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Moderating effects of vertical exchange relationship on the relationship between firm market orientation and selected salesperson role variables

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MODERATING EFFECTS OF VERTICAL EXCHANGE RELATIONSHIP ON THE RELATIONSHIP BETWEEN FIRM MARKET ORIENTATION AND SELECTED SALESPERSON ROLE VARIABLES

by

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ABSTRACT

The purpose of this dissertation is to examine the moderating effects of identified dimensions of vertical exchange relationship (VER) between firm market orientation and the salesperson role variables of job satisfaction, organizational commitment, role ambiguity and role conflict. The sample utilized in this dissertation is the salesforce of a major United States publishing company. Moderated regression analysis is used to determine moderating effects. Three dimensions of vertical exchange relationship are identified using factor analysis and are labeled work, loyalty and congruence. The results indicate that the work dimension is a moderator of the relationship between market orientation and job satisfaction. It is concluded that market orientation could play a role in overcoming job dissatisfaction caused by a poor salesperson/sales manager work relationship and that the other relationships between market orientation and the role variables do not vary with the level of any of the VER dimensions. Other results indicate that the work dimension is a partial mediator between the relationships of market orientation and, each of, job satisfaction, organizational commitment and role ambiguity. Additionally, the loyalty dimension is a partial mediator of the relationship between market orientation and job satisfaction and the congruence dimension is a partial mediator of the relationship between market orientation and both job satisfaction and role ambiguity.

It is with great love and appreciation

that this dissertation is dedicated

to my parents,

Frank and Chursey Fountain

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CHAPTER 1

INTRODUCTION

The purpose of this chapter is to serve as an introduction to this dissertation which examines the moderating effect of the vertical exchange relationship on the relationship between firm market orientation and selected salesperson role variables. These role variables include role ambiguity, role conflict, job satisfaction and organizational commitment. This chapter first introduces the primary variables included in the model. Each of these variables is defined and a general framework of the present research is presented. This is followed by a discussion of the weaknesses of the existing research and then by a statement of the problem addressed by this dissertation. Next, the intended objectives of the study are discussed. Finally, the contributions of the study and the plan of the study are noted.

Variables in the Study

This dissertation draws from three areas of research. One stream of research includes the role variables of role ambiguity, role conflict, job satisfaction and organizational commitment. A second stream of research is that of market orientation. The final stream of research is that of the vertical exchange relationship.

Role Variables

"Role" Defined. Rizzo, House and Lirtzman (1970) define a role as "a set of expectations about behavior for a position in a social structure" (155). Kaufman, Lane and Lindquist (1991) write, "Roles define what must be done and often establish the priorities and schedules for carrying out necessary activities" (393). Reilly (1982) states, "Role theory attempts to explain how social structure influences behavior" (407).

In sociology five types of social institutions are generally considered to conceptualize the social structure (Reilly 1982). These social institutions are the family, the economic system, the political system, the educational system, and religious institutions. Each of these institutions consists of interrelating positions and individuals in society generally occupy positions in more than one institution (Reilly 1982).

A position within a social system is simply the behavior expected of a particular institutional member. Positions, or behaviors expected, may vary from member to member within a particular system; and different individuals may enact similar positional expectations differently. Role ambiguity, role conflict, organizational commitment and job satisfaction come from these ideas.

Role Ambiguity. Rizzo, House and Lirtzman (1970, 155-56) define role ambiguity

> . . . in terms of (1) the predictability of the outcome or responses to one's behavior and (2) the existence or clarity of behavioral requirements, often in terms of inputs from the environment, which would serve to guide behavior and provide knowledge that the behavior is appropriate.

In the workplace role ambiguity means uncertainty about such matters as duties, relationships with others, authority and allocation of time. Also included in role ambiguity would be concerns about the clarity or existence of guidelines, policies and directives and the ability to anticipate outcomes of behavior (Rizzo, House and Lirtzman, 1970).

Role Conflict. Role conflict is defined

> . . . in terms of the dimensions of congruency-incongruency or compatibility-incompatibility in the requirements of the role, where congruency or compatibility is judged relative to a set of standards or conditions which impinge upon role performance (Rizzo, House and Lirtzman, 1970, 155).

In the workplace, a variety of situations of incompatibility or incongruence could lead to a situation of role conflict. Some examples from Rizzo, House and Lirtzman (1970, 155) are:

> 1. Conflict between the focal person's internal standards or values and the defined role behavior.
>
> 2. Conflict between the time, resources, or capabilities of the focal person and defined role behavior.
>
> 3. Conflict between several roles for the same person which requires different or incompatible behaviors, or changes in behavior as a function of the situation.

> 4. Conflicting expectations and organizational demands in the form of incompatible policies, conflicting requests from others and incompatible standards.

Job Satisfaction. Job satisfaction is defined by Smith, Kendall and Hulin (1969) as

> . . . feelings a worker has about his job (12). . . . These feelings are thought to be associated with perceived differences between what is expected and what is experienced in relation to the alternatives available in a given situation (37).

They add that people can feel different ways about different parts of their job. For that reason, when one measures job satisfaction, different aspects of the job are generally measured. Smith, Kendall and Hulin (1969) consider five aspects of one's job in determining job satisfaction. These five aspects are the work itself, pay, supervision, promotion opportunities and co-workers.

Organizational Commitment. Organizational commitment is defined by Porter, Steers, Mowday and Boulian (1974) as "the strength of an individual's identification with and involvement in a particular organization" (604). In Mowday, Steers and Porter (1979) they state,

> When defined in this fashion, commitment represents something beyond mere passive loyalty to an organization. It involves an active relationship with the organization such that individuals are willing to give something of themselves in order to contribute to the organization's well being. Hence, to an observer, commitment could be inferred not only from the expressions of an individual's beliefs and opinions, but also from his or her actions (226).

Market Orientation

Market orientation is defined by Narver and Slater (1990, 21) as

> . . . the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business.

They suggest that market orientation is made up of three behavioral components and two decision criteria. The behavioral components are customer orientation, competitor orientation and interfunctional coordination. The decision criteria are long-term focus and profitability.

Another popular definition of market orientation comes from Kohli and Jaworski (1990). They define market orientation as "the organizationwide generation, dissemination, and responsiveness to market intelligence" (3).

In recent times researchers have found a robust relationship between market orientation and performance (Narver and Slater 1990; Jaworski and Kohli 1993; Slater and Narver 1994). This relationship had long been theorized by practitioners and scholars alike, but never empirically demonstrated. The unexpected finding has been that the relationship is not moderated by various environmental factors as people believed to be true (Slater and Narver, 1994).

Vertical Exchange Relationship

Tanner, Jr., Weeks and Nantel (1995) suggest that vertical exchange theory (generally called leader member exchange in the organizational behavior literature) can be defined as "the role-making process based upon the exchange of support between the sales manager and the salesperson" (291). In the words of Tanner, Jr. and Castleberry (1990, 18),

> The exchange relationship, based on exchange of work support, is formed between manager and subordinate by the give and take of tasks, rewards, and penalties over time. These relationships can be considered as existing on a continuum, ranging from a high quality of exchange relationship (a cadre relationship) to a low quality exchange (a hired-hand relationship).

The basic premise of vertical exchange is that sales managers do not employ an overall leadership style, but rather treat each salesperson differently based on their exchange relationship (Castleberry and Tanner, Jr. 1986; Lagace, Castleberry and Ridnour 1993). In exchange for doing work outside of the formal job description, cadres receive rewards from the sales manager such as more support, information, latitude and attention (Lagace 1990). The opposite is true for the "hired-hand" whose work is limited to the formal job description and whose associated role-making process is limited to the formal training, socialization and management procedures (Tanner, Jr., Dunn and Chonko 1993). The result is that "Management of cadres is more open and trusting using influence not based on authority. Hired-hands, however, are supervised and perhaps even coerced" (Tanner, Jr. and Castleberry 1990, 18).

The importance of this relationship to the present study is expressed by Tanner, Jr., Dunn and Chonko (1993, 27-28).

> The value of Vertical Exchange (VE) Theory lies in the depiction of the process by which sales managers interact with salespeople. The sales manager/salesperson relationship serves as a role-making process for the subordinate. This role-making process is based upon the exchange of support between manager and

salesperson. As communication and work output is exchanged along with social support, roles within the relationships are defined. These roles may be limited to formal job descriptions or expanded.

In summarizing this section, the basic idea of the study and a framework for the study are presented in Figure 1.1. The basic idea of the study is to see if the relationships between market orientation (a desired set of behaviors or roles) and the role variables (outcomes of the various ways people select and carry out their roles) are influenced by the vertical exchange relationship (a role-making process). The next section examines the need for further research exploring the relationship among these constructs.

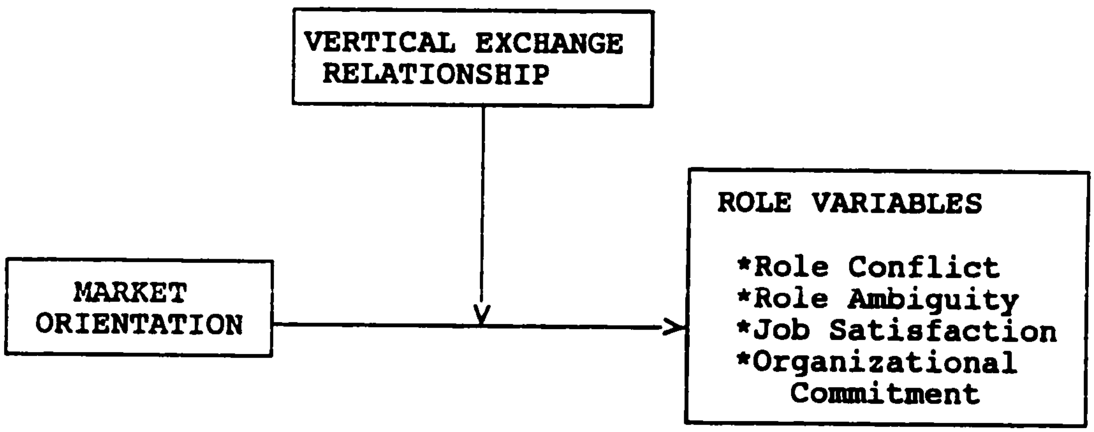

Figure 1.1

Framework for the Study

The Need for Further Research

There is a lack of research in the area of sales/sales management where these three streams of research - role variables, market orientation, vertical exchange relationship - intersect. Several studies have investigated the relationship between vertical exchange relationship and the role variables. Research indicates that the vertical exchange relationship reduces role ambiguity and role conflict (Tanner, Jr. and Castleberry 1990; Tanner, Jr., Dunn and Chonko 1993) and increases job satisfaction (Lagace 1990; Tanner, Jr. and Castleberry 1990) and organizational commitment (Castleberry and Tanner, Jr. 1988-89).

To date, little research has investigated the relationship between market orientation and the role variables. Siguaw, Brown and Widing, II (1994) demonstrated that market orientation reduces role ambiguity and role conflict and increases job satisfaction and organizational commitment. Kohli and Jaworski (1990) posited relationships between market orientation and both job satisfaction and organizational commitment of employees. The same researchers provided evidence of a relationship between market orientation and organizational commitment (Jaworski and Kohli 1993). The results of these studies need to be expanded.

An area where there is a need for research, suggested by Castleberry and Tanner, Jr. (1986), is considering vertical exchange relationship as a moderator variable. As a moderator variable, vertical exchange relationship could help explain much of the unaccounted for variance in relationships between role variables and their antecedents and consequents. In the case of the variables of interest in this study, research needs to be done considering whether or not vertical exchange relationship influences the relationships between market orientation and the role variables.

Another area where there is a need for research is in exploring the dimensionality of vertical exchange relationship. Additionally, there is a need to determine if identified dimensions have different effects on the performance, behaviors, attitudes and lives of salespeople.

Statement of the Problem

The relationship between vertical exchange relationship and the role variables is established. The relationship between market orientation and the role variables is established. To date, few of these studies have considered moderators of the relationship between market orientation and the role variables. In particular, the vertical exchange relationship has not been studied as a moderator variable. Therefore, the problem to be addressed in this study is that of determining if vertical exchange relationship moderates the relationship between market orientation and the role variables.

Objectives of the Study

The major objective of this study is to empirically determine if the previously reported relationships between market orientation and the role variables mentioned above and shown in Figure 1.1 are moderated by vertical exchange relationship. Other objectives are to examine the relationships between market orientation and the role variables and the relationships between vertical exchange relationship and the role variables. An additional objective of the study is to provide implications to both scholars and practitioners based on the empirical findings.

Contributions of the Study

The results of this study should increase knowledge in three streams of literature - market orientation, role variables, and vertical exchange relationship. This research is among the first to consider vertical exchange relationship as a moderating variable and, more specifically, the first to consider it as a moderating variable in the relationships between marketing orientation and the role variables. The results should help both scholars and practitioners to better understand the process (vertical exchange relationship) of creating desired behaviors (market orientation) and the effect of this on their salesforce (role variables). The results should help guide scholars in conducting further research involving these three streams of research. For practitioners, the results should have implications towards how they operate in vertical relationships and towards what kind of relationships are the most desirable in certain situations.

Plan of the Study

Selected relationships among market orientation; "role variables" including role ambiguity, role conflict, job satisfaction and organizational commitment; and vertical exchange relationship will be studied. Literature related to the variables is presented in Chapter 2. Information regarding formal hypotheses, operationalization of the variables; historical reliability and validity of the measures employed; data collection techniques and statistical methodology are discussed in Chapter 3. Data analysis will be presented in Chapter 4. Chapter 5 will present final conclusions, implications, limitations and recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

The purpose of this chapter is to highlight what has been studied and established in three streams of literature relevant to the current study. These three streams of literature are role variables, market orientation and vertical exchange relationship. To paraphrase Mathieu and Zajac (1990, 171), given the amount of speculation concerning the role of the variables in this study on the performance of individuals and organizations and the amount of research devoted to them in recent years, it is useful to consider what is known about the concepts in order to identify the most fruitful avenues for future research. Information that is known about the concepts is presented in this chapter and is presented in three sections.

The first section examines the role variables included in the study. The specific role variables to be highlighted are role conflict and role ambiguity as enunciated by Rizzo, House and Lirtzman (1970); job satisfaction as articulated by Smith, Kendall and Hulin (1969); and organizational commitment as developed by Porter, Steers, Mowday and Boulian (1974). Each group of researchers has defined and developed measures of the concept with which they are associated.

The second section examines the market orientation concept as voiced by Kohli and Jaworski (1990), Kohli, Jaworski and Kumar (1993) and Narver and

Slater (1990). The efforts of these researchers were directed to developing conceptualizations and measures of the market orientation concept. Results of studies concerning the market orientation concept will be presented.

The final section examines vertical exchange relationship (VER) as a link between the sales manager and the salespeople they supervise. This section will present vertical exchange relationship as it has evolved from the vertical dyad and leader member exchange (LMX) ideas found in organizational theory research to the vertical exchange relationship research of the sales/sales management literature. A number of studies utilizing this concept in the sales area will be presented.

