

Fall 1997

The effects of organizational and individual learning on job satisfaction and organizational commitment

David Lee Wright
Louisiana Tech University

Follow this and additional works at: <https://digitalcommons.latech.edu/dissertations>



Part of the [Marketing Commons](#), and the [Organizational Behavior and Theory Commons](#)

Recommended Citation

Wright, David Lee, "" (1997). *Dissertation*. 732.
<https://digitalcommons.latech.edu/dissertations/732>

This Dissertation is brought to you for free and open access by the Graduate School at Louisiana Tech Digital Commons. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of Louisiana Tech Digital Commons. For more information, please contact digitalcommons@latech.edu.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

THE EFFECTS OF ORGANIZATIONAL AND INDIVIDUAL
LEARNING ON JOB SATISFACTION AND
ORGANIZATIONAL COMMITMENT

by

David L. Wright, B.B.A., M.B.A.

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration

COLLEGE OF ADMINISTRATION AND BUSINESS
LOUISIANA TECH UNIVERSITY

NOVEMBER 1997

UMI Number: 9812175

UMI Microform 9812175
Copyright 1998, by UMI Company. All rights reserved.

**This microform edition is protected against unauthorized
copying under Title 17, United States Code.**

UMI
300 North Zeeb Road
Ann Arbor, MI 48103

LOUISIANA TECH UNIVERSITY
THE GRADUATE SCHOOL

November 20, 1997

Date


We hereby recommend that the dissertation prepared under our supervision
by David Lee Wright

entitled The Effects of Organizational and Individual Learning on

Job Satisfaction and Organizational Commitment

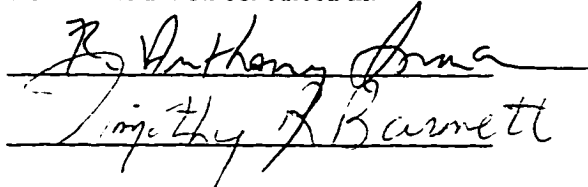
be accepted in partial fulfillment of the requirements for the Degree of

Doctor of Business Administration



Supervisor of Dissertation Research

Recommendation concurred in:

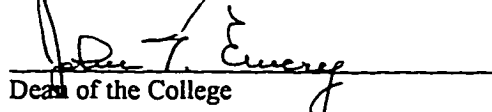


Advisory Committee

Approved:



Director of Graduate Studies



Dean of the College

Approved:



Dean of Graduate School

GS Form 13
8/96

ABSTRACT

The objective of this dissertation was to assess how certain organizational-level and individual-level factors affect member job attitudes. Specifically, market orientation and organizational learning, contingent on the individual's orientation toward learning, were examined as potential predictors of job satisfaction and organizational commitment. Individual performance of employees affects organizational performance. Consequently, these organizational and individual factors are significant to management because of their potential influence on the attitudes of employees.

A national sample consisting of sales and marketing executives made up the sample frame. A self-report questionnaire was mailed to 2000 randomly selected potential respondents. The return of 213 usable questionnaires resulted in a 10.8% response rate out of the 1975 actually delivered. Hypotheses were tested involving the influence of each predictor variable on each employee attitude. The individual's orientation toward learning as moderator was also tested. Finally, the influence of an interaction between the predictor

variables on employee attitudes and the moderation of this influence by the individual's learning orientation was tested. The principal statistical method of analysis was moderated multiple regression. Both employee attitudes were regressed on market orientation and the learning organization as moderated by individual learning orientation. The moderated interaction between the predictor variables was also examined against each attitude.

Statistical analysis revealed that

- job satisfaction and organizational commitment are each influenced by market orientation and the learning organization,
- job satisfaction and organizational commitment are each influenced by individual learning orientation in the presence of market orientation or learning organization characteristics,
- interaction between market orientation and the learning organization does not affect job satisfaction,
- interaction between market orientation and the learning organization does not affect either job satisfaction or organizational commitment,
- individual learning orientation does not moderate the effects of market orientation, the learning organization, or their interaction on job attitudes,
- learning organization appears to explain more variance in either employee attitude than does market orientation.

Managerial implications of the findings were discussed along with contributions to knowledge in

management and marketing. Finally, future research suggestions were provided.

TABLE OF CONTENTS

ABSTRACT	iii
LIST OF TABLES	ix
LIST OF FIGURES	xii
ACKNOWLEDGEMENTSxiii
Chapters	
1. INTRODUCTION	1
The Importance of Study Variables	1
The Learning Organization	
And Organizational Learning	3
Individual Learning Orientation	5
Market Orientation	6
Job Satisfaction and Organizational	
Commitment	7
The Need for Further Research	8
Statement of the Problem	9
Objectives of the Study	11
Variables and the Hypothesized Framework	13
The Learning Organization (LO)	13
Market Orientation (MO)	14
Individual Learning Orientation (ILO)	15
Job Satisfaction (JS)	15
Organization Commitment (OC)	16
Contributions of the Study	17
Plan of Study	18
2. REVIEW OF LITERATURE	20
Organizational Learning	22
Comparison of Definitions	24
Personal Learning	28
Instrumental Perspective	33
Behavioral Perspective	34
Attributes of an Organization	
That Learns	35
Organizational Learning Cycle	37

Information Acquisition	37
Information Dissemination	38
Information Interpretation	39
Organizational Memory	42
The Learning Organization	45
Learning Organization Mechanisms	49
Culture for Learning	54
Degree of Learning	57
Market Orientation	60
Domain	64
Processes	65
Core of Market Orientation	68
Organizational Learning and Market Orientation	71
Job Satisfaction and Organizational Commitment.	74
Individual Learning Orientation	79
3. RESEARCH METHODOLOGY	81
The Proposed Model	82
Research Hypotheses	84
Operationalization of Variables	87
Market Orientation	87
Learning Organization	90
Individual Learning Orientation	93
Job Satisfaction	95
Organization Commitment	97
Research Instrument	99
Reliability and Validity	99
Market Orientation	99
Learning Organization	101
Individual Learning Orientation	102
Job Satisfaction	102
Organization Commitment	103
Research Design	104
Sample Methodology	104
Data Collection Procedures	105
Statistical Techniques	105
4. PRESENTATION OF DATA ANALYSIS	107
Characteristics of the Sample	107
Assessment of Potential Non-Response Bias	109
Measurement Issues	113
Factor Analysis	114
Market orientation.	115
Learning organization.	116
Individual learning orientation.	118
Job satisfaction.	119
Organizational commitment.	120

Reliability Analysis	121
Market orientation.	121
Learning orientation.	122
Individual learning orientation.	124
Job satisfaction.	125
Organizational commitment.	126
Summary of Reliability Analysis	127
Descriptive Statistics and Study Comparisons	127
Market Orientation	128
Learning Organization	130
Individual Learning Orientation	131
Job Satisfaction	132
Organizational Commitment	133
Kurtosis, Skewness, and Range of Scores	135
Variable Correlations	135
Hypothesis Testing	137
Procedures	137
Results	142
Job Satisfaction as Dependent Variable	144
Organizational Commitment as Dependent Variable	147
Summary of Hypothesis Testing	150
Conclusions	151
5. DISCUSSION AND IMPLICATIONS OF STUDY	152
Research Findings	153
Job Satisfaction as Dependent Variable	153
Organizational Commitment as Dependent Variable	157
Managerial Implications	158
Limitations of the Study	160
The Sample	160
Key Informant Bias	161
Measurement Issues	161
Contributions of the Study	162
Suggestions for Future Research	163
APPENDIX A	166
Research Instrument	167
APPENDIX B	176
Cover Letter	177
REFERENCES	178

LIST OF TABLES

Table	Page
2.1 Organizational Learning Definitions	30
2.2 Learning Organization Definitions	48
2.3 Market Orientation: Definitions From Literature	62
3.1 Market Orientation	89
3.2 Learning Organization	92
3.3 Individual Learning Orientation	94
3.4 Job Satisfaction	96
3.5 Attitudinal Organization Commitment	98
4.1 Selected Demographic Characteristics of Respondents	109
4.2 Comparison of Early and Late Respondents on Variables	111
4.3 Comparison of Early and Late Respondents on Demographics	112
4.4 Factor Loadings of the Market Orientation Construct Items	116
4.5 Factor Loadings for the Learning Organization Construct Items	117
4.6 Factor Loadings for the Individual Learning Orientation Items	118
4.7 Factor Loadings of the Job Satisfaction Construct Items	119

4.8	Factor Loadings of the Organizational Commitment Construct Items	120
4.9	Reliability Analysis of Market Orientation Items	122
4.10	Reliability Analysis of Learning Organization Items	123
4.11	Reliability Analysis of Individual Learning Orientation Items	124
4.12	Reliability Analysis of Job Satisfaction Items	125
4.13	Reliability Analysis of Organizational Commitment Items.	126
4.14	Reliability Analysis Summary	127
4.15	Descriptive Statistics of Study Variables	128
4.16	Comparison Across Studies (Market Orientation Scale)	129
4.17	Comparison Across Studies (Learning Organization Scale)	130
4.18	Comparison Across Studies (Individual Learning Orientation Scale)	132
4.19	Comparison Across Studies (Job Satisfaction Scale)	133
4.20	Comparison Across Studies (Organizational Commitment Scale)	134
4.21	Correlation Coefficients and Significance	137
4.22	Correlation Matrix of Transformed Predictor, Moderator, and Cross-Product Variables	143
4.23	Eigenvalues for Principal Components Associated With Correlation of Predictor, Moderator, and Cross-Product Variables	144
4.24	Coefficients and Significance with Job Satisfaction as Dependent Variable	144

4.25	Coefficients and Significance with Organizational Commitment as Dependent Variable	147
4.26	Summary of Hypothesis Test Results	150

LIST OF FIGURES

Figure	Page
1.1 Study Framework	12
3.1 Graphic Representation of Model	83

ACKNOWLEDGEMENTS

My sincere appreciation is extended to those who have so significantly contributed to the completion of this dissertation. First, I wish to thank my dissertation committee, Dr. Gene Brown, Dr. Timothy Barnett, and Dr. R. Anthony Inman for their invaluable experience and guidance before and during the writing of this dissertation.

Foremost gratitude goes to Dr. Gene Brown as dissertation chairman for academic insight and direction. Dr. Brown has provided understanding and support throughout my time in the doctoral program.

Second, I wish to express gratitude to other graduate faculty members, departmental and college staff, and my fellow doctoral students who have challenged, assisted, and inspired me during the learning process here at Tech. Of particular note are Minnie Mathews and Carin Germany for the able and willing help.

Finally, I especially want to thank my wife, Gayle. She unselfishly accepted being uprooted from her home, existing on meager income, and spending countless hours in solitude. Her contributions were not only those of sacrifice. She prodded me to work at those times when it

was difficult. She typed reports and manuscripts, copied articles, and performed countless other, often thankless, tasks. This dissertation is, in a sense, as much hers as it is mine. I also wish to thank my family who have been understanding when I had to forego opportunities to be with them.

Finally, I wish to acknowledge God and His continued provision for me and my family during this sometimes stressful period. May this all bring praise and glory to Him.

CHAPTER 1

INTRODUCTION

The purpose of this chapter is to introduce the following dissertation, which focuses on organizational level orientations and individual-level learning orientation as influences on the attitudes of individual organization members. Organizational learning, as evidenced in distinctive characteristics of the learning organization, and market orientation are the organizational-level variables of interest. The individual-level variable is the learning orientation of each member of the organization. These variables are hypothesized to influence job satisfaction and organizational commitment of organizational members.

The Importance of Study Variables

For organizations, individual learning , and organizational learning convert into intellectual capital, "the intellectual material that is formalized, captured, and leveraged to produce a higher-valued asset" (Stewart, 1994, p. 68).

In the information age organizations recognize the value of "soft" assets such as know-how relative to "hard" assets such as buildings and equipment. International organizations are creating positions such as Director of Intellectual Capital (Stewart, 1994). Measurement of soft assets (e.g., patents, programming knowledge, experience) is increasing in importance due to their being recognized as more permanent than the hard assets by which organizations' value have traditionally been judged. Even banks are beginning to look to these intellectual assets as the basis for lending decisions (Stewart, 1994).

The increasing importance of intellectual capital, which may also be termed a knowledge asset, suggests an intensifying need for individuals and organizations to increase their stores of knowledge. To increase stores of knowledge organizations must learn (Aubrey & Cohen, 1995). Thus, learning at the organizational and the individual level is imperative. Learning creates internal competencies and competitive advantages for organizations (Stewart, 1994; Stata, 1989; Prahalad & Bettis, 1986; Hamel & Prahalad, 1989). Learning, individual and organizational, is likely to be as much a part of what future organizations do as providing products or services. Therefore, understanding learning, in and by

organizations, is increasingly important to practitioners and interesting to academics.

The Learning Organization **and Organizational Learning**

Empirical investigation is dependent on clearly distinct constructs. In literature, the distinction between the learning organization and organizational learning is not always clear (Richards, 1994; Richards & Goh, 1995; O'Brien, 1994; Solomon, 1994; Slater & Narver, 1995). However, in this dissertation, the distinction is intentionally explicated. While the importance of being a learning organization is dependent upon how important it is for organizations to continually learn, the two are not indistinguishable (Redding & Catalanello, 1994).

As defined here, organizational learning can be viewed as a process by which the organization acquires, disseminates, interprets, and files in memory, new information from its external and/or internal environment (Huber, 1991). However, the learning organization is one which provides mechanisms that enhance this organizational learning process and creates a culture which encourages individual learning and the sharing of learning by organizational members (Garvin, 1993; Dixon, 1994; Redding & Catalanello, 1994). Therefore, as one acknowledges the importance of the learning organization, individual member

learning is also supported, as is the organizational learning process.

The learning organization has been described as "a way people think about learning, relate to each other, and connect to their organization," (Solomon, 1994, p. 56). As such, organizational learning corresponds to a philosophy, not merely some program to be adopted by organizations. Learning is too important to leave to chance (Kofman & Senge, 1992). It is through learning that organizations survive (Starbuck, Greve, & Hedberg, 1974), adapt to environmental change (Senge, 1990; Redding & Catalanello, 1994; Price, 1995), innovate (Jelinek, 1979; Stata, 1989; Schein, 1996; Atuahene-Gima, 1996), create sustainable competitive advantage (De Geus, 1988; Stata, 1989; Schein, 1996), and form internal inter-relatedness (Solomon, 1994).

Change is the most noticeable trait of the environment in which organizations function (Redding & Catalanello, 1994; Starbuck, 1973; Miller & MacDonald, 1995; Lant, Milliken, & Korn, 1996; Hendry, 1996). Organizational ecologists suggest that survival of the organization is dependent upon its adaptation to environmental change (Hannan & Freeman, 1984). Yet, they also argue that organizations cannot adapt sufficiently and/or rapidly enough, except temporarily within a niche.

When the niche no longer is viable the organization is doomed (Hannan & Freeman, 1984). Strategists, on the other hand, suggest that organizations can and do survive beyond a single niche and can enact their environment (Weick, 1979). Were the environment stable adaptation would not be necessary.

Adaptation is the result of an awareness through learning of environmental change and adjustment to that change. It has been proposed in learning literature, and is suggested in this dissertation, that organizations can build learning mechanisms through development of systems that enhance individual learning opportunities. Literature also suggests that organizations can create cultures, which encourage learning. Mechanisms and culture are both organizational level variables posited to improve learning in organizations.

Individual Learning Orientation

Learning is seen as a long-term investment (Garvin, 1993). It has been suggested that organizations learn only through the agency of their individual members (Argyris & Schon, 1978). Therefore, the individual learning of members becomes a long-term investment for the organization. As agents in the organization, individual members have varying propensities to learn (Cohen, 1991;

Dixon, 1994). Learning within organizations is affected by the individual's propensity to learn.

It is argued in psychological literature that individuals possess differing degrees of the propensity to learn. Therefore, they possess their own individual learning orientation (Ames & Archer, 1988). Individuals with greater degrees of learning orientation should have greater inclination toward goals such as improvement of abilities and mastery of tasks. Conversely, individuals with greater performance orientation have greater need for seeking favorable recognition from others for current abilities and skills. In organizations, managers and colleagues constitute those from whom favorable recognition is sought (Sujan, Weitz, & Kumar, 1994).

This dissertation proposes that as learning agents for the organization, individuals with inclinations toward long-term learning rather than short-term performance recognition moderate the effects of learning at the organizational level. This moderation is not a direct influence but occurs through its influence on organizational-level factors.

Market Orientation

Market orientation causes the organization to focus on its market environment by

- continuously collecting market information including target-customer needs, as well as, competitors strategies and capabilities, and
- creating superior customer value through acquisition of information (Slater & Narver, 1995).

Market orientation is based on the marketing concept, which stated that satisfaction of customer needs is the most viable approach to achieving the goals of the organization (Anderson, 1982; Houston, 1986; Day, 1994a, 1994b). Day (1994) suggests that market orientation is a superior posture for organizations to adopt. For organizations to maximize their learning about markets, creating an organization-wide market orientation is necessary (Kohli & Jaworski, 1990; Day, 1994). Market orientation provides a way to understand why things occur in the marketplace, not merely what occurs (Deshpande & Webster, 1989). Knowledge of the causes of market events creates greater understanding of behaviors necessary, to repeat acts that create favorable results and to avoid acts that generate unfavorable outcomes.

Job Satisfaction and Organizational Commitment

Employees' job attitudes have long been the concern of management practitioners and academic researchers (Porter, Steers, Mowday, & Boullian, 1974; Mobley, Griffeth, Hand, Meglino, 1979; Mowday, Porter, & Steers,

1982; Ticehurst & Smith, 1992). Certain potential negative consequences result from job dissatisfaction and lack of organizational commitment (Hackman & Lawler, 1971; Griffin, 1991).

Specifically, employees' attitudes toward their jobs and toward their organization affect tardiness, absenteeism, productivity, and turnover (Griffin, 1991; Griffeth & Hom, 1995). The greater the dissatisfaction with the job or the lesser the commitment to the organization, the greater the likelihood of negative consequences (Price & Mueller, 1981; Mobley et. al., 1979; Griffeth & Hom, 1995). Each of these consequences present threats to the efficiency of organizations. In addition, studies show that lack of organizational commitment has undesirable consequences for the organization (Griffeth & Hom, 1995).

The Need for Further Research

Market orientation has been empirically linked to employee attitudes such as job satisfaction, organization commitment and esprit de corps (Jaworski & Kohli, 1994) and job satisfaction and organization commitment (Siguaw, Brown, & Widing, 1994). Explications of the effects of market orientation on employee attitudes need greater support through replication of these studies.

Conversely, little previous research has analyzed the relationship between learning organization and employee attitudes. The recently developed learning organizations scale (Richards & Goh, 1994) has allowed a new opportunity to investigate such relationships. Further, there has been no investigation of the relationship between organization-wide learning and the learning orientation of individual members. Nor has individual learning orientation been connected, in previous research, to employee attitudes.

The pace of change, which demands renewed approaches to new challenges, requires that organizations learn. Therefore, what affects learning by individuals and subsequently by the organization has growing significance. Job attitudes affect individuals. Consequently, those, which influence employee, job attitude bears upon the organization's ability to keep pace with change.

Statement of the Problem

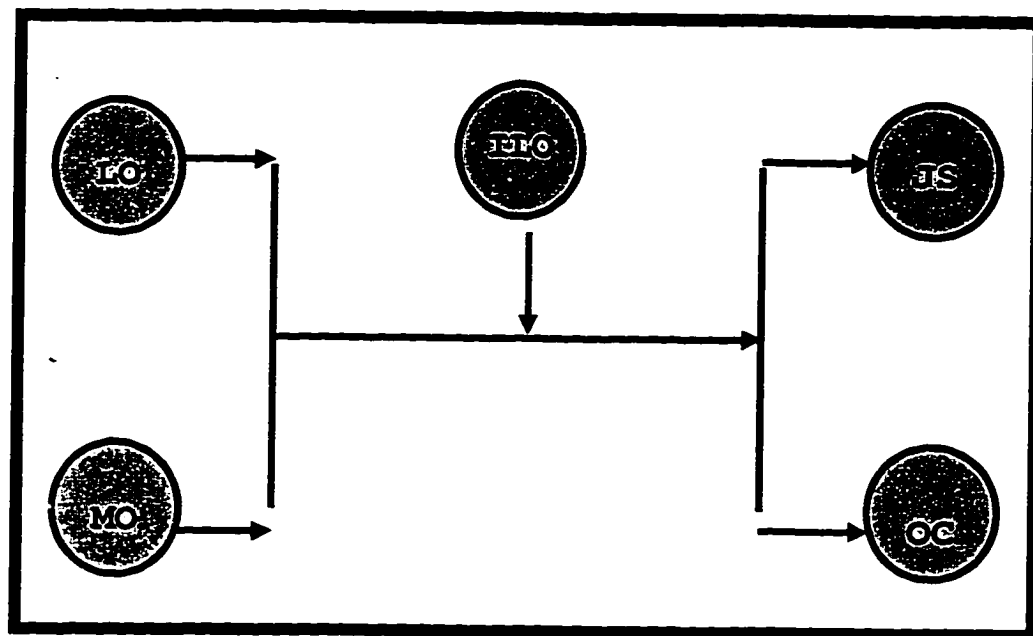
Adaptation by the organization to the demands placed on it by environmental change is essential to the survival and growth of the organization (Day, 1994a). To achieve necessary adaptation, the organization must know and understand those environmental demands and then respond appropriately. Consequently, the organization must learn. Organizational learning, beyond the accumulative learning

of individual members, is essential (Solomon, 1994). Therefore, organizations must develop mechanisms and a culture that will enable individual and collective learning. Specific mechanisms and cultural elements that will promote superior learning in the organization have been identified (Lipschitz, Popper, & Oz, 1996). Additionally, market orientation has been proposed to provide superior information processing activities for organizational survival and performance (Day, 1994). While learning in the organization can exceed that aggregated among individual members, both organizational learning and market orientation rely heavily on individuals as agents of survival and achievement. Employee attitudes toward one's job and feelings toward the organization have significant impact on personal performance and, subsequently, organizational performance (Griffeth & Hom, 1995). Market orientation has been proposed to positively affect employee work attitudes, job satisfaction and organizational commitment (Siguaw, Brown, & Widing, 1994). Consequences of organizational learning and characteristics of the learning organization are antecedent to job satisfaction and organizational commitment (Richards & Goh, 1994). Thus, it is important to understand the effect of the learning organization, market orientation, and their interaction on employee

attitudes. This dissertation is designed, first, to assess the relationship between the learning organization and market orientation, and second, to examine individual learning orientation as a moderator of the influence of that relationship on organizational member attitudes, job satisfaction and organizational commitment.

Objectives of the Study

The objective of this study of organizational and individual level influences on employee attitudes is to empirically test hypothesized relationships among the learning organization, market orientation, individual learning orientation, job satisfaction and organizational commitment. The framework to be tested is presented in Figure 1.1. Specifically the influence of the learning organization and market orientation on individual member job satisfaction and commitment to the organization is investigated. In addition, the moderating effect of individual learning orientation on the influence of market orientation and the learning organization on these two member attitudes is empirically examined. The subsequent section briefly describes the variables to be examined.



Legend:

LO = The Learning Organization
MO = Market Orientation
ILO = Individual Learning Orientation
JS = Job Satisfaction
OC = Organizational Commitment

FIGURE 1.1
STUDY FRAMEWORK

Variables and the Hypothesized Framework

The proposed framework, as stated, involves the learning organization, market orientation and individual learning orientation as they are configured to influence the two employee attitudes, job satisfaction and organization commitment. The framework also involves a moderating effect by an individual's orientation toward learning of organizational level variables. The variables are represented in the framework as follows:

LO = The learning organization

MO = Market orientation

ILO = Individual learning orientation

JS = Job satisfaction

OC = Organization commitment

The Learning Organization **(LO)**

The learning organization is characterized by Pedlar, Burgoyne, and Boydell (1991) as an organization, which facilitates the learning of all its members and continuously transforms itself. Richards and Goh (1994) propose that the learning organizations consist of five dimensions: clarity of mission/purpose, leadership, experimentation, transfer of knowledge, and teamwork/group

problem solving. These dimensions are described as follows:

- Clarity of mission and purpose - the degree to which members have a clear vision of their organization and understand how they can contribute to its success and achievement.
- Leadership - behaviors that foster an open and challenging environment for members while not being afraid of change or reacting defensively to criticism.
- Experimentation - a culture where members are allowed to experiment with new ways of getting the job done and are encouraged through rewards for taking risks.
- Transfer of knowledge - mechanisms that enable members to interact freely, to learn from failures as well as from other organizations and have access to relevant information and data.
- Team/Group problem-solving - where teamwork is encouraged and rewarded for solving problems and where team members come from diverse organization functions (Richards & Goh, 1994).

Market Orientation (MO)

Market orientation is defined as "the organization-wide generation of market intelligence, dissemination of that intelligence across departments, and organization-wide response to it," (Kohli & Jaworski, 1990, p. 6). Day (1994a) suggests that this definition capture the organizational activities of collecting and taking action in regard to market forces. Narver and Slater (1990) propose customer orientation, competitor orientation and

interfunctional coordination as components of a firm's market orientation.

- Customer orientation - the firm's understanding of the target market,
- Competitor orientation - the firm's understanding of long-run capabilities of present and prospective competitors; and
- Interfunctional coordination - the coordinated utilization of company resources to create superior customer value (Day, 1994, p. 43).

Individual Learning Orientation (ILO)

Defined as a goal orientation toward improvement of abilities and mastery of tasks, individual learning orientation involves the notion of personal discovery processes for being more effective (Ames & Archer, 1988). Thus, individuals with a learning orientation value personal growth, are attracted to challenging situations, and are not overwhelmed by mistakes (Sujan, Weitz, & Kumar, 1994). Rather, they have a propensity to discover new and better methods of achievement.

Job Satisfaction (JS)

Job satisfaction is defined by Locke (1976) as "the pleasurable or positive emotional state resulting from the appraisal of one's job and job experience," (p. 1300). Job satisfaction was initially conceptualized as unidimensional but more recently as multidimensional

(Ticchurst & Smith, 1992). While empirical research has not fully supported the notion that an increase in satisfaction, as a unidimensional construct, increases performance, there is support for the theory that there are negative consequences due to dissatisfaction of members (Mobley, 1979; Price & Mueller, 1981). In this dissertation job satisfaction is measured as a multidimensional construct which additively reflects an overall satisfaction with the job. Thus, job satisfaction is employed as a unidimensional construct in this dissertation.

