8-item version include:

1. The organization values my contribution to its well-being.
3. The organization fails to appreciate any extra effort from me. (R)
7. The organization would ignore any complaint from me. (R)
9. The organization really cares about my well-being.
17. Even if I did the best job possible, the organization would fail to notice. (R)
21. The organization cares about my general satisfaction at work.
23. The organization shows very little concern for me. (R)
27. The organization takes pride in my accomplishments at work.

The scale has been modified to measure similar variables. For instance, the original 36 items were modified to measure supervisor support by changing the word "organization" to "supervisor" (Kottke & Sharafinski, 1988). The modification worked very well. In fact, the scale had an internal consistency Cronbach's alpha of $\alpha = .98$.

Boyer and Edmondson (2007) examined differences between the scales (POS and PSS) in a meta-analysis to determine whether the scales were testing different constructs. They found an effect size of .6 providing evidence that the scales are in fact unique, although they utilize the same questions with only the subject interchanged (supervisor in one set, organization in the other).

Although the scales are different and reliable, they are not salesperson specific. Riggle (2007), in his sales dissertation research, suggests that the POS scale is not specific enough for salespeople, and that an additional scale must be created to fit the salesperson population. Along with this, the research is concerned with how much support the employee perceives the supervisor and organization provide for specific types of SDLP's. A scale that measures both SDLP's (induced, synergistic) is multidimensional. Therefore, it was necessary to modify the current POS and PSS scales to create four different and unique constructs: POS for induced SDLP's, POS for synergistic for SDLP's, PSS for induced SDLP's, and PSS for synergistic SDLP's. Since only two types of SDLP's of the four are under investigation, only scales for induced and synergistic SDLP's were created as modified versions of the support scales. Table 3.6 evaluates the criteria of the existing POS and PSS scales, along with the modified versions of the scales for the study, which are included in Appendix 1 and Appendix 2. Instruments were developed based on Clardy's (2000) classification of SDLP's and modified to relate specifically to salespeople in the insurance industry. The instrument development process is outlined in detail later in this chapter. Reliabilities for the current study are as follows: POS for induced SDLP's ($\alpha = .926$), POS for synergistic SDLP's ($\alpha = .95$), PSS for induced SDLP's ($\alpha = .964$), and PSS for synergistic SDLP's ($\alpha = .964$).

Table 3.6 Evaluating Support Scales

Construct	Author	Description	Content and Substantive Validity	Psychometric Properties
POS	Eisenberger et al., 1986	36-item, 7-point Likert type scale	Not consistent with definition	Acceptable
PSS	Kottke & Sharafinski, 1988	36 item, 7-point Likert type scale	Not consistent with definition	Acceptable
POS for Induced SDLP's	Boyer, 2008	6-item, 7-point Likert type scale	Acceptable	Acceptable
POS for Synergistic SDLP's	Boyer, 2008	6-item, 7-point Likert type scale	Acceptable	Acceptable
PSS for Induced SDLP's	Boyer, 2008	6-item, 7-point Likert type scale	Acceptable	Acceptable
PSS for Synergistic SDLP's	Boyer, 2008	6-item, 7-point Likert type scale	Acceptable	Acceptable

Although the literature provides examples of scales for willingness to use SDL and use of SDL, the willingness to use SDL (Burns, 1995) scale does not measure willingness to use SDL. Instead, it measures personal characteristics of the individual that may increase or decrease the likelihood of using self-directed learning, which is not based on motivation as defined in this research. Additionally, the measure is not specifically related to any of the four forms of SDLP's described by workers, including salespeople, as described by Clardy (2000). Finally, use of SDL is typically measured in the literature by assessing how often or how many hours in the past six months SDLP's have been used. Although this is useful, it fails to directly measure the different types of learning projects. Therefore, the typical measure, following Tough's (1967) interview

schedule regarding frequency and hours spent using learning projects, was modified to account for induced and synergistic SDLP's as categorized by Clardy (2000). The measures for use of induced and synergistic SDLP's are found in Appendix 3. Reliabilities in this study for the full scales (use of induced SDLP's $\alpha = .728$, use of synergistic SDLP's $\alpha = .81$) were above the recommended $\alpha = .7$ level as prescribed by Nunnally and Bernstein (1994). Willingness was measured through expectancy theory and by directly asking participants how willing they were to perform certain induced and synergistic learning endeavors.

For willingness measured directly, willingness to use induced SDLP's ($\alpha = .942$) and willingness to use synergistic SDLP's ($\alpha = .932$) had strong reliabilities and all items loaded above .5, as seen in Appendix 3. For willingness with expectancy theory, multidimensional scales were created. The overall scale, willingness to use induced SDLP's with expectancy theory ($\alpha = .914$) and willingness to use synergistic SDLP's with expectancy theory ($\alpha = .901$), had strong reliabilities. However, with a multidimensional scale, the items were broken into unidimensions to test reliability of each dimension. The individual items loaded to a great extent, as expected. Appendix 3 displays factor loadings for the constructs. For willingness to use induced SDLP's, factor 1 (items related to expectancy) all loaded at .5 or higher when rounded to the nearest .1. One item, WUIE8, also cross loaded and should have loaded on instrumentality (which it did, but also on expectancy at .511). All items loaded as expected on valence and on instrumentality except item WUIE2, which loaded at only .350 for instrumentality of job training.

For willingness to use synergistic SDLP's for expectancy theory, all items related to valence loaded as expected. Expectancy items WUSE6 (.320) and WUSE10 (.382) did not load at .5 or above. Instead, these items loaded on the instrumentality construct at .537 and .574, respectively. This might be due to the content of the question regarding educational materials and company resources. All other items expected to load on instrumentality loaded at .5 or higher. Cronbach's reliabilities for the individual willingness scales, using expectancy for willingness to use induced instrumentality dimension ($\alpha = .780$), willingness to use induced valence dimension ($\alpha = .876$), willingness to use induced expectancy dimension ($\alpha = .774$), willingness to use synergistic induced dimension ($\alpha = .882$), willingness to use synergistic valence dimension ($\alpha = .869$), and willingness to use synergistic expectancy dimension ($\alpha = .862$) were all above .7 as recommended by Nunnally and Bernstein (1994).

Table 3.7 Evaluating SDL

Construct	Author	Description	Content and Substantive Validity	Psychometric Properties
Willingness to Use SDL	Burns, 1995	15-item, 7-point Likert type scale	Not consistent with definition	Acceptable
Willingness to Use Induced SDLP's	Boyer, 2008	5-item, 7-point Likert type scale	Acceptable	Acceptable
Willingness to Use Induced SDLP's (expectancy)	Boyer, 2008	9-item, 7-point Likert type scale	Acceptable	Acceptable
Willingness to Use Synergistic SDLP's	Boyer, 2008	5-item, 7-point Likert type scale	Acceptable	Acceptable
Willingness to Use Synergistic SDLP's (expectancy)	Boyer, 2008	11-item, 7-point Likert type scale	Acceptable	Acceptable
Use of Induced SDLP's (hours)	Boyer 2008	5-item, 7-point Likert type scale	Acceptable	Acceptable
Use of Induced SDLP's (frequency)	Boyer, 2008	5-item 7-point Likert type scale	Acceptable	Acceptable
Use of Synergistic SDLP's (hours)	Boyer, 2008	5-item 7-point Likert type scale	Acceptable	Acceptable
Use of Synergistic SDLP's (frequency)	Boyer, 2008	5-item 7-point Likert type scale	Acceptable	Acceptable

Methodology

Testing the SEM Model

This dissertation employs structural equation modeling (SEM) to test both the fit of the model and the hypothetical relationships among the constructs. Structural equation modeling is preferred, for several reasons, over other types of analysis. First, SEM is

chosen over traditional multiple regression methods as employing SEM allows a test of the entire model at one time, rather than only portions of it. Consequently, using SEM in this way allows for a test of the model's random measurement error, which may create biasing effects if not accounted for (Tabachnick & Fidell, 2001). Second, SEM can compare the fit of the actual measurement model chosen for the study to other possible forms of the model. This will help enhance theory building and confirmation that the model is a good fit for the data that will be collected. Since the research is using a novel model of self-direction, many other relationships between the variables can be explored for optimal fit and explanation. Third, SEM assimilates forms of confirmatory factor, regression, and path analysis in a way that capitalizes on the usefulness of each technique, while at the same time overcoming downfalls of each technique related to testing a larger causal model. Finally, SEM allows testing for errors of latent variables making this superior to other techniques, such as regression analysis. Other statistical analyses exist including cluster analysis, simple linear regression, analysis of variance, multiple analysis of variance, logit modeling, hierarchical linear modeling, meta-analysis, and factor analysis (Johnson, 1998). Each of these tools is useful, but structural equation modeling is most efficient and effective at testing this measurement model, its theoretical linkages, and answering the research questions. The SEM models are presented in Appendix 5.

Hypotheses Testing for SEM

To determine whether the hypotheses were significant, the beta weights were analyzed, along with specific fit indices of the model for total model analysis. Only the

most reliable measures for the constructs were used in the measurement models. Therefore, willingness to use induced or synergistic SDLP's was tested in the measurement model by the shorter and more reliable direct willingness scales (induced Cronbach's $\alpha = .942$; synergistic Cronbach's $\alpha = .932$) and the longer performance scale (Behrman & Perreault, 1984) was used to measure performance (Cronbach's $\alpha = .944$). The model parameters of the structural models were estimated using AMOS 16.

Hypotheses testing followed a two-step process. First, the fit of the model was assessed using Chi-Square, CFI, RMSEA, NFI, RFI, etc., as recommended by Hair et al. (1998). Second, the signs and statistical significance of the path coefficients were used for hypothesis testing. Non-significant paths of the exogenous variable "self-regulation training" were eliminated from the induced and synergistic models and two new models were presented. Given the multicollinearity of the latent variables and the desire to test each hypothesis, perceived organization support for induced SDLP's and perceived supervisory support for induced SDLP's, and perceived organization support for synergistic SDLP's and perceived supervisory support for synergistic SDLP's, four models were created. Two induced SDLP models were created, one with POS for induced SDLP's and one with PSS for induced SDLP's as the exogenous variables. Two synergistic SDLP models were created, one with POS for synergistic SDLP's and one with PSS for synergistic SDLP's as the exogenous variables dropping one construct from each model (O'Brian, 2007) and allowing a test for each hypothesis. Results of the procedures outlined in this chapter are presented in Chapter Four.

Methodology Summary

The five-page questionnaire in Appendix B is similar to the pretest; any differences are due to the formatting of the online software program Qualtrics and randomization of questions. Both models will be open to modification pending the pretest results. Several scales (POS for induced SDLP's, POS for synergistic SDLP's, PSS for induced SDLP's, PSS for synergistic SDLP's, willingness to use induced SDLP's, willingness to use synergistic SDLP's, use of induced SDLP's, use of synergistic SDLP's, and performance) were examined and created for use in testing the measurement models. The most reliable scales for each construct were used to test the Hypotheses 1A-5B looking at standardized estimates and fit statistics. The measures were all reliable at the $\alpha = .7$ level or higher and the CFA's in Appendix 3 presented strong measures for each construct. Chapter Four presents the results of this methodology.

CHAPTER FOUR

RESULTS

Chapter Four presents the measurement scale descriptive statistics and the results of the structural equation measurement models used to test the hypotheses. When using larger sample sizes (Johnson, 1998), structural equation models are robust against moderate departures from normality (Diamantopoulos & Siguaw, 2000); however, when using larger sample sizes, significant violations from normality may result in an inflated χ^2 statistic and an upward bias in the path significance (Johnson, 1998; Hair et al., 2000). The sample size in this dissertation is 392, which is not a large sample size.

Table 4.1 Descriptive Statistics for Model Constructs

Construct	Range	Minimum	Maximum	Mean	Std.
Self-regulation training	6	1	7	4.59	1.49
Perceived organizational support for induced SDLP's	6	1	7	5.30	1.48
Perceived supervisory support for induced SDLP's	6	1	7	5.36	1.62
Perceived organizational support for synergistic SDLP's	6	1	7	5.07	1.67
Perceived supervisory support for synergistic SDLP's	6	1	7	5.08	1.67
Willingness to use induced SDLP's	6	1	7	6.52	.88
Willingness to use synergistic SDLP's	6	1	7	6.35	.97
Use of induced SDLP's	3	1	4	2.53	.74
Use of synergistic SDLP's	3	1	4	2.10	.766
Performance	10	1	11	8.06	1.81

The AMOS 16 statistical package was used to analyze the structural models. There was a linear dependency between two of the variables, POS and PSS for induced SDLP's and POS and PSS for synergistic SDLP's (see Appendix 4). Due to this collinearity, discriminant validity could not be established for the POS and PSS scales and the measures could not be used in the same model (Gerbing & Anderson, 1988). Discriminant validity was assessed through a correlation matrix of the means of each construct (Campbell & Fiske, 1959). The correlation matrix is presented in Appendix 4. Thus, the models were examined separately with POS or PSS as an exogenous factor. Four models were examined for best fit: Model 1A examines induced projects with POS, Model 1B examines induced projects with PSS, Model 2A examines POS with synergistic projects, and Model 2B examines PSS and synergistic projects. As a result, Model 1 A and B examine induced projects and Model 2 A and B examine synergistic SDLP's. Model 1 and 2 A examine POS and Model 1 and 2 B examine PSS. The structural equation model with self-regulation training is taken out of further investigation given the insignificant relationship between self-regulation training and willingness to use induced or synergistic SDLP's.