Role Variables

This first section of Chapter 2 is concerned with concepts labeled role conflict, role ambiguity, organizational commitment and job satisfaction and has, for each variable, four purposes. The first purpose is to examine the genesis of the most commonly used multi-item measures of these variables. In developing a measure of the various constructs, the originators of the measures also defined and developed the domains of the constructs to the extent that their work provided a significant boost, if not beginning, to research utilizing the construct. The intent in this section is to focus on the meaning of the constructs rather than the measures of the constructs. The measures are discussed in Chapter 3.

A second purpose is to indicate the importance of these variables in sales research. A third purpose is to give an indication of the amount of research effort devoted to these variables. A fourth purpose is to provide research findings relevant to the current study. In achieving the last three purposes, well-known, frequently cited meta-analysis and major review articles and/or current articles from the marketing literature will be utilized.

To paraphrase Smith, Kendall and Hulin (1969, 3), the necessity for defining and measuring these variables follows directly from the importance of these variables. In other words, because practitioners and researchers considered them to be important, it became necessary to not only define the constructs represented by the variables, but to develop ways of measuring the variables. Once the variables could be measured, knowledge of their relationships with other concepts and ideas could be developed in a variety of settings and industries, including marketing in general and sales in particular.

Role Ambiguity and Role Conflict

Concept Development. Rizzo, House and Lirtzman (1970) traced the ideas of role conflict and role ambiguity to roots in classical organizational theory and role theory in developing scales to measure the two constructs. They suggested that role ambiguity results from individuals not having a specific set of tasks, responsibilities and/or formal role requirements for which management would hold them accountable and give specific guidance, direction and information toward their accomplishment of the tasks, responsibilities and/or formal role requirements. Ambiguity occurs from employees not knowing or not understanding their authority, not knowing what is expected of them and/or not knowing how they will be judged (Rizzo, House and Lirtzman 1970). Ambiguity, then,

> . . . should increase the probability that a person will be dissatisfied with his role, will experience anxiety, will distort reality and will thus perform less effectively (151).

It was the contention of Rizzo, House and Lirtzman (1970) that when the principle of chain of command and/or the principle of unity of command were violated, role conflict occurred because the behaviors expected of an individual were not consistent among those to whom the subordinate must then answer. The worker then experiences stress, becomes dissatisfied and performs less effectively. In relating role ambiguity and role conflict to member satisfaction and performance, Rizzo, House and Lirtzman (1970) concluded that role ambiguity and role conflict are

> . . . associated with decreased satisfaction, coping behavior that would be dysfunctional for the organization, and experiences of stress and anxiety (154) . . . that results in undesirable consequences for both organizational members and for organizational performance (154).

Importance, Research Effort, Findings. Role theory has become, to sales researchers, a valuable and often-used tool helping establish understanding and theory.

> Few studies of salesperson performance, job satisfaction or turnover would be complete without a consideration of the influence of the role stress variables of role conflict and role ambiguity. Sales researchers have a rich foundation of conceptual and empirical work on which to base their investigations, since over 100 individual studies and several major review articles have been published that focus on these two constructs (Shepherd and Fine 1994, 57).

Role ambiguity and role conflict have been labeled "pivotal constructs in our understanding of job performance and satisfaction" (Shepherd and Fine 1994, 59) that have, on average, more correlation with job satisfaction than organizational variables, supervisory behaviors, job/task variables or individual differences (Shepherd and Fine 1994). Rhoads, Singh and Goodell (1994) suggested that in recent times marketers have shown an "increased interest in applying role theory to describe and explain the satisfaction and performance of salespeople" (1). They stated (cites are omitted),

> Specifically, role variables have been found to be salient predictors of salesperson performance, satisfaction, turnover, job tension, and organizational commitment (1).

In a meta-analysis, Jackson and Schuler (1985) identified "almost 200 studies" (17) which utilized measures of role conflict and role ambiguity. Of these articles 96 reported sample sizes and correlation coefficients and were included in the meta-analysis. As a result, they studied 29 correlates of role ambiguity and role conflict. The correlates were categorized into four groups including (1) organizational context variables, (2) individual characteristics, (3) affective reactions and (4) behavioral reactions. The correlations corrected for artifact errors (sampling errors, range restriction, unreliability of measurement, variations in these across studies) were used in compiling Tables 2.1 and 2.2 and for the discussion that follows.

Table 2.1

Summary of Meta-analysis Results for Correlates of Role Ambiguity

	Small (0-.20)	Moderate (.21-.40)	Large (over .40)
Organizational Context	-Task/Skill Variety Level	-Autonomy	-Feedback from Others -Feedback from Task -Task Identity -Leader Initiating Structure -Leader Consideration -Participation -Formalization
Individual Characteristics	-Tenure Education	Locus of Control -Age -Self-Esteem	
Affective Reactions			
Job Satisfaction		-Co-workers -Pay	-General Supervision -Work Itself -Advancement
Others		Propensity to Leave	Role Conflict Tension/Anxiety -Commitment -Involvement
Behavioral Reactions			
Performance	-Objective -Other's Ratings	-Self-ratings	
Other	Absence		

- indicates negative correlation

NOTE: As suggested by Cohen (1969), corrected correlations in the range of 0-.20 are considered to be small, between .21 and .40 as medium or moderate and above .40 to be large.

SOURCE: Jackson and Schuler 1985 (Table 2, 23)

Table 2.2

Summary of Meta-analysis Results for Correlates of Role Conflict

	Small (0-.20)	Moderate (.21-.40)	Large (over .40)
Organizational Context	Task/Skill Variety -Level -Formalization	-Feedback from Others -Feedback from task -Leader Initiating Structure -Participation	-Task Identity -Leader Consideration
NOTE: no correlation was found for Autonomy			
Individual Characteristics	Tenure Education -Age	Locus of Control	
NOTE: no studies were reported using Self-esteem			
Affective Reactions			
Job Satisfaction		-Advancement -Pay	-General Supervision -Work Itself -Co-workers
Others		Propensity to Leave -Commitment -Involvement	Role Ambiguity Tension/ Anxiety
Behavioral Reactions			
Performance	Objective -Other's Ratings -Self-ratings		
Other	-Absence		

- indicates negative correlation

NOTE: As suggested by Cohen (1969), corrected correlations in the range of 0-.20 are considered to be small, between .21 and .40 as medium or moderate and above .40 to be large.

SOURCE: Jackson and Schuler 1985 (Table 2, 253)

In general, the results showed that the direction of correlations was the same for all the variables except task/skill variety. Task/skill variety was negatively correlated with role ambiguity and positively correlated with role conflict. The researchers indicated that the strength of the correlations was observably stronger for role ambiguity than role conflict in general and particularly in cases of association with autonomy, feedback from others, feedback from the task, initiating structure, participation, formalization, tenure, involvement, age and self reported performance.

The meta-analysis indicates that both role conflict and role ambiguity showed more correlation with the organizational context variables than with the individual characteristics variables. The role variables also showed more correlation with the affective reaction variables (mostly measures of job satisfaction) than with the behavioral reaction variables (mostly measures of performance). The results also indicated that the potential antecedents and consequents of role ambiguity and role conflict were likely to be influenced by moderator variables. Of the 29 correlates examined, the number with a percentage of variance unaccounted for after correcting for artifact error was great enough (over 25%) to indicate the presence of moderators for 25 of the associations with role ambiguity and for 17 of the associations with role conflict. Based on the results of their meta-analysis, Jackson and Schuler (1985) offered a number of suggestions for future research including the following:

1. Researchers examine the results of their study with an eye toward replacing bivariate studies using role conflict and role ambiguity with "theoretically based moderator studies . . . before conducting another role ambiguity or role conflict study" (45).

2. Using causal designs, rather than cross-sectional designs, and including moderator variables in the causal designs (45).

3. Treating role conflict and role ambiguity as separate constructs with separate hypotheses because they are "two theoretically different constructs" (46).

Despite the research conducted thus far, there are those who believe that there is still much left to discover. Shepherd and Fine (1994) suggested "Efforts to better understand role stress and its measurement are justified and are critical to a continued effort to understand selling performance and job satisfaction" (64). This came a decade after Jackson and Schuler (1985) stated "It is concluded that while a great deal is known about role ambiguity and role conflict in the organizational sciences much remains to be learned" (16).

Job Satisfaction

Concept Development. Smith, Kendall and Hulin (1969) conceptualized and devised a measure of job satisfaction so that a general theory would be established as a basis for practical action and future research. In establishing their measure, called the Job Descriptive Index (JDI), they defined job satisfaction as "the feelings a worker has about his job" (6) and posited a much more complex formulation of satisfaction than that in current use.

The current formulation revolved around the idea that improving conditions of the workers would result in increased satisfaction, then increased effort, increased productivity and improved profit-and-loss statements (Smith, Kendall and Hulin 1969). In developing their measure, they initially identified four important areas of satisfaction including work, pay and promotions (a combined area), supervision and co-workers. However, the results of preliminary analysis showed pay and promotions to be two factors. Therefore, their final analysis and final scale consists of five, rather than four, factors. They explained their choice of factors:

> We recognize that these factors do not specify completely the general construct of job satisfaction. We feel, however, that these are the five areas which will be most discriminably different. . . . By necessity we have been forced to investigate only a limited number of factors. . . While recognizing the incompleteness of our list of factors, we nonetheless feel that these five areas of satisfaction are of primary importance across the range of conditions we wish to study (30).

Measures of job satisfaction existed before Smith, Kendall and Hulin (1969) developed the Job Description Index and other measures have been devised since. However, an immediate result of the introduction of the JDI measure was

> . . . to whet the intellectual anticipation of those of us in the areas of industrial and organizational psychology who have puzzled over the nature and measurement of satisfaction in the work situation (Porter 1969, v in Smith, Kendall and Hulin 1969).

Porter went on to predict the measure would "provide stimulation and, indeed, leadership, in this area for years to come" (vi).

Today, the JDI is one of the two most common ways of measuring job satisfaction (Brown and Peterson 1993) suggesting that the definition and measure did, as Porter (1969) predicted, provide stimulation and leadership in the area of job satisfaction.

Importance, Research Effort, Findings. Smith, Kendall and Hulin (1969) put the importance of the study of job satisfaction into, perhaps, the most simple and general terms possible.

> . . . we should not forget that the improvement of satisfaction is of humanitarian value. Trite as it may seem, satisfaction is a legitimate goal in itself. The topic, therefore, is of general importance (3).

An indication of the importance and amount of research effort in the area of job satisfaction of salespeople is provided by Brown and Peterson (1993) who called job satisfaction "one of the most widely studied constructs in salesforce research" (63).

Brown and Peterson (1993) utilized meta-analysis to examine the research related to antecedents and consequences of salesperson job satisfaction. In their study, a total of 89 studies related to job satisfaction of salespeople were identified for possible inclusion in the study and eventually they studied 154 effects from 59 studies. The effects were, for discussion purposes, grouped into four summary categories: work outcomes, and three groups of antecedent variables including individual differences, role perceptions and organizational variables. The final group, organizational variables, was further divided into the groups of supervisory behaviors and job/task characteristics.

The results of the Brown and Peterson (1993) correlation analysis are summarized in Table 2.3. For the three categories of antecedent variables, the average correlations of the specific relationships making up the category were ranked in the order of role variables (r = .36), organizational variables (r = .30) and individual differences (r = .14). For the two divisions within the organizational variables category, the average correlation for supervisory behaviors was .30 and for job/task variables, .26. The consequents making up the work outcomes category had an average correlation of .30 with job satisfaction.

A number of specific variables exhibited correlations with job satisfaction exceeding an absolute value of .40 (see Table 2.3). These included organizational commitment, work motivation, role conflict, role ambiguity, role clarity, closeness of supervision, leader consideration, contingent rewards, influence over standards, participation and value congruence.

Homogeneity tests indicated "considerable robustness and generalizability of job satisfaction effects across relationships and study contexts" (Brown and Peterson 1993, 68). In only three relationships was it necessary to delete more than one study effect to achieve overall homogeneity. Moderator analyses were conducted on these three cases - role ambiguity, role conflict and organizational commitment. The results of the moderator analyses indicated that the relationships between job satisfaction and role conflict and job satisfaction and role ambiguity were moderated by both the type of salesforce (industrial or non-industrial) and the job satisfaction measure (global or "by facet"). These moderator variables satisfactorily accounted for the variance in the relationships between job satisfaction and role ambiguity and job satisfaction and organizational commitment, but the results suggested that other moderators of the relationship between job satisfaction and role conflict may be present.

Table 2.3

Summary of Meta-analysis Results for Correlates of Job Satisfaction

	Small (0-.20)	Moderate (.21-.40)	Large (over .40)
Work Outcomes	Performance	-Propensity to leave -Turnover	Organizational Commitment
Personal Characteristics	-Organizational Tenure -Education -Age	Specific Self-esteem Generalized Self-esteem	Work Motivation
Role Perceptions			-Role Ambiguity -Role Conflict -Role Clarity
Organizational Variables			
Supervisory Behaviors		Job Feedback -Arbitrary Punishment Contingent Rewards	Closeness of Supervision Leader Consideration Contingent Rewards
Job/Task Variables		Job Involvement Task Variety Task Significance Pay Task Autonomy	Influence Over Standards Participation Value Congruence

- indicates negative correlation

NOTE: As suggested by Cohen (1969), corrected correlations in the range of 0-.20 are considered to be small, between .21 and .40 as medium or moderate and above .40 to be large.

SOURCE: Brown and Peterson 1993 (Table 1, 68).

In summary, the results of the meta-analysis indicate that job satisfaction exhibits the highest average correlation with role perceptions, followed by organizational variables and individual differences. The relationships involving salesperson satisfaction have been relatively consistent across studies and research contexts (Brown and Peterson 1993).

Organizational Commitment

Concept Development. Porter, Steers, Mowday and Boulian (1974) defined organizational commitment as ". . . the strength of an individual's identification with and involvement in a particular organization" (604). They suggested that three factors generally characterize organizational commitment. These factors are:

> (a) a strong belief in and acceptance of the organization's goals and values;
>
> (b) a willingness to exert considerable effort on behalf of the organization; and
>
> (c) a definite desire to maintain organizational membership (604).

It is likely that individuals will be committed to other aspects of their social structure, such as their family, church or union, as well as being committed to the organization for which they work (Porter, Steers, Mowday and Boulian 1974; Mowday, Steers and Porter 1979).

It is important to note how organizational commitment differs from the concept of job satisfaction. First, commitment is a more global construct reflecting feelings toward the organization as a whole including its goals and values, while job satisfaction reflects feelings toward one's job or aspects of one's job (Mowday, Steers and Porter 1979).

A second difference between organizational commitment and job satisfaction is that commitment is more stable over time and appears to develop more slowly (Mowday, Steers and Porter 1979, 226). This is because

> . . . day-to-day events in the work place may affect an employee's level of job satisfaction, such transitory events should not cause an employee to seriously reevaluate his or her attachment to the overall organization.