Organizational Commitment (OC)

Organizational commitment is defined in various ways, resulting in divergent notions of its meaning. The most researched and the most accepted definition is designated "attitudinal" organizational commitment (Morrow, 1993). Mowday, Porter, and Steers (1982) define attitudinal commitment as the "member's strong identification with and involvement in the organization" (p. 27). Also included in their definition are three integral components:

- the strong belief in and acceptance of the goals and values of the organization,
- a willingness to exert considerable effort on behalf of the organization, and
- a strong desire to maintain membership in the organization (p. 27).

In this study organization commitment is measured as an attitudinal commitment reflecting identification and involvement with the organization.

Contributions of the Study

To date, conceptual discussion dominates the literature regarding the learning of organizations and the consequences of that learning. Explication in literature regarding the consequences of learning by organizations has focused on performance. This dissertation suggests that learning in organizations affects the attitudes of members. Consequently, this study is believed to be the first to empirically investigate relationships between the learning organization and the attitudes of its members.

Second, marketing literature suggests that market orientation has a positive influence on organizational member attitudes (Kohli & Jaworski, 1990). This theory is supported by empirical investigation (Jaworski & Kohli, 1993; Sigauw, Brown, & Widing III, 1994). The current study adds to the understanding of this relationship through replication of previous empirical research.

A third contribution of this study involves examination of the effect of the interaction between the learning organization and market orientation on member attitudes of job satisfaction and organizational commitment. This dissertation is believed to represent an

initial effort to investigate a relationship between these concepts.

Finally, this dissertation investigates the moderating effects of individual learning orientation, an individual-level variable. Specifically, it examines how the influences of organizational-level variables, market orientation and the learning organization, on member attitudes, job satisfaction and organizational commitment are contingent on the learning orientation of individuals. Moderation of the direct influence of each organizational-level variable is investigated as well as the moderation of the interaction between market orientation and the learning organization. This study is believed to represent original research of these moderating effects.

Plan of Study

This research continues investigation and initiates empirical investigation of relationships among the research variables. First, the influence of market orientation on job satisfaction and organizational commitment is investigated. This is replication of previous research by Sigauw, Brown, and Widing III (1994). The expectation is that additional support will be discovered for a positive relationship between market orientation and employee attitudes. Second, the influence of the learning organization on job satisfaction and

attitudinal commitment to that organization is explicitly proposed and empirically investigated. Third, the effect of the individual learning orientation as a moderator of the influence of market orientation and the learning organization on employee job satisfaction and attitudinal commitment to the organization is proposed and researched. Fourth, the influence of the interaction between market orientation on organization member attitudes are examined. Finally the moderating effect of individual learning orientation on the anticipated interaction between market orientation and the learning organization is investigated.

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this chapter is to provide the conceptual background for the dissertation. Relevant literature concerning the variables of study (the learning organization, market orientation, individual learning orientation, job satisfaction, and organizational commitment), as well as organizational learning will be reviewed.

The first section presents literature, which pertains to organizational learning. While organizational learning is not an operationalized variable in this study, understanding this often addressed concept is germane to insight regarding the learning organization and market orientation.

The second section deals with organizational learning as a cycle or process. A review of literature is presented pertaining to elements of the process (information acquisition, information dissemination, information interpretation, and organizational memory).

The third section reviews literature regarding the learning organization, a predictive variable in the framework that guides this study. In this section literature concerning mechanisms that encourage learning and distinguish the learning organization is reviewed along with literature pertaining to the organizational culture which nurtures the learning processes. This section also considers literature pertaining to the degree of learning required for distinction as a learning organization.

The fourth section addresses literature with respect to market orientation, the other predictive variable in this study. Subsections include information regarding the domain of market orientation, the process of market orientation, and the core elements of market orientation.

The fifth section reviews literature relative to the connectedness between organizational learning and market orientation. Interaction between the learning organization and market orientation as organizational level variables is expected to be predictive in the framework of this study.

Literature concerning job satisfaction and organizational commitment as member attitudes is reviewed in a sixth section. Each is surveyed separately and the relationship between them will be taken into account.

A seventh section examines literature relevant to the individual learning orientation of organizational members. This individual level variable is framed as a moderator of influences by the learning organization and market orientation, as well as, their interaction on organizational member attitudes, job satisfaction and organizational commitment.

Organizational Learning

Organizational learning is a concept introduced into organization and management literature over 30 years ago (Cyert & March, 1963; Cangelosi & Dill, 1965). It has been vigorously explored for the past 20 years (e.g., Argyris & Schon, 1978; Argyris, 1989, 1994a, 1994b, 1996; Hedberg, 1981; Daft & Weick, 1984; Fiol & Lyles, 1985; Senge, 1990; Huber, 1991; Dixon, 1993a, 1993b, 1994; Bennett & O'Brien, 1994; Lipshitz, Popper, & Oz, 1996). While most exploration has been conceptual in nature, organizational learning has, for the most part, eluded any synthesis of explication (Huber, 1991). However, organizational learning has been described as complex and multifaceted (Dixon, 1993b, 1994), featuring various levels, (Argyris, & Schon, 1978; Fiol & Lyles, 1985; Senge, 1990), a cycle for the processing of information into knowledge (Daft & Weick, 1984; Huber, 1991; Dixon, 1993b, 1994; Fulmer, 1994), and a culture that encourages

learning (Kofman & Senge, 1992; Lawson & Ventriss, 1992; Schein, 1993a, 1993b, 1996; Barrett, 1995; Hatch & Schultz, 1996). Disagreement over what organizational learning means is widespread and contentious. How organizational learning operates (Miller, 1996; Shrivastava, 1983) and the boundaries of its domain (Tushman & Scanlon, 1981) have been as vigorously debated as has the support for organizational learning as a concept. Turbulent environmental conditions have been suggested as particularly relevant to organizational change through learning (Virany, Tushman & Romanelli, 1992; Lawrence & Lorsch, 1967).

The complex nature of organizational learning is evident both in its multifacets and in its multiple levels of analysis. Organizational learning as a construct has been conceived at the individual organization member level and at an organizational system level (Dixon, 1994; Senge, 1990). The multi-level nature of organizational learning has encouraged a diversity of views and even conceptual schisms among scholars (Price, 1995; French & Bazalgette, 1996).

The intent of this and following sections is to systematically review organization theory, management, psychology, social psychology, sociology, and human resource development literature regarding organizational

learning. This is an attempt to move toward a much needed synthesis of understanding (Huber, 1991).

Comparison of Definitions

Review of the literature discloses substantial differences among definitions offered by scholars. The single definitive, that organizations as collective entities indeed do learn, prevails in the myriad of definitions submitted. Conversely, differences in definitions materially alter understanding of just how organizations learn.

Many definitions emphasize organizational learning as a process (Cyert & March, 1963; Argyris & Schon, 1978; Hedberg, 1981; Daft & Weick, 1984; Fiol & Lyles, 1985; De Geus, 1988; Huber, 1991; Kim, 1992; McGill & Slocum Jr., 1993; Dixon, 1994; DiBella, Nevis, & Gould, 1996; Lipshitz, Popper, & Oz, 1996). Knowledge acquisition and transfer of knowledge across the organization are universally identified as components or phases of the organizational learning process. While few definitions are explicit regarding process phases (Simon, 1991; Miller, 1996), they generally accompany all definitions.

Interpretation of new information and subsequent response to that information are also phases stipulated in most discourse on organizational learning. These components are often implicit in proposed definitions.

Argyris and Schon (1978) suggest that error correction occurs through restructuring of organizational theories-in-action. "Theories in action," by Argyris and Schon's terminology, are the organization's basis of previous knowledge and experience. Current organizational theories-in-action determine what stimuli will receive attention and influence the meaning that stimuli will be given. Daft and Weick (1984) hypothesize that organizational learning involves the development of knowledge regarding the organizational/environment relationship. McGill and Slocum, Jr. (1993) submit that organizations develop shared mental models in order to understand that which is experienced. From these examples interpretation can be viewed to include making sense of information received and developing an understanding of how this new meaning relates to that which is currently known.

Creation of mental models implies permanence rather than fleeting use of information and immediate discard. Thus, organizational learning also involves retention of information in memory. Stata (1989) proposes that new knowledge builds on past knowledge stored in memory. Levitt and March (1988) submits that learning is encoded into organizational routines. Therein, organizational memory becomes embedded in its routines. On the other

hand, De Geus (1988) includes memory and the change of shared mental models but excludes open response.

Even though environmental influence explicitly appears in only a few definitions of organizational learning (Cyert & March, 1963; Hedberg, 1981; Daft & Weick, 1984) it is encountered in most descriptions of organizational learning. Organizational response to environmental influence often is embodied in open behaviors of the organization through its members' actions (Hedberg, 1981; Fiol & Lyles, 1985; Levitt & March, 1988; Huber, 1991; DiBella, Nevis, & Gould, 1996).

Organizational response behaviors are based on understanding of ambiguous environmental information (March & Olsen, 1975). Contingency theory suggests that the idiosyncrasies of that environment are involved in environmental influence on organizational learning (Lawrence & Lorsch, 1967). Organizations operate within technical environments (Scott, 1992) which reflect varying degrees of complexity, and variability (Lawrence & Lorsch, 1967). Environmental complexity is defined as "the extent to which the environmental entities to which the organization must relate are similar to one another," (Scott, 1992, p. 134). Environmental variability refers to "the extent to which the environmental entities are undergoing change," (Scott, 1992, p. 134). The presence

and degree of environmental complexity and/or variability contribute to the level of ambiguity (March & Olsen, 1975) in the information acquired and, therefore, increases uncertainty about responses to that environmental information. Organizational responses to the environment, whether highly complex and/or variable or relatively simple and/or stable, is often depicted to require improved performance outcomes.

For learning to have occurred, behaviors are required to result in improved "preferred outcomes" (Senge, 1990). Improved outcomes require overt behavioral changes (Hedberg, 1981; Fiol & Lyles, 1985; DiBella, Nevis, & Gould, 1996). Conversely, Huber (1991) argues that changes in the range of future potential behaviors imply learning without requiring manifested behavioral changes. Stata (1989) suggests that shared insights, shared knowledge, and shared mental models constitute organizational learning.

Conversely, overt superior behaviors based on adaptation are primary to the position taken by Argyris and Schon (1978). This reflects what Argyris and Schon (1978) call single-loop learning. Senge (1990), Pedler, Burgoyne, and Boydell (1991) and Dixon (1994) suggest that transformation of the organization reflects organizational learning. This is called "double-loop learning" by

Argyris and Schon (1978). Transformation is purported to involve significant change in organizational structure (Duncan & Weiss, 1979) and/or culture (Schein, 1993a, b, 1996) or becomes new routines, which guide future behaviors (Levitt & March, 1988).

Schein (1993a, 1993b, 1996) identifies organizational learning as a culture which helps govern behaviors of organizational members and affects stakeholders rather than a process. Still others view organizational learning as the capacity or capability to absorb or convert information into meaning (DiBella, Nevis, & Gould, 1996; Cohen & Levinthal, 1990; Ulrich, Jick, & Von Glinow, 1994).

Personal Learning

Because the individual member is accepted as the principle agent of learning in the organization, mention of the human element is made in many definitions. Often organizational learning is proposed to be dependent on the learning of the individual (Argyris & Schon, 1978; Stata, 1989; Senge, 1990; Simon, 1991; Kim, 1992). De Geus (1988) as well as McGill and Slocum Jr. (1993) suggest that managers are dependent on personal learning in order to guide the organization. Conversely, organizational learning has been proposed to influence the learning of individual members as well as be influenced through them

(Senge, 1990; Pedler, Burgoyne, & Boydell, 1991; Lipshitz, Popper, & Oz, 1996). While there is connectedness between individual and organizational learning, at any point in time the individual member may possess knowledge that is unknown to the organization. The reverse may also be true. Thus, it is not suggested that organizational learning is merely the aggregation of individual member learning. The definitions found in Table 2.1 are not exhaustive but representative of suggested identification of organizational learning.

TABLE 2.1
ORGANIZATIONAL LEARNING DEFINITIONS

Study	Definition
Cyert & March (1963)	A process by which organizations as collectives learn through interaction with their environments.
Argyris & Schon (1978)	A process in which members of an organization detect error or anomaly and correct it by restructuring organizational theory of action, imbedding the results of their inquiry in organizational maps and images.
Hedberg (1981)	Results from the adaptive and manipulative interactions between the organization and its environment. Includes both the processes by which organizations adjust themselves defensively to reality and the processes by which knowledge is used offensively to improve the fits between organizations and their environments.
Daft & Weick (1984)	The process by which knowledge about action outcome relationships between the organization and the environment is developed.
Fiol & Lyles (1985)	The process of improving actions through better knowledge and understanding.

TABLE 2.1 (Continued)

Study	Definition
Levitt & March (1988)	Organizations are seen as learning by encoding inferences from history into routines that guide behavior.
De Geus (1988)	The process whereby management teams change their shared mental models of their company, their markets, and their competitors.
Stata (1989)	Occurs through shared insights, knowledge, and mental models... [And] builds on past knowledge and experience-that is, on memory.
Senge (1990)	Where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.
Huber (1991)	An entity learns if, through its processing of information, the range of its potential behaviors is changed.
Simon (1991)	Organizations learn by the learning of its members and by ingesting new members who have knowledge the organization didn't previously have.
Pedler, Burgoyne, & Boydell (1991)	Facilitates the learning of all its members and continuously transforms itself.

TABLE 2.1 (Continued)

Study	Definition
Kim (1992)	Consciously manages its learning processes through an inquiry-driven orientation among all its members.
Dixon (1994)	The intentional use of learning processes at the individual, group and system level to continuously transform the organization in a direction that is increasingly satisfying to its stakeholders.
DiBella, Nevis, & Gould (1996)	The capacity (or processes) within an organization to maintain or improve performance based on experience.
Lipshitz, Popper, & Oz (1996)	The process through which organization members develop shared values and knowledge based on past experience of themselves and of others.

While both correspondence and divergence are evident in the definitions offered, literature likewise indicates organizational learning should not be represented as a narrow, simplistic concept (Huber, 1991). Given the literature discussed, organizational learning might be described as

- a process (e.g., Cyert & March, 1963; Argyris & Schon, 1978; Hedberg, 1981; Daft & Weick, 1984; Fiol & Lyles, 1985; De Geus, 1988; Huber, 1991; McGill & Slocum, Jr., 1993; Dixon, 1994; DiBella, Nevis, & Gould, 1996; Lipshitz, Popper, & Oz, 1996),
- knowledge acquisition and distribution (e.g., Daft & Weick, 1984; Huber, 1991; Dixon, 1994) within the organization,
- a culture (Senge, 1990; Kofman & Senge, 1992; Lawson & Ventriss, 1992; Schein, 1985, 1993a, 1993b, 1996; Barrett, 1995; Hatch & Schultz, 1996).

These are reflected in the following perspectives.

Instrumental Perspective

In order to affect change in behavior which is intended to improve environmental alignment and create organizational renewal (Barr, Stimpert, & Huff, 1991), the notion of learning invokes an instrumental perspective (Huber, 1991). This perspective is pervasive in organizational literature (Argyris & Schon, 1978; Barr, Stimpert, & Huff, 1991; Garvin, 1993; Dixon, 1994). To intentionally learn about the organization's relationship

with its environment and about its own internal properties is antithetical to any casual, unintentional collection of information. Intent and purpose constitute a perspective of instrumentality (Huber, 1991).

Behavioral Perspective

On the other hand, the behavioral perspective does not require performance improvement or organizational renewal. Demonstration of superior behaviors subsequent to acquisition of new information suggests that learning occurs when there is potential for behavioral change through management of information. Potential behavioral change suggests change need not actually occur, and if it does, it need not be observable or superior to previous behaviors. Consequently, inferior behaviors or no behaviors need result from the learning process (Huber, 1991).

While the behavioral perspective differs from the instrumental, the former does not represent the antithesis of the latter. A behavioral perspective does not invoke casual, unintentional information collection although it recognizes that not all learning occurs through intent. While the behavioral perspective acknowledges the advantage of improved environmental alignment and internal renewal as objectives, it does not acknowledge them as integral to the definition of learning. Instead, learning

is considered to involve cognitive change, which may or may not manifest itself in changed behaviors or improved actions.

**Attributes of an
Organization that Learns**

Huber (1991) proposes that understanding of organizational learning can be improved through awareness of attributes that suggest learning in an organization.

The attributes posited were classified as

- existence
- breadth
- elaborateness
- thoroughness.

Organizational learning exists when any unit (e.g., individual, group, team) of the organization acquires knowledge (Argyris & Schon, 1978; Brooks, 1994). (The unit most often alluded to is the individual member of the organization.) This implies that not all units must acquire that same knowledge for organizational learning to exist (Huber, 1991). This notion, in agreement with Simon (1991), suggests that organizations learn as members learn and that member learning--accumulated or not, shared or not--indicates organizational learning. Others argue that organizations learn but only through the agency of individual members (Argyris & Schon, 1978). Still others maintain that organizational learning can occur separately

and in addition to the individual member as agent (Huber, 1991; Walsh & Ungson, 1991; Anand, Skilton, & Keats, 1996).

The second attribute of learning breadth, is determined by the -- organizational diffusion of information. While information diffusion must occur for breadth of learning to occur, it entails more than the disbursement of information. Huber (1991) argues that breadth of organizational learning occurs when organizational units gain knowledge plus recognize the potential of that knowledge. Therefore, distribution of the same information to all units of the organization does not constitute organizational learning. Information must be interpreted, converted to knowledge, and be recognized to have value to the organization. Breadth does not imply that all units of the organization must share the same interpretation only that it must be understood as valuable (Dixon, 1994; Huber, 1991).

Elaborateness is the organizational learning attribute, which involves differing interpretations of diffused information across the organization. Development of varied interpretations provides for a greater range of potential behaviors based upon any specific new knowledge (Huber, 1991). An advantage of varied interpretation is seen as reduction in potential groupthink (Janus, 1972).

Thus, the elaborateness of organizational learning involves diversity of understanding. This contributes to the rich variety of potential responses to the information as separately interpreted.

Finally, thoroughness as an organizational learning attribute refers to uniform comprehension of the various interpretations among units within the organization. This attribute does not require uniform interpretations but that various interpretations are uniformly understood across the organization (Huber, 1991).

Organizational Learning Cycle

Organizational learning as a cycle supports the notion of process. The phases of the cycle or components of the process were depicted by Daft and Weick (1984).

Information Acquisition

Huber (1991) defines knowledge acquisition as the process by which knowledge is obtained (p. 90). Other organizational researchers use the term information acquisition reserving knowledge for that which has been interpreted and, thus creating meaning structures (Dixon, 1994). Information in that instance is viewed as data (Daft & Weick, 1984). The argument of these scholars appears to be that data is acquired but knowledge exists with the creation of understanding. Understanding takes

the form of meaning structures (Dixon, 1994). New meaning structures are attached to existing meaning structures, which provide a network that forms the organizations paradigms or mental models.

Information acquisition implies that data collected from outside the organization becomes the possession of the organization and may result in new meaning structures (Dixon 1994). Conversely, some new meaning structures are generated internally. The former engages the use of boundary spanning roles (Tushman & Scanlon, 1981). The latter involves internal operational routines, reflection on successful and failed experiences, experimentation, and periodic performance appraisals (Huber, 1991; Dixon, 1994). Thus, there are external and internal sources for information.

Information Dissemination

Information distribution is referred to as "the process by which information from different sources is shared and therein leads to new information or understanding" (Huber, 1991, p. 90). While distribution connotes selective disbursement of information dissemination implies widespread diffusion. Each is involved in intra-organizational communication flow. The former includes possible constraints on information flow, which could hinder information reaching those who can make

use of it. The latter connotes allowing and even promoting a more general flow of information across the organization.

Dixon (1994) holds that information externally collected or internally generated must be understood in the context of the whole organization. Therefore, the notion of dissemination appears more appropriate for understanding the needs of organizational learning. Dissemination of information has value to the organization only as it becomes integrated into mental models as the mental structures of individual members (Dixon, 1994) or as it deposits information in organizational repositories other than individual memory. Information can subsequently be retrieved when needed. Integrating information from various organizational subunits into understanding of the whole context provides new organizational knowledge (Huber, 1991; Dixon, 1994).

Information Interpretation

Involved in the interpretation process is the analysis of information collected and disseminated. The instrumental perspective suggests that interpretation is necessary in order to identify critical threats and opportunities in the environment (Cowan, 1990; Thomas, Clark, & Giola, 1993). Top management is the suggested level at which information converges and becomes

interpreted (Daft & Weick, 1984; Miles, Snow, Meyer, & Coleman, 1978). Walker and Ruekert (1987) suggest that interpretation could also occur at the strategic business unit, or even the functional level of the organization.

The process by which distributed information is given one or more commonly understood meanings is what Huber (1991) identifies as information interpretation.

Information interpretation is a process through which information is given meaning and is the translation of events and development of shared understandings and conceptual schemes (Daft & Weick, 1984). Sensemaking (Thomas, Clark & Gioia, 1993) also refers to making meaning of acquired information through comparison to that already known and believed. For Dixon (1994), information interpretation involves individuals giving meaning or creating meaning structures and then reducing the equivocality of understanding across the organization. Reduction of equivocality does not require consensus but involves shared understanding of varying interpretations. Shared understanding of varying interpretations is what Huber (1991) refers to when describing thoroughness as an attribute of organizational learning.

Distribution of information does not ensure collective interpretation, regardless of whether that interpretation is correct or incorrect. Rather, Huber

(1991) suggests that shared interpretation is influenced by (1) the similarity of cognitive maps (mental models) across individuals in the organization; (2) the consistency in framing the information as it is communicated; (3) the richness of the media used to convey the information; (4) the information load on the interpreting individuals; and (5) the degree of unlearning (Hedberg, 1981) necessary for interpretation to occur.

The first influence recognizes that diversity in individual members and their world-views likely produce diversity of interpretations. This could disallow consensus for arriving at an organizational response but it can also enhance the likelihood of arriving at a superior response. The second and third influences refer to the degree of uniformity present in message distribution along with the level of quality of that information. Consistency of form in message dissemination enhances the likelihood of shared interpretation. Thus, routinization of information flow and message format could enhance organizational learning. On the other hand, richness of the media affects the attention paid to the message and the clarity of its relationship to current mental models.

The fourth and fifth qualifications refer to factors, which affect the reception and the interpretation of

information. The opportunity to reflect on the information received influences the quantity of information interpretable by the each member and the quality of interpretation that will be rendered from the information. Unlearning refers to the amount of divergence from currently held mental models contained in the new information. The more divergence the greater need for unlearning. Acceptance of information contradictory to that already known is naturally resisted making unlearning difficult. Lewin's (1952) unfreezing-change-refreezing framework posited that unlearning is necessary to afford a place for new information.

Organizational Memory

Organizational memory refers to information stored from previous experiences to be used in subsequent decision opportunities (Walsh & Ungson, 1991). According to Dixon (1994), this information is not stored in the form received from the organization's environment. Rather, information as data has been converted to knowledge in the form of mental structures, which accumulatively compose the organization's mental models. It is this knowledge that is stored. Organizational knowledge can reside as memory in various repositories (Walsh & Ungson, 1991) including but not limited to individual memories. As repositories of information,

individual humans exhibit limitations (Huber, 1991) in regard to capacity and clarity of recall. Other repositories take the form of standard operating procedures and routines (March & Simon, 1958; Cyert & March, 1963; Walsh & Ungson, 1991), data filing systems including computer databases (Huber, 1991), and cultural norms (Schein, 1985, 1993a, 1993b, 1996]. Huber (1991) refers to organizational memory simply as the means by which knowledge is stored for future use without regard for the type of repository.

On the other hand, in order to make use of information, organizations generally require individuals, as organizational agents, to retrieve information from the various memory repositories. Therefore, Anand and colleagues (1996) posit that human memory can be segregated into internal and external repository components. Those external memory repositories are catalogued in the internal memory so that the individual may access them from external repositories when needed. This catalog of information repositories acts as a directory of information access (Anand, Skilton, & Keats, 1996). The information actually may be stored in hard copy files, organizational rules, policies, or accepted norms and may be accessed from the memories of other

individuals and/or other repositories inside or outside the organization.

Walsh and Ungson (1991) propose a categorization of organizational retention facilities, repositories, where knowledge is held: individual long-term memory, the organizational culture, transformations, structural roles, and the ecology of the organization. As discussed above, the individual retains information in memory or belief structures (Walsh, 1988), in cause maps (Weick, 1979), assumptions (Huber, 1991), and/or mental models consisting of meaning structures (Dixon, 1992, 1994). Defined as a learned way of perceiving, thinking, and feeling that is shared by members of the organization (Schein, 1984), organizational culture embodies the experiences by which current experiences are evaluated (Walsh & Ungson, 1991). Therefore, knowledge held in organizational repositories affects the way new information is treated.

Walsh and Ungson (1991) also argue that the logic which guides organizational transformation processes (e.g., the design of work, selection and socialization of members, budgeting and market planning) is a repository of knowledge. Standard operating procedures and routines likewise serve as transformational repositories through the logic of continuous operations.

Individual roles within the organizational hierarchy are posited as information repositories based on the notion of social expectations (Walsh & Ungson, 1991). Particular hierarchical positions are expected to exhibit particular behaviors. Those expectations are invoked due to recall of previous behaviors from that role. Thus, the structural role serves as a repository. Finally, the physical structure of the workplace, the organization's ecological structure, retains and reveals information about itself and its members. Past choices are revealed by the presence of long-standing ecological structures (e.g., physical plant).

While not part of an organization's memory per se, sources outside the organization, (e.g., external archives) (Walsh & Ungson, 1991) can serve as repositories of knowledge about the organization as well as the environment. Former members, competitors, governmental bodies, suppliers, customers, professional data collection firms, and the news media can retain information about and/or pertinent to the organization. Thus, these serve as repositories from which the organization can retrieve information.

The Learning Organization

The primary difference between organizational learning and the learning organization is that the former is generally viewed as a process (Cyert & March, 1963; Argyris, 1977; Argyris & Schon, 1978; Fiol & Lyles, 1985; Huber, 1991), while the latter is seen as an entity with an enhanced capacity to learn (Gephart, et al., 1996). Particular mechanisms (Lipshitz, Popper, & Oz, 1996; Dixon, 1994) and a culture that nurtures learning (Schein, 1985, 1993a, 1993b, 1996) are characteristics of the learning organization. It is appropriate, then, to discuss the learning organization in the context of mechanisms which enable and propagate learning and a culture that nurtures of the learning process.