Each of the models use various absolute fit measures. The advantage of using absolute fit measures is to assess the model as a whole (Johnson, 1998). To assess absolute fit, $\chi 2$, the root mean squared error of approximation (RMSEA), NFI, RFI, IFI, TLI, and CFI are used. Given that the $\chi 2$ tests perfect fit (null hypothesis states that the model fits the population exactly) and is a very restrictive assumption (MacCallum, Browne, & Sigawara, 1996), researchers use other less restrictive measures of fit like RMSEA (Diamantopoulous & Siguaw, 2000) because $\chi 2$ is not expected to hold up in

behavioral research (Ramaswami & Singh, 2003). NFI, RFI, IFI, TLI and CFI are all baseline comparison statistics used to assess how much better the models fit compared to the simplest and most restrictive model. Typically, results of baseline comparison are suitable over .9 (Hair et al., 1998; Johnson 1998). Additionally, a RMSEA below .08 suggests a moderate fit. For all of the models in Table 4.2, the RMSEA is below .08 and the baseline comparison models are generally above .9 suggesting an acceptable fit for all models (Diamantopoulos &Siguaw, 2000; Hair et al., 1998; Johnson, 1998). All four models were used to test the hypotheses.

Table 4.2 Models After Taking Out SRT

Model	$\chi 2$	RMSEA	NFI	RFI	IFI	RNFI
1A	497.0	.060	.917	.898	.950	0.441
1B	529.5	.063	.916	.897	.947	0.589
2A	538.7	.064	.921	.903	.950	0.727
2B	581.8	.068	.944	.891	.941	0.797

The four structural models in Figures 4.1-4.4 represent Models 1A through 2B as depicted in Table 4.1. Appendix 7 displays the models in Table 4.2 as compared to each measurement model. It is important to note that the good fit of the models in Table 4.2 is partially due to the good fit of the measurement models. When examining the relative normed fit index (RNFI), the low outputs are a clear indication that the measurement model has a very strong fit. "The relative normed fit index indicates only the fit of the structural portion of the model, irrespective of how well the latent constructs were measured by their indicators"(Hatcher, 1994). The models in the figures present each construct with its relative standardized estimate. For the estimates, ** is significant at the

α = .001 level, * is significant at the α = .05 level, and no asterisk represents an insignificant standardized estimate.

In Models 1A and 1B (induced models), there is no significant relationship between use of induced projects and performance. For the POS model (Model 1A), there is no significant relationship between willingness to use induced SDLP's and use of induced SDLP's. In the PSS model (Model 1B), the relationship between willingness to use induced SDLP's and use of induced SDLP's is also insignificant.

In Models 2A and 2B (synergistic models), all of the relationships are significant at the α = .05 level. The POS model (Model 2A) illustrates the strongest relationship between willingness to use synergistic SDLP's and use of synergistic SDLP's with a difference of .003. The relationship between POS for synergistic SDLP's and willingness to use synergistic SDLP's has a standard estimate of .145. The relationship between PSS for synergistic SDLP's and willingness to use synergistic SDLP's (Model 2B) has a standard estimate of .117. Therefore, for every one-unit increase in perceived organizational support, there is a .145 increase in willingness to use synergistic SDLP's, and for every one-unit increase in PSS for synergistic SDLP's there is a .117 increase in willingness to use synergistic SDLP's. When comparing Models 1A and 1B (induced models), the standard estimate and fit statistics are better for the POS model. The same is true for the synergistic models. Therefore, Models 1A and 2A best fit the data.

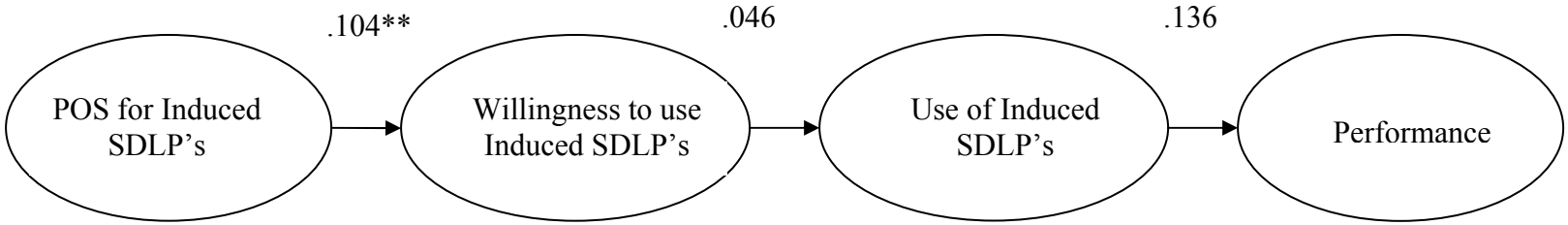

Figure 4. 1 Model 1A POSI-WILI-SDLI-PERF

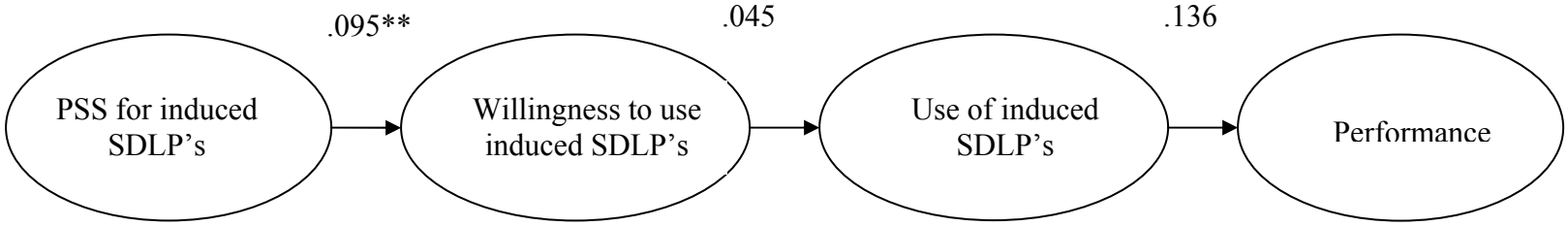

Figure 4.2 Model 1 B PSSI-WILI-SDLI-PERF

** Significant at the $\alpha = .001$ level
* Significant at the $\alpha = .05$ level
No asterisk represents an insignificant standardized estimate.

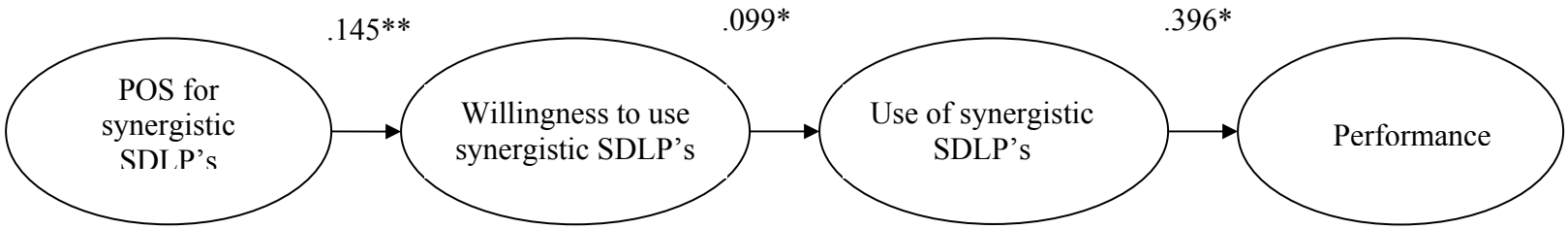

Figure 4.3 Model 2A POSS-WILS-SDLS-PERF

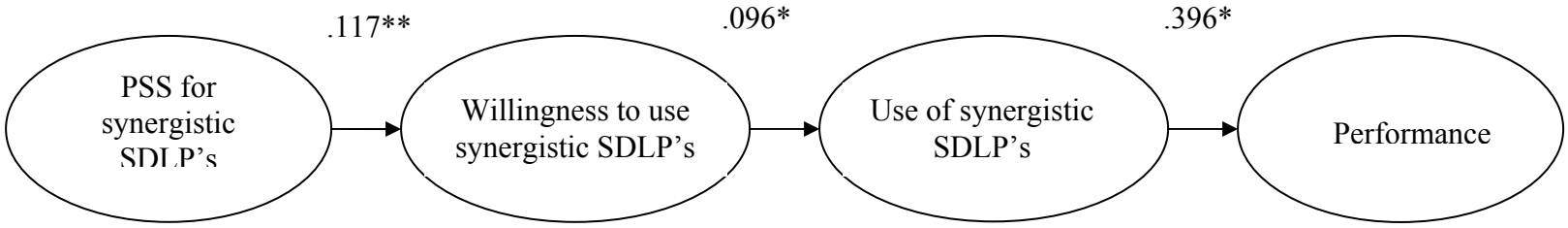

Figure 4.4 Model 2B PSSS- WILS-SDLS-PERF

** Significant at the $\alpha = .001$ level
* Significant at the $\alpha = .05$ level
No asterisk represents an insignificant standardized estimate.

Hypothesis Testing

The significance and direction of the signs of the paths were used to test Hypotheses H1A through H5B (Diamantopoulos & Siguaw, 2000). Table 4.3 displays the directionality of the relationships between the constructs in the model, the standardized path estimates, the level of significance for the paths, and support for the hypotheses.

Table 4.3 Hypotheses Table[1]

Hypothesis	Sign	R^2	Estimate[3,6]	S.E.[6]	P[6,4]	Support[5,6]
H1A: Self-regulation training to willingness to use induced SDLP's	+	.067[NS]	-.002	.03	.959	NS
H1B: Self-regulation training to willingness to use synergistic SDLP's	+	.074 [NS]	-.024	.032	.462	NS
H2A: Perceived organizational support for induced SDLP's to willingness to use induced SDLP's	+	.209	.104	.027	**	S
H2B: Perceived organizational support for synergistic SDLP's to willingness to use synergistic SDLP's	+	.296	.145	.029	**	S
H3A: Perceived supervisory support for induced SDLP's to willingness to use induced SDLP's	+	.2	.095	.027	**	S
H3B: Perceived supervisory support for synergistic SDLP's to willingness to use synergistic SDLP's	+	.231	.117	.031	**	S

Table 4.3 Hypotheses Table[1] (Continued)

Hypothesis	Sign	R^2	Estimate[3,6]	S.E.[6]	P[6,4]	Support[5,6]
H4A: Willingness to use induced SDLP's to use of induced SDLP's	+	.025 NS	.046/ .045	.028/ . 028	.1/ .105	NS/NS
H4B: Willingness to use synergistic SDLP's to use of synergistic SDLP's	+	.069NS	.099/ .096	.041/ .041	.016/ .019	S*/S*
H5A: Use induced SDLP's to performance	+	.065 NS	.136/ .136	.269/ .269	.613/ .613	NS/NS
H5B: Use of synergistic SDLP's to performance	+	.196	.396/ .396	.157/ .158	.012/ .012	S*/S*

[1] The models were tested using only the most reliable measures of each construct: Performance 2, 5 indicator of willingness for induced and synergistic, and number of SDL hours for induced and synergistic as a measure of use of SDLP's.
[2] Correlations are significant at $\alpha = .01$ unless otherwise noted.
[3] Estimate = Standardized Path Estimate; [4]**$\leq$. 001
[5] S=supported at $\alpha = .01$, S*=supported at $\alpha = .05$ NS = Not Supported
[6] Organizational Support Model/ Supervisory Support Model

Antecedents of Willingness to Use SDLP's

This dissertation hypothesized that prior training in self-regulation (H1A, H1B), perceived organizational support (H2A, H2B), and perceived supervisory support (H3A, H3B) would positively impact willingness to use induced and synergistic SDLP's. As displayed in Table 4.3, four of the six hypotheses are supported at the $\alpha = .001$ level. The structural equation models for induced and synergistic SDLP's with self regulation as an endogenous construct leading to willingness to use SDLP's had a χ^2 value of 1,141, and the relationship between self-regulation training and willingness to use induced SDLP's ($\beta = -.02$, $\alpha = .959$) and willingness to use synergistic SDLP's ($\beta = -.024$, $\alpha = .462$) was insignificant at $\alpha = .05$. Hypotheses H1A and H1B are not supported.