Importance, Research Effort, Findings. Mathieu and Zajac (1990), some 15 years after the initial work by Porter, Steers, Mowday and Boulian (1974), reviewed the findings of organizational commitment research in a meta-analysis. Their initial search process found over 200 articles that included empirical findings involving organizational commitment. From these studies, they identified 48 variables that had been correlated with organizational commitment three or more times in the various studies. The meta-analysis involved 174 independent samples from 124 published studies. The 48 variables were identified as either antecedents (Table 2.4), correlates (Table 2.5) or consequents (Table 2.6).

Table 2.4

Summary of Meta-analysis Results for Antecedents of Organizational Commitment

	Small (0-.20)	Moderate (.21-.40)	Large (over .40)
Personal Characteristics	-Sex[a] -Education Marital Status[b] Position Tenure Organizational Tenure Ability Salary Job Level	Protestant Work Ethic	Perceived Personal Competence
Job Characteristics	Task Autonomy	Challenge Skill Variety	Job Scope
Group-Leader Relations	Group Cohesiveness	Task Interdependence Leader Initiating Structure Leader Consideration Participative Leadership	Leader Communication
Organizational Characteristics	-Org Size -Org Centralization		
Role States		-Role Ambiguity -Role Conflict -Role Overload	

- indicates negative correlation

a - coded lower for women   b - coded higher for married

NOTE: As suggested by Cohen (1969), corrected correlations in the range of 0-.20 are considered to be small, between .21 and .40 as medium or moderate and above .40 to be large.

SOURCE: Mathieu and Zajac 1990 (Table 2, 175)

Table 2.5

Meta-analysis Results of Correlates of Organizational Commitment

	Small (0-.20)	Moderate (.21-.40)	Large (over .40)
Measures of Job Satisfaction	Extrinsic	Intrinsic Co-workers Promotion Pay	Overall Supervision Work Itself
Other Measures		-Stress Union Commitment	Motivation (overall) Motivation (internal) Occupational Commitment

- indicates negative correlation

NOTE: As suggested by Cohen (1969), corrected correlations in the range of 0-.20 are considered to be small, between .21 and .40 as medium or moderate and above .40 to be large.

SOURCE: Mathieu and Zajac 1990 (Table 3, 176)

Table 2.6

Summary of Meta-analysis Results for
Consequences of Organizational Commitment

	Small (0-.20)	Moderate (.21-.40)	Large (over .40)
Job Performance Measures	Others' Ratings Output Measure		
Other Measures	Attendance -Lateness -Perceived Job Alternatives	-Turnover	-Intention to search -Intention to leave

- indicates negative correlation

NOTE: As suggested by Cohen (1969), corrected correlations in the range of 0-.20 are considered to be small, between .21 and .40 as medium or moderate and above .40 to be large.

SOURCE: Mathieu and Zajac 1990 (Table 4, 177)

Twenty-six antecedents were placed into one of five categories including personal characteristics, job characteristics, group-leader relations, organizational characteristics and role states (Table 2.4). Of these only three, perceived personal competence, job scope and leader communication, were considered to have a large correlation (above .40). Ten of the variables were considered to have a moderate correlation (.20 - .40) and the remaining 13 (half) were considered to have only a small (0-.20) correlation with organizational commitment. In short, the results showed that the correlations between personal characteristics and organizational commitment were somewhat small.

As one would expect, the results showed that the 14 variables posited in the literature to be correlates of organizational commitment (Table 2.5) did show more correlation than did those posited to be antecedents or consequences. Seven (half) of the variables met the criteria to be strongly correlated; and only one, extrinsic job satisfaction, was classified as small.

Results of the meta-analysis related to eight consequents of organizational commitment (Table 2.6) indicated that only two, intention to search and intention to leave, were strongly correlated with organizational commitment. Only one of the other six, turnover, was even moderately correlated with organizational commitment. The other five showed only small correlations with organizational commitment.

Of the 48 variables in the study, results indicated that there was a significant ($p < .05$) chance of moderators being present for 33 of the variables, including 17 of the 26 antecedents, 11 of the 14 correlates, and 5 of the 8 consequents. For only 15 of the 48 variables did the results show adequate corrections for artifactual variance to the extent that moderators were not believed to be present. The researchers indicated that,

> The results of these studies, and the substantial between-study variance observed in the meta-analysis, suggest that a continued search for moderators is warranted (Mathieu and Zajac 1990, 180).

In concluding Mathieu and Zajac (1990) state:

> . . . it is clear that the concept of OC has been gaining attention in recent years, and it is likely to continue to do so in the future. Gaining a better understanding of how commitment develops and is

maintained over time has vast implications for employees and organizations alike (192).

The literature discussed in this section is summarized in Table 2.7. The next section of this chapter presents literature related to the market orientation construct.

Table 2.7

Synopsis of Literature Review on the Role Variables

Study	Contribution/Findings
Rizzo, House Lirtzman (1970)	developed 6-item scales to measure role and ambiguity and 8-item scale to measure role conflict
Jackson and Schuler (1985)	results of meta-analysis of 27 variables in 96 articles indicate role ambiguity and 14 variables (including role conflict, 3 areas of job satisfaction and commitment) have average corrected correlations of .40 or above and role conflict and 7 variables (including role ambiguity and 3 areas of job satisfaction) have average corrected correlations with absolute values of .40 or above
Smith, Kendall and Hulin (1969)	developed Job Descriptive Index, a 72-item measure of 5 areas of job satisfaction
Brown and Peterson (1993)	results of meta-analysis of 29 variables in 59 articles utilizing job satisfaction in sales settings indicate job satisfaction and 11 variables (including role ambiguity, role conflict, organizational commitment) have average corrected correlations with absolute values of .40 or above

Table 2.7, continued

Study	Contribution/Findings
Porter, Steers, Mowday and Boulian (1974)	developed Organizational Commitment Questionnaire, a 15-item measure of organizational commitment
Mathieu and Zajac (1990)	results of meta-analysis of 48 variables in 124 articles indicate organizational commitment and 8 variables (including 2 measures of job satisfaction) have average corrected correlations with absolute values of .40 or above

Market Orientation

Market Orientation has come to mean "the implementation of the marketing concept" and thus a "market-oriented organization is one whose actions are consistent with the marketing concept" (Kohli and Jaworski 1990, 1). Despite its importance, the concept was purported to have no clear definition or means of measurement and little, if any, empirically based theory, until recently (Kohli and Jaworski 1990, Narver and Slater 1990).

> For the past three decades the subject of market orientation in one form or another has occupied the center stage of the theory and practice of marketing strategy. Only recently, though, have researchers constructed a theory of the antecedents and consequences of market orientation, developed a valid measure of the construct, and tested its effect on business performance (Slater and Narver 1994, 46).

The purpose of this section of Chapter 2 is to examine recent work that has produced useable definitions of market orientation; hypotheses of antecedents and consequences of market orientation; and empirical testing of these hypotheses using valid measures of the construct. The first part of this section reviews work by Kohli and Jaworski (1990); Kohli, Jaworski and Kumar (1993) and Narver and Slater (1990) that defined market orientation in a way that could be measured and developed measures of market orientation. The second part of this section indicates findings of research concerning market orientation by Jaworski and Kohli (1993); Siguaw, Brown and Widing, II (1994) and Slater and Narver (1994).

Defining and Measuring Market Orientation

Kohli and Jaworski (1990). Kohli and Jaworski used a "discovery oriented approach" to

> "delineate the domain of the market orientation construct, provide an operational definition, develop a propositional inventory, and construct a comprehensive framework for directing future research" (1990, 1).

In so doing they not only examined literature in marketing and related disciplines, but they also drew from field interviews with managers performing diverse functions in a number of different organizations and at different levels.

They derived three core themes from various definitions of the marketing concept. These were, first, a customer focus; second, coordinated marketing; and, third, profitability. Following field interviews, the "profitability" core theme was dropped. The result was a meaning concentrating on customer focus and coordinated marketing with an emphasis on marketing intelligence. The field findings suggested that a market orientation entailed:

(1) one or more departments engaging in activities geared toward developing an understanding of customer's current and future needs and the factors affecting them,

(2) sharing of this understanding across departments and

(3) the various departments engaging in activities designed to meet selected customer needs (Kohli and Jaworski 1990, 3).

The emphasis on marketing intelligence goes well beyond the verbalized needs, wants and preferences of customers to include such environmental forces as competitors, technology and government regulation. The generation of marketing intelligence was, in fact, said to be the starting point of a marketing orientation that also included a dissemination and response to the intelligence. In the end Kohli and Jaworski (1990) offered the following formal definition of market orientation:

> Market orientation is the organizationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organizationwide responsiveness to it (6).

From the literature and their field interviews they developed a conceptual framework and nineteen research propositions. The framework was comprised of the four sets of factors shown in Figure 2.1. The four sets of factors were:

(1) antecedent conditions that foster or discourage a market orientation,

(2) the market orientation construct,

(3) consequences of a market orientation, and

(4) moderator variables that either strengthen or weaken the relationship between market orientation and business performance (6).

Suggested antecedent conditions were senior management factors, interdepartmental dynamics and organizational systems. The powerful impact of top managers on an organization was repeatedly emphasized in both the literature and by those managers Kohli and Jaworski interviewed. The following propositions related to junior managers' ambiguity and senior management factors were suggested.

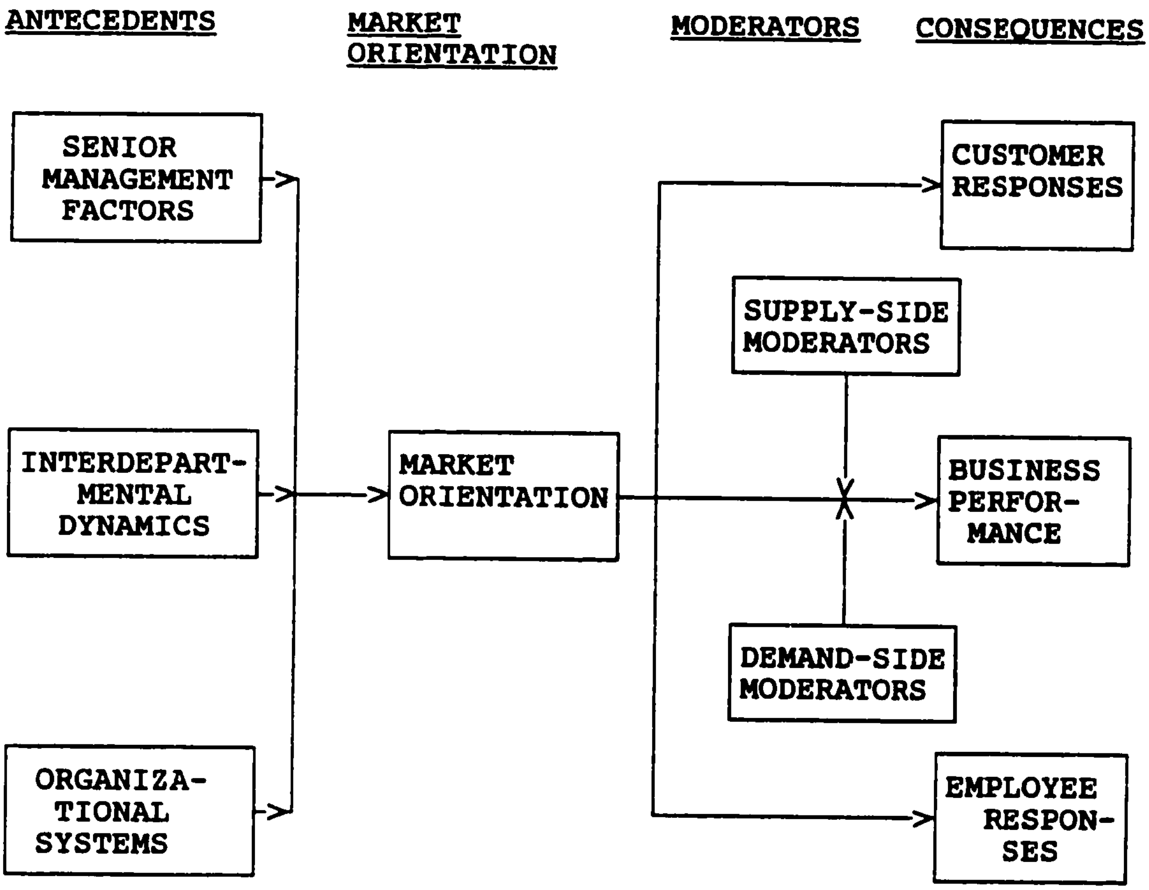

Figure 2.1

Posited Antecedents and Consequences of a Market Orientation

Source: Kohli and Jaworski 1990 (Figure 1, 7)

P1a: The greater the variability over time in the gap between top managers' communications and actions relating to a market orientation, the greater the junior managers' ambiguity about the organization's desire to be market oriented (8) and

P1b: The greater the junior managers' ambiguity about the organization's desire to be market oriented, the lower the market orientation of the organizations (8).

The following propositions related to senior management's risk aversion, educational attainment and upward mobility, attitude toward change and their ability to win trust of non-marketing managers were suggested:

P2: The greater the risk aversion of top managers, the lower the market orientation of the organization (9).

P3: The greater the senior managers'
(1) educational attainment and
(2) upward mobility, the greater the market
orientation of the organization (9).

P4: The more positive the senior managers' attitude toward change, the greater the market orientation of the organization (9).

P5: The greater the ability of top marketing managers to win the confidence of senior non-marketing managers, the lower the interdepartmental conflict (9).

Three interdepartmental variables were also posited to be antecedents of a market orientation, and this domain refers to "the formal and informal interactions and relationships among an organization's departments" (9). The researchers suggested that interdepartmental conflict inhibits communication across departments and would thus be likely to inhibit information dissemination and concerted efforts among departments to meet market needs. Kohli and Jaworski (1990) suggested the idea that

P6: The greater the interdepartmental conflict, the lower the market orientation of the organization (9).

Another interdepartmental variable proposed to be an antecedent to market orientation was that of interdepartmental connectedness or "the degree of formal and informal direct contact among employees across departments" (9). This suggests that

P7: The greater the interdepartmental connectedness, the greater the market orientation of the organization (10).

A third proposition related to interdepartmental variables was

P8: The greater the concern for ideas of employees in other departments, the greater the market orientation of the organization (10).

A third set of antecedents were those related to organizational systems or characteristics posited to be involved in the formation of a market orientation. Propositions related to these antecedents were:

P9a: The greater the departmentalization,
(1) the lower the intelligence generation, dissemination, and response design and
(2) the greater the response implementation (11).

P9b: The greater the formalization
(1) the lower the intelligence generation, dissemination, and response design and
(2) the greater the response implementation (11).

P9c: The greater the centralization
(1) the lower the intelligence generation, dissemination, and response design and
(2) the greater the response implementation (11).

P10: The greater the reliance on market-based factors for evaluating and rewarding managers, the greater the market orientation of the organization (12).

P11: The greater the acceptance of political behavior in an organization, the greater the interdepartmental conflict (12).

A number of linkages among the market orientation components of intelligence generation, intelligence dissemination and responsiveness were suggested. These were as follows.

P12a: The greater the perceived expertise of the source generating market intelligence, the greater the responsiveness to it by the organization (12).

P12b: The greater the perceived trustworthiness of the source generating market intelligence, the greater the responsiveness to it by the organization (12).