Literature suggests a learning organization is one with an enhanced capacity for organizational learning (Garvin, 1993; Bennett & O'Brien, 1994; Brooks, 1992; Gephart et al., 1996) (See Table 2.3.). Generally, organizational learning scholars imply that the learning organization adopts a proactive approach in regard to learning, putting into place courses of action that enhance learning (Miles & Randolph, 1980; Gephart et al., 1996). Simultaneously, many, explicitly or implicitly, acknowledge that all organizations learn at some level and to some degree (DiBella, Nevis, & Gould, 1996; Garvin,

1993; Gephart, et al., 1996) with or without a proactive approach.

Learning organizations have been described as being skilled at creating, acquiring, and transferring knowledge (Garvin, 1993) and at having the capacity or processes for knowledge acquisition and knowledge sharing (Bennett & O'Brien, 1994; Gephart, et al., 1996). The learning organization also has been explicated as one having the capacity for improved actions and performance which engenders future success (Wick & Leon, 1995) and for modifying its behavior (Garvin, 1993) due to superior learning capacities.

Table 2.2 provides representative definitions of the learning organization. This list is not intended to be exhaustive but does provide an overview of the definitions available in literature.

TABLE 2.2
LEARNING ORGANIZATION DEFINITIONS

Study	Definition
Senge (1990)	An organization where people continually expand their capacity to create results they truly desire, new and expansive patterns of thinking are nurtured, collective aspiration is set free, and people are continually learning how to learn together. (p. 3)
Brooks (1992)	An organization which facilitates the learning of all its members and continuously transforms itself. (p. 323)
Garvin (1993)	A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.
Bennett & O'Brien (1994)	An organization that has woven a continuous and enhanced capacity to learn, adapt and change into its culture with values, policies, practices, systems and structures that support and accelerate learning for all employees. (p. 42)
Wick & Leon (1995)	An organization that continually improves by rapidly creating and refining the capabilities needed for future success
Gephart, Marsick, Van Buren & Spiro (1996)	An organization that has an enhanced capacity to learn, adapt, and change through processes that analyze, monitor, develop, manage, and align efforts with improvement and innovation goals.

Learning Organization Mechanisms

In learning organization literature there appears a common thread, which has been most succinctly captured by Lipshitz, Popper, and Oz (1996). These researchers suggest that learning organizations enable and encourage the learning process through creating organizational learning mechanisms. These mechanisms constitute the organization's capacity to learn and have been the focus of numerous academic articles and books (Richards, 1994; Redding & Catalanello, 1994; Wick & Leon, 1995; Bennett & O'Brien, 1994; Lipshitz, Popper, & Oz, 1996).

The old paradigm for learning in organizations invoked images of classroom training (Wick & Leon, 1995). While the classroom, along with human resources training and development tactics, has traditionally been viewed as the means for learning in organizations (Dixon, 1994, Gephart et al., 1996), recognition of other means of learning by members and organizations has emerged.

Organizational learning mechanisms, which create and sustain the capacity to learn, have been envisioned to encompass:

- leadership with clear articulated vision (Richards, 1994; Bennett & O'Brien, 1994; Wick & Leon, 1995);
- a measurable plan of action (Wick & Leon, 1995);

- executive practices (O'Brien, 1994);
- managerial practices (Bennett & O'Brien, 1994);
- a nurturing climate (Bennett & O'Brien, 1994);
- organizational and job structure (Bennett & O'Brien, 1994);
- a hunger for knowledge (Wick & Leon, 1995);
- training and education (Bennett & O'Brien, 1994);
- a speedy, honest, open flow of information (Bennett & O'Brien, 1994; Wick & Leon, 1995);
- knowledge transfer (Richards, 1994);
- performance goals and feedback (Bennett & O'Brien, 1994);
- inventiveness (Wick & Leon, 1995);
- experimentation (Richards, 1994; Bennett & O'Brien, 1994);
- the ability to implement plans (Wick & Leon, 1995);
- team/group decision making (Richards, 1994; Bennett & O'Brien, 1994);
- individual and team development (Bennett & O'Brien, 1994); and
- rewards and recognition (Bennett & O'Brien, 1994).

Cohen and Levinthal (1990) posit that the capacity of the organization to learn is indicated by an ability to recognize the value of new, external information, assimilate it, and apply it to commercial ends. These researchers labeled this ability "absorptive capacity," (p. 128). Absorptive capacity was suggested to be an

outcome of related knowledge already in organizational memory. Thus, what was already known influenced what becomes known. Absorptive capacity differs from individual member's capacities and has crucial influence on the organization's innovative performance (Cohen & Levinthal, 1990).

Gephart and colleagues (1994) suggest that the essence of the learning organization is

- continuous learning at the systems level,
- knowledge generation and sharing,
- critical, systems thinking,
- a culture of learning,
- a spirit of flexibility and experimentation

Systems level learning involves sharing learning among individuals and integrating learning into organizational routines. On the other hand, learning at the systems level is more than aggregation of member knowledge. It includes the synthesizing and institutionalizing of intellectual capital (Stewart, 1994) in various repositories including individual memories, cultures, routines and the like (Gephart et al., 1996).

In regard to knowledge, generation and sharing has been discussed previously. Added here is the simple realization that learning organizations emphasize these

activities so that knowledge moves rapidly and easily through the organization and to necessary decision points. Therefore, that new knowledge can be quickly accessed when needed (Gephart et al., 1996). Stata (1989) suggests that, in the rapid pace of today, learning fastest may be the only real competitive advantage for any organization.

Gephart and colleagues (1996) suggests that the learning organization encourage critical systemic thinking. Therefore, unilateral cause/effect relationships are not suggested as an appropriate perspective but that inter-linking systems and feedback loops are to be the content of member thinking. Additionally, assumptions are to be critically examined in order to achieve productive reasoning.

Freedom to "...take risks, experiment, innovate, explore new ideas, and generate new work processes and products," (Gephart et al., 1996, p. 38) has also been purported to be involved in the learning organization. While many organizations punish mistakes, the learning organization allows and even rewards creative effort whether it results in success or failure.

The learning organization is people-centered. Thus it provides "a caring community that nurtures, values, and supports the well-being, development, and learning of every individual," (Gephart et al., 1996, p. 38) member.

Garvin (1993) identifies learning enhancing skills as "building blocks" of the learning organization. These include

- systematic problem solving,
- learning from their own experience and past history,
- learning from the experiences and best practices of others,
- transferring knowledge quickly and efficiently throughout the organization.

Bennett and O'Brien (1994) offer a more extensive list of "building blocks" which include:

- vision of goals and what must be learned to achieve them,
- executive practices that support the vision of organizational learning,
- managerial practices that support day-to-day work and continuous learning by individuals and teams,
- a learning nurturing climate,
- organization structure and job structures that allow response to changing demands from the external environment,
- advanced technology enhances the distribution of information,
- individual and team practices which encourage knowledge sharing,
- work processes that include learning specific skills (e.g., systematic problem-solving),
- performance goals and appraisal systems that support customer needs,

- structured training and education of employees,
- encouragement of individual and team development,
- reward systems that support and encourage individual and organizational learning.

The learning organization establishes learning mechanisms so that new knowledge can become part of the organization mind (Sandelands & Stablein, 1987).

Culture for Learning

Refining a learning friendly culture along with organizational learning mechanisms is required for learning (Lipshitz, Popper, & Oz, 1996). Schein (1985) states that the only thing of real importance that leaders do is to create and manage culture. As he declared the significance of organizational culture with this statement, Schein also suggested culture to be a complex, difficult to understand abstraction that holds promise to explain much that occurs in organizations. Ever since the concept of culture was connected to the study of organizations, its application has been diverse. This may be due, at least in part, to culture defying attempts to be universally defined or even be confined to a single set of assumptions (Smircich, 1983).

Schein (1993) posits organizational culture to be the accumulation of past learning. This simplistic definition

inadequately portrays the complexity and richness of culture but does recognize the involvement of learning in the organizational context. Schein more comprehensively defined culture as a set of shared tacit assumptions about how the world is and ought to be, which determines the perceptions, thoughts, feelings, and, to some degree, the overt behavior (1996, p. 11) of a group or its individual members. Dixon (1994) offers that organizational culture is the set of collective meaning structures that organizational members use to interpret the nature of their world and themselves in relation to it (p. 115). Paradoxically, organizational cultures are learned from environment, as well as, determine the basis for environmental interpretation. This learning comes from the greater societal culture or from individual organizational members who contribute to and are influenced by the culture (Dixon, 1994).

Culture is the product of that which it produces. Smircich (1983) suggests that this is the adaptive regulatory mechanism of organizational culture. Culture unites individuals into social structures, which share ways of thinking prescribed by the culture. Conversely, organizational culture can also be constructed by the organization. This occurs through the social structure establishing a finite number of social rules. The culture

becomes a system of shared cognitions by which organizational members choose behaviors and, thus, guides their behaviors (Smircich, 1983).

Organizations can create cultures that are specifically and intentionally focused on learning. These learning cultures are contexts in which members are allowed to explore, experiment in the margins, extend capabilities, and anticipate customers' latent needs (Barrett, 1995). The learning culture nurtures innovation through generative (Senge, 1990) or double-loop learning (Argyris & Schon, 1978), rather than incremental adaptation to environmental demands which has been described as adaptive (Senge, 1990) or single-loop learning (Argyris & Schon, 1978).

Barrett (1995) submits that organizational cultures, which converge on analysis and problem solving, constrain learning to that of an incremental, adaptive nature. Conversely, appreciative learning cultures engender positive possibility thinking, experimentation, feedback and meaningfulness, and open communication. Thus, the appreciative culture empowers members to creative, higher levels of learning.

Empowerment is induced through four specific organizational competencies embedded in the organizational culture. First, affirmative competence focuses on

exhibited strengths, successes, and potentials rather than obstacles to be overcome. This supports positive possibility thinking (e.g., One looking for what can be). Second, expansive competence challenges current practices and provokes experimentation. Therefore, advocates of the influence of culture view failures to be learning opportunities which occur through striving for higher achievement. Risk is encouraged not punished (Leonard-Barton, 1992; Gephart et al., 1996). Third, generative competence is implemented through an organizational system that provides feedback to members about the consequences of their efforts. This supports a sense of meaningfulness when the outcomes of one's activities become known. Fourth, collaborative competence provides for structure and forums for exchange of ideas. Included is the notion of minimal hierarchy along with mutual dialogue and inquiry rather than uni-directional communication (Barrett, 1995; Harris & Croen, 1979).

Degree of Learning

Characteristic of many discussions of the learning organization is the notion that even though all organizations learn, not all learn well. There appears to be an assumed invisible threshold of learning that an organization must rise above to be recognized as a learning organization (Dibella, Nevis, & Gould, 1996;

Gephart, et al., 1996). Learning mechanisms and cultural encouragement are the determinants of the level of organizational learning. Such a normative model is pervasive in the literature (Wick & Leon, 1995; Garvin, 1993; Senge, 1990; Kofman & Senge, 1992; McGill & Slocum Jr., 1993) and infers that, if an ideal structure for cultivating learning is not achieved, organizations suffer from a learning disability (DiBella, Nevis, & Gould, 1996).

As an alternative DiBella and colleagues (1996) suggested that all organizations learn but that the degree to which they learn is dependent upon the degree of their learning orientation. Further, DiBella and his colleagues posit seven dimensions or sub-orientations of the learning orientation upon which an organization can vary. These dimensions describe the organization's capabilities and style of learning based upon bipolar continuums.

The sub-orientations are suggested to be subjective focuses for learning and include

- knowledge focus which designates the extent to which the organization seeks knowledge from its environment versus developing new knowledge internally;
- product-process focus refers to the preference for knowledge about product and service outcomes versus knowledge about processes that support those products or services;

- documentation mode reflects attitudes regarding what is relevant knowledge and how repositories of that knowledge are supported;
- dissemination mode relates to the degree learning is approached as an evolutionary process or a structured, controlled one;
- learning focus involves the degree of concentration on methods and tools to improve current actions versus testing mental models which underlie current practices;
- value-chain focus identifies those functional, core competencies valued and supported;
- skill development focus recognizes the relative emphasis on individual versus collective learning (DiBella, Nevis, & Gould, 1996).

These various orientations suggest that, at any point in time, an organization can be at differing positions along seven continuums, which reflect various organizational learning sub-orientations. Further, this implies that organizations can move between extremes of various learning sub-orientation continuums changing their capabilities and/or style for learning relative to that dimension. Accumulatively, this indicates that organizations can change the degree to which they emphasize one area for learning relative to others, as well as, vacillate as a learning organization. Thus, organizations can improve their learning capabilities and transform their learning style preferences. Organizations can become, to a greater or lesser degree, learning

competent. Thus, the culture of the learning organization is not uni-dimensional but complex and multidimensional.

Through literature review and subsequent analysis, Richards and Goh (1995) determined there to be five dimensions that comprise a learning organization. It was their suggestion that the degree to which an organization emphasizes learning could be examined based on these dimensions. Those dimensions include:

- Clarity of Mission and Purpose: the degree to which employees have a clear vision/mission of their organization and understand how they can contribute to its success and achievement.
- Leadership: leadership behaviors that foster an open and challenging environment for employees, leaders who are not afraid of change and do not react defensively to criticism.
- Experimentation: a culture of experimentation and innovation where employees are allowed to try new ways for getting the job done and are rewarded for risk-taking.
- Transfer of Knowledge: systems that enable employees to interact freely with others, to learn from past failures and from other organizations and have access to relevant data and information.
- Teamwork/Group Problem-solving: an environment where teamwork is fostered and rewarded from solving problems and where team members come from diverse functional areas.

Market Orientation

Because the organizational market environment evolves over time and customers needs and expectations change, delivering products that consistently reflect

understanding and responsiveness is demanding (Jaworski & Kohli, 1993; Day, 1994). The marketing concept includes a belief that the organization's first priority is to satisfy customers' needs (Day, 1994; Houston, 1986). Market orientation, as the implementation of the marketing concept, is at the center of marketing researcher's attention (Houston, 1986). Kohli and Jaworski (1990) developed a model of market orientation. Day (1994) employed the core elements of their model as he gave market orientation this behavioral definition. "The organization-wide generation of market intelligence, dissemination of that intelligence across departments, and organization-wide responsiveness to it," (See Table 2.3.).

TABLE 2.3

MARKET ORIENTATION:
DEFINITIONS FROM LITERATURE

Study	Definition
Kohli & Jaworski (1990)	Organizational behaviors and activities consisting of intelligence generation, dissemination, and responses that manifest the adoption of the marketing concept.
Jaworski & Kohli (1993)	Organization-wide generation of market intelligence, dissemination the intelligence across departments, and organization-wide responsiveness to it (p. 53).
Day (1994)	The organization-wide generation of market intelligence, dissemination of that intelligence across departments, and organization-wide response to it.

Market orientation involves more than the traditional approach of simply doing customer research and obtaining information directly from customers about their needs and preferences (Kohli & Jaworski, 1990). Customer orientation, competitor orientation, and interfunctional coordination make up the content of the market orientation core (Narver & Slater, 1990). Customer orientation (customer focus) is the central element of market orientation (Kohli & Jaworski, 1990). To be customer oriented is to have a clear understanding of current and future customer needs and to continuously and intentionally create superior value into products and services for those customers (Narver & Slater, 1990).

Being competitor oriented is to be astute in regard to current and potential competitors' short-term strengths and weaknesses. Competitors' long-term capabilities and strategies are also of acute concern (Narver & Slater, 1990).

Market orientation is not the responsibility of a marketing department alone. It requires the concerted effort of multiple departments and/or functions in the organization (Kohli & Jaworski, 1990). Interfunctional coordination involves coordinating the utilization of organization resources in order to create superior value for the customer (Narver & Slater, 1990). The

capabilities to accomplish this are best exhibited by the market-driven firm, an organization with superior capabilities for continuously sensing the present and future market and emphasizes acting upon those customer needs (Day, 1994a, b).

Domain

With little or no debate, customer orientation is accepted as being within the domain of market orientation (Kohli & Jaworski, 1990; Narver & Slater, 1990; Day, 1994). Meeting the customer's needs has typically been recognized as the focal purpose of the marketing department (McDaniel & Kolari, 1987). A somewhat more broad perspective considers other environmental forces (e.g., competition, technology, and government regulation) as also belonging to the market orientation domain (Jaworski & Kohli, 1993).

This seems to infer that the entire organizational environment is the domain of market orientation. The domain of market orientation has limitation but does not fall solely within the domain of the marketing function. Narver and Slater (1990) tied market orientation to other functions within the organization through interfunctional coordination as an element of the market orientation core. Kohli and Jaworski (1990) contend that "responsibility to a market need effectively requires the participation of

virtually all departments in the organization - Research and Development to design and develop a new product, manufacturing to gear up and produce it, purchasing to develop vendors for new parts/materials, finance to fund activities, and so on," (p. 5). Successful organizations are those that have more efficient organization-wide interaction with their environment (Jaworski & Kohli, 1993).

Processes

The central elements of market orientation are generation of market intelligence, dissemination of that intelligence throughout the organization and organizational response to that information generated and disseminated (Kohli & Jaworski, 1990). Antecedents to market orientation, integral to the organization, have been labeled organizational factors. These were categorized as senior management factors, interdepartmental dynamics, and organizational systems factors (Kohli & Jaworski, 1990).

Senior management is among the more important factors in enhancing or suppressing market orientation (Kohli & Jaworski, 1990). These scholars also suggest that senior management fostering the "state of mind" necessary for market orientation is an essential prerequisite for successful implementation.

A market-oriented organization is involved in change. Response to change in the competitive environment requires action based on information collected from that environment (e.g., introduction of new products or services, entrance or withdrawal from specific market segments). Risk is a part of such strategies. Therefore, top management's level of risk aversion impacts its support of intelligence generation, dissemination, and responsiveness activities. Emphasis on environmental sensitivity by top management is suggested to be positively correlated with market orientation processes, while their level of risk aversion has been hypothesized to be negatively related to market orientation (Jaworski & Kohli, 1993).

Interdepartmental conflict and connectedness are also antecedent to market orientation (Jaworski & Kohli, 1993). Conflict within the organization can be engendered by subcultures, sharers of differing values, norms, beliefs, and goals, which may be functionally or departmentally specific (Frankwick, Ward, Hutt, & Reingen, 1994).

Connectedness, the degree of formal and informal direct contact among members of separate departments across departmental boundaries, is hypothesized to be positively correlated to market orientation (Narver & Slater, 1990). These cross department relationships

facilitate interaction, information flow, and shared use of that information (Jaworski & Kohli, 1993).

Systems of the organization, formalization, centralization, departmentalization, and reward systems, are also suggested to influence market orientation processes. Formalization, centralization, and departmentalization appear to be negatively related to intelligence generation, dissemination and response design but positively related to response implementation (Jaworski & Kohli, 1993).

Consequent to market orientation are customer responses, employee responses, and organizational performance (Kohli & Jaworski, 1990). As a consequence of market orientation, performance has drawn the greatest interest of researchers and practitioners (Wright, Kroll, Pray, & Lado, 1995; Atuahene-Gima, 1996). Market orientation is suggested to be positively correlated to organizational performance (Kohli & Jaworski, 1990; Narver & Slater, 1990; Slater & Narver, 1994; Walker & Ruekert, 1987). Kohli and Jaworski (1990) suggest that the market orientation/ performance relationship is moderated by supply-side (e.g., levels of change in technology and strength of competition) and demand-side (levels of market turbulence and strength of the general economy) contingencies.

Core of Market Orientation

The core elements of market orientation are market intelligence, dissemination and interfunctional coordination (Kohli & Jaworski, 1990). Each element is now discussed.

Market Intelligence is defined as information about those segments of the organization's environment which impact the organization's relationship with its customer, the needs of those customers, and competitors activities (Kohli & Jaworski, 1990). In market-driven organizations the process for gathering, interpreting, and responding to market information is approached systematically (Day, 1994). Generation of customer information is a function of being customer oriented, and generation of competitor information is a function of being competitor oriented (Narver & Slater, 1990).

Intelligence Dissemination effectiveness provides a shared basis for concerted actions by various functional groups of the organization (Kohli & Jaworski, 1990). Synergistic information distribution throughout the organization with no "chimneys," is a capability of the market-driven organization (Day, 1994). Having no "chimneys" serves as an analogy which indicates that there are no places where information is exhausted from the

organization and not passed on so that it becomes distributed, appreciated, and acted upon (Day, 1994).

With the typical view of market orientation as being the domain of the marketing department, dissemination of market intelligence throughout the organization would be the responsibility of marketers in the firm (Walker & Ruekert, 1987). Market intelligence need not flow from marketers to other functional departments but may flow in multiple directions with various departments as originators (Kohli & Jaworski, 1990).

Though important, dissemination of market intelligence need not occur through formal channels alone but may occur through informal discussions (e.g., hall talk) across functional groups (Kohli & Jaworski, 1990; Ruekert & Walker, 1987). On the other hand, formalization of communication between functional groups in the organization is positively related to flow of information (Walker & Ruekert, 1987). Maltz and Kohli (1996) found that the formality of intelligence dissemination influences the degree to which the information is used. The more formal the processes the greater the probability of market intelligence use over that disseminated through informal channels. Conversely, optimal perceived quality of the information and probability of use was found to

occur with approximately equal formal and informal communication processes.

Often the concern regarding intelligence dissemination is over the frequency of messages being transmitted across functions. Does frequency affect the perceived quality and use of the intelligence? Support has not been found for a straight frequency affect. The intelligence dissemination must surpass a frequency threshold before information is viewed to be trusted for quality and consequently used. A second frequency threshold beyond that which learning and use decreased in a relative sense (Maltz & Kohli, 1996) was found.

Interfunctional coordination is based on marketing information and it is the coordination of marketing oriented efforts throughout the organization. This multiple function perspective (Narver & Slater, 1990) negates the traditional perspective that market orientation is the responsibility of the marketing department.

Organizational response to market needs based on collected intelligence is necessary or little is accomplished by the previous two components of market orientation (Kohli & Jaworski, 1990). Responsiveness to market needs is responsiveness to the intelligence generated and disseminated. There are two

organization-wide responses: (1) the design response and (2) the response of implementation. The design response is the development of plans based on market intelligence. The implementation response is the execution of such plans (Jaworski & Kohli, 1993).

Organizational Learning and Market Orientation

In one sense market orientation is a special case of organizational learning. The organizational learning cycle includes information acquisition, dissemination, interpretation, and storage in memory. Market orientation involves many of the same phases but does so specifically in regard to the marketplace.

Deshpande and Webster (1989) suggest that organizational learning is a system of shared cognitions among members of that organization. These researchers also posit that organizational learning should be important to marketers because what has been learned by the organization becomes part of the organization's memory and affects the use of market information by the organization. Understanding how organizations process market information is dependent on an understanding of organizational learning (Sinkula, 1994).

While information processing is dependent on what the organization already knows, what organizations most need

to learn involves market information (Sinkula, 1994). Thus, there is a reciprocal dependence relationship between organizational learning and market information processing. This reciprocal relationship is extended to market orientation since market information processing is the core of the market orientation concept.

Sinkula (1994) offers that organizational learning regarding market information is unique from other types of organizational learning in five ways. First, processing information about the organization's market (e.g., customers, competitors, etc.) is an externally focused core competency. Thus, it differs from internally focused learning competencies such as the development of routines. Second, organizational learning directed at market information results in a fundamental basis for competitive advantage. Organizational learning literature acknowledges the significance of advantageous alignment with the environment. The organization's market is a specific environment. Marketers suggest it is the most significant environment to organizations and, therefore, must be given most serious attention. Third, market-driven organizational learning requires vicarious learning (Huber, 1991). Learning through observing others (e.g., customers, competitors, and industry leaders) is essential. Fourth, once market information

(e.g., customer loyalty, satisfaction, brand equity, and image data) has become organizational knowledge and stored in memory it is more difficult to access relative to internally generated knowledge. Fifth, market-based information is more equivocal and therein presents greater challenge to interpretation (Sinkula, 1994; Day, 1991). Day (1994) suggests that the equivocality of market information presents a challenge to organizational learning.

In the market-driven organization, learning processes involve

- open-minded inquiry,
- information distribution,
- interpretation,
- memory.

Inquiry is embedded in the belief that the market is where decision considerations must begin (Day, 1994b).

Therefore, inquiry is related to the focus on customer needs in market orientation. On the other hand, inquiry resembles scanning and search activities presented in organizational learning (Daft & Weick, 1984; Dixon, 1994). Day (1994b) suggests that information distribution assures that relevant data is available when and where needed throughout the organization. Information distribution, as the flow of new information across departments, is

familiar from organizational learning literature (Dixon, 1994; Walsh & Ungson, 1991); in market orientation research intelligence dissemination closely parallels the information distribution construct (Kohli & Jaworski, 1990, 1993; Narver & Slater, 1990; Slater & Narver, 1994). Interpretation that ensures attention be paid to the possibilities of information (Day, 1994b) is a familiar part of organizational learning theory but Day (1994b) introduced it to market orientation. Finally, storage of information as knowledge in memory (Day, 1994b) finds its way into market orientation literature, even though it has been present in the research of organizational learning scholars (Anand, Skilton & Keats, 1996; Walsh & Ungson, 1991).

Job Satisfaction and Organizational Commitment

Both job satisfaction and organizational commitment are proposed as consequences of market orientation (Kohli & Jaworski, 1990). These researchers suggest that each of these employee attitudes is positively related to the degree of market orientation prevalent in the organization. In proposing these as employee responses to market orientation, Kohli and Jaworski (1990) depend on statements by interviewed executives who perceived market orientation to provide psychological and social benefits to employees. Without explicitly defining either job

satisfaction or organizational commitment, it was suggested they involve a sense of pride in belonging to an organization, which collectively works toward a common goal.

Pride intuitively can imply an attitudinal response. Employees (Brooke, Russell, & Price, 1991) have proposed organizational commitment and job satisfaction as affective responses. Brooke and colleagues (1991) determined that job satisfaction and organizational commitment are distinguishable constructs. Job satisfaction indicates the extent the employee likes the job he/she does. Organizational commitment refers to the degree of attachment and loyalty the employee feels toward the organization.

Literature, with respect to organizational commitment has suggested three forms, calculative, affective, and normative, involvement that influence employees allegiance to the organization (Morrow, 1993). Calculative organizational commitment revolves around the exchange agreement between organization and employee; the normative perspective suggests commitment is due to a sense of obligation. Affective organizational commitment includes the employee's identification with and involvement in the organization. Specifically, this involves three dimensions:

- a strong belief in and acceptance of the goals and values of the organization,
- a willingness to exert considerable effort on behalf of the organization, and
- a strong desire to maintain membership in the organization (Mowday, Porter, & Steers, 1982, p. 27).