However, the relationship of both perceived organizational support and perceived supervisory support for induced and synergistic SDLP's with both willingness to use

induced and synergistic SDLP's was significant at the $\alpha = .001$ level. Perceived organizational support for induced SDLP's positively impacted salesperson willingness to use induced SDLP's ($\beta = .104$, $\alpha = .000$). Therefore, when POS for induced SDLP's goes up by one, willingness to use induced SDLP's goes up by .104. Perceived organizational support for synergistic SDLP's had a positive impact on willingness to use induced SDLP's ($\beta = .145$, $\alpha = .000$). When POS for synergistic SDLP's goes up by one, willingness to use synergistic SDLP's goes up by .145. Hypotheses H2A and H2B are supported.

Perceived supervisory support for induced SDLP's positively impacts salesperson willingness to use induced SDLP's ($\beta = .095$, $\alpha = .000$). For every one unit increase in PSS for induced SDLP's, willingness to use induced SDLP's will increase by .095. Perceived supervisory support for synergistic SDLP's positively impacts salesperson willingness to use synergistic SDLP's ($\beta = .117$, $\alpha = .000$). For every one unit increase in PSS for synergistic SDLP's, willingness to use synergistic SDLP's will increase by .117. Hypotheses H3A and H3B are supported.

Willingness to Use SDLP's

This dissertation hypothesized that willingness to use SDLP's would positively impact use of SDLP's. Specifically, willingness to use induced SDLP's would positively impact use of induced SDLP's (H4A) and willingness to use synergistic SDLP's would positively impact use of synergistic SDLP's (H4B). As displayed in Table 4.3 and Figures 4.1-4.4, two models were used to test Hypothesis H4A and two models were used to test Hypothesis H4B due to the collinearity of POS and PSS.

Using the POS-induced model (Figure 4.1), willingness to use induced SDLP's positively impacts use of induced SDLP's, but not at a significant level ($\beta = .046$, $\alpha = .1$). Using the PSS-induced model (Figure 4.2), willingness to use induced SDLP's positively impacts use of induced SDLP's ($\beta = .045$, $\alpha = .105$); however, the relationship is insignificant at the $\alpha = .05$ level. Therefore, H4A is not supported.

Using the POS synergistic model (Figure 4.3), willingness to use synergistic SDLP's positively and significantly impacts use of synergistic SDLP's ($\beta = .099$, $\alpha = .016$). For every one unit increase in willingness to use synergistic SDLP's, use of synergistic SDLP's increases by .099. Using the PSS synergistic model (Figure 4.4), willingness to use synergistic SDLP's positively and significantly impacts use of synergistic SDLP's ($\beta = .096$, $\alpha = .019$). For every one unit increase in willingness to use synergistic SDLP's, use of synergistic SDLP's increases by .096. The relationship between willingness to use synergistic SDLP's and use of synergistic SDLP's was positive and significant at the $\alpha = .05$ level for both the POS and PSS models. Therefore, H4B is fully supported.

Impact of SDLP Use on Performance

This dissertation hypothesized that use of induced (H5A) and synergistic (H5B) SDLP's would positively impact performance. As displayed in Table 4.3 and Figures 4.1-4.4, two models were used to test Hypothesis H4A and two models were used to test Hypothesis H4B due to the collinearity of POS and PSS.

Using the POS-induced model (Figure 4.1) and the PSS-induced model (Figure 4.2), the relationship between use of induced SDLP's and performance was insignificant

at the $\alpha = .05$ level. Therefore, H5A is not supported. Conversely, using the POS and PSS synergistic models (Figure 4.3 and 4.4), the relationship between use of synergistic SDLP's and performance is positive and significant at the $\alpha = .05$ level. For the POS model, use of induced SDLP's positively impacts performance ($\beta = .396$, $\alpha = .012$). For the PSS model, use of induced SDLP's positively impacts performance ($\beta = .396$, $\alpha = .012$). Therefore, for both models, a one unit increase in use of synergistic SDLP's increases performance by .396. Hypothesis H5B is fully supported.

Post Hoc Analysis

A post hoc analysis was performed to determine whether any of the demographic variables moderated the relationships between the constructs in the model. A simple regression was used with a mean center of the antecedent variables as prescribed by Aiken and West (1996). To test for moderation, the interaction between the antecedent and the demographic variable were examined for significance. If the interaction was significant, then the demographic variable moderated the relationship between the antecedent and the dependent construct. The demographic variables used in the analysis include gender (male vs. female), age (44 and under vs. 45 and over), income (less than $100,000 vs. $100,000 and above), tenure in the position (less than 2 years vs. two years and above), number of years in sales (less than 13 years vs. 13 plus years), and degree status (four year degree vs. no degree). For the relationship between use of induced or synergistic SDLP's and performance, no moderation exists among the variables in the sample.

Moderation exists between support for induced SDLP's and willingness to use induced SDLP's. Between perceived organizational support for induced SDLP's and willingness to use induced SDLP's, age ($\beta = .163$ at $\alpha = .036$) and years in sales ($\beta = .157$ at $\alpha = .049$) moderates the relationship. Therefore, the relationship between perceived organizational support for induced SDLP's and willingness to use induced SDLP's is stronger for the older group and the group with a greater number of years in sales. Moderation also exists between perceived supervisory support for induced SDLP's and willingness to use induced SDLP's through number of years in sales ($\beta = .184$ at $\alpha = .020$). Therefore, for those with 13 or more years in sales, the relationship between perceived supervisory support for induced SDLP's and willingness to use induced SDLP's is stronger.

More moderation was shown in the relationship between support for synergistic SDLP's and willingness to use synergistic SDLP's. The relationship between perceived organizational support for synergistic SDLP's and willingness to use synergistic SDLP's was moderated by gender ($\beta = .300$ at $\alpha = .000$), income ($\beta = .176$ at $\alpha = .003$), years in sales ($\beta = .152$ at $\alpha = .053$), and degree status ($\beta = .204$ at $\alpha = .005$). Thus, for those who are male, who make $100,0000 or more, who have 13 or more years in sales and/or have a degree, the relationship between POS for synergistic SDLP's and willingness to use synergistic SDLP's is stronger. In the relationship between perceived supervisory support for synergistic SDLP's and willingness to use synergistic SDLP's, gender ($\beta = .209$ at $\alpha = .007$), income ($\beta = .183$ at $\alpha = .003$), and years in sales ($\beta = .202$ at $\alpha = .011$) moderate the relationship. Consequently, for males, those who make $100,000 or more and/or those with 13 or more years in sales, the relationship between PSS for synergistic

SDLP's and willingness to use synergistic SDLP's is stronger. Table 4.4 displays the significant moderation results at the $\alpha = .05$ level.

Table 4.4 Post Hoc Moderation Analysis

Antecedent	Dependent Variable	Moderator	Interaction	Beta	α
Perceived organizational support for induced SDLP's	Willingness to use induced SDLP's	Age	POSI*AGE	.163	.036
		Years in sales	POSI*YEARSSALE	.157	.049
Perceived supervisory support for induced SDLP's	Willingness to use induced SDLP's	Years in sales	PSSI*YEARSSALE	.184	.020
Perceived organizational support for synergistic SDLP's	Willingness to use synergistic SDLP's	Gender	POSS*GENDER	.3	.000
		Income	POSS*INCOME	.176	.003
		Years in sales	POSS*YEARSSALE	.152	.053
		Degree	POSS*DEGREE	.204	.005
Perceived supervisory support for synergistic SDLP's	Willingness to use synergistic SDLP's	Gender	POSI* GENDER	.209	.007
		Income	POSI*INCOME	.183	.003
		Years in sales	POSI*AGE	.202	.011

Summary

This chapter presented the measurement scale descriptive statistics and the results of the four structural equation measurement models used to test the 10 hypotheses. Six of the ten proposed hypotheses were significant at the $\alpha = .05$ level or higher. The perceived organizational support for synergistic SDLP's model had the highest strength and relative measures of significance. Using synergistic SDLP's had a greater impact on performance than using induced SDLP's. Chapter Five presents the discussion, conclusions, limitations, and managerial implications of these results.

CHAPTER FIVE

DISCUSSION

The purpose of this study was to create reliable measurement scales for salesperson-relevant self-directed learning projects (SDLP's) and to integrate the extant marketing, psychology, and adult education literature to empirically investigate how, in a sales context, differences in use of SDLP's influence salesperson performance. An important contribution of this research is that it is the first empirical study to investigate the different forms of SDLP's, the link between use of SDLP's and salesperson performance, willingness to use SDLP's, and organizational factors that impact willingness to use SDLP's. Additionally, the study provides empirical support for the future study of self-direction in the marketing domain. This research provides evidence that organizations and supervisors can influence salesperson willingness to use SDLP's. Given this empirical support, numerous implications and research opportunities come forward from this study.

This chapter is broken up into two sections. The first section discusses the constructs used in the model (self-regulation training, perceived organizational and supervisory support for induced and synergistic SDLP's, willingness to use induced and synergistic SDLP's, use of induced and synergistic SDLP's, and performance) and in scale development (perceived organizational and supervisory support for induced and synergistic SDLP's, willingness to use induced and synergistic SDLP's, and use of

induced and synergistic SDLP's). The second section discusses implications and future research.

Willingness to Use SDLP's

This dissertation proposed that willingness to use SDLP's could be best represented by applying expectancy theory as a basis for measurement. This was not necessary, if the goal of the research was to measure only willingness overall with a short questionnaire. The generic measure worked slightly better and is better suited for use in practice due to the shorter five- versus nine-item version for induced and a five- versus 13-item version for synergistic SDLP's.

In practice, organizations may want to administer the shorter 5-item scale to employees to understand their basic willingness to use the induced or synergistic projects. For those employees who demonstrate a low level of willingness to use SDLP's, organizations can administer the longer version of the willingness scale based on expectancy theory to determine where the deficiency lies. By doing so, the organization and management will know whether the employee lacks motivation due to instrumentality, valence, or expectancy. Then, the organization can provide the employee with the skills he needs to perform the SDLP and assess organizational standard operating procedures to ensure using SDLP's results in the appropriate outcomes that are intended, and that these outcomes are important to employees. This measure of willingness has more depth; however, if only knowledge of employee willingness versus unwillingness is needed, the shorter version would suffice.

Both the long and short version measures of willingness to use induced and synergistic SDLP's were reliable and significant. The short version is appropriate for individuals who allocate little time for participating in survey data. Given that salespeople are extremely busy, and allocating time to participate in survey research takes time away from meetings or speaking with clients, handling administrative tasks, or other work functions, it is suggested that future researchers use the shorter five-item scale to prevent participant exhaustion or dropout, especially if there are several constructs in the study.

Antecedents of Willingness

SRT

Self-regulation training did not impact willingness to use SDLP's. This could be due to many factors. For willingness to use induced SDLP's, since it is mandatory in the industry to use these types of SDLP's, prior training may not impact willingness given the necessity to perform such tasks to get or keep a job. Therefore, prior training in self-regulation does not impact willingness. For synergistic SDLP's, training in self-regulation like setting goals, attaining performance standards, and assessing one's progress toward goals may not enhance willingness to use synergistic SDLP's such as using a learning library or database or attending a non-mandatory seminar provided by the company. Perhaps this type of training would better help employees using higher order (such as voluntary and scanning) SDLP's, where individual initiation is a greater component than learning endeavors that the organization provides. It is possible that employees do not need training in self-regulation to perform self-directed tasks.

Although many salespeople in the sample reported not having prior training in self-regulation, they were still performing synergistic SDLP's. Therefore, it is possible that training may not yield appropriate results. This may go back to the issue that traditional training is not effective. It is possible that salespeople can be willing to use synergistic SDLP's regardless of prior training in self-regulation and that training does not necessarily improve motivation or willingness to use SDLP's. Also, while a salesperson receives training on self-regulation, it does not mean that he is an effective self-regulator. Thus, it is unclear at this point whether skills in self-regulation positively impact individual willingness to use SDLP's, but the data from this study indicate that simply receiving training in self-regulation will not improve individual willingness to use SDLP's.