P12c: The smaller the challenge to the status quo posed by market intelligence, the greater
(1) its dissemination and
(2) the responsiveness to it by the organization (12).

P12d: The greater the political acceptability of market intelligence, the greater
(1) its dissemination and
(2) the responsiveness to it by the organization (12).

Kohli and Jaworski also proposed a number of consequences to market orientation which they grouped into responses related to business performance, employee responses and customer responses. Because, ". . . virtually all of the executives interviewed noted that a market orientation enhances the performance of an organization" (13) the researchers posited

P13: The greater the market orientation of an organization, the higher its business performance (13).

The researchers noted that the effects of market orientation on employees had not been addressed in the literature, but suggested that their field interviews offered some guidance as to the effects of market orientation on employees:

> A large number of executives noted that a market orientation provides psychological and social benefits to employees. Several respondents noted that a market orientation leads to a sense of pride in belonging to an organization in which all departments and individuals work toward the common goal of serving customers. Accomplishing this objective results in employees sharing a feeling of worthwhile contribution, as well as higher levels of job satisfaction and commitment to the organization (13).

They posited that

P14: The greater the market orientation, the greater the
(1) esprit de corps,
(2) job satisfaction, and
(3) organizational commitment of employees (13).

In addition, Kohli and Jaworski suggested that organizations high in market orientation would show better business performance and that customers would show greater satisfaction and be more likely to offer repeat business. They posited that

P15: The greater the market orientation
(1) the greater the customer satisfaction
(2) the greater the repeat business from customers (13).

Kohli and Jaworski found that the literature tended to "view the marketing concept as a universally relevant philosophy," (14) which contrasted with findings from their field interviews which

> . . . elicited several environmental contingencies or conditions under which the impact of a market orientation on business performance is likely to be minimal. That is, the field findings suggest that certain contingencies moderate (i.e. increase or decrease) the strength of the relationship between market orientation and business performance (14).

They suggested four contingencies or moderator variables which would moderate the relationship between market orientation and performance. These were (1) market turbulence - changes in the composition of customers and their preferences; (2) technological turbulence - changes in the process of transforming inputs to outputs and the delivery of those outputs to the end customer; (3) degree of competition in an industry; and (4) strength of the general economy. They proposed that

> P16: The greater the market turbulence, the stronger the relationship between a market orientation and business performance (14).
>
> P17: The greater the technological turbulence, the weaker the relationship between a market orientation and business performance (14).
>
> P18: The greater the competition, the stronger the relationship between a market orientation and business performance (15).
>
> P19: The weaker the general economy, the stronger the relationship between a market orientation and business performance (15).

Kohli and Jaworski concluded that

> Our propositional inventory and integrative framework represent efforts to build a foundation for the systematic development of a theory of market orientation. However, the objective of our research is theory construction rather than theory testing. Much work remains to be done in terms of developing a suitable measure of market orientation and empirically testing our propositions (17).

Kohli, Jaworski and Kumar (1993). From their earlier (Kohli and Jaworski 1990) definition of market orientation the researchers developed and assessed a scale to measure market orientation. The final scale, called MARKOR, consisted of 20 items purported to measure

> the degree to which an SBU (1) engages in multi-department market intelligence generation activities (2) disseminates this intelligence vertically and horizontally through both formal and informal channels, and (3) develops and implements marketing programs on the basis of the intelligence generated (473).

The researchers cited, as key attributes of the measure, the fact that the focus was not only on customers of the SBUs, but also on "the forces that drive their needs" (473). Another key attribute was that the items were made up of activity-based items and not business philosophy items. They concluded that the "measure represents a significant step forward" (473), but that there was still plenty of work to do in understanding market orientation and in revising, expanding and revalidating the scale.

Narver and Slater (1990). After noting that academicians and marketing managers have, "for more than 30 years" (20), been proclaiming that "A business that increases its market orientation will improve its market performance," (20) Narver and Slater (1990) state

> Judged by the attention paid to it by practitioners and academicians in speeches, textbooks, and scholarly papers, market orientation is the very heart of modern marketing strategy - yet, to date, no one has developed a valid measure of it or assessed its influence on business performance. As a result, business practitioners seeking to implement a market orientation have had no specific guidance as to what precisely a market orientation is and what its actual effect on business performance may be (20).

In this study the researchers developed a measure of market orientation and analyzed the effect of a market orientation on business profitability. In determining the components and how to measure them they also contributed to ratifying the definition offered by Kohli and Jaworski (1990).

From an analysis of the major conceptual literature related to sustainable competitive advantage and market orientation, Narver and Slater (1990) identified three behavioral components and two decision criteria that seemed to be common threads of each. The behavioral components identified were customer orientation, competitor orientation and interfunctional coordination. Narver and Slater's (1990) summation of the behavioral components showed their ideas to be consistent with those of Kohli and Jaworski (1990).

> Customer orientation and competitor orientation include all of the activities involved in acquiring information about the buyers and competitors in the target market and disseminating it throughout the business(es). The third hypothesized behavioral component, interfunctional coordination, is based on the customer and competitor information and comprises the business's coordinated efforts, typically involving more than the marketing department, to create superior value for the buyers. In sum, <u>the three hypothesized behavioral components of a market orientation comprehend the activities of market information acquisition and dissemination and the coordinated creation of customer value</u> (Underlining added for emphasis)(21).

The two decision criteria identified were long-term focus and profitability. On the idea of profitability and long-term focus being a component of market orientation, the writings of Narver and Slater (1990) and Kohli and Jaworski (1990) differed. Narver and Slater (1990) suggest that profit ". . . though conceptually closely related to market orientation, is appropriately perceived as an objective of a business" (22) and that "For long term survival in the presence of competition, a business cannot avoid a long-run perspective" (22). Kohli and Jaworski (1990) had, following their review of the literature, profit in the initial conception of market orientation. However, after their field interviews, they came to the conclusion that profit was not an objective of the companies, but rather a consequence of market orientation.

Narver and Slater (1990) suggested

> Market orientation is the organization culture and climate that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business (21).

They later suggested that risk taking, entrepreneurship, facilitative leadership, organic structure and decentralized strategic planning go with a market orientation culture to form a learning organization (Slater and Narver 1995). Such an organization must be

> decentralized, with fluid and ambiguous job responsibilities and extensive lateral communication processes. Members of these organizations, both internal and external, recognize their interdependence and are willing to cooperate and share information to sustain the effectiveness of the organization (Slater and Narver 1995).

In short, Narver and Slater (1990) posited market orientation to be a one-dimensional construct consisting of three behavioral components (customer orientation, competitor orientation, interfunctional coordination) and two decision criteria (long-term focus and profit objective). On the other hand, Kohli and Jaworski (1990) posited market orientation to be made up of an organizationwide generation, dissemination and responsiveness to market intelligence. Narver and Slater's (1990) explanation of the behavioral components and decision criteria involved in a market orientation differs little from Kohli and Jaworski's (1990) three component explanation of market orientation.

Since the efforts of these researchers to conceptualize and develop measures of market orientation, a number of studies have been reported which have contributed to the understanding of market orientation. Reviewing a number of these studies comprises the next part of this section.

Studies Contributing to the Understanding of Market Orientation

Narver and Slater (1990). Among the first ideas to be tested (Narver and Slater, 1990) using the three component definition of marketing orientation was the effect of a marketing orientation on business profitability. The results suggest that all businesses should seek to have a market orientation.

Narver and Slater (1990) surveyed top management team members from 140 strategic business units of a major western corporation and obtained useable data from 113, including 36 commodity businesses, 23 specialty products businesses, 51 distribution businesses and 3 export businesses. In the study, the 23 specialty products businesses and the 51 distribution businesses were combined to form a non-commodity group. The export businesses were not considered in the study.

Ordinary least squares regression was used to test the hypothesis that market orientation and performance are positively associated. A number of factors that might, in addition to marketing orientation, affect businesses' profitability were controlled for. These other factors were: (1) buyer power; (2) supplier power; (3) seller concentration; (4) ease of entry of new competitors; (5) rate of market growth; (6) rate of technological change; (7) size of a business in relation to its largest competitor in a market; and (8) the average total operating cost of a business in relation to that of its largest competitor. Coefficients for five of the eight control variables were significant ($p \leq .05$).

For both the commodity and noncommodity types of businesses, there was a positive association between market orientation and performance. For the noncommodity groups, this relationship was a monotonically increasing relationship as expected. For the commodity group this relationship was, as expected, in the form of a U shape with the SBUs with the highest market orientation being highest in performance, followed by those with the lowest market orientation and then those who scored in the middle on market orientation.

Additional analysis indicated that the managers in the commodity groups measuring high in market orientation had significantly higher "human resource management" (32) scores than did the managers of the commodity groups measuring low in market orientation. Unfortunately, no information was given as to the nature of these scores, but Narver and Slater (1990) did say,

> The low human resource management score coupled with the low score on interfunctional coordination (and on the other two dimensions of market orientation) suggests that the human resource management skills in the low group may be inferior to those of the high group (32).

In their comments on further research, the authors say the possibility of links between market orientation and the general quality of its management should be examined further. Narver and Slater concluded that

> Our study is an important first step in validating the market orientation/performance relationship. For scholars, the implications

> of the study are clear. The research must be replicated in diverse environments and over time to increase confidence in the nature and power of the theory. . . . If the findings in replications of our research support our findings, the message to managers is clear. A substantial market orientation must be the foundation for a businesses' competitive advantage strategy (34).

Jaworski and Kohli (1993). In their earlier work defining market orientation Kohli and Jaworski (1990) presented a number of propositions. Here (Kohli and Jaworski 1993) they ask, "Why are some organizations more market-oriented than others?" (53) and state

> Remarkably, this fundamental issue has not been addressed in any empirical study to date. Several propositions pertaining to the antecedents of a market orientation have recently been advanced by Kohli and Jaworski (1990). However, as they point out, these propositions need empirical validation (53).

The purpose, then, of this research (Jaworski and Kohli 1993) is to empirically examine the earlier propositions (Kohli and Jaworski 1990). A framework for the study appears in Figure 2.2.

For validation purposes, the propositions were tested using two different samples. Names of non-marketing and marketing executives were obtained and questionnaires were sent by mail to the selected individuals. Sample one consisted of responses representing a total of 222 business units, and sample two was made up of 230 responses representing individuals listed on the American Marketing Association membership roster.

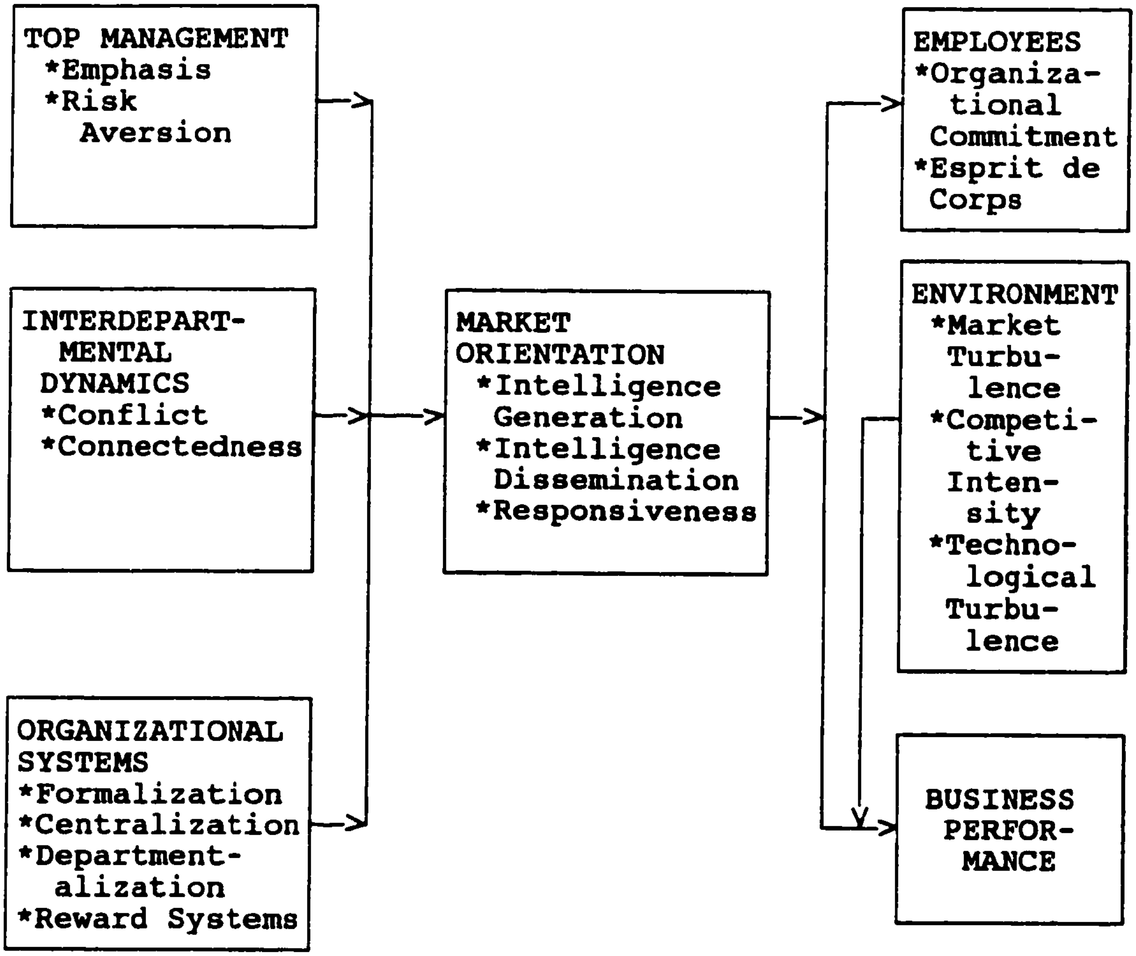

Figure 2.2

Hypothesized Antecedents and Consequences
of a Market Orientation

Source: Jaworski and Kohli 1993 (Figure 1, 55)

Existing scales were used to measure formalization, centralization and departmentalization. Following procedures recommended by Churchill (1979), new scales were developed to measure top management emphasis on market orientation and risk aversion, conflict, connectedness, market turbulence, competitive intensity, technological turbulence, business performance, organizational commitment and esprit de corps. Market orientation was measured using MARKOR as developed in Kohli, Jaworski and Kumar (1993).

The specific hypotheses and results follow.

H_1: The greater the top management emphasis on a market orientation, the greater the
(1) generation of market intelligence
(2) intelligence dissemination, and
(3) responsiveness of the organization (55).

The results indicated that top management emphasis on a market orientation affected market orientation, generation of market intelligence, its dissemination within the organization and the responsiveness of the organization.

H_2: The greater the risk aversion of top management, the lower the
(1) market intelligence generation,
(2) intelligence dissemination, and
(3) responsiveness of the organization (55).

The results indicated that the top management's risk aversion had a negative effect on responsiveness, but did not appear to affect intelligence generation or dissemination.

H_3: The greater the interdepartmental conflict, the lower the
(1) market intelligence dissemination, and
(2) responsiveness of the organization (56).