The organizational commitment inferred by Kohli and Jaworski (1990) appears to best fit the affective form described by Mowday et al., (1982).

Affective organizational commitment correlates, empirically examined in literature, involve a number of work situation elements (Morrow, 1993). Included are job satisfaction (Mathieu & Zajac, 1990; Witt, 1989; Martin & O'Laughlin, 1984; Morrow & McElroy, 1987; Blegen, et al., 1988; Glisson & Durick, 1988; Meyer & Allen, 1988; Mathieu, 1989; Zaccaro & Dobbins, 1989; Barlin, et al., 1989; Jamal, 1990; Mathieu & Kohler, 1990; McGinnis & Morrow, 1990), communication (Martin & O'Laughlin, 1984; Morrow & McElroy, 1987; Gaertner & Nollen, 1989; Barling, et al., 1990), continuing education (Colarelli & Bishop, 1990), participation (Meyer, & Allen, 1988; Mathieu & Hamel, 1989; Barling, Wade, & Fullager, 1990), training (Martin & O'Laughlin, 1984; Mathieu & Hamel, 1989), formalization (Dornstein & Matalon, 1989; Mathieu & Hamel, 1989), routinization, (Blegen, et al., 1988; Brooke, et al., 1988), centralization (Blegen, Mueller, & Price,

1988; Brooke, Russell, & Price, 1988; Dornstein & Matalon, 1989; Mathieu & Hamel, 1989), and integration (Blegen, et al., 1988; Dornstein & Matalon, 1989).

Most of these correlates are proposed as antecedents to affective organizational commitment. Many of these same antecedents have been proposed as consequences of organizational learning and/or characteristics of a learning organization (e.g., quality and frequency of communication and feedback, training and continuing education, innovativeness, participation, formalization, routinization, centralization, and integration). Therefore, there appears probability of some correlation between the learning organization and affective organizational commitment through sharing of these properties.

The relationship between organizational commitment and job satisfaction has been resolutely researched as the above citations indicate. The causal relationship between the two constructs has received substantial research attention (Vandenberg & Lance, 1992; Morrow, 1993). The order of that causal relationship has remained in question. Hypotheses have been offered that (1) satisfaction causes commitment, (2) commitment causes satisfaction, (3) satisfaction and commitment are reciprocally related, and (4) no causal relationship

exists between the two. Consistent with results of previous studies Vandenberg and Lance (1992) support the notion that organizational commitment is antecedent to job satisfaction.

While the concern of this study is not the causal order between organizational commitment and job satisfaction, the relationship suggests that an antecedent to one would also be an antecedent to the other. Additionally, some of the proposed antecedents to organizational commitment that are consequent to organizational learning and market orientation, are suggested to directly influence job satisfaction (Griffin, 1991; Hackman & Oldham, 1976; Hackman & Lawler, 1971).

Hackman and Oldham (1976) propose that characteristics intrinsic to the job task itself affect employee motivation and attitude. The attitude most strongly influenced by intrinsic job characteristics is that of satisfaction. These researchers' seminal work posits that task dimensions of task variety, autonomy, feedback, identity, and significance affect employee motivation and satisfaction.

Perhaps most relevant for this study are empirical investigations which support Kohli and Jaworski (1990) and their proposition that employee attitudes are related to market orientation (Jaworski & Kohli, 1993; Sigauw, Brown,

& Widing III, 1994). While Jaworski and Kohli (1993) address organizational commitment, Siguaw, Brown, and Widing III (1994) investigated job satisfaction and organizational commitment. Each of the three studies found positive correlation between market orientation and each employee attitudes. Further, Siguaw, Brown, and Widing III (1994) defined each employee attitude just as they are in this study.

Individual Learning Orientation

To suggest that all individuals have the same relationship with learning seems illogical. Just as we recognize that not all organizations equally focus on learning (DiBella, Nevis, & Gould, 1996), individuals differ in their intent, capacity, and opportunity to learn. Psychological literature argues that individuals have differing degrees of both propensity to learn, and individual learning orientation (Ames & Archer, 1988). While literature suggests that individual propensities toward learning goals and/or performance goals are relatively stable, context can make orientation toward one set of goals over another more salient (Sujan, Weitz, & Kumar, 1994). Thus, Ames and Archer (1988) argue that individual orientations are states of being as well as traits.

In the literature, it is posited that individuals with greater degrees of learning orientation have greater inclination toward goals such as improvement of abilities and mastery of tasks. Therefore, individuals with a learning orientation are attracted to challenging situations and are not overly fearful of making mistakes (Sujan, Weitz, & Kumar, 1994).

In contrast to a learning orientation, a performance orientation suggests that individuals prefer positive external evaluation of their current abilities to preference for improvement of skills. The performance orientation suggests that these individuals seek favorable evaluations from others (e.g., managers, colleagues, etc.). This engenders the propensity to avoid experimentation and/or challenging situations due to fear of unfavored outcomes which could result in negative evaluations (Sujan, Weitz, & Kumar, 1994).

CHAPTER 3

RESEARCH METHODOLOGY

The objective of this chapter is to present the research methodology employed in this dissertation. To aid discussion, the research model is shown in Figure 3.1. This model indicates that the learning organization and market orientation, separately and interactively, are posited as direct influences on organization member attitudes, job satisfaction and organizational commitment. Individual learning orientation is posited as a moderator variable that affects the proposed independent/dependent variable relationships.

The order of presentation in this chapter is as follows. The proposed model is first presented which are followed by research hypotheses. Presented next is the description of how variables were operationalized. Then, the research instrument is described (See Tables 3.1, 3.2, 3.3, 3.4). Reliability and validity considerations are then addressed followed by explication of the research in terms of sampling and data collection methodology used and the statistical techniques employed.

The Proposed Model

The proposed model includes the learning organization and market orientation as independent variables and individual learning orientation as a moderator variable. These are posited to influence the two dependent variables job satisfaction and organization commitment. Model variables are identified as follows:

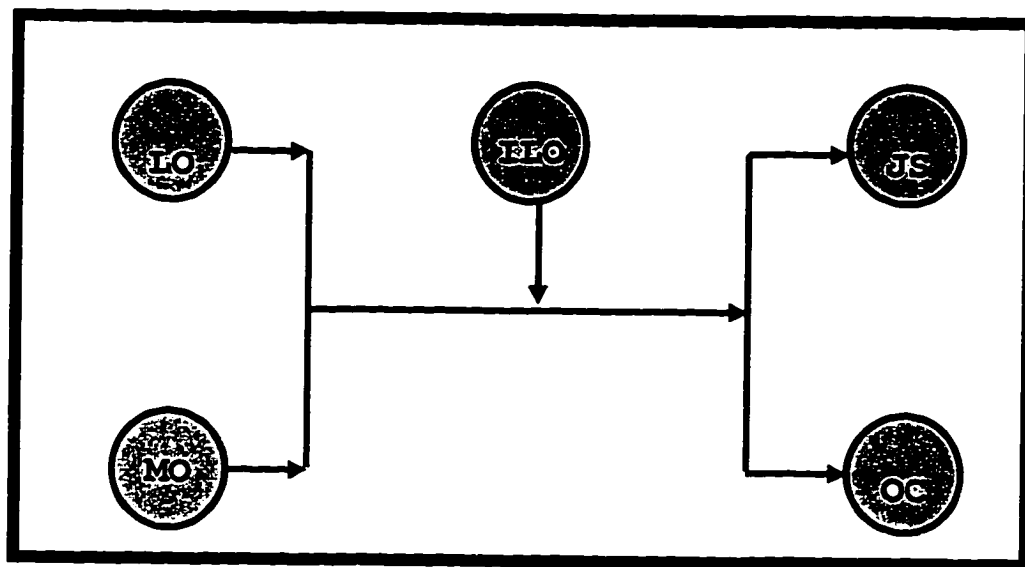
LO = The learning organization

MO = Market orientation

ILO = Individual learning orientation

JS = Job satisfaction

OC = Organization commitment



Legend:

LO = The Learning Organization
MO = Market Orientation
ILO = Individual Learning Orientation
JS = Job Satisfaction
OC = Organizational Commitment

FIGURE 3.1

GRAPHIC REPRESENTATION OF MODEL

Research Hypotheses

To inquire regarding relationships suggested in the proposed model, hypotheses were formulated. Graphic representation of that model is presented again in Figure 3.1.

Market orientation is posited to directly and positively influence the employee attitudes, job satisfaction and organizational commitment (Kohli & Jaworski, 1990). There has been some empirical support for this proposition (Jaworski & Kohli, 1993). The empirical findings of Siguaw, Brown, and Widing III, (1994) support the notion that greater market orientation engenders greater job satisfaction and organization commitment. Therefore, this study, as far as the direct influence of market orientation on employee attitudes is concerned, represents a replication of previous research. The following set of hypotheses is posited

- H_{1a} The greater the market orientation of the organization, the greater the job satisfaction of the organization member.
- H_{1b} The greater the market orientation of the organization, the greater the organization commitment of the organization member.

The concepts of organizational learning or the learning organization have not previously been explicitly posited as influential on employee attitudes. However,

many of the attributes characterized to be dimensions of the learning organization are connected in literature to job satisfaction and organizational commitment (e.g., good communication flow within the organization, performance feedback, sense of autonomy and meaningfulness, and empowerment). These were reviewed in Chapter 2.

Therefore, it is posited in this study that the greater the learning organization characteristics present the greater the employee job satisfaction and organizational commitment. Specifically, the following set of hypotheses is offered.

- H2a The greater the degree to which the firm is a learning organization, the greater the job satisfaction of the organization member.
- H2b The greater the degree to which the firm is a learning organization, the greater the organization commitment of the organization member.

Because market orientation and the learning organization involve assimilation of information, as does individual orientation, some congruence between these variables is expected. Additionally, the individual organization member appears to be the principal agent of learning in the organization (Argyris & Schon, 1978). Therefore, individual learning orientation as an individual level variable is expected to moderate the influence of the organizational level variables on member

attitudes. Thus, the following set of hypotheses posits that the member's individual learning orientation moderates the influence of either market orientation or the learning organization on job satisfaction and organizational commitment.

- H3a Individual learning orientation moderates the effect of market orientation on member job satisfaction.
- H3b Individual learning orientation moderates the effect of market orientation on the organizational commitment of the organization member.
- H3c Individual learning orientation moderates the effect of the learning organization on member job satisfaction.
- H3d Individual learning orientation moderates the effect of the learning organization on the organizational commitment of the member.

The potential congruence between market orientation and the learning organization suggests interaction between the two to influence job attitudes. Therefore, the following set of hypotheses indicates that the interaction between market orientation and the learning organization influences employee attitudes, job satisfaction and organizational commitment.

- H4a Interaction between market orientation and the learning organization influences member job satisfaction.
- H4b Interaction between market orientation and the learning organization influences member organization commitment.

The effect of individual learning orientation is proposed to moderate the influence by the interaction between market orientation and the learning organization on job satisfaction and organizational commitment. Therefore, the following set of hypotheses is offered.

- H5a Individual learning orientation moderates the effect that the market orientation and the learning organization interaction has on member job satisfaction.
- H5b Individual learning orientation moderates the effect that the market orientation and the learning organization interaction has on member organization commitment.

Operationalization of Variables

Each variable is measured using previously developed multi-item scales that have exhibited acceptable levels of reliability and validity. The perspective of the sales/marketing executive is captured

Although many are multiple dimension scales, measurement of the variable as a whole is the concern of this dissertation. An overall index for each variable is derived by averaging the item scores across all items pertaining to that variable.

Market Orientation

Following Jaworski and Kohli (1990), market orientation (MO) consists of three sets of activities related to the organization's focus on customers,

competitors, technology and regulation. These sets of activities are:

- organization-wide generation of market intelligence pertaining to customer present and future needs.
- organization-wide dissemination of generated intelligence to all members with need for that information.
- interdepartmental coordination of responses to that generated and shared intelligence (p. 12).

These activity dimensions are represented in the final 15-item scale for market orientation developed by Narver and Slater (1990). Members indicate the degree to which their organization engages in these activities through customer orientation, competitor orientation and interfunctional coordination. The organization was defined as the Strategic Business Unit (SBU), "an organizational unit with a defined business strategy and a manager with sales and profit responsibility" (p. 32).

Items 2, 5, 9, 10, and 11 identify the degree to which the organization is customer oriented. Items 1, 4, 7, and 12, 13 identify the degree to which the organization is competitor oriented. Interfunctional coordination is indicated in items 3, 6, 8 14, and 15. All items are stated positively except number 3. Therefore, a high score indicates consistency with market orientation.

TABLE 3.1

MARKET ORIENTATION

INSTRUCTIONS: The following questions are designed to determine what you believe are the business practices of your organization.

Please indicate in the blank by each statement, based on the following key, the number which corresponds to your belief about your organization's business practices.

- 1 = Not at all
- 2 = To a very slight extent
- 3 = To a small extent
- 4 = To a moderate extent
- 5 = To considerable extent
- 6 = To great extent
- 7 = To a very great extent

- ___ 1. Our salespeople regularly share information within our business concerning competitors' strategies.
- ___ 2. Our objectives are driven primarily by customer satisfaction.
- ___ 3. We discourage employees outside of sales/marketing from meeting with customers.
- ___ 4. We respond rapidly to competitive actions that threaten us.
- ___ 5. We constantly monitor our level of commitment and orientation to customers.
- ___ 6. Information on customers, marketing successes and marketing failures are communicated across functions in the business.
- ___ 7. Our strategy for competitive advantage is based on our understanding of our customers' needs.
- ___ 8. All of our functions (not just marketing/sales) are responsive to and integrated in serving target markets.
- ___ 9. Our market strategies are driven by our understanding of possibilities for creating value for customers.
- ___ 10. We measure customer satisfaction systematically and frequently.
- ___ 11. We give close attention to after-sales service.
- ___ 12. We target customers and customer groups where we have, or can develop a competitive advantage.
- ___ 13. Top management regularly discusses competitors' strengths and strategies.
- ___ 14. All of our managers understand how the entire business can contribute to creating customer value.
- ___ 15. We share programs and resources with other business units in the corporation.

Learning Organization

Richards and Goh (1995), conceptualize the learning organization (LO) as consisting of five dimensions, which enable the organization to employ an organizational learning process. These five dimensions consist of:

- Clarity of Mission and Purpose - the degree to which employees have a clear vision/mission of their organization and understand how they can contribute to its success and achievement.
- Leadership - behaviors of management that foster an open and challenging environment for employees and managers who are not afraid of change and do not react defensively to criticism.
- Experimentation - a culture where employees are allowed to try new ways for getting the job done and are rewarded for risk-taking.
- Transfer of knowledge - systems that enable employees to interact freely with others, to learn from past failures and from other organizations and have access to relevant data and information.
- Teamwork/Group Problem-Solving - an environment where teamwork is fostered and rewarded for solving problems and where team members come from diverse functional areas (Richards, 1994, p. 6).

The learning organization scale consists of twenty-one items related to the five above dimensions. Clarity of mission and purpose was measured by items 2, 17, 18, and 19. Leadership was measured by items 7, 11, 13, and 15. Items 3, 6, 8, 10 and 12 measured the experimentation dimension. The transfer of knowledge dimension was measured by items 1, 4, 9, and 16. Finally, teamwork/group problem solving was measured by items 5,

14, and 21. Items 4, 7, 12, 14, and 18 were negatively stated and, therefore, reverse scored. Thus, a higher score indicates characteristics consistent with a learning organization.

TABLE 3.2

LEARNING ORGANIZATION

INSTRUCTIONS: The following questions are designed to determine what business practices are emphasized in your organization. Please indicate in the blank by each statement, based on the following key, the number which corresponds to your belief about your organization's business practices.

- 1 = I strongly disagree
- 2 = I somewhat disagree
- 3 = I slightly disagree
- 4 = I neither agree or disagree
- 5 = I slightly agree
- 6 = I somewhat agree
- 7 = I strongly agree

Example:

- 5 In our organization we bend over backward to satisfy each customer. By writing 5 in the blank above you would be indicating that you slightly agree that your organization bends over backward to satisfy customers.
- 1. I often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.
 - 2. There is widespread support and acceptance for the organization's mission statement.
 - 3. I can often bring new ideas into the organization.
 - 4. Failures are seldom constructively discussed in our organization.
 - 5. Current organizational practice encourages employees to solve problems together before discussing it with a supervisor.
 - 6. From my experience, people who are new to this organization are encouraged to question the way things are done.
 - 7. Senior managers in this organization resist change and are afraid of new ideas.
 - 8. Line managers in this organization encourage employees to experiment in order to improve work processes.
 - 9. New work processes that may be useful to the organization as a whole are usually shared with all employees.
 - 10. Innovative ideas that work are often rewarded by management.
 - 11. Managers and employees in this organization share a common vision of what our work should accomplish.
 - 12. In my experience, new ideas from staff are not treated seriously by management.
 - 13. Managers in this organization frequently involve employees in important decisions.
 - 14. We cannot usually form informal groups to solve organizational problems.
 - 15. Managers in this organization can accept criticism without becoming overly defensive.
 - 16. We have a system that allows us to learn successful practices from other organizations.
 - 17. Line managers in this organization often provide feedback that helps to identify potential problems and opportunities.
 - 18. I do not understand how the mission of this organization is to be achieved.
 - 19. We have opportunities for self-assessment with respect to goal attainment.
 - 20. The organization's mission statement identifies values to which all employees must conform.
 - 21. Most problem solving groups in this organization feature employees from a variety of functional areas or divisions.

**Individual Learning
Orientation**

Individual learning orientation (ILO) was operationalized by a 9-point scale based on Ames and Archer's (1988) measure (Sujan, Weitz, & Kumar, 1994). The ILO construct was measured as a single dimension with item 5 negatively stated and, therefore, reverse scored. Higher scores indicate greater degree of a learning orientation.

TABLE 3.3
INDIVIDUAL LEARNING ORIENTATION

INSTRUCTIONS: The following questions are designed to determine what business practices are emphasized in your organization. Please indicate in the blank by each statement, based on the following key, the number which corresponds to your belief about your organization's business practices.

- 1 = I strongly disagree
- 2 = I somewhat disagree
- 3 = I slightly disagree
- 4 = I neither agree or disagree
- 5 = I slightly agree
- 6 = I somewhat agree
- 7 = I strongly agree

Example:

5 In our organization we bend over backward to satisfy each customer.

By writing 5 in the blank above you would be indicating that you slightly agree that your organization bends over backward to satisfy customers.

- 1. Making a tough decision is very satisfying.
- 2. An important part of being a good salesperson is continually improving your sales skills.
- 3. Making mistakes when selling is just part of the learning process.
- 4. It is important for me to learn from each selling experience I have.
- 5. There really are not a lot of new things to learn about selling.
- 6. I am always learning something new about my customers.
- 7. It is worth spending a great deal of time learning new approaches for dealing with customers.
- 8. Learning how to be a better salesperson is of fundamental importance to me.
- 9. I put in a great deal of effort sometimes in order to learn something new.

Job Satisfaction

The 14-item five dimension Job Diagnostic Survey developed by Hackman and Oldham (1975) is employed to measure job satisfaction. This scale is an often-used measure, which examines five dimensions of the job satisfaction construct (1) pay, (2) job security, (3) social interaction, and (4) supervision and (5) growth opportunity. These items were answered on a 7-point Likert scale with responses ranging from very dissatisfied to very satisfied. A score of 7 indicates very satisfied. Therefore, a higher overall score indicates greater job satisfaction.

TABLE 3.4
JOB SATISFACTION

INSTRUCTIONS: Please use the following scale to indicate the degree to which you are satisfied or dissatisfied with these aspects of your job.

- 1 = Extremely dissatisfied
- 2 = Dissatisfied
- 3 = Slightly dissatisfied
- 4 = Neutral
- 5 = Slightly satisfied
- 6 = Satisfied
- 7 = Extremely satisfied

- ___ 1. The amount of job security I have.
- ___ 2. The amount of pay and fringe benefits I receive.
- ___ 3. The amount of personal growth and development I get in doing my job.
- ___ 4. The people I talk to and work with on my job.
- ___ 5. The degree of respect and fair treatment I receive from my boss.
- ___ 6. The feeling of worthwhile accomplishment I get from doing my job.
- ___ 7. The chance to get to know other people while on the job.
- ___ 8. The amount of support and guidance I receive from my supervisor.
- ___ 9. The degree to which I am fairly paid for what I contribute to this organization.
- ___ 10. The amount of independent thought and action I can exercise in my job.
- ___ 11. How secure things look for me in the future in this organization.
- ___ 12. The chance to help other people while at work.
- ___ 13. The amount of challenge in my job.
- ___ 14. The overall quality of the supervision I receive in my work.

Organizational Commitment

Porter, Steers, Mowday, and Boullian (1974) conceptualized the attitudinal commitment construct. This continues to be the most extensively used organizational commitment approach (Morrow, 1993). Defined as the employee's identification with and involvement in the organization attitudinal organization, commitment consists of the following three dimensions (Mowday, Porter, & Steers, 1982):

- an employee's strong belief in and acceptance of the goals and values of the organization.
- his/her willingness to exert considerable effort on behalf of the organization.
- the employee's strong desire to maintain membership in the organization.

Porter et al., colleagues (1974) developed a 15 item measurement instrument for the attitudinal commitment construct. The congruence with organization beliefs and values dimension is measured in items 2, 5, 6, 10, and 12. Items 1, 4, 7, 8, and 13 measure the willingness to exert considerable effort for the organization dimension. Finally, a strong desire to maintain membership is measured in items 3, 9, 11, 14, and 15. Items 3, 7, 9, 11, 12, and 15 were negatively stated and, therefore, reverse scored. A higher score indicates greater member commitment to the organization.

TABLE 3.5

ATTITUDINAL ORGANIZATION COMMITMENT

Instructions: Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you now working please indicate the degree of your agreement or disagreement with each statement entering the number which corresponds to you choice in the blank to the left of that statement.

- 1 = I strongly disagree
- 2 = I somewhat disagree
- 3 = I slightly disagree
- 4 = I neither agree or disagree
- 5 = I slightly agree
- 6 = I somewhat agree
- 7 = I strongly agree

Example:

5 In our organization we bend over backward to satisfy each customer.

By writing 5 in the blank above you would be indicating that you slightly agree that your organization bends over backward to satisfy customers.

- 1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
- 2. I talk up the organization to my friends as a great organization to work for.
- 3. I feel very little loyalty to this organization.
- 4. I would accept almost any type of job assignment in order to keep working for this organization.
- 5. I find that my values and the organization's values are very similar.
- 6. I am proud to tell others that I am part of this organization.
- 7. I could just as well be working for a different organization as long as the type of work was similar.
- 8. This organization really inspires the very best in me in the way of job performance.
- 9. I would take very little change in my present circumstances to cause me leave this organization.
- 10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
- 11. There's not too much to be gained by sticking with this organization indefinitely.
- 12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.
- 13. I really care about the fate of this organization.
- 14. For me this is the best of all possible organizations for which to work.
- 15. Deciding to work for this organization was a definite mistake on my part.

Research Instrument

The complete 199-item research instrument is included in Appendix A. The market orientation construct (MO) is examined in items 1 through 15. Items 16, 17, and 19 through 36 relate to measurement of characteristics of the learning organization (LO). Items 38 through 47 and 74 measure individual learning orientation (ILO). Job satisfaction (JS) is measured by items 171 through 184. Finally, items 46 through 49 and 51 through 60 measure organizational commitment (OC). The research instrument is a self-report questionnaire administered by mail.

Reliability and Validity

Reliability and validity are important concepts in empirical research (Peter, 1979). Reliability is the degree to which measures are free from error and yield consistent results (Churchill, 1979; Peter, 1981). Estimates of reliability can be made via several techniques. Perhaps the most commonly accepted is coefficient alpha (Churchill, Ford, & Walker, 1985).

Market Orientation

Narver and Slater (1990) developed the 15-item scale that is employed in this study to measure the three-dimension market orientation construct. The construct identifies the dimensions of market orientation

as (1) intelligence generation, (2) intelligence dissemination, and (3) response. Likert items scored on a 7-point scale ranging from "1 = I strongly disagree" to "7 = I strongly agree" comprised the scale. By averaging the item scores across all the items of the three dimensions, an overall market orientation score is derived.

In the Narver and Slater (1990) study, coefficient alpha was calculated to determine the reliability of each dimension. Each of the reliability scores exceeded recommended levels (Nunnally, 1976). The intelligence generation dimension was measured by ten items and produced a coefficient alpha score of .71. Intelligence dissemination exhibited a coefficient alpha of .82 on eight items. The response dimension was divided into response design (coefficient alpha score was .78) and response implementation (coefficient alpha score was .82) elements with seven items each probing the organizations' response planning and employment respectively. While no overall market orientation coefficient alpha was reported, correlations of overall market orientation to its three dimensions were reported as .79, .88, and .92, respectively. Strong correlations and dimensional coefficient alphas appear to support the reliability of the overall market orientation construct. In order to

cross-validate their findings; the authors (Jaworski & Kohli, 1993) collected data from two samples.

Learning Organization

A twenty-one item scale, the Organizational Learning Survey (OLS), was developed by Richards and Goh (1994) and employed in this study. The scale is divided into 5 dimensions: (1) clarity of mission and purpose, (2) leadership, (3) experimentation, (4) transfer of knowledge, and (5) teamwork/group problem solving. These dimensions are frequently mentioned in the literature as underlying attributes of a learning organization (Senge, 1990; McGill, Slocum, & Lei, 1993; Schein, 1993; Ulrich, Jick, & Von Glinow, 1993; Garvin, 1993; Mills & Friesen, 1992; Dixon, 1994; Lipshitz, Popper, & Oz, 1996). A 7-point Likert scale was employed ranging from "1 = I strongly disagree" to "7 = I strongly agree."

In an initial scale refinement phase, 55 items were reduced to 21, which significantly loaded on a single factor. Coefficient alpha for the retained 21 items was 0.94. A subsequent test-retest reliability study revealed coefficient alpha scores of 0.91 at time 1 and 10 weeks later $\alpha = 0.90$ with a 0.77 Pearson correlation between the two time periods. An additional reliability test, involving a separate data sample revealed a score

$\alpha = 0.91$ (alpha) which exceeds the threshold of acceptability recommended by Nunnally, (1976).