Support

In this study, POS and PSS showed multicollinearity, thus preventing the two scales from demonstrating discriminant validity. Since the two constructs were highly correlated, and respondents were unable to significantly discriminate between the two constructs, placing them both in the structural equation model together would be equivalent to including the same construct in the model twice when using regression (Campbell & Fiske, 1959). For SEM, the model was insignificant when using both constructs without changing the model to include correlation between the constructs. Given the research parameters, there was no theory to suggest the link between the two constructs or hypotheses testing the correlation. The correlation between the two constructs is probably due to the unique characteristics of the population and this sample.

Although research suggests that POS and PSS are two different constructs (Kottke & Sharafinski, 1988), this study suggests that the constructs are too similar to differentiate. The participants in this study were salespeople in the financial services industry; specifically, the insurance industry. In this particular sample, participants did not come from one large company, but from many organizations of various sizes. In this industry, it is likely that insurance agents represent themselves as sole proprietors working for a larger organization, so they may see themselves as their own boss and either do not identify with a supervisor or organization, or perceive the support from the organization and supervisor as the same. Given this collinearity, and the need to test each of the hypotheses, the models are assessed separately. The following details the remarks for each linkage and construct. The specified models appear in Appendix 5.

POS and PSS

POS positively impacts willingness to use SDLP's. POS has a stronger effect on willingness to use synergistic projects than induced projects. This is probably due to the mandatory nature of the induced SDLP's. If salespeople are required to use induced SDLP's to work in the industry, then the support may have less of an impact on those projects than projects that are not required.

PSS positively impacts willingness to use SDLP's. Synergistic SDLP's are more heavily impacted by PSS than induced SDLP's, but to a lesser degree when compared to POS. For example, the estimate for PSS for induced SDLP's to willingness to use induced SDLP's is .2, where synergistic is .230. This is a smaller increase when moving from induced to synergistic than for POS, which is a difference of .296 for synergistic

and .209 for induced. Therefore, the POS models present stronger standardized estimates and parameters.

Willingness to Use SDLP's to Use of SDLP's

This study examined the causal link between willingness to use SDLP's and use of SDLP's. Consistently, willingness to use synergistic SDLP's significantly and positively leads to use of synergistic SDLP's . Therefore, an individual's willingness to use SDLP's was a predictor of his or her use of SDLP's. For induced SDLP's, the indicator of willingness was not a significant predictor. This was probably due to the non-mandatory nature of synergistic SDLP's. Since induced SDLP's are required to work in the industry, a salesperson will perform an induced SDLP even if he does not wish to in order to keep from losing his license or certification.

Use of SDLP's to Performance

The relationship between use of SDLP's and performance tells an interesting story. The hypotheses predict that using SDLP's in general will positively impact performance; however, this is not the case. Induced SDLP's are those learning endeavors that are mandatory to work in the industry, so it makes perfect sense that using them will not have a correlation with performance. If it did, then everyone who works in the industry would be a high performer, which is simply not the case. Synergistic projects, learning endeavors that are not required or mandatory to work in the industry, demonstrate a higher degree of self-directedness as the salesperson must take the learning initiative, rather than being forced to do it to get or keep a license or position. These

projects are more individually initiated and require more knowledge about the industry and more contextual understanding. These findings are consistent with the foundations of adult learning theory (Speck, 1996; Boyer, 2008). As a result, salespeople using synergistic SDLP's will have higher levels of performance than those salespeople who do not use these learning endeavors as is evidenced from the SEM model. It suggests that a one unit increase in use of synergistic SDLP's will lead to a .396 increase in performance.

Managerial Implications

There are various goals, objectives, and implications for this research at many levels of the firm. From a strategy perspective, organizations can focus on improving intellectual capital and competitive advantages (Boyer & Lambert, 2008). Executive management can promote and implement organizational learning. Sales managers can promote organizational goals via SDL by their sales teams. The HRD staff, who has some authority over training, can work to ensure organizational goals are being met and monitor the use and effectiveness of SDL. Recruiters can look for employees who can effectively implement SDL in their work. Salespeople who need to improve their expertise to help better serve customers and to achieve higher performance can work toward being more self-directed in their activities (Boyer & Lambert, 2008). Each of these will be explained further below.

Organizations

For organizations wishing to improve intellectual capital and create a competitive advantage, there are several activities that may help facilitate that goal. First, organizations can work toward setting up an environment that is less competitive or cut throat internally so that employees want to help others in the organization. This must be displayed top down in organizations, not only at the sales level. In extremely competitive organizations, employees may not want to help each other as assisting others would result in personal loss rather than personal gain. Rather, organizations can incentivize the use of SDL in the overall structure of compensation related to performance evaluations or for improving organizational functions via feedback from salespeople and others in the organization.

To receive feedback from employees, organizations must first create feedback loops so that information can be filtered and received. This is a vital step that may aid organizations becoming more marketing oriented given sales teams' direct contact with the environment. One method to implement such a program would be to create company-wide intranets with forums to post information. Different threads can be created for various topics so that employees can quickly and easily find a topic that is relevant to them. For organizational employees to feel comfortable using SDL, they must be supported for doing so. This means organizations must support employees in both times of need and times of success. Organizations can provide assistance to employees demonstrating self-directed behaviors when complications occur and they can set up structural channels that will praise and reward employees who implement SDL successfully. Part of this comes through providing resources for employees to use to

facilitate their use of SDL. Organizations can facilitate the effective use of SDL by testing salespeople's efficiency in using SDL upon selection and during training; then companies can train employees to better implement and use SDL. After employees begin using SDL, the organization should create procedures and methods to measure the use of SDL and any increases in efficiency or performance. In this way, organizations can assist their employees in expanding their knowledge and gaining the most they can out of SDL.

Executive Management

For executive management to promote organizational learning, they must remember that for the organization to learn, individuals must learn (Hurley, 2002). Executive management can implement a coaching and mentoring strategy to work with subordinates and bridge the gap between executive management and employees within the organization so they feel that management truly supports the initiative. This will help to ensure the internal environment is supportive and helpful, not cut throat. Executive management can work toward creating the appropriate forums for employees to express their difficulties and successes. Executive management should be open to suggestions and work towards helping employees feel comfortable in using these resources. They can also provide support for sales managers by providing training and resources so that sales managers can support their salespeople in using SDL. Executive management should also ensure resources are available to salespeople to learn both through the organization and independent of the organization. Executive management should provide training resources for salespeople and sales managers to evaluate their own deficiencies. Executive management should be open to feedback from organizational employees on the

use and implementation of SDLP's and on the materials the organization provides as well as other resources available for training. Finally, executive management should test whether SDLP use is effective and what needs improvement.

Sales Managers

Sales managers can work toward organizational goals through their sales teams with SDL. First, sales managers should keep in mind that the SDL approach calls for coaches and mentors in the managerial positions. Sales managers who are unfamiliar with this approach or who need their own training should request guidance regarding how to support salespeople in using SDL and look for training independently. Sales managers should try using SDL by remaining focused and keeping up to date with any materials that will help them learn about the industry. Sales managers should encourage salespeople to provide environmental feedback to the company. If salespeople struggle with this, sales managers should help salespeople provide feedback effectively and efficiently. Sales managers, in their mentoring role, should listen to sales issues and keep up with threads of other salespeople to aid their staff in finding the information they need to solve problems. Sales managers can go with salespeople on calls to see the types of struggles they face and to help them detect deficiencies. Sales managers can note salespeople who are not deficient in certain aspects and coordinate sales person to sales person training. In this way, salespeople can mentor each other. Sales managers should make sure the incentives are appropriate for using SDLP's, so that salespeople want to use them. Sales managers should constantly keep up to date with salespeople so the sales person knows he is important, his opinion is valued, and that offering his feedback is not

a waste of time. Not only should sales managers listen to salespeople, but they should also act on the needs of salespeople. Overall, the sales manager should act as a facilitator, a friend, a coach, and a mentor. The sales manager is the servant to the sales person and should do everything possible to help him better perform and adapt.

Human Resources

Human resources can have little to complete control over training within organizations. In using SDL, the role of human resources will change. Rather than conducting training sessions, HRD will ensure SDL is implemented, administrate the process, and measure its effectiveness. Human resources will monitor the training needs of employees and ensure a coaching role is assumed by sales managers and other organizational employees. They will bring together different salespeople to help coach and mentor each other. Human resources can ensure training materials are up to date based on feedback from employees. Human resources must remain current with updates in learning programs and make more resources available to employees. Human resources must listen to not only salespeople, but also sales managers regarding what is needed. Human resources should measure the effectiveness of learning and help salespeople navigate through forums, teach sales managers how to better coach and mentor salespeople, and ensure incentives are appropriate for salespeople that are using SDLP's. Finally, human resources should monitor and help employees navigate through the forum. This is the best way to identify common issues and solutions.

Recruiters

Recruiters wishing to attract employees who will be more likely to use SDL can look for a few key traits, skills, and abilities in new hires. Potential employees who are motivated, interested in learning, self-directed, interested in cooperating with other salespeople, interested in keeping up with knowledge on customers, technology and the environment, and those who are adaptable would be ideal candidates for SDL based on previous research (Confessore & Confessore, 1994; Sandsbury, 1996; Savoy, 2004). Additionally, employees who display a strong ability or aptitude (Artis & Harris, 2007), strong reading skills (Artis, 2008), and demonstrate strong communication skills (Boyer, 2008) may also be solid candidates to use SDL. Recruiters can also look for employees who update their skills on a regular basis, those who are lifelong learners, or who currently use SDLP's in their work as this may help facilitate SDL use (West & Bentley, 1991). Those who may show the most potential for using SDLP's are those who have used SDLP's, those who want to remain current with industry information, and those who are adaptable. For employees who want to remain current, the desire to update their skills will help them implement SDL.

Salespeople

Salespeople who need to improve their expertise to better serve their customers and increase performance can work toward this by implementing SDL. Some of the activities include learning to use SDLP's, learning to assess performance, being open to help other salespeople or to get help from other salespeople, and communicating with salespeople, supervisors, and the organization about the successes and failures in using

SDL. Salespeople can use the forum, learn to read and search for information more efficiently (Artis, 2008), and subscribe to trade magazines regarding learning and the industry to be constantly showered with relevant information. They can assess their own performance and find their deficiencies (Boyer, 2008). When salespeople learn about their deficiencies, they should look to sources for help such as the forum, HR, company resources, sales management, other experts, and the internet. Salespeople should not stop at the organization and self-assessed performance; instead, they should talk with customers about how to better serve them, explore competitor initiatives, remain updated with changes in the industry and technology, and try to learn something new on a regular basis to avoid complacency and comfort. Salespeople should remember that using SDL is not always easy and using SDLP's will enhance performance; therefore, they should keep the goal in mind and reach out for assistance.

Limitations and Future Research

The limitations for this study were typical of sales research. First, the study uses survey data, which tests a cross section of the population at one time. This cannot account for changes over time in training or learning and development. Additionally, the survey was administered to a customer group of salespeople from an education company. Due to this factor, the data come from salespeople in diverse areas of insurance sales, rather than stemming from one organization or one type of insurance sales. Conversely, the benefit of this is increased generalizablity of the findings, but this is only gained at the expense of internal reliability. Furthermore, the measures for performance were self-reported therefore, posing a potential bias from common method. To account for this, the

measure of fashion consciousness was used to account for any bias to the performance measure from a self-reported measure. There was no significant correlation between the two. Thus, common method variance due to self-report measures did not bias the data.

Another major gap in this research is the focus on only two of the four SDLP's. Although the objective of this research was to provide support for implementing SDL and in determining how organizations can facilitate employees in using SDL, investigation of two SDLP's, voluntary and scanning, were not addressed. Instead, this research focused on the two SDLP's, induced and synergistic, that are most used by organizational employees. Since voluntary and scanning projects require higher contextual understanding, and since the sample included both novice and experienced employees, only the projects that required less contextual understanding were examined to maximize the sample. To fully understand the impact of SDLP's on organizations, it is imperative that the additional projects be examined.

Future research should account for some of the aforementioned limitations and extend the current findings. Research in SDL can be performed longitudinally and through modules to explore experimental and time series findings. Additionally, future research may assess one larger company and all four SDLP's to create a total measure of willingness for both novices and more seasoned salespeople. Finally, future research should examine the antecedents to both willingness to use SDLP's and use of SDLP's given the positive linkage between use of SDLP's and performance.