The results indicated that interdepartmental conflict hindered market orientation, intelligence dissemination and responsiveness.

H_4: The greater the interdepartmental connectedness, the greater the
(1) market intelligence dissemination, and
(2) responsiveness of the organization (56).

The results indicated that interdepartmental connectedness promoted a market orientation in both samples, but was linked to intelligence dissemination in only one sample.

H_5: The greater the formalization, the lower the
(1) intelligence generation, dissemination, and response design and
(2) the greater the response implementation (56).

The results indicated formalization had no significant impact on market orientation or its components.

H_6: The greater the centralization, the lower the
(1) intelligence generation, dissemination, and response design and
(2) the greater the response implementation.

The results indicated centralization had a negative impact on market orientation in one sample, but not the other. In one sample, it had a negative impact on both intelligence dissemination and responsiveness, but no impact on intelligence generation. In the other sample, centralization had a negative impact on intelligence, but no impact on market orientation, intelligence dissemination or responsiveness.

H_7: The greater the departmentalization, the lower the
(1) intelligence generation, dissemination, and response design and
(2) the greater the response implementation (56).

The results indicated that departmentalization had no significant impact on market orientation or its three components.

H_8: The greater the reliance on market-based factors for evaluating and rewarding managers, the greater the
(1) market intelligence generation,
(2) intelligence dissemination, and
(3) responsiveness of the organization (56).

The results indicated that market based reward systems were also shown to promote market orientation and promote all three components of market orientation. Market based reward systems had the greatest impact on market orientation of all the variables in the study.

H_9: The greater the market orientation of an organization, the higher its business performance (57).

The results indicated that market orientation had a significant effect on performance when judgmental measures were used, but not when the objective measure of market share was used. It should be noted that while these results appear to be mixed, the researchers questioned their use of market share as an appropriate indicator of performance and suggested that market orientation might be an important determinant of performance.

H_{10}: The greater the market orientation, the greater the
(1) esprit de corps and
(2) organizational commitment of employees (57).

The results indicated that market orientation appears to have an effect on the employee's organizational commitment and esprit de corps.

The final three hypotheses, H_{11}, H_{12} and H_{13}, suggest that the environment moderates the relationship between market orientation and business performance.

H_{11}: The greater the market turbulence, the stronger the relationship between a market orientation and business performance (57).

H_{12}: The greater the competitive intensity, the stronger the relationship between a market orientation and business performance (57).

H_{13}: The greater the technological turbulence, the weaker the relationship between a market orientation and business performance (58).

The results indicate no moderating effects from market turbulence, competitive intensity or technological turbulence on the relationship between market orientation and performance.

Jaworski and Kohli (1993) concluded that

> The findings of this study suggest that the market orientation of a business is an important determinant of its performance, regardless of the market turbulence, competitive intensity, or the technological turbulence of the environment in which it operates. As such, it appears that managers should strive to improve the market orientation of their businesses in their efforts to attain higher business performance (64).

Siguaw, Brown and Widing, II (1994). Siguaw, Brown and Widing, II examined a model predicting relationships between the market orientation of the firm, the customer orientation of the salesforce, a difference score between market orientation and customer orientation and the job attitudes of role conflict, role ambiguity, job satisfaction and organizational commitment. Market orientation was measured using the Narver and Slater (1990) scale and customer orientation using the Saxe and Weitz (1982) measure. Job satisfaction was measured using the Job Descriptive Index developed by Smith, Kendall and Hulin (1969); organizational commitment was measured with the Organizational Commitment Questionnaire (OCQ) developed by Porter, Steers, Mowday and Boulian (1974); and role ambiguity and role conflict were measured using scales developed by Rizzo, House and Lirtzman (1970).

A total of 1644 questionnaires were distributed by mailing 585 directly to randomly selected salespeople and by mailing three copies to 353 randomly selected sales managers and asking them to distribute them to three of the salespeople they supervised. All selected salespeople and sales managers were involved in the sales of document imaging supplies, equipment, and services. After two mailings, 306 responses were received and 278 were useable.

The results supported the following hypotheses related to market orientation.

H_1: The greater the market orientation of the firm, the greater the customer orientation of the salesperson (107).

H_2: The greater the market orientation of the firm, the lower the role conflict experienced by the sales person (108).

H_3: The greater the market orientation of the firm, the lower the role ambiguity of the salesperson (108).

H_4: The greater the market orientation of the firm, the greater the job satisfaction experienced by the salesperson (108).

H_5: the greater the market orientation of the firm, the greater the organizational commitment of the salesperson (108).

The results did not support the following hypotheses related to customer orientation.

H_6: The greater the customer orientation of the salesperson, the lower the role conflict experienced by the salesperson (108).

H_7: The greater the customer orientation of the salesperson, the lower the role ambiguity of the salesperson (108).

H_8: The greater the customer orientation of the salesperson, the greater the job satisfaction experienced by the salesperson (108).

H_9: The greater the customer orientation of the salesperson, the greater the organizational commitment of the salesperson (108).

The following hypothesis related to the difference score was marginally ($p < .08$) supported by the results.

H_{10}: The smaller the difference between the market orientation of the firm and the customer orientation of the salesperson, the lower the role conflict experienced by the salesperson (110).

The following hypotheses related to the difference score were not supported by the results.

H_{11}: The smaller the difference between the market orientation of the firm and the customer orientation of the salesperson, the lower the role ambiguity experienced by the salesperson (109).

H_{12}: The smaller the difference between the market orientation of the firm and the customer orientation of the salesperson, the greater the job satisfaction of the salesperson (109).

H_{13}: The smaller the difference between the market orientation of the firm and the customer orientation of the salesperson, the greater the organizational commitment of the salesperson (109).

Other hypotheses related to relationships among the role variables replicated previous studies and, as expected, were supported by the results.

H_{14a}: The greater the perception of role conflict, the lower the job satisfaction (110).

H_{14b}: The greater the perception of role ambiguity, the lower the job satisfaction (110).

H_{15a}: The greater the perception of role conflict, the lower the organizational commitment (110).

H_{15b}: The greater the perception of role ambiguity, the lower the organizational commitment (110).

In short, Siguaw, Brown and Widing, II (1994) found

1) The market orientation of the firm significantly influences the customer orientation of the salesperson and each of the job attitudes (role ambiguity,

role conflict, job satisfaction and organizational commitment) in the directions hypothesized.

2) The customer orientation of the salesperson is unrelated to job attitudes.

3) The difference between the market orientation of the firm and the customer orientation of the salesperson marginally influences only role conflict in the direction hypothesized.

Slater and Narver (1994). This research attempts to answer the question of ". . .whether competitive environment influences the form and effectiveness of a business's market orientation" (46). Slater and Narver (1994) examined a number of hypotheses and found

> . . . little support for the proposition that environment moderates either the nature of the market orientation-performance relationship or the effectiveness of the different relative emphases within a market orientation (54).

They suggested that because becoming and remaining market oriented are fundamental to the continuous creation of superior value for buyers - "the meaning of competitive advantage" (54) - then businesses that are more market oriented are best positioned for success under any environmental conditions. The implication being that being market oriented can never be negative and that businesses should invest in becoming market oriented all the time rather than wait until the environment has grown hostile and they are forced to become market oriented. They argue that

> With its external focus and commitment to innovation, a market-oriented business should be prepared to achieve and sustain competitive advantage in any environmental situation. Indeed, a substantially market oriented business should find more opportunities in any environment than its less market-oriented competitors (53).

Slater and Narver tested each of the eight hypotheses listed below three times each using different performance measures each time. The performance measures used were top management's assessments of each SBU's (1) return on assets, (2) sales growth and (3) new product success performance for the last year relative to all other competitors in the SBU's principal served market. The researchers controlled for eight variables believed to have an effect on performance (see discussion of Narver and Slater 1990 above). Empirical results showed partial support for only two (H2 and H4) of the following eight hypotheses posited to be competitive-environment moderators of the relationship between market orientation and performance.

H_1: The greater the extent of market turbulence, the greater the positive impact of market orientation on performance (48).

H_2: The lesser the extent of technological turbulence, the greater the positive impact of market orientation on performance (48).
(Partially supported by the results)

H_3: The greater the extent of competitive hostility, the greater the positive impact of market orientation on performance (48).

H_4: The lower the rate of market growth, the greater the positive impact of market orientation on performance (48).
(Partially supported by the results)

H_{5a}: The higher the rate of market growth, the greater the positive impact of customer emphasis on performance (49).

H_{5b}: The lower the rate of market growth, the greater the positive impact of competitor emphasis on performance (49).

H_{6a}: The lesser the extent of buyer power, the greater the positive impact of customer emphasis on performance (49).

H_{6b}: The greater the extent of buyer power, the greater the positive impact of competitor emphasis on performance (49).

H_{7a}: The lesser the degree of competitor concentration, the greater the positive impact of customer emphasis on performance (49).

H_{7b}: The greater the degree of competitor concentration, the greater the positive impact of competitor emphasis on performance (49).

H_{8a}: The greater the degree of competitive hostility, the greater the positive impact of customer emphasis on performance (50).

H_{8b}: The lesser the degree of competitive hostility, the greater the positive impact of competitor emphasis on performance (50).

There were no significant interactions between the posited moderators and the independent variables out of the 24 (8 hypotheses X 3 performance measures) analyses conducted. In only five of the 24 tests were there indications of homologizer effects (the predicted moderator was not correlated with either the independent or dependent variable and there were differences in the performance-based subgroups with respect to R^2). In only two of these five (H_2 and H_4), the results were true to what was predicted in the hypothesis. The results thus indicate that market orientation could be more important in low market turbulence environments rather than in the high market turbulence environments posited.

Slater and Narver suggested their results indicated that it would be unwise to spend the time and money required to change an organization's market orientation as the environment changes since the environmental changes did not moderate the relationship between market orientation and performance. Businesses, then, should have a market orientation all the time because

In general, businesses that apply significant resources to understanding their customers and competitors and coordinate the activities of all functions of the business for an integrated value-creation effort achieve higher profitability, sales growth, and new product success (52-53).

A synopsis of the literature reviewed in this section is given in Table 2.8.

Table 2.8

Synopsis of Literature Review on Market Orientation

Study	Contributions/Findings
Kohli and Jaworski (1990)	operationally defined market orientation to include the organizationwide generation, dissemination and responsiveness to market intelligence and posited 19 propositions related to the market orientation construct and antecedents, consequences and moderators of a market orientation
Narver and Slater (1990)	developed a 15-item measure of market orientation: presented survey results suggesting positive relationship between profitability and market orientation
Kohli, Jaworski and Kumar (1993)	developed MARKOR, a 20-item scale to measure market orientation
Jaworski and Kohli (1993)	survey results suggested 1) antecedents affecting at least one of the three dimensions of market orientation to be top management emphasis, top management risk aversion, interdepartmental conflict, interdepartmental connectedness, centralization, market based reward systems; 2) consequences of a market orientation to be higher performance, organizational commitment and esprit de corps; and 3) no moderating effects from market turbulence, competitive intensity and technological turbulence on the market orientation-performance linkage

Table 2.8, continued

Study	Contributions/Findings
Siguaw, Brown and Widing, II (1994)	survey results suggested 1) positive relationships between market orientation and a salesperson's customer orientation, job satisfaction and organizational commitment; and 2) negative relationships between market orientation and a salespersons role ambiguity and role conflict
Slater and Narver (1994)	survey results indicated no support for the proposition that environment moderates either the nature of the market orientation-performance relationship or the effectiveness of the different relative emphases within a market orientation.

Vertical Exchange Theory

This section will trace vertical exchange relationship from its beginnings in organizational theory in the early 1970s to 1986 when it was suggested that it might be useful to those doing research in the sales area and then to present studies utilizing the concept in sales research.

Concept Development

Vertical exchange relationship theory was first termed vertical dyad linkage (VDL) theory and is most often called, in the management literature, leader-member exchange (LMX) theory. It has its roots in the frustration of scholars with the "slow progress in the leadership area in the last 20 years" (Dansereau, Graen and Haga 1975, 47). The slow progress is attributed to two "inappropriate assumptions" inherent in measuring the behavior of a superior toward their members by using some type of average or general measure.

The first inappropriate assumption is that leaders treat all their subordinates in the same manner, and the second inappropriate assumption is that all the subordinates react the same way to the treatment (Dansereau, Cashman and Graen 1973). Attempts to influence a unit made up of individual workers by finding and using the single best average leadership style would be like supervising people using a set of general instructions not unlike that used for the effective operation of a machine. The instructions would, most likely, have ". . . zero utility for dealing with the heterogeneity of unit members" (Dansereau, Cashman and Graen 1973, 185).

Others suggested that,

> . . . the vertical dyad is the appropriate unit of analysis for examining leadership processes because the vertical dyad reflects the processes linking member and superior (Dansereau, Graen and Haga 1975, 47).

The assumptions of the vertical dyad approach are that the behavior of the leader may vary according to their relationship with each member of the unit and that each member of the unit may be heterogeneous in their perceptions, interpretations and reactions to the leader's actions (Dansereau, Cashman and Graen 1973). Evidence of the fallacy of the assumptions of the average leadership style theories is found in a study which showed that when leaders of units consisting of two or more members were placed in structure cells based on their structuring behavior as indicated by surveying their members, 78 per cent of the leaders were placed in at least two different cells (Graen, Dansereau and Minami 1972).

Another early idea from vertical dyad linkage theory was that within the dyads, the superior shows leadership behavior toward some of his subordinates and supervision behavior toward others with the distinction between the two being the nature of the vertical exchange that takes place (Dansereau, Graen and Haga 1975). Supervision means that the level of vertical exchange is such that the formal employment contract is almost exclusively relied on in influencing the subordinate. Leadership means that the nature of the vertical exchange is much better to the point that the basis of influence is the interpersonal exchange relationship and can involve highly valued outcomes that are not available under the employment contract.

> The superior for his part can offer the outcomes of job latitude, influence in decision making, open and honest communications, support of the members actions, and confidence in and consideration for the member, among others. The member can reciprocate with greater than required expenditures of time and energy, the assumption of greater responsibility, and commitment to the success of the entire unit or organization, among others (Dansereau, Graen and Haga 1975, 50-51).

Supervisors have limited time and other resources. They cannot give all of their subordinates the time and energy the subordinates need to perform at their best. By investing their time and other resources in these trusted assistants ("in group" or "cadres"), they are able to assure that the job of the unit is done and that their tenure as supervisors will continue. The other subordinates ("out group" or "hired-hands") are given only the minimal time, attention and resources required by the formal organization and are influenced by the authority of the supervisor's job.

Early on, it was shown that these vertical relationships develop quickly and remain stable over time (Dansereau, Graen and Haga 1975).

Dienesch and Liden(1986) examined 21 empirical papers that used the leader-member exchange approach and concluded that ". . . it is clear that the LMX approach has identified an aspect of leadership that has been overlooked in the past and deserves continued study" (631). A need for a broader base of study was cited as the big majority of studies were based on public sector samples such as nonacademic units of universities and government (particularly military) units. Another weakness of the past studies cited by Dienesch and Liden (1986) was the lack of consistency in the LMX measure used by the various researchers. The number of items used by various researchers in scales to measure LMX varied from as few as one to as many as 17 and all studied LMX as being unidimensional. They suggested that a number of the scales used were not

> based on either systematic psychometric study or explicit construct validation" (623) and that ". . . there is clearly a need to develop and validate a standardized, psychometrically sound measure of LMX to be used in future research" (624).