Individual Learning Orientation

The individual learning orientation scale applied in this study was the 9-item scale adopted by Sujan, Weitz, and Kumar (1994). This is a single factor scale based on Ames and Archer's (1988) measures. Confirmatory factor analysis was used by Sujan and colleagues to evaluate the 9-item scale. Coefficient alpha score of .81 indicate reliability of the scale well above the .70 generally accepted threshold. Discriminant validity is indicated through latent-trait correlations between constructs being significantly different than one. Additionally, a (-.03) correlation for the learning organization scale with a performance orientation scale in the Ames and Archer (1988) study supports discrimination. Significant loadings of the 9 items on the learning orientation construct was determined to demonstrate convergent validity.

Job Satisfaction

The Job Diagnostic Survey (Hackman & Oldham, 1975) 14-item scale, a five-dimension instrument, is utilized in this study. The five dimensions reflect satisfaction with

pay (two items), job security (two items), social (three items), supervisory (three items), and growth (four items). Through meta-analysis Spearman-Brown reliability for these dimensions has been estimated as .86, .73, .64, .87, and .84 respectively. All exceed or are near the acceptable threshold for reliability (Nunnally, 1979). The correlation of each dimension to a general job satisfaction measure reflects respective scores of .42, .48, .47, .50, and .69.

Organizational Commitment

A member's psychological attachment to the organization, organizational commitment, has several conceptualizations (Morrow, 1993). The concept most prolific in the literature is that of attitudinal commitment which corresponds to identification with and involvement in the organization. Porter et al., (1974) formulated a 15 item, three-dimension scale, the Organizational Commitment Questionnaire (OCQ), which was used in this dissertation. The three dimensions of the OCQ scale correspond to (1) strong belief in and acceptance of organizational goals and values, (2) willingness to exert considerable effort on behalf of the organization, and (3) a strong desire to maintain membership in the organization (Mowday, Porter, & Steers, 1982). The 15 items are measured on a Likert 7-point

scale with a range from "1 = I strongly disagree" to "7 = I strongly agree."

The OCQ scale of 15 items has demonstrated an average reliability score of .88 over 90 studies (Mathieu & Zajac, 1990; Morrow, 1993), while ranging between .74 and .93 (Morrow, 1993). This exceeds the generally accepted .70 threshold for reliability (Nunnally, 1976). The 15 item OCQ scale has been noted to consistently yield satisfactory convergent, discriminant, and predictive validity scores (Mowday, Porter, & Steers, 1982; Mathieu & Zajac, 1990).

Research Design

Sample Methodology

A national sample of 2000 industrial sales managers was purchased from a commercial mailing list provider. A sample of sales managers was selected for this study because boundary spanning responsibilities and the managerial position in a organizational hierarchy causes them to address both organizational variables as well as individual level variables important to this study (e.g., market orientation and learning organization characteristics).

Data Collection Procedures

Two complete mailings of 2000 questionnaires were sent to the respondents. The second mailing followed the first by two weeks. Along with the questionnaire, a cover letter on Louisiana Tech University letterhead was included to explain the purpose of the study. A request for cooperation was made along with the promise of confidentiality of their responses. A copy of test results was offered as inducement to complete the questionnaire and a postage-paid return envelope was provided. The cover letter can be seen in Appendix B.

Statistical Techniques

In this dissertation, moderated regression analysis was the primary statistical technique utilized. This technique is appropriate when "the predictive validity of some psychological measure varies systematically in accord with some other independent psychological variable," (Sanders, 1956, p. 209). In this dissertation, the effect by which the learning organization, market orientation, and the interaction between these independent variables predicts job satisfaction and organization commitment is anticipated to vary with the level of individual learning orientation.

Moderated regression analysis involves the use of the higher-order cross-product term to determine if the

moderation predicts employee attitudes beyond that predicted by the regression equation without the higher order term (Bedeck, 1971). This higher-order term identifies the moderator variable which is defined as "one which systematically modifies either the form and/or strength of the relationship between a predictor and a criterion variable," (Sharma, Durand, & Gur-Arie, 1981). In this study the framework developed by Sharma, Durand, and Gur-Arie (1981) was used to analyze the moderating effect of individual learning orientation on the influence by the learning organization, market orientation, and interaction between these latter two constructs on job satisfaction and organizational commitment.

CHAPTER 4

PRESENTATION OF DATA ANALYSIS

The objective of this chapter is to present results of empirical analysis performed in this dissertation. The organization of the chapter is as follows.

Characteristics of the sample and analysis for possible non-response bias are presented first. Next, measurement issues are addressed. Data instrument item loadings for single-factor solutions of each construct are presented. Then assessment results for construct scale reliability are portrayed. Descriptive statistics and correlation matrices for the study variables follow. Next, the results of simple regression and moderated multiple regression analysis are presented. Finally, concluding remarks are made in regard to the data analysis.

Characteristics of the Sample

The sampling frame for this study was 2000 sales/marketing executives in the United States as purchased from a commercial mailing list provider. A self-report questionnaire was mailed in two waves to each member of the sampling frame. Twenty-four questionnaires

were undeliverable. Completed and usable questionnaires were received from 213 respondents. This was a response rate of 10.6% relative to the original sampling frame and 10.8% of the 1976 delivered questionnaires. The response rate is not atypical in this type of industrial research. For examples see Siguaw, Brown, and Widing (1994); Mowday, R., Porter, L., and Steers, R. (1982); Porter, L., Steers, R., Mowday, R., and Boullian, P. (1974).

The mean and median age of respondents was 48.54 and 48.00 respectively. While the wide age range of 52 years from 22 to 74 indicates a diverse sample, the standard deviation of 8.42 is less definitive in this regard. Mean and median number of years of industrial experience was 23.80 and 26.00 respectively. Standard deviation of 10.22 years indicates greater diversity in experience than was found in age. Organizational tenure at 13.60 mean years and a standard deviation of 10.35 years also indicates some diversity. The median years of organizational tenure of 26.00 from 0.6 to 47 years, and position tenure at 23.80 years indicates a greater number of respondents have fewer years experience. Tenure in current position in the firm ranged from 0.2 to 24 years with a mean of 5.42 years and a median of 12.10 years. This indicates a greater number of respondents with few years in their current position in the firm ranged from 0.2 to 24 years with a

mean of 5.42 years and a median of 12.10 years. This indicates a greater number of respondents with few years in their current position. A standard deviation of 4.93 years indicates a relatively diverse respondent group.

TABLE 4.1
SELECTED DEMOGRAPHIC CHARACTERISTICS
OF RESPONDENTS

Demographic Characteristics	Mean	Std Dev	Max	Min	Median
Age	48.54	8.42	74.00	22.00	48.00
Industry Experience (Years)	22.30	10.22	50.00	2.00	26.00
Organizational Tenure (Years)	13.60	10.35	47.00	0.60	23.80
Position Tenure (Years)	5.42	4.93	24.00	0.20	12.10

**Assessment of Potential
Non-Response Bias**

Failure to obtain response from some population elements selected for the sample can produce non-response bias (Churchill, 1991). While non-response bias may not be the critical issue in a study (Hunt, 1990), it could bias research results. The 10.8% response rate for this study indicated the need to assess potential non-response bias.

Potential non-response bias was assessed on the basis of comparison of early and late respondents. The first 107 responses received were categorized as early respondents. Analysis of variance was applied to compare this group to the late respondents. The late respondent group consisted of the last 106 surveys received. The study variables market orientation, learning organization, individual learning orientation, job satisfaction and organizational commitment, along with demographic variables age, industry experience, organizational tenure, and income were the basis for assessment of non-response bias. Table 4.2 presents the assessment based on study variables while Table 4.3 presents results based on selected demographic characteristics.

TABLE 4.2
COMPARISON OF EARLY AND LATE
RESPONDENTS ON VARIABLES

Study Variables Comparison of Halves			
Test	Multivariate Test Values	F	Significance of F
Multivariate Tests			
Pillais	0.044	1.83	0.108
Hotellings	0.046	1.83	0.108
Wilks	0.956	1.83	0.108
Roys	0.440		
Univariate Tests			
MO		7.27	0.008*
LO		1.12	0.291
ILO		0.01	0.910
JS		1.62	0.204
OC		2.05	0.154
* = significant			

Multivariate analysis indicated no significant difference ($p < 0.108$) between early and late respondents based on the study variables. Univariate assessment of early versus late respondents based on each study variable indicated no significant differences except for market orientation. The mean response of early respondent to market orientation was 5.33, while the mean of late

respondents was 5.06 ($p < 0.008$). Given the response measure was a 7-point scale no significant difference for managerial choice is noted between 5.3 and 5.0. Consequently, based on this procedure, non-response bias appears to pose no problem.

TABLE 4.3
COMPARISON OF EARLY AND LATE
RESPONDENTS ON DEMOGRAPHICS

Study Variables Comparison of Halves			
Test	Multivariate Test Values	F	Significance of F
Multivariate Tests			
Pillais	0.026	1.23	0.30
Hotellings	0.026	1.23	0.30
Wilks	0.974	1.23	0.30
Roys	0.974		
Univariate Tests			
Age		0.98	0.32
Industry Experience		0.00	0.99
Organizational Tenure		1.60	0.21
Annual Income		1.48	0.23

Multivariate analysis indicated no significant difference ($p < 0.30$) between early and late respondents based on selected demographic characteristics. Univariate assessment of early versus late respondents based on each demographic characteristic indicates no significant difference (ranging from $p < 0.99$ to $p < 0.21$) between early and late respondents. Again, non-response bias does not appear to be a problem.

Measurement Issues

Even though all the scale items for each construct in this study have been used in previous studies, those that are intended to constitute the domains of the learning organization (LO) and individual learning orientation (ILO) constructs were developed only recently. Thus, evidence of their psychometric properties is limited. Additionally, the items that constitute the market orientation (MO), job satisfaction (JS), and organizational commitment (OC) constructs have not previously been used in the specific context of this study. Consequently, an assessment of the psychometric properties of each scale was performed.

Churchill (1991) suggested that "the purpose of any particular measurement is to estimate the score that would be obtained if all the items in the domain were used" (p. 497). In practice, a subset of items that make

up a construct is typically used. Further, Churchill (1991) noted that "a primary source of measurement error is the inadequate sampling of the domain of relevant items" (p. 497). Therefore, determination of the representativeness of the scale items for each construct is applicable. Items from the domain of a construct should be highly correlated according to the domain-sampling model. Consequently, factor analysis along with item-to-total correlations and coefficient alpha were used to examine psychometric properties and purify the measures in this study.

Factor Analysis

For the purpose of this study, global measures for each construct variable were applied in the statistical analysis. Even though the measurement scales for market orientation (Narver & Slater, 1994), the learning organization (Richards & Goh, 1994), and job satisfaction (Hackman & Oldham, 1976) are established in literature as multidimensional scales, their multidimensionality was not integral to this study.

An established 9-item single factor scale developed by Sujana, Weitz, and Kumar (1994) was used for individual learning orientation. While the 15-item organizational commitment scale was designed by Porter, et al., (1974)

around 3 dimensions, previous factor analysis has yielded a single factor solution (Morrow & McElroy, 1986; Morrow & Wirth, 1989; Mowday et al., 1982; Steffy & Jones, 1988).

To substantiate consistency with previous research that featured multidimensional scales, a factor analysis technique freeing data to determine the number of factors for each variable was also executed. While the number of factors for each variable were generally supportive of previous findings, the item loadings were not always as expected and not easily interpretable.

Market orientation, learning organization, and individual learning orientation each had one or two items, which failed to meet minimal acceptable loading scores. Scree plot analysis and eigenvalues support the utilization of single factor representation for each construct. Additionally, item-to-total correlation scores, as seen in Tables 4.9 through Table 4.11, indicate that elimination of these items would minimally change the explanatory power of the scale. Loadings of each item in the single-factor solution, eigenvalues, and percent-of-variance explained is presented in Table 4.4 through 4.8.

Market orientation. The scree plot of market orientation indicated a distinct factor. The associated eigenvalue of 4.70 substantially exceeded other eigenvalues and the single factor solution was found to

explain 31.5% of the variance in market orientation scores (See Table 4.4). Inclusion of a second factor would not materially increase the explanatory power of the analysis. Therefore, use of a global measure for market orientation was statistically supported.

TABLE 4.4
FACTOR LOADINGS OF THE
MARKET ORIENTATION CONSTRUCT ITEMS

Items	Loading	Eigenvalue	Variance Explained
5	.73160	4.73051	31.5
9	.70531		
6	.68393		
7	.65133		
8	.65085		
14	.64646		
2	.61490		
11	.54065		
13	.52968		
10	.52948		
4	.47302		
12	.45782		
15	.45175		
1	.25690		
3	.17241		

Learning organization. Support for use of a single factor was also found in the scree plot for the learning organization construct. The accompanying eigenvalue of 5.64 substantially exceeds the next largest eigenvalue. The single factor solution was found to explain 26.9% of

the variance in learning organization scores (See Table 4.5). While more explanatory power is desirable, inclusion of a second factor would not materially increase the level of variance explained. Therefore, there is statistical support for utilization of a global measure of the learning organization.

TABLE 4.5
FACTOR LOADINGS FOR THE
LEARNING ORGANIZATION CONSTRUCT ITEMS

Items	Loading	Eigenvalue	Variance Explained
26	.73024		
24	.64728		
28	.61549		
25	.61484		
27	.59878		
22	.57739		
36	.55633		
21	.55478		
23	.53975		
33	.53815		
17	.53072		
32	.50569		
34	.49197		
31	.48498		
19	.45434		
29	.41645		
16	.40333		
20	.39744		
35	.39554		
72	.32731		
30	.24682		
		5.63896	26.9

Individual learning orientation. The Sujana, Weitz, & Kumar, (1994) 9-item construct has been employed in previous research as a unidimensional scale. The scree plot generated in this study was found to support the use of a single dimension for the individual learning orientation construct. An eigenvalue of 2.68 substantially exceeded the next greatest eigenvalue associated with the scree plot. Thus, the single dimension solution for the learning organization construct was further supported. Therefore, use of the global measure for individual learning was statistically supported. The single dimension construct was found to explain 29.7% of the variance in individual learning orientation scores (See Table 4.6).

TABLE 4.6
FACTOR LOADINGS FOR THE
INDIVIDUAL LEARNING ORIENTATION ITEMS

Items	Loading	Eigenvalue	Variance Explained
44	.77756	2.67588	29.7
43	.72047		
45	.67928		
40	.60710		
42	.55585		
38	.49503		
39	.32383		
74	.20722		
41	.14274		

Job satisfaction. The eigenvalue of 4.93 associated with the single dimension solution for the job satisfaction scale substantially exceeded other eigenvalues for the construct. Along with a scree plot, which supported use of a single dimension for the job satisfaction construct, eigenvalues suggested the appropriateness of the single dimension construct. This single construct dimension was found to explain 35.2% of the variance in job satisfaction scores (See Table 4.7). Inclusion of a second factor would not materially increase the explanatory power of the analysis. Therefore, there was statistical support for utilization of a global measure of the learning organization.

TABLE 4.7
FACTOR LOADINGS OF THE
JOB SATISFACTION CONSTRUCT ITEMS

Items	Loading	Eigenvalue	Variance Explained
135	.79606	6.7360	48.1
146	.79600		
137	.79468		
138	.79180		
140	.77250		
136	.70969		
145	.64518		
142	.62760		
144	.59581		
141	.59151		
143	.58183		
134	.51199		
133	.48150		
139	.47102		

Organizational commitment. The organizational commitment scale was also supported by scree plot and eigenvalue (6.35) as a single dimension construct. This eigenvalue substantially exceeded the next greatest eigenvalue for the construct. This single dimension was determined to explain 42.3% of the variance in organizational commitment scores (See Table 4.8.). Therefore, there was statistical support for utilization of a global measure of the learning organization.

TABLE 4.8
FACTOR LOADINGS OF THE
ORGANIZATIONAL COMMITMENT CONSTRUCT ITEMS

Items	Loading	Eigenvalue	Variance Explained
59	.83013	6.35118	42.3
51	.80569		
47	.79470		
53	.75973		
56	.74455		
75	.71718		
60	.69870		
54	.68886		
55	.60120		
58	.58703		
57	.57297		
46	.53889		
52	.46042		
48	.35541		
49	.33125		

Reliability Analysis

Criteria for retention of a scale item includes item-to-total correlation of at least 0.35, at least three items present in the scale, and a coefficient alpha value for the scale of 0.7 (Nunnally, 1978). Reliabilities for each construct scale were estimated. The strong coefficient alpha scores for each variable and validation of the scales in previous studies allowed retention of all items despite some minimal item-to-total correlation deficiencies. Reliability estimates for each variable of this study are presented in tables 4.9 through 4.13. A summary of reliability assessment is found in Table 4.14.

Market orientation. Table 4.9 presents reliability and item-to-total correlation estimates for the market orientation variable. The coefficient alpha value of 0.86 for the estimates exceeded the 0.7 requirement. There were two items, which failed to meet the item-to-total correlation criteria. Elimination of these items would not substantially improve the reliability of the scale (0.86 to 0.87). Because of the strong reliability value and because this is a previously validated scale, the full set of scale items were used in analysis.

TABLE 4.9
RELIABILITY ANALYSIS
OF MARKET ORIENTATION ITEMS

Items	Item Means	Item Std Dev	Item Total Correlation	Alpha if Item Deleted
1	5.10	1.35	0.26	0.86
2	5.58	1.19	0.53	0.85
3	6.24	1.25	0.18	0.87
4	5.34	1.27	0.44	0.85
5	4.99	1.38	0.66	0.84
6	4.80	1.34	0.65	0.84
7	5.62	1.08	0.57	0.85
8	4.81	1.39	0.58	0.85
9	5.42	1.22	0.64	0.84
10	4.68	1.65	0.46	0.85
11	5.22	1.28	0.49	0.85
12	5.54	1.13	0.43	0.85
13	4.97	1.38	0.54	0.85
14	4.80	1.34	0.63	0.84
15	4.81	1.40	0.45	0.85
Alpha = 0.86				

Learning orientation. Reliability and item-to-total correlation estimates are presented in Table 4.10 for the learning organization variable. The coefficient alpha value of 0.88 for the estimates exceeded the 0.7 requirement. Only a single item failed to meet the item-to-total correlation criteria. Elimination of this item did not substantially improve the reliability of the scale

(less than one/one-thousandth). Because this is a previously validated scale and because of the strong reliability value, the full set of items was used in the analysis.

TABLE 4.10
RELIABILITY ANALYSIS
OF LEARNING ORGANIZATION ITEMS

Items	Item Means	Item Std Dev	Item Total Correlation	Alpha if Item Deleted
16	5.61	1.29	0.36	0.87
17	5.41	1.47	0.50	0.87
19	4.76	1.93	0.45	0.87
20	4.55	1.54	0.38	0.87
21	4.82	1.60	0.53	0.87
22	4.99	1.83	0.53	0.87
23	4.39	1.61	0.49	0.87
24	5.01	1.42	0.59	0.87
25	4.81	1.68	0.55	0.87
26	4.96	1.61	0.66	0.87
27	5.36	1.47	0.55	0.87
28	5.02	1.52	0.58	0.87
29	5.10	1.77	0.39	0.87
30	4.43	1.63	0.25	0.88
31	4.10	1.66	0.46	0.87
32	5.23	1.24	0.45	0.87
33	6.13	1.37	0.51	0.87
34	5.13	1.72	0.48	0.87
35	5.06	1.75	0.38	0.88
36	5.12	1.61	0.53	0.87
72	6.15	1.00	0.31	0.88
Alpha = 0.88				

Individual learning orientation. Table 4.11 presents reliability and item-to-total correlation estimates for the individual learning orientation construct. The coefficient alpha value of 0.68 did not meet the 0.7 requirement. This reliability value nears the acceptance threshold. There were items, which failed to meet the item-to-total correlation criteria, but elimination of these items did not substantially improve the reliability of the scale. Because of the relatively strong reliability value and because this is a previously validated scale, the full set of items were retained and used in analysis.

TABLE 4.11
RELIABILITY ANALYSIS
OF INDIVIDUAL LEARNING ORIENTATION ITEMS

Items	Item Means	Item Std Dev	Item Total Correlation	Alpha if Item Deleted
38	6.62	0.93	0.46	0.64
39	5.46	1.65	0.29	0.68
40	6.55	0.86	0.52	0.64
41	5.64	2.03	0.11	0.75
42	6.39	0.94	0.41	0.65
43	5.95	1.23	0.55	0.62
44	6.06	1.22	0.60	0.61
45	6.06	1.00	0.53	0.63
74	6.09	1.23	0.21	0.69
Alpha = 0.68				

Job satisfaction. Reliability and item-to-total correlation estimates for the job satisfaction construct are presented in Table 4.12. The coefficient alpha value of 0.91 for the estimates exceeded the 0.7 threshold. All items met the item-to-total correlation criterion. Due to the strong alpha reliability value and because this is a previously validated scale, the full sets of items were retained for use in statistical analysis.

TABLE 4.12
RELIABILITY ANALYSIS
OF JOB SATISFACTION ITEMS

Items	Item Means	Item Std Dev	Item Total Correlation	Alpha if Item Deleted
133	5.84	1.39	0.51	0.91
134	5.56	1.37	0.54	0.91
135	5.73	1.32	0.76	0.90
136	6.03	1.02	0.66	0.91
137	5.90	1.38	0.73	0.90
138	6.05	1.17	0.74	0.90
139	6.08	0.97	0.44	0.91
140	5.27	1.49	0.71	0.90
141	5.46	1.43	0.60	0.90
142	6.15	1.18	0.59	0.91
143	5.80	1.43	0.61	0.91
144	6.18	0.87	0.59	0.91
145	6.08	1.14	0.59	0.91
146	5.14	1.55	0.74	0.90
Alpha = 0.91				

Organizational commitment. Table 4.13 presents reliability and item-to-total correlation estimates for the organizational commitment construct. The 0.7 requirement for the coefficient alpha value was materially exceeded at 0.89. A single item failed to meet the item-to-total correlation criteria, but elimination of this item did not substantially improve (0.89 to 0.90) the reliability of the scale. The full set of items were used in statistical analysis because of strong evidence of reliability and because this was a previously validated scale.

TABLE 4.13

RELIABILITY ANALYSIS
OF ORGANIZATIONAL COMMITMENT ITEMS

Items	Item Means	Item Std Dev	Item Total Correlation	Alpha if Item Deleted
46	6.56	0.85	0.49	0.89
47	6.10	1.23	0.74	0.88
48	6.00	1.88	0.33	0.90
49	3.13	1.97	0.28	0.90
51	6.47	0.98	0.76	0.88
52	4.74	1.89	0.44	0.89
53	5.42	1.55	0.73	0.88
54	5.78	1.65	0.65	0.88
55	6.19	1.30	0.55	0.88
56	5.89	1.66	0.72	0.88
57	5.05	1.98	0.55	0.89
58	6.68	0.90	0.56	0.89
59	5.51	1.61	0.79	0.87
60	6.65	1.06	0.65	0.88
75	5.92	1.34	0.69	0.89
Alpha = 0.89				

Summary of Reliability Analysis

TABLE 4.14
RELIABILITY ANALYSIS SUMMARY

Measure	Cronbach's Coefficient Alpha
MO	0.86
LO	0.88
ILO	0.68
JS	0.91
OC	0.89

As indicated in Table 4.14, the coefficient alpha values for each of the study variables supports the reliability of the scales. Therefore, statistical analysis can be conducted with some confidence.

Descriptive Statistics and Study Comparisons

Descriptive statistics of the variables in this study are presented in this section. All the variables were measured on 7 point Likert-type scale. Table 4.15 presents the mean, median, mode, standard deviation kurtosis, skewness, minimum, maximum, range and frequency for each of the study variables: market orientation, learning organization, individual learning orientation, job satisfaction, and organizational commitment.

TABLE 4.15
DESCRIPTIVE STATISTICS
OF STUDY VARIABLES

Statistics	Variables				
	MO	LO	ILO	JS	OC
Mean	5.18	5.06	6.07	5.79	5.74
Median	5.20	5.10	6.11	5.93	5.93
Mode	4.87	4.81	6.11	6.21	6.20
Std. Dev.	0.76	0.84	0.72	0.88	0.94
Kurtosis	-0.36	-0.27	6.61	-1.53	2.86
Skewness	-0.25	-0.37	-1.89	-1.11	-1.58
Minimum	3.20	2.76	2.11	1.93	1.93
Maximum	7.00	7.00	7.00	7.00	7.00
Range	3.80	4.24	4.89	5.07	5.07
Frequency	213	207	210	209	210
MO = Market Orientation LO = Learning Organization ILO = Individual Learning Orientation JS = Job Satisfaction OC = Organizational Commitment					

Market Orientation

Data concerning respondents' perception of their firm's market orientation were collected via 15 scale items. Those item scores were added together then divided by 15 to provide the mean value for MO for each observation. A score of "1" indicated perception of no market orientation. A score of "7" indicated a perception of high market orientation. The mean MO score was 5.18,

indicating that these sales and marketing executives perceived their firms to be market oriented to a considerable extent. Table 4.16 compares means and reliability scores for market orientation across studies.

TABLE 4.16
COMPARISON ACROSS STUDIES
(MARKET ORIENTATION SCALE)

	Mean	Reliability Score
Narver and Slater (1994) (7 point scale)	4.68	0.80
Siguaw, Brown, and Widing (1994) (7 point scale)	4.74	0.88
Current Study (7 point scale)	5.18	0.87

As Table 4.16 indicates the mean market orientation score (5.18) was somewhat higher than those found in either the Narver and Slater (1994) (4.64) or the Siguaw, Brown, and Widing (1994) study (4.78). Consequently, the sales and marketing executive in this study perceived their firms to be somewhat more market oriented when compared to responses from previous studies. The market orientation reliability score for the current study was comparable to previous studies as indicated the Table 4.16.

Learning Organization

Data concerning respondents' perception of the degree to which their firms were learning organizations were collected via 21 scale items. A mean score for each case was achieved by adding item scores together then dividing by 21. A score of "1" indicated strong disagreement that their firm had characteristics of a learning organization to "7" indicated strong agreement that their firm possessed the characteristics of a learning organization. A mean score of 5.06 indicated that the respondents "slightly agreed" that their firm possessed learning organization characteristics. Table 4.17 compares means and reliability scores for the learning organization across studies.