Research that is given the highest priority is that which answers questions relevant to both academicians and practitioners. Prior to implementing SDL into organizations, practitioners want to understand exactly what performance increases can be expected

from implementing SDL. Differences may arise based on industry and the types of sales positions. These differences should be explored. However, given the positive relationship to performance, the most relevant question for an organization is how can employees effectively implement SDL? Therefore, research must solve questions such as How can organizations select employees who will use SDL? What personal characteristics or traits are important in effectively implementing SDL? How can organizations motivate employees to use all four SDLP's? What skills can help improve employee ability to use SDLP's? Is SDL appropriate for all employees? What is the most effective mix of SDL and traditional learning? What is the most effective method for teaching employees to use SDLP's? What is the return on investment for SDL? Can SDL solve other organizational problems such as technology adoption? How can sales managers best facilitate salespeople in implementing SDL? These questions are most relevant as they will facilitate organizations in implementing SDL paradigms. Organizations require the tools to help their employees use SDL. Without these tools, organizations may not realize the importance of SDL and at the same time, they will lack the guidance of effective implementation.

The next tier of questions must resolve discrepancies between industries and the contexts that may facilitate or hinder the use of SDL. Some of these questions include what environment is SDL most appropriately implemented? In times of turbulence, organizations must adapt to constant changes. Some organizations may realize less variability; thus, a different type of learning may be more appropriate. Additionally, when should organizations encourage employees to use SDL? Should all projects be promoted immediately to all employees, old and new? Are different skills required at

each level? Which industries would realize the greatest benefit from implementing a SDL paradigm? Should SDL be evaluated differently in different industries? How does the organizational climate influence the use of SDL? How does the type of position influence the benefits of SDL? For instance, will employees who are removed from the organization, such as outside salespeople, benefit from greater use of SDL? How are these employees implementing SDL currently? Is their use of SDL effective? How can SDL effectiveness be measured and compared across industries? What are the cross cultural differences in SDL? Will organizations in collective countries realize similar benefits from using SDL as organizations in independent countries? How does technology impact the use of SDL? Moreover, the demographic moderators seen in the post hoc analysis may be analyzed to examine where and why differences exist in gender, age, income, years in sales, and degree status. These differences may facilitate organizations in determining the most appropriate adoption of SDL.

Conclusions

Overall, the results are very encouraging for sales researchers wishing to investigate self-directed learning. This study provides empirical support for using a self-directed learning paradigm for sales training. Of major importance is that salespeople who use self-directed learning (synergistic) are better performers. Additionally, the research found a positive and significant relationship between willingness to use synergistic SDLP's and use of synergistic SDLP's. For organizations who wish to encourage employees to use SDLP's, providing a supportive environment relating to both the supervisor and organization should help facilitate this. Therefore, this research

provides support for using SDLP's in a sales context and explains how support can be used to encourage employees to be more willing to use SDLP's. Furthermore, the measurement scales are reliable and are good indicators of willingness to use SDLP's and use of SDLP's. Future researchers can take advantage of the scales and can focus on model building rather than scale development. This means the door is open for future researchers to move sales research in SDL forward.

Likewise, the results suggest many positive implications for industry. First, those organizations searching for a means to create a learning organization can turn to SDL. Self-directed learning provides the building blocks of individual learning at the core of the organization, the sales force. The sales force has a huge task of learning from the external environment (customers, competitors, and technology) and disseminating this information back into the organization. When there are appropriate channels for salespeople to bring this knowledge back into the organization, the entire organization will learn and adapt to changes before those organizations that do not have appropriate feedback channels. Additionally, organizations that employ a self-directed sales force strategy will have a competitive advantage due to stronger market orientation. Finally, providing feedback channels and accountability for training will help individual salespeople. This can be achieved by creating forums with different threads for problems commonly associated with salespeople in the industry. When a salesperson has a problem, he or she can upload a new thread and ask for help from peers in the industry. For this to happen, the organization must create a structure that rewards salespeople for their contributions in a way that encourages peer to peer learning and assistance. This can also be extended outside of the salesperson to the sales manager, where sales

managers can come together globally via online forums to provide company wide solutions. For SDL to thrive in the organization, managers must undergo training that teaches them to support salespeople in using SDL and salespeople must be given training on how to use SDL effectively. Salespeople will need to build their SDL skills, have resources and funds available for seminars and other training that is needed, and be given authority in the training decision making process. Overall, this change in the paradigm for sales training will not only create a reduction in costs, but also an increase in training outcomes and, to a larger extent, organizational stability (Boyer & Lambert, 2008).

This research also extends to those involved in boundary spanning positions. Therefore, realized benefits can extend to those in service positions as well. For employees who interact with both customers and the organization, SDL may provide similar benefits to those of sales personnel. These employees must adapt to customer needs and provide individualized solutions. In this way, service personnel may benefit from employing SDLP's at every level. Some examples of employees who could benefit include customer service, police officers, nurses, lawyers, doctors, physical therapists, teachers, and politicians. For these employees, increased learning efficiency and adaptability would impact overall performance. Moreover, when these employees use SDL and disseminate the new knowledge back into the organization, the organization will benefit and adapt to the changing needs of customers.

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APPENDICES

Appendix 1. Scales and Scale Definitions/Details

Fashion Consciousness

The level of importance an individual attaches to being fashionably dressed (Lumpkin and Darden, 1982; Wells and Tiger, 1971).

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree** to **7=strongly agree**.

When I must choose between the two, I usually dress for fashion, not for comfort.
An important part of my life and activities is dressing smartly.
A person should try to dress in style.

Appendix 1. Scales and Scale Definitions/Details (continued)

Self-Regulation Training

The amount of training the salesperson receives with the specific goal of improving self-regulation capabilities of salespeople (Leach et al., 2005).

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree** to **7=strongly agree**.

I have received training that focused on how to effectively…

*represents my inclusion

SRT1	Plan how to overcome obstacles to my goals.
SRT2	Self-monitor my progress toward my goals.
SRT3	Motivate myself on a day-to-day basis.
SRT4	Manage my time.
SRT5	Persist at working toward my goals every day.
SRT6	*Assess my progress toward my goals.
SRT7	*Set achievable goals.
SRT8	*Set clear goals for myself.
SRT9	*Set challenging goals for myself.
SRT10	* Identify situations that would prevent me from staying on track toward my goals.

Appendix 1. Scales and Scale Definitions/Details (continued)

Perceived Organizational Support for Induced SDL Projects*

Salesperson perception of to what degree the organization values them in using skills and acquiring information to fulfill basic job requirements or professional standards related to their work (unstructured employee on-the-job training, acquiring certifications, and continuing education).

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree** to **7=strongly agree.**

POSI1	My organization values producers studying for certifications.
POSI2	My organization provides the proper tools I need to attain my certification requirements.
POSI3	My organization appreciates any extra effort on my part during on-the-job training.
POSI4	My organization notices when I study for certifications.
POSI5	My organization cares that I maintain a level of knowledge about the industry.
POSI6	My organization values me studying for certifications for the job.

*Modified from Eisenberger 1986 POS scale.

Appendix 1. Scales and Scale Definitions/Details (continued)

Perceived Organizational Support for Synergistic SDL Projects*

Salesperson perception of to what degree the organization values them in using optional and salesperson motivated learning opportunities provided by someone else (learning endeavors that may help the employee perform their job better, which are unstructured and not mandated or evaluated by the organization, although the organization may provide the material or access to the material) related to their work.

Please select the number that best expresses the extent to which you either agree to disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree to 7=strongly agree.**

POSS1	My organization values me using company databases/resources to learn job related information.
POSS2	My organization provides the tools and resources required to learn the business.
POSS3	My organization appreciates any extra effort on my part in using company databases/resources to learn the business.
POSS4	My organization notices when I attend optional company sponsored seminars to get a better handle on the business.
POSS5	My organization cares about me using company resources/databases to learn more about the business.
POSS6	My organization really cares about me using the learning resources provided.

*Modified from Eisenberger 1986 POS scale.

Appendix 1. Scales and Scale Definitions/Details (continued)

Perceived Supervisory Support for Induced SDL Projects*

Salesperson perception of to what degree the supervisor values them in using skills and acquiring information to fulfill basic job requirements or professional standards related to their work (unstructured employee on-the-job training, acquiring certifications, and continuing education).

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree** to **7=strongly agree.**

PSSI1	My supervisor values producers studying for certifications.
PSSI2	My supervisor provides the proper tools I need to attain my certification requirements.
PSSI3	My supervisor appreciates any extra effort on my part during on-the-job training.
PSSI4	My supervisor notices when I study for certifications.
PSSI5	My supervisor cares that I maintain a level of knowledge about the industry.
PSSI6	My supervisor values me studying for certifications for the job.

*Modified from Eisenberger 1986 POS scale.

Appendix 1. Scales and Scale Definitions/Details (continued)

Perceived Supervisory Support for Synergistic SDL Projects*

Salesperson perception of to what degree the supervisor values them in using optional and salesperson-motivated learning opportunities provided by someone else (learning endeavors that may help the employee perform his job better that are unstructured and not mandated or evaluated by the organization although the organization may provide the material or access to the material) related to their work.

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree to 7=strongly agree.**

PSSS1	My supervisor values me using company databases/resources to learn job-related information.
PSSS2	My supervisor provides the tools and resources required to learn the business.
PSSS3	My supervisor appreciates any extra effort on my part in using company databases/resources to learn the business.
PSSS4	My supervisor notices when I attend optional company-sponsored seminars to get a better handle on the business.
PSSS5	My supervisor cares about me using company resources/databases to learn more about the business.
PSSS6	My supervisor really cares about me using the learning resources provided.

*Modified from Eisenberger 1986 POS scale.

Appendix 1. Scales and Scale Definitions/Details (continued)

Willingness to Use Induced SDL Projects*

Salesperson's level of motivation to acquire skills and information to fulfill basic job requirements or professional standards (unstructured employee on-the-job training, certifications).

Please select your willingness to do the following activities. Responses are rated on a 7-point Likert scale anchored at 1=completely unwilling to 7=completely willing.

How willing are you to…

WI1	…learn information that is required to work in your industry.
WI2	…study material for certification requirements.
WI3	…study material to meet educational requirements.
WI4	…learn standardized material that is required to work in your industry.
WI5	…learn about the specific way your organization wants you to do your job.

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree** to **7=strongly agree**

WUIE1	I can participate in on-the-job training.
WUIE2	Participating in on-the-job training will help me understand the industry.
WUIE3	Understanding the industry is important to me.
WUIE4	I can study for the certifications required for the job.
WUIE5	Studying for certifications will help me pass certification exams.
WUIE6	Passing certifications required for the job is important to me.
WUIE7	I can study for educational requirements for the industry.
WUIE8	Studying educational requirements will help me pass educational requirement exams.
WUIE9	Completing educational requirements is important to me.

*new

Appendix 1. Scales and Scale Definitions/Details (continued)

Willingness to Use Synergistic SDL Projects (new scale)

Salesperson's level of motivation to take advantage of a learning opportunity provided by someone else in which the learning is optional and not mandated by the job (learning endeavors that may help the employee perform his job better that are unstructured and not mandated or evaluated by the organization although the organization may provide the material or access to the material).

Please select your willingness to do the following activities. Responses are rated on a 7-point Likert scale anchored at **1=completely unwilling** to **7=completely willing.**

How willing are you to…

WS1	…attend optional training sessions your organization provides.
WS2	…use sales resources that are available through your organization.
WS3	…use sales resources available through your company intranet.
WS4	…use databases of past sales provided by your organization.
WS5	…attend optional skill-development seminars provided by your organization.

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable**.** Responses are rated on a 7-point Likert scale anchored at **1=strongly disagree** to **7=strongly agree.**

WUSE1	Learning to do my job better is important to me.
WUSE2	I can attend optional training sessions provided by my organization.
WUSE3	Attending optional training sessions provided by my organization will help me learn to do my job better.
WUSE4	My company provides resources for employees that we can use at our discretion.
WUSE5	My company provides educational materials for employees that we can use at our discretion.
WUSE6	I understand how to use company educational materials.
WUSE7	Using educational materials that my company provides will help me learn to do my job better.
WUSE8	Using educational materials that my company provides will help me attain higher performance.
WUSE9	Learning about the industry is important to me.
WUSE10	I understand how to use resources that my company provides.
WUSE11	Using resources that my company provides will help me learn to do my job better.
WUSE12	My company provides training materials that I can use at my discretion.
WUSE13	Attaining higher performance is important to me.

Appendix 1. Scales and Scale Definitions/Details (continued)

Use of SDL Projects*

Amount of time spent, effort and frequency of using SDL projects (induced, synergistic).

In the **past 6 months**, approximately **how many hours** did you…

USEI1	…learn information that is required to work in your industry.
USEI2	…study material for certification requirements.
USEI3	…study material to meet educational requirements.
USEI4	…learn standardized material that is required to work in your industry.
USEI5	…learn about the specific way your organization wants you to do your job.