They posited that LMX was made up of three factors they identified as (624-25)

> a) Perceived contribution to the exchange- perception of the amount, direction, and quality of work-oriented activity each member puts forth toward the mutual goals (explicit or implicit) of the dyad
>
> b) Loyalty - the expression of public support for the goals and the personal character of the other member of the LMX dyad; (emphasis is on public support for the benefit of third parties- not suppression of dissent or debate within the leader-member relationship; the good team player approach);

> c) Affect - the mutual affection members of the dyad have for each other based primarily on interpersonal attraction rather than work or professional values.

From these ideas, and others, has developed a body of literature reaching back to the early 1970s. Much has been discovered about the "exchange" that takes place between a leader and the members of their unit. Since 1986, the base of study has been broadened to include the salesperson/sales manager dyad. Unfortunately, a number of different scales continue to be used. The next part of this section looks at LMX/VER applications in the sales area.

Vertical Exchange Relationship in the Sales Area

Castleberry and Tanner, Jr. (1986). Castleberry and Tanner, Jr. (1986) were the first to recognize that the vertical-dyad linkage model might apply to sales research. Noting that "It is surprising that there has been no explicit discussion about how VDL can help us understand a sales force" (31) and that "no research has been conducted using a sales force as the base" (31). Castleberry and Tanner, Jr. (1986) suggested

> The vertical-dyad linkage theory may provide the needed missing link to help us better understand how sales organizations operate and explain more of the variance in our research studies (36).

They also noted that "sales management literature seems to rest on the idea that salespersons are individuals and thus need to be treated as such" (29) and proposed that

> In order to fully develop and evaluate a philosophy of management that considers individual needs, however, sales managers need to understand the social organization inherent in a sales force and how this affects the leadership and behavior of both managers and salespeople. The vertical dyad linkage (VDL) model provides a conceptual framework for explaining much of the social organization of the sales team. It also provides a valuable tool to assess the determinants of a salesperson's performance (e.g., motivation, role perceptions, rewards) (29).

Castleberry and Tanner, Jr. (1986) proposed that an understanding and recognition of VDL could benefit both sales managers and salespeople. A number of implications and applications of VDL theory were proposed in the sales management area based on previous VDL findings in other work areas. The implications relate to the areas of selection, orientation, training, motivation, general supervision, evaluation and development and promotion (35). Sales managers could use the theory to improve their management techniques so that all subordinates were receiving the same performance-related support (33).

For the salesperson the value of an understanding of VDL would be in managing the formation and maintenance of a cadre or in (as opposed to hired-hand or out) type relationship with their sales manager (34). It was suggested that relationship quality should improve if the salesperson could "think and act as a partner of the manager without usurping the manager's authority" (34) and that " . . . the definition of a cadre suggests volunteering for additional duties and relieving the sales manager of some of the workload" (34).

Castleberry and Tanner, Jr. (1986) offered three areas into which VDL could fit into sales management research (34). The first area they suggested was that VDL could be a moderating variable that has gone unmeasured and unrecognized in previous sales management studies.

> It is easy to see how results of prior studies on training, retention, promotion, evaluation, motivation, and other topics might be somewhat inaccurate and nongeneralizable if a large number of respondents happened to be cadres (as opposed to most being hired-hands). This is not to suggest that one disregard prior studies. Rather, future replications of prior sales management studies should include some measurement of the exchange relationship of the salesperson studied (34).

The second area concerned a number of possible avenues of future research into the exchange relationships in a salesforce. Here, Castleberry and Tanner, Jr. (1986) proposed that "How the relationships are formed must be understood if the relationships are to be managed" (34) and that "Future research should develop and refine valid and reliable measurement tools that measure sales force exchange relationships" (34). They called for other broad issues to be addressed in future including:

> What percent of the sales force are cadres and hired-hands? How stable are these relationships over time? What tasks, beyond the formal job description, are performed by cadres and hired-hands? What types of special support and attention are granted by the sales-manager to cadres and hired-hands? (Castleberry and Tanner, Jr. 1986, 34)

Additionally, a number of specific "Relationships discovered in prior VDL research that need to be tested in a sales context" were presented (Castleberry and Tanner, Jr. 1986, 36).

> High growth oriented individuals will work to achieve a high quality exchange relationship (i.e., cadre).

Cadre salespeople receive more attention (e.g., assimilation, attempt to offer salient motivators, development aid, favorable promotion recommendations) from their sales managers than hired-hands.

Cadre salespeople receive more pertinent information (e.g., new products, names of highly qualified prospects, proposed changes) from their sales managers than hired-hands.

Cadre salespeople receive more support (e.g., more tailored training, better territories, more realistic quotas, more generous expense accounts, negotiation of concessions within the firm) from their sales managers than hired-hands.

Cadre salespeople tend to perform more duties beyond their own formal job descriptions than hired-hands.

Cadre salespeople exhibit higher productivity than hired-hands, whether measured objectively or subjectively.

Cadre salespeople will have less role conflict and role ambiguity than hired-hands.

The salesperson-sales manager exchange relationship (cadre, hired hand) is an excellent predictor of salesperson turnover.

Cadre sales managers are viewed as more competent by their salespeople than are hired-hand sales managers by their own salespeople.

Hired-hand sales managers are viewed as providing less leadership and support by their salespeople.

Cadre sales managers are more able to engage in activities outside their own formal job description that facilitate greater productivity and greater satisfaction of their own salesforce.

A third suggestion for incorporating VDL into the realm of sales management research was that

> . . . it might be appropriate to synthesize VDL into other models which would provide an even greater tool for understanding and managing the sales force (Castleberry and Tanner, Jr. 1986, 36).

Castleberry and Tanner, Jr. hoped their article would stimulate debate and discussion on the issue of whether or not the vertical-dyad linkage theory could be of use in understanding sales organizations. As will be seen in the remainder of this section, their article did stimulate discussion.

Castleberry and Tanner, Jr. (1988-89). In a study focusing on salesforce commitment to the organization, Castleberry and Tanner, Jr. (1988-89) examined associations between organizational commitment and performance, motivation, role conflict, role ambiguity, job satisfaction and relationship with the manager. The interest here is in the association between organizational commitment and relationship with the manager. They proposed, and found, a positive relationship between the two.

The sample in their study consisted of 45 salespeople and sales managers in two regions of a consumer packaged goods manufacturer's sales force. Questionnaires were distributed by regional sales managers to every salesperson and sales manager in their regions and were returned directly to the researchers. A team-relative split was used to identify cadres and hired-hands in each sales team. Vertical exchange was measured using the LMX subordinate version developed by Graen (1986) and organizational commitment was measured using the scale by Hrebiniak and Alutto (1972).

Lagace (1990). Lagace (1990) contributed to early efforts at integrating leader-member exchange to the sales area by testing possible antecedents and consequents to see if differences existed between hired-hand and cadre salespeople. She noted that very little is known about the exchange relationships of the boss and the subordinate in the sales area in spite of the recognized importance of this relationship to turnover, job satisfaction and performance in the organizational behavior literature. She suggested

> LMX may be useful in sales management research to assist in the explanation and understanding of the socialization process, to identify variables which are influenced by the leader-member exchange process such as satisfaction, performance, loyalty, turnover, motivation, and role stress, and to develop an understanding of the relationship management process between the salesperson and significant others (11).

Lagace (1990) proposed a number of antecedents and consequents on which hired-hands and cadres might vary as shown in Figure 2.3. A study was conducted to examine these ideas. Members of the Cincinnati Association of Professional Saleswomen were the basis for her sample. Of the 120 members of the group, 113 participated in the study. She asked each of the female participants to name a salesman who worked with them and reported to the same sales manager. Of the 100 salesmen contacted and asked to participate in the study, 76 responded, making the total sample size 189.

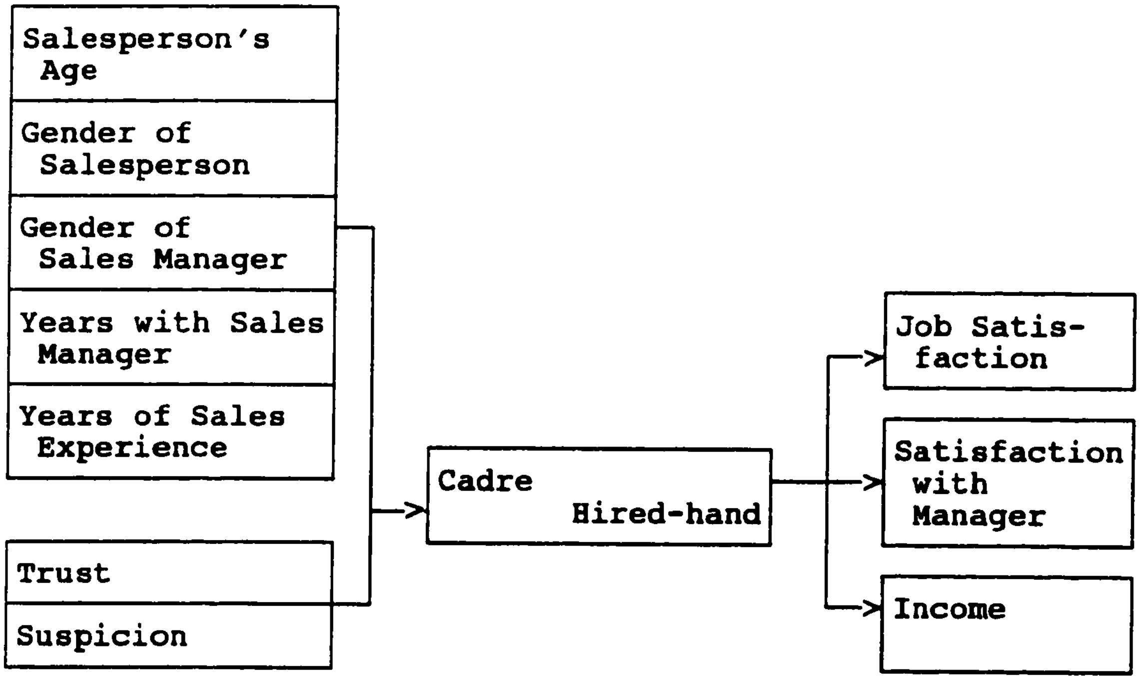

Figure 2.3

Proposed Antecedents and Consequences of the Cadre and Hired-hand

Source: Lagace 1990 (Figure 1, page 14)

In the study, leader member exchange was measured using LMX-7 (Graen, Novak and Sommerkamp 1982). Job satisfaction and satisfaction with the sales-manager were measured using four-item measures of the dimensions using INDSALES (Churchill, Ford and Walker, Jr. 1974) as revised by Comer, Machleit and Lagace (1989). Performance was measured using income as an objective measure of performance as done by Dubinsky and Hartley (1986). The various hypotheses and the results of their testing are below.

H_1: The cadre salespeople will be older.

The results did not support this hypothesis.

H_2: Female sales managers are more likely to have cadre salespeople.

This hypothesis was supported by the results.

H_3: Saleswomen are more likely to be cadres.

The results did not support this hypothesis.

H_4: The salespeople with more years of sales experience are more likely to be cadres.

The results did not support this hypothesis.

H_5: Cadres will be those salespeople who have spent the longest time with this manager.

This hypothesis was supported by the results.

H_6: Cadre salespeople will be more trusting.

This hypothesis was supported by the results.

H_7: Cadre salespeople will be less suspicious.

This hypothesis was supported by the results.

H_8: The cadre will have higher levels of job satisfaction.

This hypothesis was supported by the results.

H_9: The cadres will be more satisfied with their managers.

This hypothesis was supported by the results.

H_{10}: The cadre will have higher levels of income.

The results did not support this hypothesis.

In summary, the results of the study showed that cadres' sales managers were more likely to be female, cadres had been with their sales managers longer than hired-hands and that cadres were more trusting and less suspicious than hired-hands. There were no significant differences between cadres and hired-hands based on age, gender or years of experience. In terms of outcomes, it was found that cadres, when compared to hired-hands, had higher job satisfaction and higher satisfaction with their manager. There was not a significant difference in income between the two groups.

Tanner, Jr. and Castleberry (1990). Tanner, Jr. and Castleberry continued their work in VER with this report of two studies. In the first study their sampling situation enabled them ". . . to explore facets of vertical exchange relationships and the associations of relationships with turnover" (18). In their second study they tested a number of propositions concerning vertical exchange relationship quality with job satisfaction and performance.

In the first study, their sample was the 38 members of the eastern half of a wholesale sales force. Although the sample size prohibited statistical analysis, the researchers were able to infer from an in-depth interview with the regional sales-manager some information concerning non-respondents to their survey and some information concerning turnover. The regional manager was a 20-year veteran who had an intimate knowledge of the region and the salespeople in the region. The regional manager was able to provide information concerning the relationship between the non-respondents and their sales managers as well as the performances of the non-respondents. Tanner, Jr. and Castleberry stated,

> While the number of nonrespondents prohibited statistical testing, we can infer from the contact's remarks that two types of salespeople

were less likely to respond to this survey: above average performers (who are not cadres) and hired-hands. The non-response by such salespeople indicates that 100% response is necessary to accurately classify subjects as hired-hands and to study performance (20).

Eighteen months after the questionnaires were first gathered, turnover and promotion data were gathered. One subject had died, one had retired for medical reasons and seven had retired under an early retirement program. Again sample size prohibited statistical testing, but Tanner, Jr. and Castleberry (1990) inferred that hired-hands were more likely to leave the organization from the following evidence (Table 3, 22):

	Promoted	No Change in Job Status	Demoted or Fired
CADRE	6	5	0
MIDDLE	4	4	2
HIRED-HAND	1	2	5
TOTALS	11	11	7

In a second study, 45 salespeople in two sales regions of a major consumer goods company were required to respond to a survey. Vertical exchange relationship was measured using LMX17 and cadres and hired-hands were identified as those in each sales unit with the highest and lowest relative scores respectively. All others were considered middles. The following hypotheses were tested in study two.

> $H2_A$: There is a positive relationship between exchange relationship quality and sales performance such that cadres exhibit higher sales performance than middles, who exhibit higher sales performance than hired-hands.

The results did not support this hypothesis ($H2_A$). The results did, however, support the next three hypotheses ($H2_B$, $H2_C$ and $H2_D$).

$H2_B$: There is a positive relationship between exchange relationship quality and managerial performance ratings such that cadres receive higher performance ratings than middles, who receive higher ratings than hired-hands.

$H2_C$: There is a negative relationship between quality of exchange relationship and role conflict, such that cadres experience less role conflict.

$H2_D$: There is a negative relationship between quality of exchange relationship and role ambiguity, such that cadres experience less role ambiguity.

The results did not support the next two hypotheses ($H2_E$ and $H2_F$).