TABLE 4.17

COMPARISON ACROSS STUDIES (LEARNING ORGANIZATION SCALE)

	Mean	Reliability Score
Richards and Goh (1995) (7 point scale)	NR	0.91
Richards (1994) (7 point scale)	3.61	NR
Current Study (7 point scale)	5.06	0.88
NR = not reported		

As Table 4.17 indicates the mean learning organization score is 5.06 vs. 3.61 found in the previously reported study. Consequently, the sales and marketing executives in this study perceived that their firm possessed more characteristics of "learning organization" than respondents from the previous study. The reliability of the current learning organization scale is quite comparable to the previously reported study as indicated the Table 4.17.

Individual Learning Orientation

Data concerning respondents' perception of their own orientation toward learning were collected via nine scale items. By adding item scores together then dividing by 9, a mean score for each respondent was achieved. A score with "1" indicated a strong lack of an orientation toward learning to "7" indicated strong possession of an orientation for learning. A mean score of 6.07 indicated that the respondents considered themselves to be "somewhat" learning oriented. Table 4.18 compares means and reliability scores for the learning organization across studies.

TABLE 4.18
COMPARISON ACROSS STUDIES
(INDIVIDUAL LEARNING ORIENTATION SCALE)

	Mean	Reliability Score
Sujan, Weitz, and Kumar (1994) (7 point scale)	6.08	0.81
Current Study (7 point scale)	6.07	0.76

As Table 4.18 indicates the results of this scale is comparable to the Sujan, Weitz, and Kumar (1994) study. The mean scores are virtually equivalent and the reliability scores are similar.

Job Satisfaction

A 14-item scale was used to collect data concerning the respondents job satisfaction. Item scores were summated then divided by 14 to achieve a mean score for each case. A score of "1" strongly indicated lack of job satisfaction. A score of "7" indicated high job satisfaction. A mean score of 5.79 indicated that the respondents were somewhat satisfied with their jobs. Table 4.19 compares means and reliability scores for job satisfaction across studies.

TABLE 4.19
COMPARISON ACROSS STUDIES
(JOB SATISFACTION SCALE)

	Mean	Reliability Score
Wright (1990) (7 point scale)	3.53	NR
Oldham, Hackman and Stepina (1978) (7 point scale)	4.75	0.79
Current Study (7 point scale)	5.79	0.91
NR = not reported		

As Table 4.19 indicates by mean and reliability scores the current study was somewhat higher than the Oldham, Hackman, and Stepina (1978) study. The Wright mean score 3.53 on a 5 point scale is also comparable.

Organizational Commitment

Data concerning respondents' level of commitment to their organization were collected via a scale of 15 items. By adding item scores together then dividing by 15, a mean score for each case was achieved. A score of "1" indicated a complete lack of organizational commitment. A score of "7" indicated strong feelings of commitment to the organization. A mean score of 5.74 indicated that the respondents perceived themselves to be committed to their

organization. Table 4.20 compares means and reliability scores for organizational commitment across studies.

TABLE 4.20
COMPARISON ACROSS STUDIES
(ORGANIZATIONAL COMMITMENT SCALE)

	Mean	Reliability Score
Wright (1990) (7 point scale)	5.49	NR
Brooke, Russell, and Price (1988) (7 point scale)	3.17	NR
Siguaw, Brown, and Widing (1994) (7 point scale)	4.92	0.88
Current Study (7 point scale)	5.74	0.90
NR = not reported		

As indicated in Table 4.20, the mean score for organizational commitment in the current study is higher than that found by either Brooke, Russell, and Price (1988) or by Siguaw, Brown, and Widing (1994); but is comparable with the findings of Wright (1990). Additionally, the reliability score for organizational commitment in this study is comparable to that of Siguaw, Brown, and Widing (1994). Consequently, the current results are similar overall to previous research

Kurtosis, Skewness, and Range of Scores

The distribution of respondent scores on all variables provides further insight. As was indicated by the scores on kurtosis, the distribution of market orientation and learning organization are somewhat more flat than a normal distribution. The dependent variables job satisfaction and organizational commitment each had somewhat positive scores on kurtosis and the score for individual learning orientation was strongly positive. Consequently, the respondents did not vary as much in their perceptions on their own learning orientation or commitment to the organization.

The distribution of responses for all 5 variables was negatively skewed, with the central tendency scores for each tending toward the positive side. Finally, the range of scores for the variables extends from 3.80 for market orientation to 5.07 for organization commitment. On a scale from 1 to 7, these appear to be broad ranges indicating considerable variance among respondents.

Variable Correlations

The correlations between all study variables are shown in Table 4.21. As is indicated each variable was positively correlated with other variables and all correlations were significant ($p < 0.01$).

Market orientation was most highly correlated with the learning organization the other independent variable ($r = 0.65$). Correlation of MO was similar with each dependent variable. The correlation coefficient between MO and job satisfaction was $r = 0.44$ and with organizational commitment was $r = 0.49$. MO was least correlated ($r = 0.22$) with the hypothesized moderator variable, individual learning orientation.

While the correlation of LO was strong with MO, the learning organization was almost as strongly correlated ($r = 0.61$), with the dependent variable JS and ($r = 0.62$) with the other dependent variable OC. The weakest correlation for LO was with ILO ($r = 0.21$).

While positively and significantly correlated with the two independent variables, the hypothesized moderator, ILO, was also correlated with the criterion variables, JS and OC, at $r = 0.24$ and $r = 0.30$ respectively. Contrary to that expected the correlation of ILO with the other four variables was weaker than any correlations among the independent and dependent variables.

Finally, JS and OC were positively and significantly correlated to each other at the 0.74 level. As indicated above, each was positively and significantly correlated with the moderator and each independent variable.

TABLE 4.21
CORRELATION COEFFICIENTS
AND SIGNIFICANCE

Variables	MO	LO	ILO	JS	OC
MO	1.00				
LO	0.65**	1.00			
ILO	0.22**	0.21**	1.00		
JS	0.44**	0.61**	0.24**	1.00	
OC	0.49**	0.62**	0.30**	0.74**	1.00
** = Significance at 0.01 level MO = Market Orientation LO = Learning Organization ILO = Individual Learning Orientation JS = Job Satisfaction OC = Organizational Commitment					

Hypothesis Testing

In Chapter 3, research hypotheses were developed. These hypotheses were tested using simple regression moderated multiple regression procedures.

Procedures

The hypotheses in this study can be viewed as progressive sets of three regression equations. Each set progresses from determining simple direct relationships between an independent variable and a criterion variable

(simple regression) to examining the relationship between these variables as moderated by a third variable (moderated multiple regression). The following set of generic regressions depicts the progression of each set.

- (1) $Y = b_0 + b_1x$
- (2) $Y = b_0 + b_1x + b_2z$
- (3) $Y = b_0 + b_1x + b_2z + b_3xz$

The significance of b_1 in equation (1) indicates the direct relationship between the independent and criterion variables. The significance of b_2 in equation (2) identifies a direct relationship between the hypothesized moderator and the criterion variable. The significance of b_3 as coefficient of the cross-product term in equation (3) indicates moderation of the relationship between the independent and criterion variables (Sharma, Durand, and Gur-Arie, 1981).

In the generic regression equations (Y) is the dependent or criterion variable. For this study, (Y) corresponded to either job satisfaction or organizational commitment, depending upon the hypotheses being tested. The independent variable (x) in the generic equations corresponded to either MO, market orientation, or LO, learning organization, depending on the hypothesis. The proposed moderator variable, individual learning orientation was represented by (z) in the generic equations.

The first hierarchical set of regression equations examined the direct relationship between market orientation and the dependent variable job satisfaction, the direct influence of MO and/or ILO in the presence of one another, and the potential moderating effect of individual learning orientation ILO of the MO/JS relationship. The second set of equations examined the same relationships with organizational commitment as the criterion variable. These sets of regressions corresponded to hypotheses 1_a, 1_b, 2_a, and 2_b.

The third and fourth hierarchical sets of equations examines the relationship of learning organization with each dependent variable, JS and OC respectively as well as those relationships moderated by ILO. These sets of regressions corresponded to hypotheses 3_a, 3_b, 3_c, and 3_d.

The fifth set of regressions tested for interaction between the two independent variables, MO and LO. Then the relationship between that hypothesized interaction and each dependent variable was examined. Following this, the influence of the interaction on each criterion variable as moderated by ILO was examined. This set of regressions corresponded to hypotheses 4_a, 4_b, 5_a, and 5_b. The results of all sets of regressions are portrayed in Tables 4.22 through 4.23.

Cross-product terms, which carry information about moderating effects in moderated multiple regression, are typically highly correlated with the variables of which they are composed (Stone, 1988). Concern with multicollinearity, that often results from high levels of correlation, has caused some researchers to suggest that moderated multiple regression lacks the explanatory power to detect moderating effects (Stone, 1988; Aguinis, 1995). Other noted researchers such as Cronbach have argued that the effects of multicollinearity on moderated multiple regression does not warrant concern (Aguinis, 1995).

While effects of multicollinearity may be debated, transformation of data to neutralize such effects is readily accepted in research. Data transformation through "centering" predictive variables has been shown to reduced collinearity (Stone, 1988; Aguinis, 1995). This technique involves subtracting the mean value for each variable from each score on that variable.

As is typical, high levels of correlation among predictor and cross-product variables were found. This engendered the use of the "centering" technique of data transformation in order to achieve the maximum explanatory power. Further, Morris, Sherman, and Mansfield (1986) suggest that the use of ordinary least squares in moderated multiple regression, even with transformed data,

may fail to detect moderating effects due to the multicollinearity inherent in the interaction among variables. These researchers propose use of the following protocol when multicollinearity among cross-product variables is an issue.

- Identify possible linear dependencies through examination of a correlation matrix, which includes direct effect and cross-product variables.
- Examine the eigenvalues and eigenvectors associated with the matrix. Eigenvalues of 1.0 indicate the variables are mutually orthogonal which suggests ordinary least squares moderated multiple regression (OLS-MMR) can detect moderators. An eigenvalue near zero (0.10 or less) indicates multicollinearity. Values in the eigenvector corresponding to such a value define linear dependence relationships.
- Using OLS-MMR, test for the significance of the moderating term. If significant the moderating effect is strong enough to overcome multicollinearity. (Note: Estimate of the cross-product coefficient may be erratic due to the large variance associated with eigenvalues near zero.)
- Use principal components regression (PCR) adjusted for the direct effect terms when eigenvalues are near zero and moderation effects are not great enough to overcome.

While PCR is an acknowledged biased procedure, Morris, Sherman, and Mansfield (1986) suggest that the magnitude of bias is typically insignificant. Therefore, these researchers contend for justification due to superior results generated by PCR over OLS.

Results

In this study, ordinary-least-squares moderated multiple regression was initially employed using original data. Regression coefficient estimations were found to be erratic in terms of size, direction, and level of significance. Correlation coefficients, as reported in Table 4.21, corroborated suspicions of multicollinearity effects. Therefore, data transformation through the "centering" procedure, as described above, was employed. In order to ascertain possible persistence of multicollinearity effects with use of the "centered" data, a second correlation matrix was generated. The results are reported in Table 4.22. With the exception of a correlation that approached 1.00 for the cross-product variables MOILO and MOLOILO, multicollinearity was not indicated in the centered data.

According to Morris, Sherman, and Mansfield (1986), the eigenvalues produced through principal component analysis are an even more reliable indicator of multicollinearity among direct effect and cross-product variables. The eigenvalues associated with the "centered" variables are reported in Table 4.23. Eigenvalues were well above the 0.10 threshold suggested as an indication of multicollinearity with the exception of 0.01 for principal component 5 associated with the cross-product

variable MOLOILO. Therefore, the need for principal components regression was limited to testing the moderating effects of individual learning orientation on the proposed effect of an interaction between market orientation and the learning organization on job satisfaction and on organizational commitment. Additionally, use of PCR is advised only when the explanatory power of the model will be substantially increased with inclusion of the subject variable. As is reported in coefficients of determination, R^2 , in Tables 4.24 and 4.25, addition of the cross-product term, MOLOILO, had little effect on explanatory power. Therefore, PCR was not utilized in this study.

TABLE 4.22
CORRELATION MATRIX OF TRANSFORMED
PREDICTOR, MODERATOR, AND CROSS-PRODUCT VARIABLES

Variables	MO	LO	MOILO	LOILO	MOLOILO
MO	1.00				
LO	0.11	1.00			
MOILO	-0.38	-0.10	1.00		
LOILO	-0.05	-0.07	0.41	1.00	
MOLOILO	-0.36	-0.10	0.99	0.43	1.00
MO = Market Orientation LO = Learning Organization MOILO = cross-product term for market orientation X individual learning orientation LOILO = cross-product term for learning organization X individual learning orientation MOLOILO = cross-product term for market orientation X learning organization X individual learning orientation					

TABLE 4.23

EIGENVALUES FOR PRINCIPAL COMPONENTS
ASSOCIATED WITH CORRELATION OF
PREDICTOR, MODERATOR, AND
CROSS-PRODUCT VARIABLES

PRIN1	2.46
PRIN2	1.00
PRIN3	0.93
PRIN4	0.59
PRIN5	0.01

TABLE 4.24
COEFFICIENTS AND SIGNIFICANCE WITH
JOB SATISFACTION AS DEPENDENT VARIABLE

Equ. #	Dep Var	MO	LO	ILO	MOLO	MOILO	LOILO	(MOLO) ILO	R ²
(1)	JS	0.51**	--	--	--	--	--	--	0.19
(2)	JS	0.47**	--	0.19*	--	--	--	--	0.21
(3)	JS	0.47**	--	0.21**	--	0.18	--	--	0.21
(4)	JS	--	0.64**	--	--	--	--	--	0.37
(5)	JS	--	0.61**	0.15*	--	--	--	--	0.39
(6)	JS	--	0.61**	0.16*	--	--	0.02	--	0.39
(7)	JS	0.52**	--	--	--	--	--	--	0.20
(8)	JS	0.10	0.58**	--	--	--	--	--	0.38
(9)	JS	0.10	0.58**	--	-0.07	--	--	--	0.38
(10)	JS	--	--	--	-0.15	--	--	--	0.01
(11)	JS	--	--	0.30**	-0.13	--	--	--	0.06
(12)	JS	--	--	0.27*	-0.14	--	--	0.05	0.06
** = significant at 0.01 level									
* = significant at 0.05 level									
= significant at 0.10 level									

Job Satisfaction as Dependent Variable

As simple regression reveals in Table 4.24 (equation 1), market orientation was found to be a significant predictor of job satisfaction ($p < 0.01$). Thus, hypothesis H_{1a} was supported. Partial regression coefficients in equation 2 of Table 4.24 reveal that

market orientation continued to be significantly related to job satisfaction ($p < 0.01$) in the presence of individual learning orientation and that individual learning orientation is significantly related to job satisfaction ($p < 0.05$) in the presence of market orientation. Because the partial regression coefficient for the cross-product variable MOILO was not significant in equation 3, hypothesis H_{3a} is not supported. Thus ILO was not found to moderate the relationship between MO and JS meaning hypothesis H_{3a} was not supported. Equations 1, 2, and 3 each were statistically significant overall ($p < 0.01$) with F scores of 47.73, 27.58, and 18.56 respectively. The coefficient of determination, R^2 , for the full model, equation 3, was 0.21, while R^2 for the partial regressions, equations 1 and 2, were 0.19 and 0.21 respectively.

The second set of equations examined the learning organization/ job satisfaction relationship. The learning organization was found to be significantly related to JS ($p < 0.01$) in equation 4. Therefore, hypothesis H_{2a} was supported. In equation 5, LO was found to be significantly related ($p < 0.01$) to JS in the presence of ILO and ILO was also found to be significantly related ($p < 0.05$) to JS in the presence of LO. The partial regression coefficient for learning organization moderated

by individual learning orientation (LOILO) was not found to be significant in equation 6. Therefore, ILO was not found to moderate the relationship between LO and JS. Therefore, hypothesis H_{3c} was not supported. The overall F statistics for equations 4, 5, and 6 were 119.66, 63.50, and 42.15, respectively. Each regression was statistically significant ($p < 0.01$). The coefficient of determination, R^2 , for equations 4, 5, and 6 involving LO were 0.43, 0.44, and 0.44, respectively.

In equation 10 the cross-product variable representing interaction between the two predictor variables MO and LO was not found to be significantly related to JS. Nor was the partial regression coefficient for the cross-product variable market orientation*learning organization*individual learning orientation (MOLOILO) found to be significant in equation 12. Therefore, hypothesis H_{5a} was not supported. ILO does not moderate the market orientation*learning organization (MOLO) interaction effect of JS. While the overall F statistics were significant ($p < 0.01$) for equations 10, 11, and 12, the R^2 scores for each were 0.01, 0.06, and 0.06. Therefore, the interaction between MO and LO had less explanatory power for JS than did either predictor variable alone.

Table 4.25

Coefficients and Significance with
Organizational Commitment as Dependent Variable

Equ. #	Dep Var	MO	LO	ILO	MOLO	MOILO	LOILO	(MOLO) ILO	R ²
(13)	OC	0.62**	--	--	--	--	--	--	0.24
(14)	OC	0.56**	--	0.26**	--	--	--	--	0.28
(15)	OC	0.56**	--	0.26**	--	0.96	--	--	0.28
(16)	OC	--	0.70**	--	--	--	--	--	0.38
(17)	OC	--	0.66**	0.23**	--	--	--	--	0.41
(18)	OC	--	0.67**	0.19**	--	--	-0.14^	--	0.42
(19)	OC	0.62**	--	--	--	--	--	--	0.24
(20)	OC	0.19*	0.59**	--	--	--	--	--	0.40
(21)	OC	0.18	0.56**	--	-0.22**	--	--	--	0.42
(22)	OC	--	--	--	-0.38**	--	--	--	0.08
(23)	OC	--	--	0.38**	-0.37**	--	--	--	0.16
(24)	OC	--	--	0.27*	-0.37**	--	--	0.20^	0.18
** = significant at 0.01 level									
* = significant at 0.05 level									
^ = significant at 0.10 level									

Organizational Commitment As Dependent Variable

In Table 4.25 the same predictor and moderating relationships are presented for organizational commitment that were presented in the previous table for job satisfaction as the dependent variable.

Market orientation as a predictor variable, was found to be significantly and positively related to organizational commitment ($p < 0.01$) in equation 13. Additionally, individual learning orientation was found to be significantly related to OC ($p < 0.01$) in the presence of MO as seen in equation 14. Conversely, in equation 15, ILO was not found to significantly moderate the relationship between MO and organizational commitment. This is evident by the lack of significance for the

partial regression coefficient associated with the cross-product variable MOILO. Each of the equations 13, 14, and 15 were significant overall ($p < 0.01$) with F and R^2 scores of 65.82 / 0.24, 40.04 / 0.28, and 26.56 / 0.28 respectively.

Statistical results relative to the relationship between LO and OC are found in equations 16, 17, and 18. In equation 16, LO was found to be positively and significantly related ($p < 0.01$) to OC. Therefore, hypothesis H_{2b} was supported. This equation had an overall F score of 127.37, was significant at 0.01, and had an R^2 of 0.38. ILO, the proposed moderator, was also found to be significantly related at the 0.01 level to OC in equation 17. Equation 17 had an overall F score of 71.36, was significant at 0.01, and had an R^2 of 0.41. The partial regression coefficient for the cross-product variable LOILO in equation 18 was not found to be significant ($p < 0.05$) but was significant at a level better than 0.10. The overall F score for the full model in equation 18 was 49.16 which is significant ($p < 0.01$). Therefore, hypothesis H_{3d} was not supported in this study. The R^2 was 0.42.

In the presence of the other each predictor variable was found to be significantly related to OC as seen in equation 20. MO was significant at the 0.05 level and LO

($p < 0.01$). The overall F score for equation 20 was 67.13, significant ($p < 0.01$), and had an R^2 score of 0.40. The interaction between market orientation and the learning organization MOLO was found to be significantly correlated with OC due to the corresponding partial regression coefficient seen in equation 21. Therefore, hypothesis H_{4b} was supported in this study. The overall statistical significance for equation 21 was 0.01 with an F score of 49.22 and an R^2 of 0.42.

Both the interaction variable MOLO and the proposed moderator ILO were found to be significant ($p < 0.01$) in the presence of one another. This was seen in equation 23. The overall F score for this equation was 49.48 and the R^2 score was 0.42. Conversely, ILO as moderator MOLOILO of the influence this interaction has on OC was found not to be significant at the 0.05 level. On the other hand, the partial regression coefficient for MOLOILO was found to have significance ($p < 0.10$). While this level of significance did not meet the criterion for this study, it does indicate the need for further investigation. Still the hypothesis H_{5b} was not supported according to study criteria. The overall R^2 for equation 24 was 0.42 with an F score of 36.98 significant ($p < 0.01$).

Summary of Hypothesis Testing

Twelve research hypotheses were proposed in Chapter 3 based on the review of past literature. All hypotheses were tested. After statistical analysis was completed, hypotheses H_{1a}, H_{1b}, H_{2a}, H_{2b}, and H_{4b} were supported. Conversely, hypotheses H_{3a}, H_{3b}, H_{3c}, H_{3d}, H_{4a}, H_{5a}, and H_{5b} were not supported by statistical analysis (See Table 4.26).

TABLE 4.26
SUMMARY OF
HYPOTHESIS TEST RESULTS

Hypothesis		Outcome
H _{1a}	(MO) affects (JS)	Supported
H _{1b}	(MO) affects (OC)	Supported
H _{2a}	(LO) affects (JS)	Supported
H _{2b}	(LO) affects (OC)	Supported
H _{3a}	(ILO) moderates (MO)/(JS) relationship	Not Supported
H _{3b}	(ILO) moderates (MO)/(OC) relationship	Not Supported
H _{3c}	(ILO) moderates (LO)/(JS) relationship	Not Supported
H _{3d}	(ILO) moderates (LO)/(OC) relationship	Not Supported
H _{4a}	(MO)/(LO) interaction affects (JS)	Not Supported
H _{4b}	(MO)/(LO) interaction affects (OC)	Supported
H _{5a}	(ILO) moderates (MOLO)/(JS) relationship	Not Supported
H _{5b}	(ILO) moderates (MOLO)/(OC) relationship	Not Supported

Conclusions

This chapter described the sample characteristics and assessment of possible non-response bias. Data were examined comparing early and late respondents on demographic characteristics and on variable responses. This was followed by discussion of the need for measure purification and performance of factor analysis and reliability assessment. Descriptive statistics of respondents and study variable correlations were presented. Finally, this chapter presented results of hypotheses testing procedure. Five of the twelve proposed hypotheses were supported.

CHAPTER 5

DISCUSSION AND IMPLICATIONS OF THE STUDY

As outlined in Chapter 1, the primary objective of this study was to empirically examine selected organizational and individual influences on certain employee attitudes. Specifically, the objective of the study involved separately testing the influences of market orientation (MO) and learning organization (LO) characteristics as organizational variables on employee job satisfaction (JS) and organizational commitment (OC). Additionally, the interaction between the two-predictor variables was tested as to its influence on each employee attitude. Finally, individual learning orientation (ILO) was tested as a potential moderator of each separate organizational influence and of their interaction on employee attitudes.

This chapter provides a discussion of the results of this empirical research. First, specific findings regarding the hypothesized relationships are discussed. In the second section the implications these findings have

for managers of organizations are outlined. This is followed by the discussion of limitations of the study on the conclusions drawn from its results. The following section conveys the contributions to knowledge in the field this study is believed to make. The final section makes suggestions for future research regarding relationships established here.

Research Findings

Twelve relationships were hypothesized and examined in this study. These relationships were illustrated in Figure 1.1 and described in Chapter 3. The following discussion is divided on the basis of the dependent variables. Therefore, initially the relationships involving predictor and moderator variables and job satisfaction as the criterion variable are discussed. This discussion is followed by one involving organizational commitment as the dependent variable.

Job Satisfaction as Dependent Variable

First, market orientation was hypothesized to be directly and positively related to the job satisfaction of employees. Findings in this study supported the hypothesis. With these findings, the influence of market orientation on this employee attitude, as hypothesized by

Kohli and Jaworski (1990) and empirically supported by Siguaw, Brown, and Widing (1994), was provided increased strength.

Individual learning orientation of employees was hypothesized to moderate the effect of market orientation on job satisfaction. To examine this moderating relationship, first the direct effects of both MO and ILO in the presence of each other were tested. As expected, MO retained a significant influence on JS, but unexpectedly ILO also was found to directly effect JS when in the presence of MO. ILO, a motivational orientation that guides behavior (Sujan, Weitz, & Kumar, 1994) and involves improvement of abilities and mastery of tasks, can intuitively be linked to LO which seeks improvement and mastery at the organizational level. Conversely, the direct connection between ILO, an orientation, and JS, an attitude toward an object (the job) does not appear to have theoretical or intuitive foundation. It is suspected that this finding may be an artifact of the present study, since descriptive statistics revealed little variance among respondents in regard to their own learning orientation.

In testing the moderating effect of ILO on the relationship between MO and JS, the findings failed to support the hypothesized relationship. Therefore, the

MO/JS relationship was not found to be contingent on the individual's emphasis on personal learning. According to Sharma, Durand, and Gur-Arie (1981) this finding indicates that ILO was not a moderator but an antecedent, exogenous, intervening, or suppressor variable to the MO/JS relationship.

Direct effects, along with the moderating effects of ILO, were hypothesized and examined for learning organization characteristics as the predictor variable just as they were for MO. Job satisfaction was found to be directly and positively influenced by LO. Conversely, ILO was not found to moderate the LO/JS relationship just as was the case for the MO/JS relationship. ILO was again found to directly effect JS in the presence of the predictor variable, LO. Therefore, similar conclusions were drawn. LO and ILO were both found to directly affect JS, but the effect of LO on JS was not found to be contingent on ILO.

A substantially greater R^2 for the equations involving LO as the predictor variable (0.37 - 0.39) than for MO as predictor (0.19 - 0.21) indicates that LO may have greater influence on JS than does MO. Intuitively, this appears reasonable. By definition, MO includes an outward concentration by the organization on its marketplace. (MO) has been suggested to be most effective

when it engages all employees in the organization (Kohli & Jaworski, 1990; Narver & Slater, 1990; Day, 1994a).

Conversely, LO directly involves employees in the processes of organizational operations. Therefore, (LO) may be more directly linked to job satisfaction as an employee attitude.

The interaction (MOLO) between MO and LO was hypothesized to have greater direct effect on JS than either predictor variable alone. This interaction, MOLO, was not found to be significantly related to JS. Therefore, this hypothesis was not supported. Currently, this finding resists explanation particularly since this same interaction, as will be seen below, was found to have significant influence on organizational commitment, the other employee attitude studied here. With no significant relationship between MOLO and JS, investigation of the moderation on that relationship by ILO was meaningless. Statistically however, ILO as moderator of the MOLO/JS relationship was not supported.