USES1	…attend optional training sessions your organization provides.
USES2	…use sales resources that are available through your organization.
USES3	…use sales resources available through your company intranet.
USES4	…use databases of past sales provided by your organization.
USES5	…attend optional skill development seminars provided by your organization.

*new for types of projects, but assessing SDL used this way in the literature (Guglielmino 1977; 1996; 2002)

Appendix 1. Scales and Scale Definitions/Details (continued)

Salesperson Performance

Assesses the salesperson's value to the firm provided by a salesperson's past actions (Leach et al., 2005).

Please rate responses on a 6-point Likert scale anchored at **1=extremely below average** to **6=extremely above average.**

How do you rate relative to your peers regarding…

…retaining high-profit customers.
…average goal attainment past three quarters.
…last performance evaluation.

*********Changed to**********

Please evaluate yourself relative to your peers based on the following statements. A rating of 1 is extremely below average and a rating of 6 is extremely above average. Please circle N/A if the statement is not applicable to you.

How do you rate relative to your peers regarding…

PERF11	… retaining high-profit customers.
PERF12	… goal attainment in the past three quarters.
PERF13	… your last performance evaluation.
PERF14*	… performing your job well.

*new item

Appendix 1. Scales and Scale Definitions/Details (continued)

Salesperson Performance

Assesses the salesperson's performance on self-evaluations relative to other salespeople working for their company on achieving quantity and quality sales objectives. Taken from Behrman and Perreault (1982) and then Sujan, Weitz, and Kumar (1994) added a couple.

Please indicate scale items on a scale from -5 to +5. -5 is much worse, 0 is average, and +5 is much better.

******Instructions changed to********

Please evaluate yourself <u>compared to other salespeople at your level in your industry</u> based on the following statements (-5 is much worse, 0 is average, and 5 is much better). Please select N/A if it is not applicable to you, or if you do not know.

PERF21	Contributing to your company's acquiring a good market share.
PERF22	Selling high profit-margin products.
PERF23	Generating a high level of dollar sales.
PERF24	Quickly generating sales of new company products.
PERF25	Identifying major accounts in your territory and selling to them.
PERF26	Exceeding sales targets.
PERF27	Assisting your sales supervisor in meeting his or her goals.

Appendix 1. Scales and Scale Definitions/Details (continued)

Demographic Questions Relating to the Sales Industry

Please indicate your gender	Male Female
Please indicate your age (circle one)	18-25 26-35 36-45 46-55 56+
What is your current title?	
How many years have you worked in your current position?	
How many years have you worked with your current company?	
How many years have you worked in sales?	
What type of products/services do you sell?	
What type of industry do you work in?	
What is your highest degree? (please circle one)	high school 2-year 4-year graduate degree
About how much money do you earn per year? (please circle one)	Less than 50,000 50,000-100,000 100,000-150,000 150,000+
What type of customer contact do you have? (please circle all that apply)	phone email face-to-face fax outside of office inside office
Please feel free to add any comments here (continue on back of paper if necessary):	

Appendix 2: Scale in Survey Format

Learning for Business Literature: A Scale to Measure the Preferences of Salespeople

Regarding the Use of Learning Forms

This survey is designed to study the attitudes of salespeople toward the different types of learning used in their sales careers. Specifically, we want to better understand how salespeople feel about learning related to their work (learning materials, certification requirements, training and development).

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

	I have received training on how to effectively…	**Strongly Disagree**						**Strongly Agree**	
1	…plan how to overcome obstacles to my goals.	1	2	3	4	5	6	7	N/A
2	…self-monitor my progress toward my goals.	1	2	3	4	5	6	7	N/A
3	…motivate myself on a day-to-day basis.	1	2	3	4	5	6	7	N/A
4	…manage my time.	1	2	3	4	5	6	7	N/A
5	…persist at working toward my goals every day.	1	2	3	4	5	6	7	N/A
6	…assess my progress toward my goals.	1	2	3	4	5	6	7	N/A
7	…set achievable goals.	1	2	3	4	5	6	7	N/A
8	…set clear goals for myself.	1	2	3	4	5	6	7	N/A
9	…set challenging goals for myself.	1	2	3	4	5	6	7	N/A
10	…identify situations that would prevent me from staying on track toward my goals.	1	2	3	4	5	6	7	N/A

Appendix 2: Scale in Survey Format (continued)

Please select the number that best expresses the extent to which you either agree or disagree with each of the following statements. If a statement does not apply to you, please circle N/A for not applicable.

		Strongly Disagree						**Strongly Agree**	
1	I can participate in on-the-job training.	1	2	3	4	5	6	7	N/A
2	Participating in on-the-job training will help me understand the industry.	1	2	3	4	5	6	7	N/A
3	Understanding the industry is important to me.	1	2	3	4	5	6	7	N/A
4	I can study for the certifications required for the job.	1	2	3	4	5	6	7	N/A
5	Studying for certifications will help me pass certification exams.	1	2	3	4	5	6	7	N/A
6	Passing certifications required for the job is important to me.	1	2	3	4	5	6	7	N/A
7	I can study for educational requirements for the industry.	1	2	3	4	5	6	7	N/A
8	Studying educational requirements will help me pass educational requirement exams.	1	2	3	4	5	6	7	N/A
9	Completing educational requirements is important to me.	1	2	3	4	5	6	7	N/A
10	I can attend optional training sessions provided by my organization.	1	2	3	4	5	6	7	N/A
11	Attending optional training sessions provided by my organization will help me learn to do my job better.	1	2	3	4	5	6	7	N/A
12	Learning to do my job better is important to me.	1	2	3	4	5	6	7	N/A
13	My company provides resources for employees that we can use at our discretion.	1	2	3	4	5	6	7	N/A
14	My company provides historical databases for employees that we can use at our discretion.	1	2	3	4	5	6	7	N/A
15	I understand how to use company historical databases.	1	2	3	4	5	6	7	N/A
16	Using historical databases that my company provides will help me learn to do my job better.	1	2	3	4	5	6	7	N/A
17	Using databases that my company provides will help me learn about the industry.	1	2	3	4	5	6	7	N/A
18	Learning about the industry is important to me.	1	2	3	4	5	6	7	N/A
19	I understand how to use resources that my company provides.	1	2	3	4	5	6	7	N/A
20	Using resources that my company provides will help me learn to do my job better.	1	2	3	4	5	6	7	N/A
21	When I must choose between the two, I usually dress for fashion, not for comfort.	1	2	3	4	5	6	7	N/A
22	An important part of my life and activities is dressing smartly.	1	2	3	4	5	6	7	N/A
23	A person should try to dress in style.	1	2	3	4	5	6	7	N/A

Appendix 2: Scale in Survey Format (continued)

Please rate the extent to which you either agree or disagree with the following statements first about your a) CURRENT ORGANIZATION and second about your b) IMMEDIATE SUPERVISOR. If the statement is not applicable to you, please circle N/A.

		Please answer this question about your ORGANIZATION	**Please answer this question about your SUPERVISOR**
		Strongly Disagree 1 2 3 4 5 6 7 **Strongly Agree** N/A	**Strongly Disagree** 1 2 3 4 5 6 7 **Strongly Agree** N/A
1	My _____ values producers studying for certifications.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
2	My provides the proper tools I need to attain my certification requirements.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
3	My _____ appreciates any extra effort on my part during on-the-job training.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
4	My _____ notices when I study for required certifications.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
5	My _____ cares that I maintain a level of knowledge about the industry.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
6	My _____ values me studying for certifications for the job.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
7	My _____ values me using company databases/resources to learn job-related information.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
8	My _____ provides the tools and resources required to learn the business.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
9	My _____ appreciates any extra effort on my part in using company databases/resources to learn the business.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
10	My _____ notices when I attend optional company-sponsored seminars to get a better handle on the business.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
11	My _____ cares about me using company resources/databases to learn more about the business.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A
12	My _____ really cares about me using the learning resources provided.	1 2 3 4 5 6 7 N/A	1 2 3 4 5 6 7 N/A

Appendix 2: Scale in Survey Format (continued)

Please select the number that best describes how willing you are to perform each activity. **1=completely unwilling** and **7=completely willing**. Please select N/A if your organization does not offer the materials or services in question.
How willing are you to…

		Completely Unwilling						**Completely Willing**	
1	…learn information that is required to work in your industry.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
2	…study material for certification requirements.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
3	…study material to meet educational requirements.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
4	…learn standardized material that is required to work in your industry.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
5	…learn about the specific way your organization wants you to do your job.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
6	…attend optional training sessions your organization provides.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
7	…use sales resources that are available through your organization.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
8	…use sales resources available through your company intranet.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
9	…use databases of past sales provided by your organization.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**
10	…attend optional skill-development seminars provided by your organization.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**N/A**

Appendix 2: Scale in Survey Format (continued)

Please indicate the number of hours in the past six months that you have spent on the following activities. If you have not performed the activity, please select zero.

It may be difficult to remember exactly how many hours you performed these activities, so please enter an approximate amount from the choices below.

In the past **six months, approximately** how many hours did you…

1	…learn information that is required to work in your industry.	0 hours	1-6 hours	7-12 hours	13+ hours
2	…study material for certification requirements.	0 hours	1-6 hours	7-12 hours	13+ hours
3	…study material to meet educational requirements.	0 hours	1-6 hours	7-12 hours	13+ hours
4	…learn standardized material that is required to work in your industry.	0 hours	1-6 hours	7-12 hours	13+ hours
5	…learn about the specific way your organization wants you to do your job.	0 hours	1-6 hours	7-12 hours	13+ hours
6	…attend optional training sessions your organization provides.	0 hours	1-6 hours	7-12 hours	13+ hours
7	…use sales resources that are available through your organization.	0 hours	1-6 hours	7-12 hours	13+ hours
8	…use sales resources available through your company intranet.	0 hours	1-6 hours	7-12 hours	13+ hours
9	…use databases of past sales provided by your organization.	0 hours	1-6 hours	7-12 hours	13+ hours
10	…attend optional skill-development seminars provided by your organization.	0 hours	1-6 hours	7-12 hours	13+ hours

Appendix 2: Scale in Survey Format (continued)

Please evaluate yourself relative to your peers based on the following statements. A rating of 1 is extremely below average and a rating of 6 is extremely above average. Please circle N/A if the statement is not applicable to you.

	How do you rate relative to your peers regarding …	**Extremely below average**					**Extremely above average**	
1	… retaining high-profit customers.	1	2	3	4	5	6	N/A
2	… goal attainment in the past three quarters.	1	2	3	4	5	6	N/A
3	… your last performance evaluation.	1	2	3	4	5	6	N/A

Please evaluate yourself <u>compared to other salespeople at your level in your industry</u>, based on the following statements (-5 is much worse, 0 is average, and 5 is much better). Please select N/A if it is not applicable to you, or if you do not know.

		Much Worse										**Much Better**	
1	Contributing to your company's acquiring a good market share.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A
2	Selling high profit-margin products.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A
3	Generating a high level of dollar sales.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A
4	Quickly generating sales of new company products.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A
5	Identifying major accounts in your territory and selling to them.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A
6	Exceeding sales targets.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A
7	Assisting your sales supervisor in meeting his or her goals.	-5	-4	-3	-2	-1	0	1	2	3	4	5	N/A

Please answer the following questions about yourself for classification purposes.