$H2_E$: The relationship between role conflict and sales performance is negative.

$H2_F$: the relationship between role ambiguity and sales performance is negative.

The results did support the remaining hypotheses ($H2_G$, $H2_H$, $H2_I$, $H2_J$ and $H2_K$).

$H2_G$: The relationship between role conflict and sales manager's evaluation of performance is negative.

$H2_H$: The relationship between role ambiguity and sales manager's evaluation of performance is negative.

$H2_I$: Job satisfaction is positively related to the quality of exchange relationship, such that cadres should experience the greatest job satisfaction.

$H2_J$: Role conflict is negatively related to job satisfaction.

$H2_K$: Role ambiguity is negatively related to job satisfaction.

Thus the findings indicated:

a positive relationship between
VER and managerial performance ratings
VER and job satisfaction

a negative relationship between
VER and role conflict
VER and role ambiguity

a negative relationship between
role conflict and sales manager's evaluation of performance
role conflict and job satisfaction

a negative relationship between
role ambiguity and sales manager's evaluation of performance
role ambiguity and job satisfaction

no support for the hypothesized
positive relationship between VER and sales performance
negative relationship between role conflict and sales performance
negative relationship between role ambiguity and sales performance

Tanner, Jr. and Castleberry attributed the relationship between VER and the role stressors to "the quality and frequency of communication between manager and subordinate. As exchange quality improves, so should understanding of role requirements" (22).

A year after the second study, the firm studied underwent a complete reorganization. As a result, five cadres were promoted while no hired-hand or middle was offered a promotion. One hired-hand was fired during the reorganization. No cadres were forced to take lower positions. Although the sample size prohibited statistical testing, the authors inferred that the numbers supported the idea that cadres were more likely to be promoted than hired-hands or middles.

Tanner, Jr., Dunn and Chonko (1993). Tanner, Jr., Dunn and Chonko (1993) examined the relationship between vertical exchange relationship and felt stress, situational stress, role ambiguity and role conflict. They tested for differences among groups of salespeople identified as cadres, middles and hired-hands and also tested for differences among inside and outside salespeople. The results of this study agreed with results found by Tanner, Jr. and Castleberry (1990) suggesting that felt stress and situational stress could be reduced by improving vertical exchange quality.

A "drop off" procedure was used to produce a sample of 155 industrial distributor salespeople. Surveys were mailed to owners of industrial distributor companies with letters asking them to distribute questionnaires to all of their salespeople. Of 1000 questionnaires sent out, 155 were returned in the stamped envelopes provided. Because some owners may not have distributed the questionnaire, the actual return rate may have been higher than it appears (Tanner, Jr., Dunn and Chonko 1993).

Felt stress was measured using a scale adopted from Parasuraman (1982). Role stress was measured using scales developed by Rizzo, House and Lirtzman (1970). The authors developed a six-item scale to measure exchange relationship quality. Six hypotheses were examined as indicated below.

> H_1: Outside salespeople report lower vertical exchange quality scores than inside salespeople.
>
> This hypothesis was not supported.
>
> H_2: Outside salespeople report more role conflict and role ambiguity than inside salespeople.

This hypothesis was not supported, although the authors did comment that outside salespeople did perceive slightly more role ambiguity than did inside salespeople.

> H_3: There is a negative relationship between quality of exchange relationship and role ambiguity, such that cadres report less role ambiguity than do middles, who likewise report less role ambiguity than do hired-hands.

There was support for this hypothesis.

> H_4: There is a negative relationship between quality of exchange relationships and role conflict, such that cadres report less role conflict than do middles, who likewise report less role conflict than do hired-hands.

Support was found for this hypothesis.

> H_5: There is a negative relationship between quality of exchange relationship and felt stress, such that cadres report less felt stress than do middles, who likewise report less felt stress than do hired-hands.

Support was found for this hypothesis.

> H_6: There is a negative relationship between quality of exchange relationship and situational stress, such that cadres report less situation stress than do middles, who likewise report less situational stress than do hired-hands.

Support was found for this hypothesis.

The results of the study failed to indicate differences between the extent of vertical exchange relationships between sales managers and their inside and outside salespeople indicating that "high quality relationships can be formed even when the salesperson spends a great deal of time in the field" (33). The results further indicate that cadres perceived less felt stress, situational stress, role conflict and role ambiguity than did middles and hired-hands and that middles perceived less of each than did hired-hands. Tanner, Jr., Dunn and Chonko (1993) suggested,

> Clearly, the differences in role ambiguity suggest that relationship quality affects role perceptions, but in a different manner for cadres, than for hired-hands. To say that VE depicts the role-making process appears to be true for cadres only; for hired-hands, the role-making process may be left to formal training and other required procedures (33).

Another suggestion from this study is that the results might help explain past work (Tanner, Jr. and Castleberry 1990) reporting significant differences in manager's ratings of cadres' and hired-hands' performances.

> If hired-hands have difficulty working with other areas of the organization whom the salesforce depends for such things as product delivery, customer credit, billing, and so forth, the manager would be aware of that and rate the hired-hands lower. Hired-hands may also depend more on the manager to achieve their customer's requirements from those other operating areas. Hence, there may actually be a great deal of support of the hired-hands required, but a different type of support than that received by cadres (33-34).

Lagace, Castleberry and Ridnour (1993). Lagace, Castleberry and Ridnour (1993) proposed that "With the movement in the U.S. economy toward a total quality environment, there will be a greater focus on relationship building within an organization" (110) and suggested that the sales manager - salesperson team is one of the internal relationships which has received very little attention in marketing research. The focus of their study was to determine if leader-member exchange impacts subordinate's motivation, role stress, and evaluation of the sales manager.

This research into the impact of vertical exchange on salespeople, they reasoned, is critical to the organization because

> . . . they are the initial link from the buyer to the selling organization. The success of the entire organization may well depend upon the performance of sales managers and salespeople. Therefore, it is essential to better understand these dyads and how their interactions impact each other. Our attention in this study is on the effect of this relationship on salespeople, since they are the primary revenue-generating source in the organization (110).

The sample for this study consisted of business-to-business salespeople who were members of a professional sales organization. The subjects agreed to participate in the research at a monthly meeting and represented a wide variety of industries. From an initial mailing of 194 surveys, a total of 155 completed surveys were returned.

Leader-member exchange was measured using LMX7 as developed by Graen, Novak and Sommerkamp (1982). Scales developed by Tyagi (1985) for use in sales situations were used to measure valence and instrumentality. Expectancy was measured using a seven-item measure developed by Teas (1981). Role conflict, role overload, role ambiguity, role insufficiency and role responsibility were measured using scales developed by Osipow and McKenney (1983). Sales manager performance was measured using a seven item scale developed by Graen, Dansereau and Minami (1972) which assesses the managerial capabilities of planning, dealing with people, judgement, dependability and alertness.

Due to prior research on differences in managerial techniques of men and women, the researchers elected to include in the study only those salespeople who reported to male sales managers. To verify the possibility of significant interaction effects based on the gender of the sales manager, they conducted t-tests on the LMX measures and the gender of the salesperson and the gender of the sales manager. There were no differences in gender of the salesperson, but cadres were much more likely to have female sales managers ($t=10.420$, $p=.002$).

This left a sample of 118 out of the 155, as 37 (24%) of the salespeople who responded reported to female sales managers. As the researchers were interested in comparing those with the highest VER scores to those with the lowest VER scores they divided the 118 into three groups based on their LMX7 scores. The middle group was eliminated from further analysis, which left 46 cadres and 42 hired-hands to be studied. In the study, the following hypotheses were examined.

H_1: Cadres will have higher levels of extrinsic and intrinsic instrumentality, and extrinsic valence.

The results supported this hypothesis.

H_2: Hired-hands will have higher levels of intrinsic valence.

This hypothesis was not supported by the results.

H_3: Cadres and hired-hands should have the same expectancy levels.

The results supported this hypothesis.

H_4: Cadres will exhibit lower levels of role ambiguity.

The results supported this hypothesis.

H_5: Cadres will exhibit lower levels of role overload.

The results supported this hypothesis.

H_6: Cadres will exhibit lower levels of role insufficiency.

The results supported this hypothesis.

H_7: Cadres will exhibit lower levels of role conflict.

The results supported this hypothesis.

H_8: Cadres will exhibit lower levels of role responsibility.

This hypothesis was not supported.

H_9: Cadres will rate their sales manager higher on managerial performance.

The results supported this hypothesis.

The results showed that cadres, more than hired-hands, believed that good performance would lead to extrinsic rewards such as increased job security and higher earnings and intrinsic rewards such as feelings of worthwhile accomplishment and sense of being creative. In addition, cadres placed a higher value on extrinsic valence. Later research by Tanner, Jr., Weeks and Nantel (1995) supported this finding.

The results related to role stressors indicate that managers can be stressors and that they should attempt to reduce stressors, especially with hired-hands. It was suggested that communication is a key to doing this.

> This should include a through review with the salesperson of his/her individual job description, sales forecast, sales plan, and/or performance evaluation process. By clearly outlining job related priorities and expectations, hired-hand salespeople have a better understanding of where to invest their time and energy. This is reinforced by timely and constructive follow-up by the sales manager. Apparently this type of communication is already occurring between the sales manager and the cadre, providing a successful framework

for how the manager should also interact with the hired-hand (116).

The researchers suggest that the goal of the manager should not be to turn all of their salespeople into cadres, because that would not be possible. Rather, their goal should be to better manage their relationship with each subordinate, whether they are a cadre or a hired-hand, because each salesperson is "unique and requires his or her own unique relationship with the manager" (118).

Tanner, Jr., Castleberry and Ridnour (1994). The authors explored the dimensionality of vertical exchange relationship and developed and examined a multi-dimensional scale to measure VER based on the ideas of Dienesch and Liden (1986) in this article. The development, reliability and validity of this scale is discussed in Chapter 3.

The results of their study support a two dimensional approach to VER. They regressed the two dimensions against two performance measures (total sales and percentage of quota achieved) in two different time periods. One dimension, labeled affect, was significantly positively related to total sales in both time periods. The other dimension, labeled work, was significantly positively related to the quota measure in only one time period. Their conclusion was that the two dimensions operated differently with the performance measures indicating that VER was two dimensional.

Swift and Campbell (1995). This article examines relationships between sales-managers and their subordinates by surveying sales managers. The purpose of the study is to test the effects of LMX relationship on 1) sales managers' attributions about subordinate performance and 2) sales managers' responses to subordinate performance.

Questionnaires were mailed to 1300 randomly selected sales managers among subscribers to Sales and Marketing Management Magazine. Of the 311 responses received, it was determined that only 289 of the respondents were actually involved in directly supervising salesforce personnel. This study differed in many ways from studies previously examined in this section. First it surveyed sales managers. Secondly, to measure vertical exchange relationship, the researchers used a technique proposed by Heneman, Greenberger and Anonyuo (1989) which asks questions that were somewhat open-ended and relied on the supervisors' memories. For example, in determining cadre status the respondents were asked to

> . . . think of the salesperson with whom they have the best working relationship . . . from whom you would most likely welcome suggestions, whom you would most likely assist if they have a problem, and whom you most likely depend upon to get things done (48).

Respondents were then asked to think of situations ". . . in which performance was effective (success) and one in which performance was ineffective (failure) for both the cadre and hired-hand salesperson" (48). Sales managers were then asked to select specific attributions from a list of four for each of the four conditions (cadre/effective performance, cadre/ineffective performance, hired-hand/effective performance, hired-hand/ineffective performance). Next, they were asked to indicate which of two responses they would take; and finally they were asked to rate, on a scale of one (unacceptable) to seven (outstanding), the cadre and hired-hand employees on their overall level of performance.

The hypotheses examined in this study were as follows.

H_1: For effective performance, sales managers assign internal attributions to cadres.

The results supported this hypothesis.

H_2: For effective performance, sales managers assign external attributions to hired-hands.

The results supported this hypothesis.

H_3: For ineffective performance, sales managers assign external attributions to cadres.

The results supported this hypothesis.

H_4: For ineffective performance, sales managers assign internal attributions to hired-hands.

This hypothesis was not supported by the results.

H_5: For ineffective performance, internal attributions will lead a sales manager to take action toward the salesperson.

This hypothesis was supported when summary responses were considered, but not when the three specific responses of censure, assist and coach were considered.

H_6: For ineffective performance, external attributions will lead a sales manager to take action toward the situation or to take no action.

This hypothesis was supported when summary responses were considered, but not when the three specific responses of censure, assist and coach were considered.

This study shows, as have others reviewed, that cadres receive favorable treatment. The researchers suggested that

> The results of this study are consistent with previous research, in that sales managers in this study made more favorable attributions for the performance of cadre salespersons, responded more favorably to cadre salespersons, and rated the performance of cadre salespersons higher than that of hired-hand salespersons (51).

Tanner, Jr., Weeks and Nantel (1995). Tanner, Jr., Weeks and Nantel (1995) examined perceptions of fairness of reward distribution and performance as outcomes of vertical exchange relationship using analysis of variance procedures. This study explored

> . . . salesperson perceptions of the distribution of rewards, and how those perceptions may be affected by job performance versus quality of exchange relationship (292).

This study utilized the southwest region of an office equipment company. A total of 309 questionnaires were returned out of 743 distributed with a letter of endorsement from district sales management. The sample was split into three equal groups based on their VER scores to determine cadres, middles and hired-hands.

Perceived fairness in recognition, pay, promotions and fringe benefits was measured utilizing scales from Chonko, Tanner, Jr. and Weeks (1991). Salesperson performance was measured using the self-report Behrman and Perreault (1984) scale and self-reported percent of quota attained for the previous year. Vertical exchange was measured using the LMX7 scale "developed by Graen (reported in Graen, Novak, and Sommerkamp 1982) and adopted for sales by Lagace (1990)" (293). The LMX7 measure was used with the sample split into three groups (cadres, middles, hired-hands) based on their VER scores. The following hypotheses were examined.

> H_1: Cadres perceive recognition, pay, promotion opportunities and fringe benefits to be more fair than hired hands.

The overall result was that this hypothesis was supported. The results showed that cadres perceived recognition, pay and promotion opportunities to be fairer than did hired-hands. There were no differences in the perception of the fairness of fringe benefits.

> H_2: Cadres experience higher levels of performance than middles and middles experience higher results than hired-hands.

The overall result was that this hypothesis was not supported. Out of the six factors making up the performance measure, cadres experienced higher levels of performance than hired-hands in only the factor customer interaction. There were no differences in performance in the factors labeled product knowledge, technical knowledge, meeting sales objectives, controlling expenses, and providing information.

> H_3: Cadres experience higher percent of quota performance than hired-hands.

The results indicated that there was no support for this hypothesis.

> H_4: There is an interaction between the type of exchange relationship and performance such that for hired-hands, there is a negative association between performance and perceptions of fairness, and a positive association for cadres.

The results indicated that there was no support for this hypothesis. There were no significant interactions or significant main effects for performance.

This study indicated that even though there was little difference in terms of perceived performance among cadres, middles and hired-hands, there were differences in perceptions of reward distributions. The state of VER research is, perhaps, summarized by Tanner, Jr., Weeks and Nantel (1995) in concluding this study.