In summary, both MO and LO were found to directly effect the JS of employees. ILO was also found to directly influence JS in the presence of each predictor variable. ILO was not supported as a moderator in any of these hypothesized relationships. While these findings suggest support for the general notion that there are both

organizational and individual influences on employee attitudes, they do not support the notion that the individual level necessarily moderates the effects of organizational level predictors.

Organizational Commitment
as Dependent Variable

The hypotheses made regarding influences involving MO, LO, and ILO on JS were also made for OC as the criterion variable. Similar results with respect to direct effects were found. MO and LO were found to directly influence OC with the R^2 greater for equations involving (LO) (0.38 - 0.42) than for those including MO (0.24 - 0.28). ILO was also unexpectedly found to directly affect OC in the presence of each predictor variable just as it was in regard to JS. Conclusions about this unexpected influence escape confident interpretation here just as it did involving the dependent variable JS.

Conversely, the interaction between MO and LO, MOLO, was found to be significantly related to OC. Explanation for this finding with respect to OC but not with JS may be found in the difference between the two criterion variables. Even though for some time there has been a recognized theoretical and empirical connection between job satisfaction and organizational commitment, the two

employee attitudes are not identical. JS involves acceptance of elements in and around the job (e.g., supervisor, pay, coworkers, autonomy, and meaningfulness). OC involves integration with the organization resulting in a willingness to exert effort on its behalf and a sense of identification with its success or failure. MO and LO each suggest the necessity of employee involvement. Finally, ILO was not found to moderate the influence of MOLO on OC. This corresponds to the finding involving JS as the dependent variable.

Managerial Implications

Positive behaviors and extended tenure both have been linked to employee satisfaction and commitment to the organization (Mowday, & McDade, 1979; Porter, Mowday, & Boullian, 1974; Griffith & Hon, 1995). Consequently, potential increased productivity and reduced costs connected with turnover could result from improvement of these employee attitudes. Therefore, managers concern themselves with what affects these employee attitudes. Market orientation and the learning organization both have been found to influence job satisfaction as well as organizational commitment.

The finding that greater market orientation provides increased job satisfaction and organizational commitment supports findings in previous research (e.g., Sigauw,

Brown, & Widing, 1994). The implication is that managers should establish organizational market orientation to improve performance and reduce turnover at least among employees involved at the executive level of marketing and sales functions.

The learning organization was indicated to have greater influence on employee attitudes than did market orientation. The derived implication is that managers possibly should pay greater attention to how employees are involved in the learning processes of the organization, while employee involvement with customers, competitors, and the marketplace warrants continued attention.

This study has linked individual learning orientation to employee attitudes and the learning organization. In linking ILO to JS and OC, this research suggests that the state of being oriented toward improvement of skills and mastery of tasks is positively linked to attitudes. Therefore, managers should become aware of, encourage, and influence the orientations of employees toward learning in the workplace as well as performance outcomes.

Contingency theory suggests that organizational success is somewhat dependent upon the ability to appropriately match practices with the demands of the environment in which the organization operate. Organizations currently operate in an environment of fast

paced change and that change requires continual improvement through leaning (Senge, 1990; Dixon, 1994). Acceptance of this notion suggests the necessity for the organization to learn as well as the individual be oriented toward learning. Therefore, managers would be well advised to establish programs that encourage learning by individuals and to create cultures that promote a positive atmosphere for learning. In doing so managers will be improving the organization's capacity to learn.

Limitations of the Study

Certain limitations are inherent in this study. This section addresses limitations, which affect the generalizability of findings. Results of this study, therefore, should be interpreted with caution.

The Sample

While the sample of 2,000 sales and marketing executives used for this study was drawn from a national population, the calculated response rate of 10.8% (214 respondents) invites questions about representativeness of that sample. Assessment of non-response bias revealed differences between early and late respondents only in regard to the predictor variable, market orientation.

A larger sample would have allowed analysis of subgroups of executives. While the continuous variables

used in regression procedures, as adopted here, have been generally accepted as providing better representation (Aguinis, 1995; Mansfield, 1974), subgroup analysis could possibly have been of particular usefulness with the hypothesized moderator, ILO. ILO had a reasonably narrow range of responses and presented challenges to analysis.

Key Informant Bias

Possible key informant bias exists when a single respondent represents a larger entity (Huber & Powell, 1985) such as a business organization. Executives were sought as respondents due to a belief that they were best positioned to have the information sought in this study. Single executives per organization were selected in order to capture a wider range of organizations

Measurement Issues

The construct scales used in this study were all previously validated scales. Factor analysis and reliability assessment supported the use of these measures. While, the market orientation, job satisfaction, and organizational commitment scales have sufficient history to warrant confidence, the scales for individual learning orientation and the learning organization have been recently developed. Therefore, caution should be used in interpreting results.

Only the Cronbach alpha coefficient for individual learning orientation did not exceed the 0.7 suggested threshold. At 0.68 this alpha score was near the threshold and item-to-total correlation suggested that manipulation of this scale would not substantially improve the alpha score.

Contributions of the Study

This study has contributed to management and marketing literature in several ways. First, this study supported previous research regarding the influence of market orientation on job satisfaction and on organizational commitment. Second, the effect of the learning organization on employee attitudes was found. Third, this study introduced simultaneous examination of market orientation and the learning organization as predictor variables. Fourth, while the interaction between market orientation and the learning organization was not found to influence job satisfaction, it was found to effect commitment to the organization. Fifth, the individual's orientation toward learning was found to effect employee attitudes when either market orientation or learning organization was present. This is the first known study to examine individual learning orientation as a moderating variable. While no support was found, according to the study criteria, for the hypothesized

moderating relationships, there was weak support based on $p < 0.10$ associated with ILO as a moderator of the learning organizations influence on organizational commitment and of the MOLO interaction effect on OC.

Suggestions for Future Research

With the exception of the market orientation and employee attitudes/relationships, this study consisted of previously unexamined associations. Therefore, its bears an exploratory nature that fosters rich prospects for future research.

Here individual learning was hypothesized as a moderator in relationships with mixed but generally weak support. Additionally, the investigation of the interaction between market orientation and the learning organization received mixed results. Consequently, moderation and interaction may be inappropriately hypothesized relationships for these variables. Thus, investigation of mediating relationships could be warranted. On the other hand, structural equation modeling could provide insight to the nature of relationships between these organizational level, individual level, and attitudinal variables.

Role conflict and role ambiguities have been found to effect market orientation employee attitude relationships. These should be investigated in regard to their influence

on the relationship between learning organization and employee attitudes.

All the constructs in this study were treated as global measures but many have also been examined in previous research as multidimensional constructs. The multidimensionality of market orientation and the learning organization should be investigated in respect their influence of employee attitudes. For example, do particular characteristics of a learning organization influence attitudes while other dimensions render less effect?

An individual's intent to stay/leave an organization has been connected to employee attitudes in previous research (Mowday, Porter, & Steers, 1982; Griffith & Hom, 1996). Therefore, it would be appropriate to examine possible relationships between employee intent and the predictor variables in this study.

Individual learning orientation as a recently developed measurable construct offers numerous avenues for research. For example, the demographic characteristics connected to this orientation as contrasted to other possible employee orientations should be investigated. Specifically, comparison of learning orientation with performance orientation could prove fruitful. Perhaps even more evident from findings in this study is the need

to investigate why individual learning orientation influences employee attitudes.

Finally, it is believed that, because this study both provides insight into some relationships and raises questions about others, repetition of this study involving other samples is warranted. One potential design could include multiple respondents per organization. This would allow greater depth of inquiry into organizational differences. A second design could involve respondents not directly responsible for sales and marketing in the organization.

APPENDIX A

CONFIDENTIAL WHEN COMPLETED

The purpose of this survey is to gather information concerning organizational factors and management practices that may influence the capability of organizations and employees.

There are no "right" or "wrong" answers. Please reflect carefully and answer all questions as honestly as possible based upon your knowledge. Your response will be kept confidential and will be aggregated with other responses so individual respondents cannot be identified.

Some questions in this survey are similar to others. Please answer *ALL* of the questions.

Thank you for taking the time to fill out this questionnaire. Please return your completed form in the envelope provided.

INSTRUCTIONS: The following questions are designed to determine what business practices are emphasized in your organization. Please indicate in the blank by each statement the number that corresponds to your belief about your organization's emphasis in business practices.

- 1 = I strongly disagree
- 2 = I somewhat disagree
- 3 = I slightly disagree
- 4 = I neither agree nor disagree
- 5 = I slightly agree
- 6 = I somewhat agree
- 7 = I strongly agree

Example:

5 In our organization we bend over backward to satisfy each customer.

By writing 5 in the blank you would be indicating that you slightly agree that your organization bends over backward to satisfy customers.

- 1. I often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.
- 2. There is widespread support and acceptance for the organization's mission statement.
- 3. I can often bring new ideas into the organization.
- 4. Failures are seldom constructively discussed in our organization.
- 5. Current organizational practice encourages employees to solve problems together before discussing it with a supervisor.
- 6. From my experience, people who are new to this organization are encouraged to question the way things are done.
- 7. Senior managers in this organization resist change and are afraid of new ideas.
- 8. Line managers in this organization encourage employees to experiment in order to improve work processes.
- 9. New work processes that may be useful to the organization as a whole are usually shared with all employees.
- 10. Innovative ideas that work are often rewarded by management.
- 11. Managers and employees in this organization share a common vision of what our work should accomplish.
- 12. In my experience, new ideas from staff are not treated seriously by management.
- 13. Managers in this organization frequently involve employees in important decisions.
- 14. We cannot usually form informal groups to solve organizational problems.
- 15. Managers in this organization can accept criticism without becoming overly defensive.
- 16. We have a system that allows us to learn successful practices from other organizations.
- 17. Line managers in this organization often provide feedback that helps to identify potential problems and opportunities.
- 18. I do not understand how the mission of this organization is to be achieved.
- 19. We have opportunities for self-assessment with respect to goal attainment.
- 20. The organization's mission statement identifies values to which all employees must conform.
- 21. Most problem solving groups in this organization feature employees from a variety of functional areas or divisions.

INSTRUCTIONS: The following questions are designed to determine what business practices you prefer for yourself as you represent your organization. Please indicate in the blank by each statement, based on the following key, the number which corresponds to your belief about your own business practice preferences.

- | | |
|---------------------------------|----------------------|
| 1 = I strongly disagree | 5 = I slightly agree |
| 2 = I somewhat disagree | 6 = I somewhat agree |
| 3 = I slightly disagree | 7 = I strongly agree |
| 4 = I neither agree or disagree | |

- ___ 22. Making a tough decision is very satisfying.
- ___ 23. An important part of being a good salesperson is continually improving your sales skills.
- ___ 24. Making mistakes when selling is just part of the learning process.
- ___ 25. It is important for me to learn from each selling experience I have.
- ___ 26. There really are not a lot of new things to learn about selling.
- ___ 27. I am always learning something new about my customers.
- ___ 28. It is worth spending a great deal of time learning new approaches for dealing with customers.
- ___ 29. Learning how to be a better salesperson is of fundamental importance to me.
- ___ 30. I put in a great deal of effort sometimes in order to learn something new.

INSTRUCTIONS: Listed below is a series of statements that represent feelings that individuals might have about the organization for which they work. With respect to your own feelings about the organization for which you are now working, please indicate the degree of your agreement or disagreement with each statement by entering the number which corresponds to your choice in the blank to the left of that statement.

- | | |
|----------------------------------|----------------------|
| 1 = I strongly disagree | 5 = I slightly agree |
| 2 = I somewhat disagree | 6 = I somewhat agree |
| 3 = I slightly disagree | 7 = I strongly agree |
| 4 = I neither agree nor disagree | |

- ___ 31. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
- ___ 32. I talk up the organization to my friends as a great organization to work for.
- ___ 33. I feel very little loyalty to this organization.
- ___ 34. I would accept almost any type of job assignment in order to keep working for this organization.
- ___ 35. I find that my values and the organization's values are very similar.
- ___ 36. I am proud to tell others that I am part of this organization.
- ___ 37. I could just as well be working for a different organization as long as the type of work was similar.
- ___ 38. This organization really inspires the very best in me in the way of job performance.
- ___ 39. It would take very little change in my present circumstances to cause me to leave this organization.
- ___ 40. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.

- ___ 41. There's not too much to be gained by sticking with this organization indefinitely.
- ___ 42. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.
- ___ 43. I really care about the fate of this organization.
- ___ 44. For me this is the best of all possible organizations for which to work.
- ___ 45. Deciding to work for this organization was a definite mistake on my part.

INSTRUCTIONS: Listed below is a series of statements that represent feelings that individuals might have about their job. With regard to your feelings about your current job, please indicate the degree to which you are satisfied or dissatisfied by entering to the left of that statement the number that corresponds to your feelings.

- | | |
|----------------------------|-------------------------|
| 1 = Extremely dissatisfied | 5 = Slightly satisfied |
| 2 = Dissatisfied | 6 = Satisfied |
| 3 = Slightly dissatisfied | 7 = Extremely satisfied |
| 4 = Neutral | |

How satisfied are you with this aspect of your job?

- ___ 46. The amount of job security I have
- ___ 47. The amount of pay and fringe benefits I receive
- ___ 48. The amount of personal growth and development I get in doing my job
- ___ 49. The people I talk to and work with on my job
- ___ 50. The degree of respect and fair treatment I receive from my boss
- ___ 51. The feeling of worthwhile accomplishment I get from doing my job
- ___ 52. The chance to get to know other people while on the job
- ___ 53. The amount of support and guidance I receive from my supervisor
- ___ 54. The degree to which I am fairly paid for what I contribute to this organization
- ___ 55. The amount of independent thought and action I can exercise in my job
- ___ 56. How secure things look for me in the future in this organization
- ___ 57. The chance to help other people while at work
- ___ 58. The amount of challenge in my job
- ___ 59. The overall quality of the supervision I receive in my work

INSTRUCTIONS: The following questions are designed to determine what you believe are the business practices of your organization. Please indicate in the blank by each statement the number that corresponds to your belief about your organization's business practices.

- | | |
|---------------------------------|----------------------|
| 1 = I strongly disagree | 5 = I slightly agree |
| 2 = I somewhat disagree | 6 = I somewhat agree |
| 3 = I slightly disagree | 7 = I strongly agree |
| 4 = I neither agree or disagree | |

- ___ 60. I get to do my work without spending too much time on planning.
- ___ 61. I list the steps necessary for getting an order.
- ___ 62. I think about strategies I will fall back on if problems in a sales interaction arise.

- ___ 63. Because too many aspects of my job are unpredictable, planning is not useful.
- ___ 64. I keep good records about my accounts.
- ___ 65. I set personal goals for each sales call.
- ___ 66. Each week I make a plan for what I need to do.
- ___ 67. I do not waste time thinking about what I need to do.
- ___ 68. I am careful to work on the highest priority tasks first.
- ___ 69. Planning is a waste of time.
- ___ 70. Planning is an excuse for not working.
- ___ 71. I don't need to develop a strategy for a customer to get the order.
- ___ 72. I work long hours to meet my sales objectives.
- ___ 73. I do not give up easily when I encounter a customer who is difficult to sell.
- ___ 74. I work untiringly at selling a customer until I get an order.
- ___ 75. It is very important to me that my supervisor sees me as a good salesperson.
- ___ 76. I very much want my coworkers to consider me to be good at selling.
- ___ 77. I feel very good when I know I have outperformed other salespeople in my company.
- ___ 78. I always try to communicate my accomplishments to my manager.
- ___ 79. I spend a lot of time thinking about how my performance compares with other salespeople's.
- ___ 80. I evaluate myself using my supervisor's criteria.

INSTRUCTIONS: The following questions are designed to determine what you believe are the business practices of your organization. Please indicate in the blank by each statement the number that corresponds to your belief about your organization's business practices.

- | | |
|-----------------------------|----------------------------|
| 1 = Not at all | 5 = To considerable extent |
| 2 = To a very slight extent | 6 = To great extent |
| 3 = To a small extent | 7 = To a very great extent |
| 4 = To a moderate extent | |

To what extent does your organization engage in the following practices?

- ___ 81. Customer commitment
- ___ 82. Create customer value
- ___ 83. Understand customer needs
- ___ 84. Customer satisfaction objectives
- ___ 85. Measure customer satisfaction
- ___ 86. After-sales service
- ___ 87. Salespeople share competitor information
- ___ 88. Respond rapidly to competitors' actions
- ___ 89. Top managers discuss competitors' strategies
- ___ 90. Target opportunities for competitive advantage
- ___ 91. Interfunctional customer calls
- ___ 92. Information shared among functions
- ___ 93. Functional integration in strategy
- ___ 94. All functions contribute to customer value
- ___ 95. Share resources with other business units

INSTRUCTIONS: Using the scale below, please enter the number in the blank to the left of each statement indicating the degree of satisfaction you experience regarding that aspect of your job.

- | | |
|---------------------------|---------------------------------------|
| 1 = Very dissatisfied | 4 = Neither dissatisfied or satisfied |
| 2 = Somewhat dissatisfied | 5 = Slightly satisfied |
| 3 = Slightly dissatisfied | 6 = Somewhat satisfied |
| | 7 = Very satisfied |

- ___ 96. The level of challenge in my work.
- ___ 97. The sense of accomplishment I get from my work.
- ___ 98. The amount of routine in my work.
- ___ 99. How my supervisor asks for my advice.
- ___ 100. How my supervisor knows his job well.
- ___ 101. How my supervisor gives praise for good work.
- ___ 102. The security of my pay.
- ___ 103. The way my pay provides adequately for normal expenses.
- ___ 104. The fairness of profit sharing.
- ___ 105. Opportunities for promotion.
- ___ 106. How promotions are based on ability.
- ___ 107. How promotions are given fairly.
- ___ 108. How my co-workers are pleasant.
- ___ 109. How my co-workers are responsible.
- ___ 110. How my co-workers are loyal.

INSTRUCTIONS: The following questions are designed to determine what you believe are the business practices of your organization. Please indicate in the blank by each statement the number that corresponds to your belief about your organization's business practices.

- | | |
|---------------------------------|----------------------|
| 1 = I strongly disagree | 5 = I slightly agree |
| 2 = I somewhat disagree | 6 = I somewhat agree |
| 3 = I slightly disagree | 7 = I strongly agree |
| 4 = I neither agree or disagree | |

- ___ 111. In this organization we meet with customers at least once a year to find out what products or services they will need in the future.
- ___ 112. Individuals from our manufacturing department interact directly with customers to learn how to serve them better.
- ___ 113. In this organization, we do a lot of in-house market research.
- ___ 114. We are slow to detect changes in our customers' product preferences.
- ___ 115. We poll end users at least once a year to assess the quality of our products and services.
- ___ 116. We often talk with or survey those who can influence our end users' purchases (e.g., retailers, and distributors).
- ___ 117. We collect industry information through informal means (e.g., lunch with industry friends, talks with trade partners).
- ___ 118. In our organization, intelligence on our competitors is generated independently by several departments.
- ___ 119. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, and regulation).
- ___ 120. We periodically review the likely effect of changes in our business environment (e.g., regulation) on customers.
- ___ 121. A lot of informal "hall talk" in this organization concerns our competitors' tactics or strategies.
- ___ 122. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
- ___ 123. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.

- ___ 124. Our business unit periodically circulates documents (e.g., reports, and newsletters) that provide information on our customers.
- ___ 125. When something important happens to a major customer or market, the whole organization knows about it in a short period.
- ___ 126. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
- ___ 127. There is minimal communication between marketing and manufacturing departments concerning market developments.
- ___ 128. When one department finds out something important about competitors, it is slow to alert other departments.
- ___ 129. It takes us forever to decide how to respond to our competitors' price changes.
- ___ 130. Principles of market segmentation drive new product development efforts in this organization.
- ___ 131. For one reason or another we tend to ignore changes in our customers' product or service needs.
- ___ 132. We periodically review our product development efforts to ensure that they are in line with what customers want.
- ___ 133. Our business plans are driven more by technological advances than by market research.
- ___ 134. Several departments get together periodically to plan a response to changes taking place in our business environment.
- ___ 135. The product lines we sell depend more on internal politics than real market needs.
- ___ 136. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.
- ___ 137. The activities of the different departments in this organization are well coordinated.
- ___ 138. Customer complaints fall on deaf ears in this organization.
- ___ 139. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.
- ___ 140. We are quick to respond to significant changes in our competitors' pricing structures.
- ___ 141. When we find out that customers are unhappy with the quality of our service, we take corrective action immediately.
- ___ 142. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.

INSTRUCTIONS: The following questions are designed to determine what you believe are your own business practices in regard to customers. Please indicate in the blank by each statement the number that corresponds to your belief about your own business practices.

- 1 = True for NONE of my customers - NEVER
- 2 = True for VERY FEW of my customers - RARE
- 3 = True for FEW of my customers - OCCASIONAL
- 4 = Uncertain
- 5 = True for MANY of my - COMMON
- 6 = True for MOST of my customers - OFTEN
- 7 = True for ALL of my customers - ALWAYS

- ___ 143. I try to give customers an accurate expectation of what the product will do for them.
- ___ 144. I try to get customers to discuss their needs with me.
- ___ 145. If I am not sure a product is right for a customer, I will still apply pressure to get him/her to buy.
- ___ 146. I imply to a customer that something is beyond my control when it is not.
- ___ 147. I try to influence a customer by information rather than by pressure.

- ___ 148. I try to sell as much as I can rather than to satisfy a customer.
- ___ 149. I spend more time trying to persuade a customer to buy than I do trying to discover his/her needs.
- ___ 150. I try to help customers achieve their goals.
- ___ 151. I answer a customer's questions about products as correctly as I can.
- ___ 152. I pretend to agree with customers to please them.
- ___ 153. I treat a customer as a rival.
- ___ 154. I try to figure out what a customer's needs are.
- ___ 155. A good salesperson has to have the customer's best interest in mind.
- ___ 156. I try to bring a customer with a problem together with a product that helps him/her solve that problem.
- ___ 157. I am willing to disagree with a customer in order to help him/her make a better decision.
- ___ 158. I offer the product of mine that is best suited to the customer's problem.
- ___ 159. It is necessary to stretch the truth in describing a product to a customer.
- ___ 160. I begin the sales talk for a product before exploring a customer's needs with him/her.
- ___ 161. I try to sell a customer all I can convince him/her to buy, even if I think it is more than a wise customer would buy.
- ___ 162. I paint too rosy a picture of my products, to make them sound as good as possible.
- ___ 163. I try to achieve my goals by satisfying customers.
- ___ 164. I decide what products to offer on the basis of what I can convince customers to buy, not on the basis of what will satisfy them in the long run.
- ___ 165. I try to find out what kind of product would be most helpful to a customer.
- ___ 166. I keep alert for weakness in a customer's personality so I can use them to put pressure on him/her to buy.

INSTRUCTIONS: With respect to your own feelings about your particular job, please indicate the degree of your agreement or disagreement with each statement that follows. Please use the following scale to indicate you answer.

- | | |
|-------------------------|--------------------|
| 1 = Definitely not true | 5 = Somewhat true |
| 2 = Mostly not true | 6 = Mostly true |
| 3 = Somewhat not true | 7 = Extremely true |
| 4 = Uncertain | |

- ___ 167. I feel certain about how much authority I have.
- ___ 168. Clear, planned goals and objectives for my job.
- ___ 169. I have to do things that should be done differently.
- ___ 170. I know that I have divided my time properly
- ___ 171. I receive an assignment without the manpower to complete it.
- ___ 172. I know what my responsibilities are.
- ___ 173. I have to buck a rule or policy in order to carry out an assignment.
- ___ 174. I work with two or more groups who operate quite differently.
- ___ 175. I know exactly what is expected of me.
- ___ 176. I receive incompatible requests from two or more people.
- ___ 177. I do things that are apt to be accepted by one person and not accepted by others.
- ___ 178. I receive an assignment without adequate resources and materials to execute it.
- ___ 179. Explanation is clear of what has to be done.
- ___ 180. I work on unnecessary things.

INSTRUCTIONS: Please complete all questions. The value of this study depends on complete accurate information. Thank you for taking the time to fill out this survey. Your responses will be kept completely confidential and all information will be statistically aggregated before being put into the final report.

On average, how many hours per week do you currently work? _____

How long have you worked in this industry? _____ (# of years)

How long have you worked in this organization? _____ (# of years)

Do you believe your organization has a stable future? _____ Yes or No)

What position do you currently hold in this organization?
_____ (title)

How long have you been in this position? _____ (# of years)

How many people do you directly supervise? _____

What is your current age _____ (# of years)

What is your approximate annual income? \$ _____

Please check one:

Race: ☐ Black ☐ White ☐ Native American ☐ Oriental ☐ Other

Gender: ☐ Female ☐ Male

APPENDIX B

April 30, 1997

NAME
TITLE
COMPANY NAME
STREET ADDRESS
CITY, STATE ZIP CODE

Dear NAME:

As a sales/marketing professional your efforts and decisions significantly effect the success of your organization. Your opinions are equally valuable in providing greater understanding of how and why organizations and individuals behave as they do. As a doctoral student, I need your help. I am conducting a study for my dissertation that I believe will increase such understanding, and I hope the information gathered will help improve organizational and individual performance.

Please find enclosed a copy of the Organizational/Individual Learning and Orientation Survey (OILOS). It should take no more than 15 to 20 minutes to complete. Your valuable response will be returned directly to me in the enclosed envelope and will be held in the STRICTEST CONFIDENCE. Only aggregated results will be reported in the study.

For your time and effort, I will be happy to forward aggregated study results to you. To receive a report copy send your name and address along with your request to me at this FAX: 318-257-4253.

My successful completion of doctoral degree requirements greatly depends on your prompt completion and return of this questionnaire. Thank you for your time.