1	Please indicate your gender	Male Female
2	Please indicate your age (circle one)	18-25 26-35 6-45 46-55 60+
3	What is your current title?	
4	How many years have you worked in your current position?	
5	How many years have you worked with your current company?	
6	How many years have you worked in sales?	
7	What type of products/services do you sell?	
8	What type of industry do you work in?	
9	What is your highest degree? (please circle)	high school 2-year 4-year \ graduate degree
10	About how much money do you earn per year? (please circle one)	less than 50,000 50,000-100,000 100,000-150,000 150,000+
11	What type of customer contact do you have? (circle all that apply)	phone email face-to-face fax outside of office inside office
12	Please feel free to add any comments here (continue on back of paper if necessary):	

Appendix 3. Unidimentional Scale Items, Factor Loadings and Reliabilities

Construct	Items	Factor	α	Construct	Items	Factor	α
SRT	SRT1	.866	.92	**PERF2**	PERF21	.897	.944
	SRT2	.911			PERF22	.842	
	SRT3	.841			PERF23	.910	
	SRT4	.830			PERF24	.873	
	SRT5	.919			PERF25	.820	
	SRT6	.911			PERF26	.877	
	SRT7	.900			PERF27	.840	
	SRT8	.918					
	SRT9	.905					
	SRT10	.866					
PERF1	PERF11	.824	.796	**FC**	FC1	.843	.824
	PERF12	.845			FC2	.885	
	PERF13	.876			FC3	.863	
	PERF14	.884					
POSI	POSI1	.933	.926	**PSS1**	PSSI1	.945	.964
	POSI2	.763			PSSI2	.834	
	POSI3	.872			PSSI3	.916	
	POSI4	.818			PSSI4	.851	
	POSI5	.829			PSSI5	.877	
	POSI6	.912			PSSI6	.940	
POSS	POSS1	.945	.95	**PSSS**	PSSS1	.944	.964
	POSS2	.874			PSSS2	.896	
	POSS3	.928			PSSS3	.935	
	POSS4	.887			PSSS4	.877	
	POSS5	.948			PSSS5	.932	
	POSS6	.941			PSSS6	.946	
WI	WI1	.925	.942	**WS**	WS1	.895	.932
	WI2	.945			WS2	.918	
	WI3	.923			WS3	.821	
	WI4	.904			WS4	.908	
	WI5	.831			WS5	.904	
USEI	USDLI1	.747	.728	**USES**	USDLS1	.753	.811
	USDLI2	.363			USDLS2	.749	
	USDLI3	.728			USDLS3	.744	
	USDLI4	.769			USDLS4	.837	
	USDLI5	.499			USDLS5	.698	

Construct abbreviations: (SRT) Self-Regulated Training, (POSI) Perceived Organizational Support for Induced SDLP's, (PSSI) Perceived Organizational Support for Induced SDLP's, (POSS) Perceived Organizational Support for Induced SDLP's, (PSSS) Perceived Organizational Support for Induced SDLP's, (WI) Willingness to Use Induced SDLP's, (WS) Willingness to Use Synergistic SDLP's, (USEI) Use of Induced SDLP's, (USES) Use of Synergistic SDLP's, (PERF1) Performance Measure, Leach et al., 2005 (PERF2) Performance Measure, Behrman and Perrault, 1994, (FC) Fashion Consciousness

[1]Cronbach's alpha scale reliability

Appendix 3. Unidimentional Scale Items, Factor Loadings and Reliabilities (continued)

Construct	Items	Factor			α^1
		F1[3]	**F2[4]**	**F3[5]**	
Willingness to use induced SDLP's[2]	WUIE1	.467	.275	.122	.914
	WUIE2	.371	.375	.350	
	WUIE3	.373	.580	.297	
	WUIE4	.667	.331	.424	
	WUIE5	.264	.328	.906	
	WUIE6	.330	.763	.328	
	WUIE7	.800	.355	.264	
	WUIE8	.511	.337	.507	
	WUIE9	.377	.745	.248	
		F1[5]	**F2[3]**	**F3[4]**	
Willingness to use synergistic SDLP's[2]	WUSE1	.221	.057	.778	.901
	WUSE2	.365	.569	.237	
	WUSE3	.694	.193	.293	
	WUSE4	.238	.830	.156	
	WUSE5	.170	.928	.050	
	WUSE6	.537	.320	.282	
	WUSE7	.789	.259	.194	
	WUSE8	.841	.176	.188	
	WUSE9	.308	.132	.753	
	WUSE10	.574	.382	.223	
	WUSE11	.752	.241	.282	
	WUSE12	.296	.871	.037	
	WUSE13	.243	.133	.866	

[1] Cronbach's alpha scale reliability.
[2] Willingness using the measures derived from expectancy theory with instrumentality, valence, and outcome expectancy comprising willingness.
[3] Items highlighted in gray related to expectancy.
[4] Items highlighted in gray related to valence.
[5] Items highlighted in gray related to instrumentality.
[6] Maximum likelihood extraction method with varimax rotation.

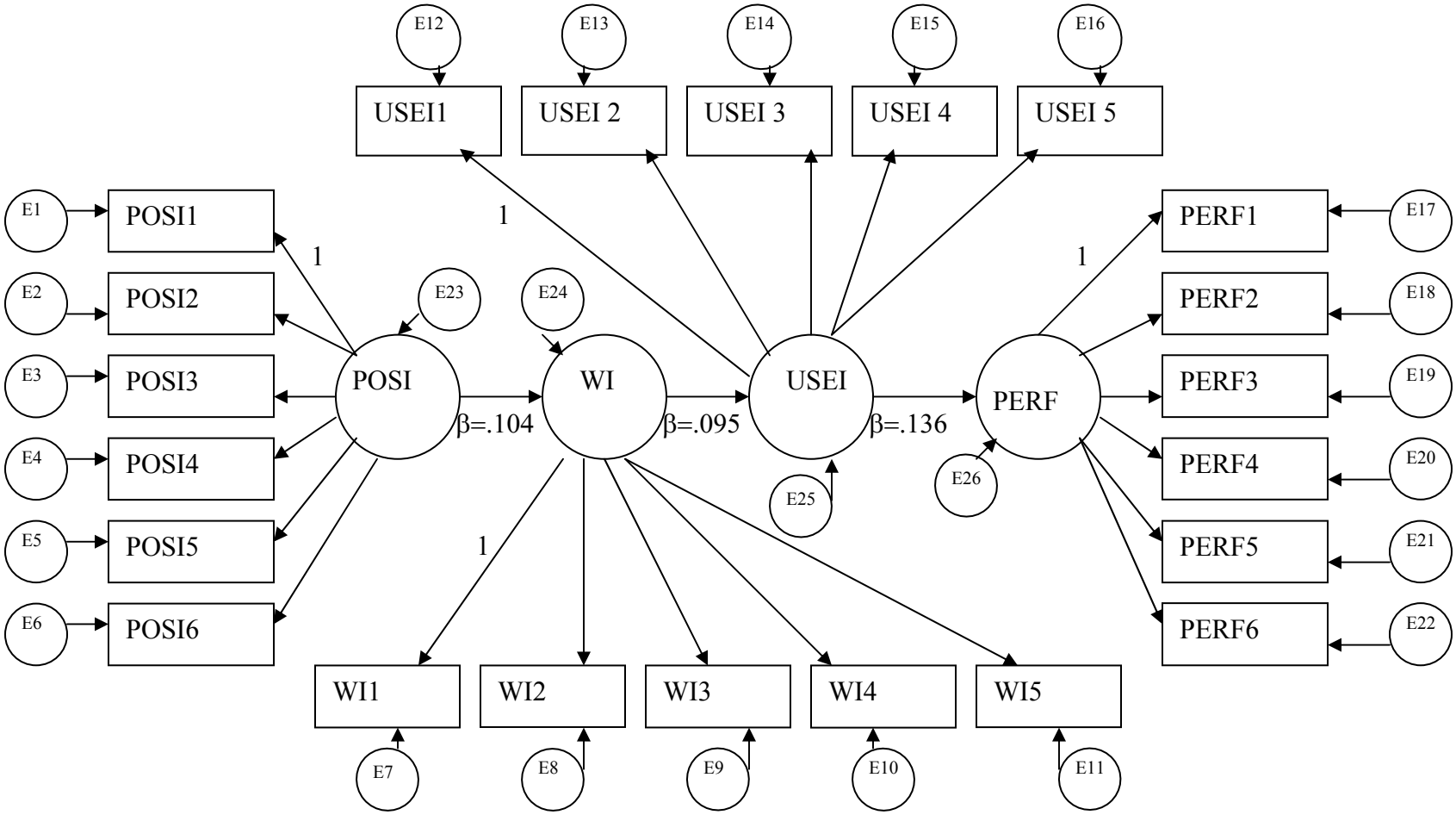
Appendix 4. Means, Standard Deviations and Correlations

	Mean	S.D.	SRT	POSI	PSSI	POSS	PSSS	WIE	WSE	WI	WS	USEI	USES	P1	P2
SRT	4.59	1.49	1												
POSI	5.30	1.48	**.364**	1											
PSSI	5.36	1.62	**.360**	**.857**	1										
POSS	5.07	1.67	**.417**	**.873**	**.801**	1									
PSSS	5.08	1.67	**.420**	**.781**	**.894**	**.888**	1								
WIE	6.23	.91	**.211**	**.347**	**.352**	**.307**	**.308**	1							
WSE	5.80	.96	**.400**	**.646**	**.626**	**.650**	**.621**	**.568**	1						
WI	6.52	.88	.074	**.209**	**.200**	**.200**	**.145**	**.450**	**.322**	1					
WS	6.35	.97	.067	**.277**	**.253**	**.296**	**.231**	**.471**	**.410**	**.876**	1				
USEI	2.53	.74	**.161**	**.210**	**.178**	**.222**	**.200**	**.115**	**.207**	**.107**	**.122**	1			
USES	2.10	.766	**.266**	**.377**	**.394**	**.482**	**.487**	.080	**.371**	.023	**.143**	**.506**	1		
P1	4.84	.87	**.232**	.077	**.126**	.081	.062	.074	.118	.001	-.019	-.044	.083	1	
P2	8.06	1.81	**.417**	**.205**	**.252**	**.230**	**.236**	.068	**.232**	.025	**.113**	.119	**.228**	**.667**	1
FC	4.62	1.33	.085	**.188**	**.122**	**.196**	**.129**	**.236**	**.177**	**.170**	**.203**	**.177**	**.115**	.053	.073

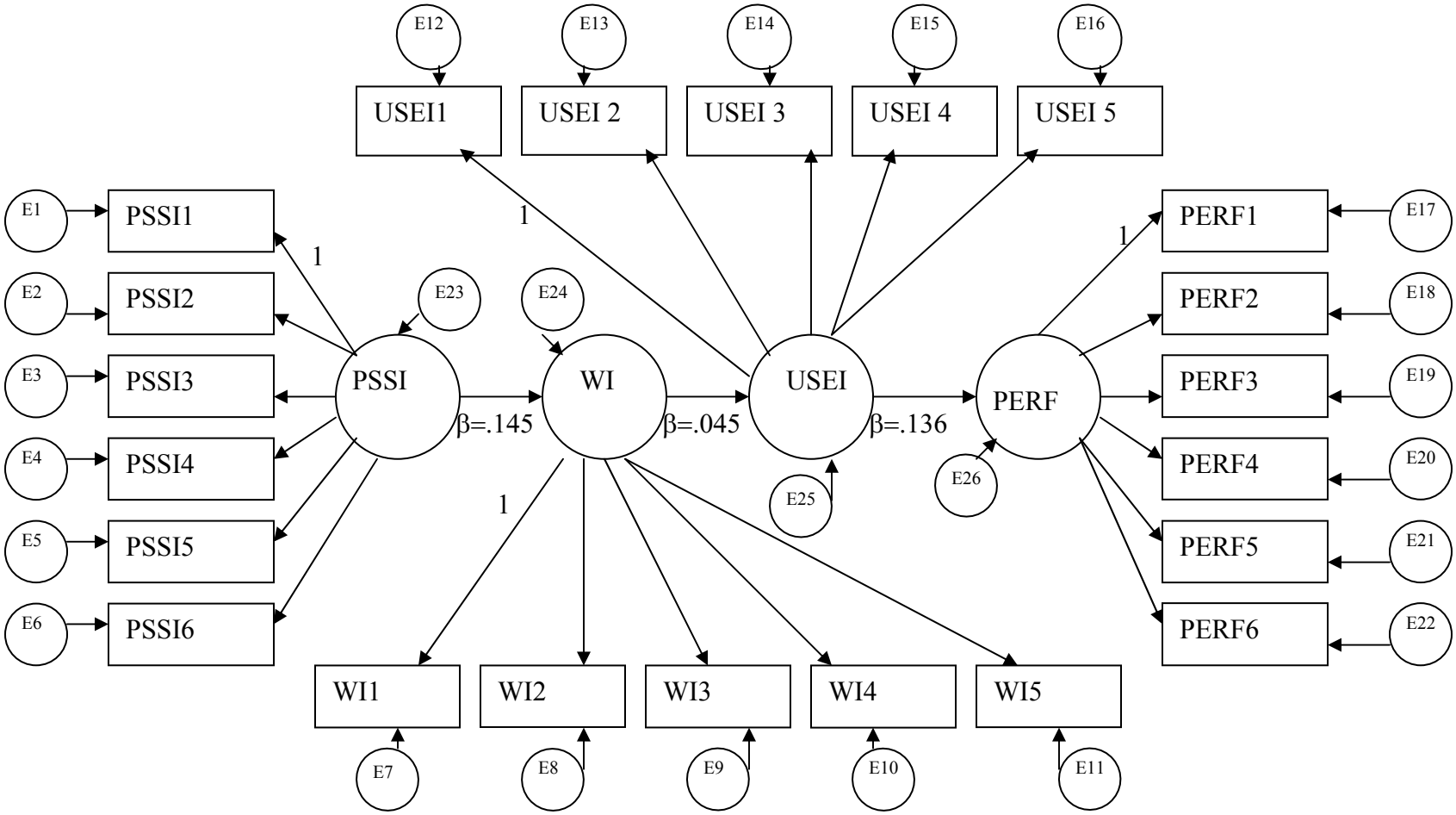
[1]bold is significant at $\alpha = .05$