Sincerely,

David L. Wright

REFERENCES

- Allison, C. and J. Hayes. 1996. The cognitive style index: A measure of intuition-analysis for organizational research. *Journal of Management Studies* 33 (1): 119-135.
- Ames, C. and J. Archer. 1988. Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology* 80 (3): 260-267.
- Anand, V., P. Skilton, and B. Keats. 1996. Reconceptualizing organizational memory. Presented at the Academy of Management, Annual Meeting, Cincinnati.
- Anderson, P. 1982. Marketing, strategic planning and the theory of the firm. *Journal of Marketing* Spring: 15-25.
- Arguinis, H. 1995. Statistical power problems with moderated multiple regression in management research. *Journal of Management* 21 (6): 1141-1158.
- Argyris, C. 1989. Strategy implementation: The key to organizational learning. *Organizational Dynamics* Autumn: 5-15.
- _____. 1994a. Good communication that blocks learning. *Harvard Business Review* July/August: 77-85.
- _____. 1994b. *On Organizational Learning*. Cambridge, MA: Blackwell Publishers.
- Argyris, C. and D. Schon. 1978. *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.
- _____. 1996. *Organizational Learning II: Theory, Method, and Practice*. Readings, MA: Addison-Wesley.

- Armstrong, J. and F. Collopy. 1996. Competitor orientation: Effects of objectives and information on managerial decisions and profitability. *Journal of Marketing Research* 33 (May): 188-199.
- Atuahene-Gima, K. 1996. Market orientation and innovation. *Journal of Business Research* 35: 93-103.
- Aubrey, R. and P. Cohen. 1995. *Working Wisdom: Timeless Skills and Vanguard Strategies for Learning Organizations*. San Francisco, CA: Josey-Bass Publishers.
- Barling, J., B. Wade, and C. Fullager. 1990. Predicting employee commitment to company and union: Divergent models. *Journal of Occupational Psychology* 63: 49-61.
- Baron, R. and D. Kenny. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology* 51 (6): 1173-1182.
- Barr, P., J. Stimpert, and A. Huff. 1992. Cognitive change, strategic action, and organizational renewal. *Strategic Management Journal* 13: 15-36.
- Barrett, F. 1995. Creating appreciative learning cultures. *Organizational Dynamics* 32 (5): 595-618.
- Beach, L. R. and T. R. Mitchell. 1990. Image theory: A behavioral theory of decision making in organizations. *Research in Organizational Behavior* 12: 1-41.
- Bedeian, A. and K. Mossholder. 1994. Simple question not so simple answer: Interpreting interaction terms in moderated multiple regression. *Journal of Management* 20 (1): 159-165.
- Behrman, D. and W. Perreault Jr. 1984. A role stress model of the performance and satisfaction of industrial salespersons. *Journal of Marketing* 48: 9-21.
- Bennett, J. and M. O'Brien. 1994. The building blocks of the learning organization. *Training* June: 41-47, 49.

- Blackler, F. 1995. Knowledge, knowledge work, and organizations: An overview and interpretation. *Organization Studies* 16 (6): 1021-1046.
- Brooks, A. K. 1992. Building learning organizations: The individual-culture interaction. *Human Resource Development Quarterly* 3 (4): 323-335.
- Brown, J. S. and P. Duguid. 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science* 2 (1): 40-57.
- Brown, S. and R. Peterson. 1993. Antecedents and consequences of salesperson job satisfaction: Meta-analysis and assessment of causal effects. *Journal of Marketing Research* 30: 63-77.
- Calvert, G., S. Mobley, and L. Marshall. 1994. Grasping the learning organization. *Training and Development* 48 (6): 38-44.
- Cangelosi, V. and W. Dill. 1965. Organizational learning: Observations toward a theory. *Administrative Science Quarterly* 10: 175-203.
- Carley, K. 1992. Organizational learning and personnel turnover. *Organization Science* 3 (1): 20-45.
- Carley, K. and M. Palmquist. 1992. Extracting, representing, and analyzing mental models. *Social Forces* 70 (3): 601-636.
- Cheng, Y. and A. Van de Ven. 1996. Learning the innovation journey: Order out of chaos? *Organization Science* 7 (6): 593-614.
- Churchill, G. 1979. A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research* XVI (February): 64-73.
- _____. 1991. *Market Research: Methodological Foundations*. Chicago: Dryden Press.
- Churchill, G., N. Ford, and O. Walker. 1976. Organizational climate and job satisfaction in the sales force. *Journal of Marketing Research* 13: 237-242.

- _____. 1985. *Sales Force Management*. Homewood, IL: Richard D. Irwin Co.
- Cohen, M. 1991. Individual learning and organizational routine: Emerging connections. *Organization Science* 2 (1): 135-139.
- Cohen, W. and D. Levinthal. 1990. Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly* 35: 128-152.
- Cook, J., S. Hepworth, T. Wall, and P. Warr. 1981. *The Experience of Work*. New York: Academic Press.
- Coopey, J. 1995. The learning organization, power, politics and ideology. *Management Learning* 26 (2): 193-213.
- Cowan, D. 1990. Developing a classification structure of organizational problems: An empirical investigation. *Academy of Management Journal* 33 (2): 366-390.
- Culnan, M. 1989. Processing unstructured organizational transactions: Mail handling in the U.S. Senate. *Organizational Science* 3 (1): 117-137.
- Daft, R. and K. Weick. 1984. Toward a model of organizations as interpretation systems. *Academy of Management Review* 9 (2): 284-295.
- Daft, R. and G. Huber. 1987. How organizations learn: A communications framework. *Research in the Sociology of Organizations* 5: 1-36.
- Daniel, K., L. de Chernatony, and G. Johnson. 1995. Validating a method for mapping managers' mental models of competitive industry structures. *Human Relations* 48 (9): 975-991.
- Day, G. S. 1994a. The capabilities of market-driven organizations. *Journal of Marketing* 58: 37-52.
- _____. (1994b). Continuous learning about markets. *California Management Review* 36 (4): 9-31.
- Day, G. S. and R. Wensley. 1988. Assessing advantage: A framework for diagnosing competitive superiority. *Journal of Marketing* 52 April: 1-20.

- DeGeus, A. 1988. Planning as learning. *Harvard Business Review* March/April: 70-74.
- DiBella, A., E. Nevis, and J. Gould. 1996. Understanding organizational learning capability. *Journal of Management Studies* 33 (3): 361-379.
- Dinur, A. and A. Inkpen. 1996. The transfer of knowledge in the multinational corporation. Presented at the Academy of Management Annual Meeting, Cincinnati.
- Dixon, N. M. 1992. Organizational learning: A review of literature with implications for HRD professionals. *Human Resource Development Quarterly* 3 (1): 29-49.
- _____. 1993a. Developing managers for the learning organization. *Human Resource Management Review* 3 (3): 243-254.
- _____. 1994. *The Organizational Learning Cycle: How We Can Learn Collectively*. London: McGraw-Hill.
- Dodgen, M. 1993b. Organizational learning: A review of some literature. *Organization Studies* 14 (3): 375-394.
- Duncan, R. 1974. Modifications in decision structure in adapting to the environment: Some implications for organizational learning. *Decision Sciences* 3: 705-725.
- Duncan, R. and A. Weiss. 1979. Organizational learning: Implications for organizational design. *Research in Organizational Behavior* 1: 75-123.
- Edmondson, A. 1996. Three faces of Eden: The persistence of competing theories and multiple diagnoses in organizational intervention research. *Human Relations* 49 (5): 571-595.
- Edmondson, A. and B. Moingeon. 1996. From organizational learning to the learning organization: Toward an integrative approach. Presented at the Academy of Management Annual Meeting, Cincinnati.
- Fiol, M. 1994. Consensus, diversity, and learning in organizations. *Organization Science* 5 (3): 403-420.

- Fiol, M. and Lyles, M. (1985). Organizational learning. *Academy of Management Review* 10 (4): 803-813.
- Frankwick, G. L., J. C. Ward, M. D. Hutt, and P. Reingen 1994. Evolving patterns of organizational beliefs in the formation of strategy. *Journal of Marketing* 58: 96-110.
- French, R. and J. Bazalgette. 1996. From 'learning organization' to 'teaching-learning organization'? *Management Learning* 27 (1): 113-128.
- Fulmer, R. 1994. A model for changing the way organizations learn. *Planning Review* 22 (3), 20-25.
- Furman, A. and V. Sadka. 1992. The development of an occupational attributional style questionnaire. *Journal of Organizational Behavior* 13: 27-39.
- Ganesan, S. 1994. Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing* 58: 1-19.
- Garvin, D. 1993. Building a learning organization. *Harvard Business Review* August: 78-91.
- Gentner, D. and A. Stevens. 1993. *Mental Models*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Gephart, M., V. Marsick, M. Van Buren, and M. Spiro. 1996. The learning organization. *Training and Development* December: 35-45.
- Griffeth, R. and P. Hom. 1995. Employee turnover process. *Research in Personnel and Human Resources Management* 13: 245-293.
- Griffin, R. 1991. Effects of worked redesign on employee perceptions, attitudes, and behaviors: A long-term investigation. *Academy of Management Journal* 34 (2): 425-435.
- Hackman, J. and E. Lawler. 1971. Employee reactions to job characteristics. *Journal of Applied Psychology* 55: 259-286.

- Hackman, J. and G. Oldham. 1976. Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance* 16: 250-279.
- _____. 1980. *Work Redesign*. Reading, MA: Addison-Wesley.
- Hamel, G. and C. Prahalad. 1989. Strategic intent. *Harvard Business Review* May-June: 63-69.
- Harris, L. and V. Cronen. 1979. A rules-based model for the analysis and evaluation of organizational communication. *Communication Quarterly* Winter:12-28.
- Hatch, M. and M. Schultz. 1996. Organizational culture, identity and image in an interdisciplinary framework. Presented at the Academy of Management Annual Meeting, Cincinnati, OH.
- Hedberg, B. 1981. How organizations learn and unlearn. In *Handbook of Organizational Design*, ed. P. Nystrom and W. Starbuck, 3-27. New York: Oxford University Press.
- Hendry, C. 1996. Understanding and creating whole organizational change through learning theory. *Human Relations* 49 (5): 621-641.
- Herriott, S., D. Levinthal, and J. March,. 1985. Learning from experience in organizations. *The Theory of Economic Organizations* 75: 298-302.
- Hill, R. and M. Levehagen. 1995. Metaphors and mental models: Sensemaking and sensegiving in innovative and entrepreneurial activities. *Journal of Management* 212 (6): 1057-1074.
- Hosley, S., A. Lau, F. Levy, and D. Tan. 1994. The quest for the competitive learning organization. *Management Decision* 32: 5-15.
- Houston, F. 1986. The marketing concept: What it is and what it is not. *Journal of Marketing* 50: 81-87.
- Huber, G. 1991. Organizational learning: The contributing processes and the literatures. *Organization Science* 2 (1): 88-115.

- Isaacs, W. 1992. Taking flight: Dialogue, collective thinking, and organizational learning. *Organization Dynamics* 29: 24-39.
- Jacobs, R. L. 1995. Impressions about the learning organization: Looking to see what is behind the curtain. *Human Resource Development Quarterly* 6 (2): 119-122.
- James, L. and J. Brett. 1984. Mediators, moderators, and tests for mediation. *Journal of Applied Psychology* 69 (2): 307-321.
- Jashapara, A. 1993. The competitive learning organization: A quest for the holy grail. *Management Decision* 31 (8): 52-62.
- Jelinek, M. 1979. *Institutionalizing Innovation: A Study of Organizational Learning Systems*. New York, NY: Praeger Publishers.
- Johnson, M. and L. Hasher. 1987. Human learning and memory. *Annual Review of Psychology* 38: 631-668.
- Kiesler, S. and L. Sproull. 1982. Managerial response to changing environments: Perspectives on problem sensing from social cognition. *Administrative Science Quarterly* 27: 548-570.
- Kim, D. 1993. The link between individual and organizational learning. *Sloan Management Review* Fall: 37-50.
- Klimoski, R. and S. Mohammed. 1994. Team mental model: Construct or metaphor? *Journal of Management* 20 (2): 403-437.
- Kofman, F. and P. Senge. 1992. Communities of Commitment: The heart of learning organizations. *Organization Dynamics* 29: 5-23.
- Kogut, B. and U. Zander. 1996. What firms do? Coordination, identify, and learning. *Organization Science* 7(5): 502-518.
- Kohli, A. and B. Jaworski. 1990. Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing* 54: 1-18.

- Kohli, A., B. Jaworski, and A. Kumar. 1993. MARKOR: A measure of market orientation. *Journal of Marketing Research* 30: 467-477.
- Kuhn, T. *The Structure of Scientific Revolutions*, 2nd ed., Chicago: University of Chicago Press.
- Lawrence, P. and J. Lorsch. 1967. *Organization and Environment*. Cambridge, MA: Harvard Graduate School of Business Administration.
- Lawson, R. and C. Ventriss. 1992. Organizational change: The role of organizational culture and organizational learning. *The Psychological Record* 42: 205-219.
- Lawton, L. and A. Parasuraman. 1980. The impact of the marketing concept on new product planning. *Journal of Marketing* 44: 19-25.
- Lee, S., J. Courtney Jr., and R. O'Keefe. 1992. A system for organizational learning using cognitive maps. *Omega* 20 (1): 23-36.
- Leonard-Barton, D. 1992. The factory as a learning laboratory. *Sloan Management Review* Fall: 23-38.
- Levinthal, D. A. and J. G. March. 1993. The myopia of learning. *Strategic Management Journal* 14: 95-112.
- Levitt, B. and J. March. 1988. Organizational learning. *Annual Review of Sociology* 14: 319-340.
- Lewin, K. 1952 *Field Theory in Social Science*. London: Tavistock Publications.
- Lipshitz, R., M. Popper, and S. Oz. 1996. Building learning organizations: The design and implementation of organizational learning mechanisms. *Journal of Applied Behavioral Science* 32 (3): 292-305.
- Lukas, B., G. Hult, and O. Ferrell. 1996. A theoretical perspective of organizational learning in marketing channels. *Journal of Business Research* 36: 233, 244.
- MacDonald, S. 1995. Learning to change: An information perspective on learning in the organization. *Organization Science* 6(5): 557-568.

- Maltz, E. and A. Kohli. 1996. Market intelligence dissemination across functional boundaries. *Journal of Marketing Research* 33 February: 47-61.
- Mansfield, E. 1978. PCR: Principal component regression analysis. *Journal of Marketing Research* 15: 151-159.
- March, J. 1991. Exploration and exploitation in organizational learning. *Organization Science* 2 (1): 71-86.
- March, J. and J. Olsen. 1975. The uncertainty of the past: Organizational learning under ambiguity. *European Journal of Political Research* 3: 147-171.
- Marsick, V. and K. Watkins. 1994. The learning organization: An integrative vision for HRD. *Human Resource Development Quarterly* 5 (4): 353-360.
- Mathieu, J. and D. Zajac. 1990. A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin* 108 (2): 171-194.
- McDaniel, S. and J. Kolari. 1987. Marketing strategy implications of the Miles and Snow strategy typology. *Journal of Marketing* 51: 19-30.
- McGill, M. and J. Slocum. 1993. Unlearning the Organization. *Organization Dynamics* 30: 67-78.
- McKee, D. 1992. An organizational learning approach to product innovation. *Journal of Product Innovation Management* 9: 232-245.
- McKee, D., R. Varadarajan, and W. Pride. 1989. Strategic adaptability and firm performance: A market-contingent perspective. *Journal of Marketing* 53: 21-35.
- Meyer, A. 1982. Adapting to environmental jolts. *Administrative Science Quarterly* 27: 515-537.
- Miller, D. 1996. A preliminary typology of organizational learning: Synthesizing the literature. *Journal of Management* 22 (3): 485-505.

- Miller, D., T. Lant, F. Milliken, and H. Korn. 1996. The evolution of strategic simplicity: Exploring two models of organizational adaption. *Journal of Management* 22 (6): 863-887.
- Miles, R. and W. Randolph. 1980. Influence of organizational learning styles of early development. In *The Organizational Life Cycle*, ed. J. H. Kimberly and R. H. Miles and Associates, 44-82. San Francisco: Jossey-Bass.
- Mills, D. and B. Friesen. 1992. The learning organization. *European Management Journal* 10 (2): 146-156.
- Miner, A., I. Holzinger, J. Kim, and P. Haunschild. 1996. Fruits of failure: Organizational failure and population level learning. Presented at the Academy of Management, Annual Meeting, Cincinnati.
- Miner, A. and S. Mezias. 1996. Ugly duckling no more: Pasts and futures of organizational learning research. *Organization Science* 7 (1): 88-99.
- Mirvis, P. 1996. Historical foundations of organizational learning. *Journal of Organizational Change* 9 (1): 13-31.
- Moorman, C. 1995. Organizational market information processes: Cultural antecedents and new product outcomes. *Journal of Marketing* 32: 318-335.
- Morris, J., J. Sherman, and E. Mansfield. 1986. Failure to detect moderation effects with ordinary least squares-moderated multiple regression: Some reasons and a remedy. *Psychological Bulletin* 99 (2): 282-288.
- Morrow, P. 1993. *The Theory and Measurement of Work Commitment*. Greenwich, CT: JAI Press.
- Mowday, R., L. Porter, and R. Steers. 1982. *Employee-Organization Linkages*. New York: Academic Press.
- Mumford, A. 1992. Individual and organizational learning. *Management Decision* 30 (6): 143-148.
- Narver, J. and S. Slater. 1990. The effect of market orientation on business profitability. *Journal of Marketing* 54: 20-34.

- Nicolini, D. and M. Mezner. 1995. The social construction of organizational learning: Conceptual and practical issues in the field. *Human Relations* 48 (7): 727-746.
- Nonaka, I. 1994. A dynamic theory of organizational knowledge creation. *Organization Science* 5 (1): 14-37.
- Nunnally, J. 1978. *Psychometric Theory*, 2nd edition, New York: McGraw-Hill Book Company.
- Nystrom, P. and W. Starbuck. 1984. To avoid organizational crises, unlearn. *Organizational Dynamics* 12 (4): 53-65.
- O'Brien, M. 1994. *Learning Organization Practices Profile*. San Diego: Pfeiffer and Company.
- Pareek, U. 1988. Organizational-learning diagnostics (OLD): Assessing and developing organizational learning. In the *1988 Annual: Developing Human Resources*, 125-135. San Diego: Pfeffer and Co.
- Parker, C. 1996. A personal construct approach to organizational sensemaking and psychological climate. Presented at the Academy of Management Annual Meeting, Cincinnati, OH.
- Pedler, M., J. Burgoyne, and T. Boydell. 1991. *The Learning Company*. New York: McGraw-Hill.
- Peters, J. 1979. Reliability: A review of psychometric basics and recent marketing practices. *Journal of Marketing Research* 16 February: 6-17.
- Peters, J. 1981. Construct validity: A review of psychometric basics and recent marketing practices. *Journal of Marketing Research* 18 May: 133-145.
- Porter, L., R. Steers, R. Mowday, and P. Boullian. 1974. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology* 59: 603-609.
- Prahalad, C. and R. Bettis. 1986. The dominant logic: A new linkage between diversity and performance. *Strategic Management Journal* 7: 485-501.

- Price, I. 1996. Organizational memetics? Organizational learning as a selection process. *Management Learning* 26 (3): 299-318.
- Redding, J. and R. Catalanello. 1994. *Strategic Readiness: The Making of the Learning Organization*. San Francisco: Josey-Bass Publishers.
- Richards, G. 1994. Organizational learning in the public sector: From theory to practice. *Optimum: The Journal of Public Sector Management* Winter: 3-8.
- Richards, G. and S. Goh. 1995. Implementing learning organization towards a systematic approach. Accepted for publication *Optimum*, Fall/Winter.
- Rouse, W. and N. Morris. 1986. On looking into the black box: Prospects and limits in the search for mental models. *Psychological Bulletin* 100 (3): 349-363.
- Rowe, A. and N. Cooke. 1995. Measuring mental models: choosing the right tools for the job. *Human Resource Development Quarterly* 6 (3): 243-255.
- Ruekert, R. W. 1992. Developing a market orientation: An organizational strategy perspective. *Journal of Research in Marketing* 9: 225-245.
- Ruekert, R. W. and O. Walker. 1987. Marketing's interaction with other functional units: A conceptual framework and empirical evidence. *Journal of Marketing* 51: 19-19.
- Salancik, G. and J. Pfeffer. 1978. A social information processing approach to job attitudes and task design. *Administrative Science Quarterly* 23: 224-253.
- Sandelands, L. and R. Stablein. 1987. The concept of organization mind. *Research in the Sociology of Organizations* 5: 135-161.
- Saunders, D. 1956. Moderator variables in prediction. *Educational and Psychological Measurement* 16: 209-222.
- Schein, E. 1985. *Organizational Culture and Leadership*. San Francisco: Josey-Bass.

- _____. 1993a. On dialogue, culture, and organizational learning. *Organizational Dynamics* 40-51.
- _____. 1993b. How can organizations learn faster? The challenge of entering the green room. *Sloan Management Review* Winter: 85-92.
- _____. 1996. Three cultures of management: The key to organizational learning. *Sloan Management Review* Fall: 9-20.
- Schwenk, C. 1988. The cognitive perspective on strategic decision making. *Journal of Management Studies* 25 (1): 41-55.
- Senge, P. 1990a. *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York, NY: Currency/Doubleday, Publishers.
- _____. 1990b. Building learning organizations. *Sloan Management Review* Fall: 7-23.
- _____. 1992. Mental models. *Planning Review*, April/May 4-10: 44.
- _____. 1993. Transforming the practice of management. *Human Resource Development Quarterly* 4 (1): 5-32.
- Sharma, S., R. Durand, and O. Gur-Arie. 1981. Identification and analysis of moderator variables. *Journal of Marketing Research* 18: 291-300.
- Shaw, R. B. and D. N. T. Perkins. 1991. Teaching organizations to learn. *Organizational Development Journal* 9 (4): 1-12.
- Shrivastava, P. 1983. A typology of organizational learning systems. *Journal of Management Studies* 20 (1): 7-28.
- Siguaw, J., G. Brown, and R. Widing III. 1994. The influence of the market orientation of the firm on sales force behavior and attitudes. *Journal of Marketing Research* 31 (February): 106-116.
- Simon, H. 1991. Bounded rationality and organizational learning. *Organization Science* 2 (1): 125-134.

- Sinkula, J. 1994. Market information processing and organizational learning. *Journal of Marketing* 58: 35-45.
- Slater, S. and J. Narver. 1994. Does competitive environment moderate the market orientation-performance relationship? *Journal of Marketing* 58: 46-55.
- _____. 1995. Market orientation and the learning organization. *Journal of Marketing* 59: 63-74.
- Smircich, L. 1983. Concepts of culture and organizational analysis. *Administrative Science Quarterly* 28: 339-358.
- Smircich, L. and C. Stubbart. 1985. Strategic management in an enacted world. *Academy of Management Review* 10 4: 724-736.
- Smith, P, L. Kendall, and C. Hulin. 1969. *The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes*. Chicago: Rand McNally.
- Solomon, C. 1994. HR facilitates the learning organization concept. *Personnel Journal* November: 56-66.
- Srivastava, S., D. Bilimoria, D. Cooperrider, and R. Fry. 1995. Management and organization learning for positive global change. *Management Learning* 26 (1): 37-54.
- Starbuck, W. 1973. Designing adaptive organizations. *Journal of Business Policy* 3 (4): 21-28.
- Starbuck, W., A. Greve, and B. Hedberg. 1978. Responding to crisis. *Journal of Business Administration* Spring: 111-137.
- Starbuck, W. and F. Milliken. 1988. Executives' perceptual filters: What they notice and how they make sense. In *The Executive Effect: Concepts and Methods for Studying Top Managers*, ed. D. Hambrick, 35-65. Greenwich, CT: JAJ Press.
- Stata, R. 1989. Organizational learning - The key to management innovation. *Sloan Management Review* Spring: 63-73.

- Stewart, T. 1994. Your company's most valuable asset: Intellectual capital. *Fortune* 130 (7): 68-74.
- Sujan, H., B. Weitz, and N. Kumar. 1994. Learning orientation, working smart, and effective selling. *Journal of Marketing* 58 (Summer): 39-52.
- Thomas, J., S. Clark, and D. Giola. 1993. Strategic sensemaking and organizational performance: Linkages among scanning, interpretation, action, and outcomes. *Academy of Management Journal* 36 (2): 239-270.
- Ticehurst, B. and A. Ross-Smith. 1992. Communication satisfaction, commitment, and job satisfaction in Australian organizations. *Australian Journal of Communication* 19 (1): 130-144.
- Treadwell, D. and T. Harrison. 1994. Conceptualizing and assessing organizational image: Model images, commitment, and communication. *Communication Monographs* 61: 63-77.
- Tushman, M. and T. Scanlon. 1981. Boundary spanning individuals: Their role in information transfer and their antecedents. *Academy of Management Review* 24 (2): 289-305.
- Ulrich, D., T. Jick, and M. Von Glinow. 1994. High-impact learning: Building and diffusing learning capability. *Organization Dynamics* 31: 52-66.
- Vandenberg, R. and C. Lance. 1992. Examining the causal order of job satisfaction and organizational commitment. *Journal of Management* 18 (1): 153-167.
- Van de Ven, A. and D. Polley. 1992. Learning while innovating. *Organization Science* 3 (1): 92-113.
- Venkatraman, N. 1989a. The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review* 14 (3): 423-444.
- _____. 1989b. Strategic orientation of business enterprises: The construct, dimensionality, and measurement. *Management Science* 35 (8): 942-962.

- _____. 1990. Performance implications of strategic coalignment: A methodological perspective. *Journal of Management Studies* 27 (1): 19-41.
- Virany, B., M. Tushman, and E. Romanelli. 1992. Executive succession and organization outcomes in turbulent environments: An organization learning approach. *Organization Science* 3 (1): 72-93.
- Walker, O. and R. Ruekert. 1987. Marketing's role in the implementation of business strategies: A critical review and conceptual framework. *Journal of Marketing* 51: 15-33.
- Walsh, J. 1988. Selectivity and selective perception: An investigation of managers' belief structures and information processing. *Academy of Management Journal* 31 (4): 873-896.
- Walsh, J. and G. Ungson. 1991. Organizational memory. *Academy of Management Review* 16 (1): 57-91.
- Weick, K. 1979. *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley.
- Wick, C. and L. Leon. 1995. From ideas to action: Creating a learning organization. *Human Resource Management* 34 (2): 299-311.
- Wright, P. 1990. Teller job satisfaction and organization commitment as they relate to career orientations. *Human Relations* 43 (4): 369-381.
- Wright, P., M. Kroll, B. Pray, and A. Lado. 1995. Strategic orientations, competitive advantage, and business performance. *Journal of Business Research* 33: 143-151.
- Yelle, L. 1979. The learning curve: Historical review and comprehensive survey. *Decision Sciences* 10: 302-328.
- Zedeck, S. 1971. Problems with the use of moderator variables. *Psychological Bulletin* 76 (4): 295-310.