SRT Self-regulated training
POSI Perceived organizational support for induced SDLP's
PSSI Perceived supervisory support for induced SDLP's
POSS Perceived organizational support for synergistic SDLP's
PSSS Perceived supervisory support for synergistic SDLP's
WIE Willingness to use induced SDLP's derived from expectancy theory
WSE Willingness to use synergistic SDLP's derived from expectancy theory
WI Willingness to use induced SDLP's
WS Willingness to use synergistic SDLP's
USEI Use of induced SDLP's
USES Use of synergistic SDLP's
P1 Performance measure Leach et al. 2005
P2 Performance measure Behrman and Perrault 1994
FC Fashion Consciousness

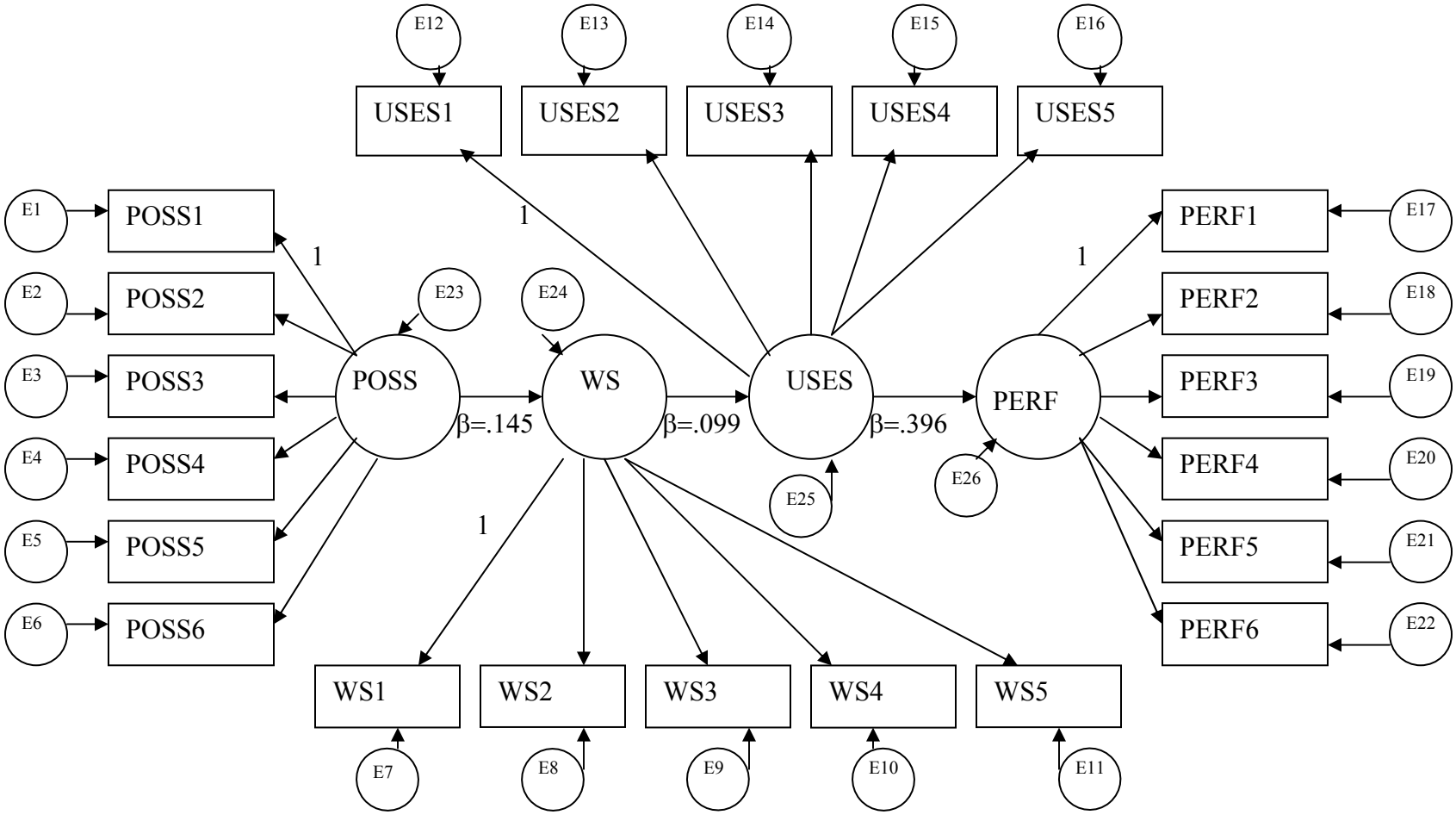
Appendix 5. Path Diagrams of Specified Models



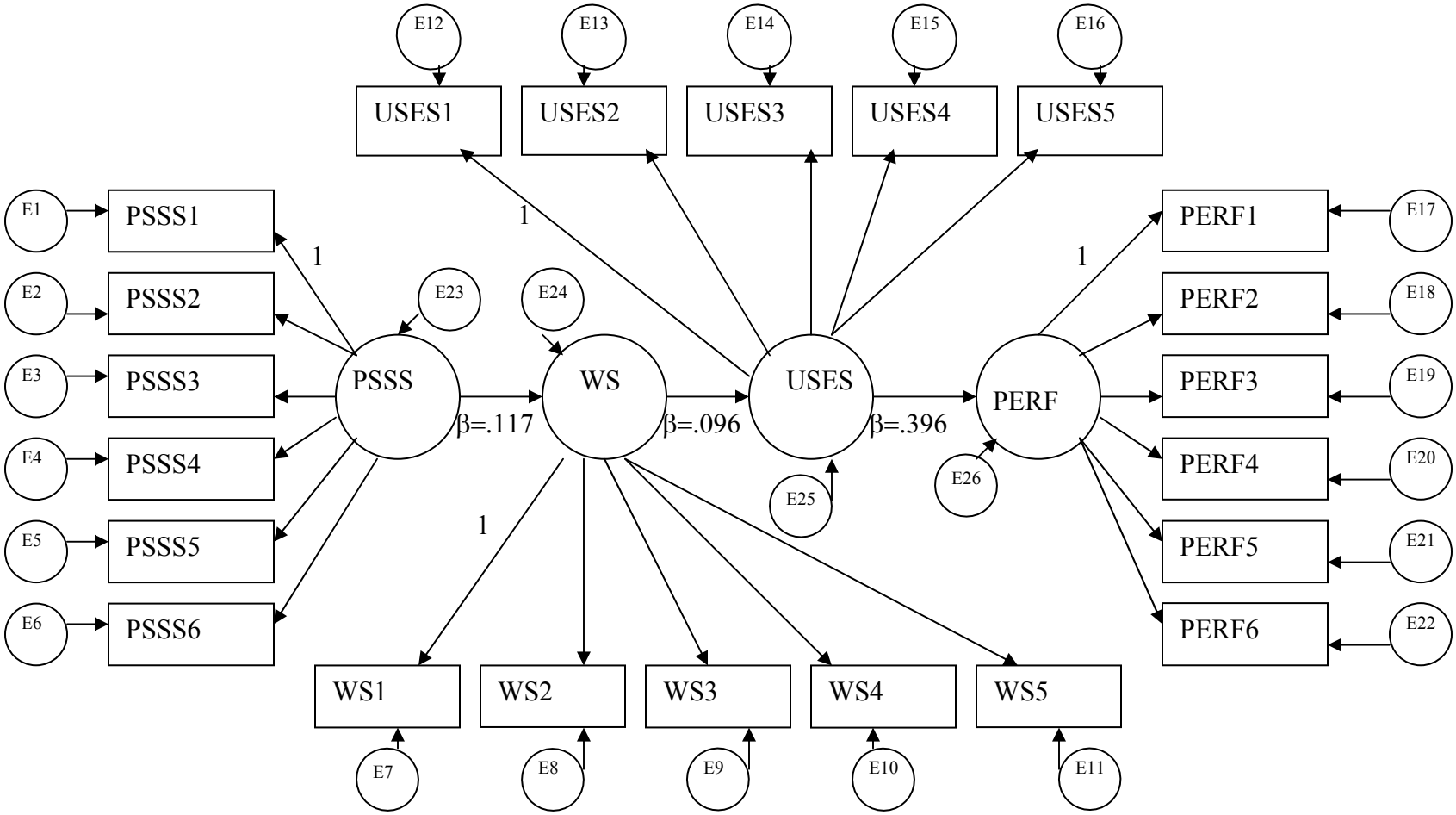
Appendix 5. Path Diagrams of Specified Models (continued)



Appendix 5. Path Diagrams of Specified Models (continued)



Appendix 5. Path Diagrams of Specified Models (continued)



Appendix 6. Maximum, Minimum, Mean and Standard Deviation of Indicators

Construct	Indicator	N	Maximum	Minimum	Mean	Standard Deviation
Perceived organizational support for induced SDLP's	POSI1	364	7	1	5.34	1.745
	POSI2	362	7	1	5.53	1.783
	POSI3	357	7	1	5.15	1.750
	POSI4	357	7	1	4.73	1.936
	POSI5	371	7	1	5.86	1.511
	POSI6	365	7	1	5.31	1.773
Perceived supervisory support for induced SDLP's	PSSI1	324	7	1	5.31	1.833
	PSSI2	316	7	1	5.45	1.841
	PSSI3	319	7	1	5.29	1.831
	PSSI4	317	7	1	4.77	2.012
	PSSI5	330	7	1	5.85	1.685
	PSSI6	322	7	1	5.25	1.862
Perceived organizational support for synergistic SDLP's	POSS1	360	7	1	5.16	1.763
	POSS2	363	7	1	5.09	1.891
	POSS3	358	7	1	5.11	1.809
	POSS4	367	7	1	4.99	1.852
	POSS5	357	7	1	5.07	1.811
	POSS6	357	7	1	5.02	1.754
Perceived supervisory support for synergistic SDLP's	PSSS1	317	7	1	5.12	1.754
	PSSS2	317	7	1	4.95	1.977
	PSSS3	314	7	1	5.14	1.840
	PSSS4	325	7	1	5.14	1.795
	PSSS5	316	7	1	5.07	1.760
	PSSS6	317	7	1	5.08	1.752
Willingness to use induced SDLP's	WI1	389	7	1	6.65	.863
	WI2	381	7	1	6.50	.983
	WI3	384	7	1	6.55	.921
	WI4	388	7	1	6.55	.946
	WI5	383	7	1	6.40	1.076
Willingness to use synergistic SDLP's	WSI1	374	7	1	6.42	1.075
	WS2	369	7	1	6.32	1.069
	WS3	355	7	1	6.26	1.212
	WS4	367	7	1	6.38	1.017
	WS5	373	7	1	6.43	1.015
Use of induced SDLP's	USEI1	392	4	1	2.91	.996
	USEI2	392	4	1	2.41	1.231
	USEI3	392	4	1	2.65	1.136
	USEI4	392	4	1	2.54	1.031
	USEI5	392	4	1	2.17	.949

Appendix 6. Maximum, Minimum, Mean and Standard Deviation of Indicators

Use of synergistic SDLP's	USES1	392	4	1	2.23	5.070
	USES2	392	4	1	2.18	1.020
	USES3	392	4	1	1.89	.931
	USES4	392	4	1	2.08	.978
	USES5	392	4	1	2.13	1.069
Performance	PERF1	361	11	1	8.48	1.902
	PERF2	341	11	1	7.93	1.980
	PERF3	358	11	1	7.90	2.184
	PERF4	350	11	1	7.63	2.143
	PERF5	351	11	1	7.80	2.157
	PERF6	355	11	1	7.77	2.259
	PERF7	290	11	1	8.14	2.061

Appendix 7. Measurement Model Comparison

Model	$\chi 2$	RMSEA	NFI	RFI
1A	497.0	.060	.917	.898
Measurement Model 1 A	515.139	.061	.914	.896
1B	529.5	.063	.916	.897
Measurement Model 1 B	546.395	.064	.914	.895
2A	538.7	.064	.921	.903
Measurement Model 2 A	574.608	.067	.915	.898
2B	581.8	.068	.944	.891
Measurement Model 2 B	607.901	.070	.907	.888

RMSEA= Root mean squared error of approximation
NFI= Normed fit index
RFI= Relative fit index

ABOUT THE AUTHOR

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