> A great deal of research remains before many more implications for practitioners can be developed. It should be clear, however, from the growing body of Vertical Exchange literature that the theory holds great promise for management and academicians alike (295).

Section Summary

This section has reviewed literature related to the development of the vertical exchange relationship construct from its development in the organizational theory literature to present studies in the sales literature. The literature reviewed in this section is summarized in Table 2.9.

Table 2.9
Synopsis of Literature Review on
Vertical Exchange Relationship

Study	Contributions/Findings
Castleberry and Tanner, Jr. (1986)	first to apply LMX to sales; suggested number of applications and areas of possible investigation
Castleberry and Tanner, Jr. (1986)	survey results suggested a positive association between a salesperson's organizational commitment and their relationship with their sales manager
Lagace (1990)	survey results suggested female sales managers were more likely to have cadre salespeople and that cadre salespeople had spent more time with the sales manager, were more trusting, were less suspicious, had higher levels of job satisfaction and were more satisfied with their managers than hired-hands
Tanner, Jr. and Castleberry (1990)	interview results suggested VER to be positively associated with turnover, survey results suggested VER to be positively associated with job satisfaction and managerial performance ratings and negatively associated with role conflict and role ambiguity
Tanner, Jr., Dunn and Chonko (1993)	survey results suggested VER to be negatively associated with role ambiguity, role conflict, felt stress and situational stress
Lagace, Castleberry and Ridnour (1993)	survey results suggested VER to be positively associated with the belief that good performance would lead to extrinsic and intrinsic rewards, valence of extrinsic rewards and evaluation of the manager and negatively associated with role overload, role insufficiency, role ambiguity and role conflict
Tanner, Jr., Castleberry and Ridnour (1994)	introduced a new 42 item scale, factor analysis results indicated 24 items and two dimensions

Table 2.9, Continued

Study	Contributions/Findings
Swift and Campbell (1995)	survey results suggested that VER was associated with more favorable attributions by sales managers of salesperson performance, more favorable responses toward salespersons by sales managers and more favorable ratings of salespersons by sales managers
Tanner, Jr., Weeks and Nantel (1995)	survey results indicated that VER was positively associated with higher perceptions of the fairness of recognition, pay and promotion opportunities.

Chapter Summary

This chapter has reviewed literature related to the three streams of research relevant to the current study. The first section examined the genesis of the most commonly used multi-item measures of role ambiguity, role conflict, job satisfaction and organizational commitment. The first section also indicated the importance, amount of research and findings of the research utilizing these variables in the sales area.

The second section of this chapter reviewed literature related to the market orientation concept. The development of literature formalizing definitions and measures of the constructs and recent studies utilizing these measures were reviewed. The final section of this chapter reviewed literature related to the vertical exchange relationship construct. The next chapter examines the research methodology of the study.

CHAPTER 3

RESEARCH METHODOLOGY

The purpose of this chapter is to discuss the research methodology used in this dissertation. The first section of this chapter will specify formal hypothesis to be tested. The second section will specify the various measurement scales to be used and examine their validity and reliability. The third section of this chapter will explain the plan for collecting data. The final section of the chapter will discuss the methods of analysis.

Research Hypotheses

The purpose of this section is to posit relationships among the variables involved in this study. Such a statement of how two or more variables are related is a hypothesis (Churchill 1991). The proposed hypotheses which follow are developed from the literature reviewed in Chapter 2.

In Chapter 2 it was stated that a market orientation involves being customer oriented, competition oriented and interfunctionally coordinated (Narver and Slater 1990). A similar view of market orientation is that of gathering intelligence, disseminating this information and then responding organizationwide to the information (Kohli and Jaworski 1990). Slater and Narver (1995) suggest a market orientation "provides norms for behavior regarding the organizational development of and responsiveness to market information" (67).

Vertical exchange relationship (VER) has been shown to be a role-making process formed by exchanges between a sales manager and a salesperson with each sales manager/ salesperson dyad in a sales group being different. Some salespeople have a good relationship with their sales manager and are labeled cadres. They are given leadership, rewards, support, training and information beyond that required by the formal job description. Those who do not have a good relationship with their sales manager are labeled hired-hands and they are "supervised and perhaps even coerced" (Tanner, Jr. and Castleberry 1990, 18). The role-making process is limited to the training, socialization procedures and information sharing required by the sales manager's job description (Tanner, Jr., Dunn and Chonko 1993).

Research reviewed in Chapter 2 suggests that market orientation is negatively related to role ambiguity and role conflict and positively related to organizational commitment and job satisfaction (Siguaw, Brown, Widing, II 1994). Other research reviewed suggests that vertical exchange relationship is also negatively related to role ambiguity and role conflict (Tanner, Jr. and Castleberry 1990; Tanner, Jr., Dunn and Chonko 1993) and positively related to job satisfaction (Lagace 1990; Tanner, Jr. and Castleberry 1990) and organizational commitment (Castleberry and Tanner, Jr. 1988-89).

In addition VER may be acting as an unmeasured moderating variable so that if, in a given study, the respondents were mostly cadres (or mostly hired-hands) the results of the study could be misleading (Castleberry and Tanner, Jr. 1986). It has also been suggested that hired-hands and above average performers who are not cadres are least likely to respond to surveys (Tanner, Jr. and Castleberry 1990). Therefore, there is a possibility in a number of studies that the results were, perhaps, not so much from the hypothesized relationships, but from an interaction of VER with the independent variable or from the unmeasured VER itself. What then would be the effects of market orientation on role ambiguity, role conflict, job satisfaction and organizational commitment if the relationship is modified by vertical exchange relationship?

Smith, Kendall and Hulin (1969) define job satisfaction as "feelings a worker has about his job" (12) and determined that people can feel different ways about different parts of their job. In their measure of job satisfaction, they measure the five job aspects of (1) the work itself, (2) pay, (3) supervision, (4) promotion opportunities and (5) co-workers.

Research results reviewed in Chapter 2 suggest that cadres differed from hired-hands on their perceptions of the fairness of recognition, pay and promotion opportunities (Tanner, Jr., Weeks and Nantel 1995) and satisfaction with supervision (Lagace 1990). The results of a meta-analysis (Brown and Peterson 1993) indicated that the largest positive correlations (those over .40) were between job satisfaction and organizational commitment, work motivation, role clarity, closeness of supervision, leader consideration, contingent rewards, influence over standards, participation and value congruence. The largest negative correlations were between job satisfaction and role ambiguity and role conflict.

The following hypothesis suggests then, that in a market-oriented organization the dimensions of a salesperson's relationship with their sales-manager affect the relationship between market orientation and the feelings a salesperson has about their job.

H_1: The dimension(s) of vertical exchange relationship moderate the relationship between market orientation and job satisfaction.

Porter, Steers, Mowday and Boulian (1974) define organizational commitment as "the strength of an individual's identification with and involvement in a particular organization" (604). Commitment to an organization is not just expressed orally, but by one's actions and contributions to the organization's well being. Organizationally committed individuals have a strong belief in and acceptance of the organization's goals and values; they exert considerable effort on behalf of the organization and they desire to maintain organizational membership. The distinction between job satisfaction and organizational commitment is that the latter is more global, more stable over time and develops more slowly.

Evidence shows that vertical exchange relationships develop quickly and remain somewhat stable over time. One would expect that a person's attitude toward the organization, their exertion of effort and their desire to be a part of the organization would be influenced, in the long run, by their relationship with their manager.

Therefore, in a market-oriented organization, the dimensions of a salesperson's relationship with their sales- manager affect the relationship between market orientation and "the strength of an individual's identification with and involvement in a particular organization."

H_2: The dimension(s) of vertical exchange relationship moderates the relationship between market orientation and organizational commitment.

Rizzo, House and Lirtzman (1970) suggest that role ambiguity occurs when individuals do not have a set of specific tasks, responsibilities and/or formal role requirements for which management would hold them accountable and give specific guidance, direction and information to accomplish. Further, role ambiguity occurs when an employee does not know what he has the authority to decide, what he is expected to accomplish or how he will be judged. Slater and Narver (1995) describe a market-oriented organization as one of organic structure and decentralization, ambiguous job responsibilities and extensive lateral communication. How then would a salesperson in a market-oriented organization know their role?

The research reviewed in Chapter 2 suggests that there is no difference between cadres and hired-hands on objective performance measures, but that on subjective performance measures cadres are rated higher. This suggests that high performing hired-hands know what their organization expects of them (the formal, written rules), but not what their sales manager expects of them (the informal rules, unwritten rules).

Therefore it is posited that the dimensions of a salesperson's relationship with their sales manager affect the relationship between market orientation and the salesperson's knowledge and understanding of their role in the organization.

H_3: The dimension(s) of vertical exchange relationship moderates the relationship between market orientation and role ambiguity.

Rizzo, House and Lirtzman (1970) indicate that role conflict occurs when the chain-of-command or the principle of unity-of-command are violated. Narver and Slater (1995) describe a market-oriented organization as being risk taking, entrepreneurial and decentralized with extensive lateral communication, interdependence and cooperation. Surely, in functioning in a market-oriented organization, one would often violate both the chain-of-command and unity-of-command principles. What determines if the conditions of a market orientation impinge upon (hinder) role performance?

Earlier, in an examination of meta-analysis results, the results indicate that large (over .40) negative correlations existed between role conflict and task identity, leader consideration, general supervision, the work itself and co-workers. For a salesperson, each of these could be influenced by the vertical exchange relationship between them and their sales manager.

Thus it is hypothesized that, in a market-oriented organization, the dimensions of a salesperson's relationship with their sales manager affect the relationship between market orientation and the congruency or compatibility of the conditions under which the salesperson works and the salesperson's ability to perform their role.

H_4: The work dimension of vertical exchange relationship moderates the relationship between market orientation and role conflict.

Operationalization of the Variables

The purpose of this section is to present information concerning the operationalization of the variables included in this study. These variables were defined in Chapter 1 and were discussed extensively in Chapter 2. A summary of their definitions is provided in Table 3.1.

The variables included in this study are measured using multi-item scales drawn from previous research. Each scale has been previously tested for validity and reliability. Tables containing scale items and reliability and validity summaries are included in the discussion of each variable. The parts of the questionnaire relevant to this dissertation are presented as Appendix A.

Table 3.1

Summary of Variables and Their Definitions

Variable	Definition
Role Ambiguity	Uncertainty about outcomes from or responses to ones behavior and/or lack of existence or clarity of behavioral requirements (Rizzo, House and Lirtzman, 1970)
Role Conflict	Incompatible demands or expectations which impinge upon role standards (Rizzo, House and Lirtzman, 1970)
Job Satisfaction	Feelings a worker has about their job associated with perceived differences between what is expected and what is experienced in relation to the alternatives available in a given situation (Smith, Kendall and Hulin, 1969)

Table 3.1, continued

Variable	Definition
Organizational Commitment	The strength of an individuals identification with and involvement in a particular organization (Porter, Steers, Mowday and Boulian, 1974)
Market Orientation	The organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business (Narver and Slater, 1990)
Vertical Exchange Relationship	The role-making process based upon the exchange of support between the sales manager and the salesperson (Tanner, Jr., Weeks and Nantel, 1995)

Defining Reliability and Validity

Reliability is "the degree to which measures are free from error and therefore yield consistent results" (Peter 1979, 6) and validity "refers to the degree to which instruments truly measure the constructs which they are intended to measure" (Peter 1979, 6). Reliability is a "necessary (but not sufficient) condition for validity of measures" (Peter 1979, 6).

Marketing researchers have stressed for a number of years the need to assess the validity and reliability of the measures used in research. Peter (1979, 6) wrote, "Valid measurement is the sine qua non of science. . . . If the measures used in a discipline have not been demonstrated to have a high degree of validity, that discipline is not a science." Churchill (1979) compared using bad measures to using bad computer programs in that the result of putting garbage in is getting garbage out. Finally, Jacoby (1978, 90) said, "What does it mean if a finding is significant or that the ultimate in statistical analytical techniques have been applied, if the data collection instrument generated invalid data at the outset?"

Certainly the output or results of this study will be no more valid or reliable than the inputs or measures used to derive the results. Therefore, it is essential to note the items which make up each measure and to discuss the validity and reliability of the measures used in this study.

Job Satisfaction

The Scale. The Job Descriptive Index developed by Smith, Kendall and Hulin (1969) is utilized in this study to measure perceived job satisfaction. As was indicated in Chapter 2, this scale is one of the two most common means of measuring job satisfaction (Brown and Peterson 1993). The scale consists of 72 items and is used here because it measures five dimensions of job satisfaction. These dimensions include the work itself, supervision, co-workers, promotion opportunities and pay. Respondents were asked to answer with a "Y" (yes) if an item described a dimension of their job; an "N" (no) if an item did not describe a dimension of their job and a "?" if they could not decide whether or not an item described a dimension of their job. The items included in the JDI scale are presented in Table 3.2. The scoring procedure for this measure is described in Table 3.3 and was developed by the scale's originators.

Reliability and Validity. Smith, Kendall and Hulin (1969) conducted numerous studies in developing the JDI scale to ensure the reliability and validity of the scale. Using a sample of 80 male employees from two electronic plants they determined split-half internal consistencies for the final revised JDI scales. The scores for the five components ranged from .67 to .78, and all corrected estimates were in excess of .80 as seen in Table 3.4.

Smith, Kendall and Hulin (1969) presented evidence of discriminant and convergent validity. A modification of the Campbell and Fiske (1959) methodology of principal component analysis was used to show discriminant validity among the various aspects of satisfaction purported to be measured by the JDI. Convergent validity was demonstrated by showing high amounts of correlations between subject's JDI scores and their supervisor's ratings and rankings of the subject's job satisfaction. JDI scores were also shown to be highly correlated with the subject's scores on two other scales (director "faces" and graphic) which the researchers had previously determined consistently showed convergent and discriminant validity in measuring job satisfaction.

Bearden, Netemeyer and Mobley (1993) presented evidence from studies by Futrell (1979) and Johnston, Parasuraman, Futrell and Black (1990) which supported the reliability and validity of the JDI. This information is summarized in Table 3.5.

Table 3.2

Items Measuring Job Satisfaction

WORK
1. Fascinating
2. Routine
3. Satisfying
4. Boring
5. Good
6. Creative
7. Respected
8. Hot
9. Pleasant
10. Useful
11. Tiresome
12. Healthful
13. Challenging
14. On your feet
15. Frustrating
16. Simple
17. Endless
18. Gives sense of accomplishment

PAY
1. Income adequate for normal expenses
2. Satisfactory profit sharing
3. Barely live on income
4. Bad
5. Income provides luxuries
6. Insecure
7. Less than I deserve
8. Highly paid
9. Underpaid

PROMOTION
1. Good Opportunity for advancement
2. Opportunity somewhat limited
3. Promotion on ability
4. Dead-end job
5. Good chance for promotion
6. Unfair promotion policy
7. Infrequent promotions
8. Fairly good chance for promotion
9. Regular promotions

CO-WORKERS
1. Stimulating
2. Boring
3. Slow
4. Ambitious
5. Stupid
6. Responsible
7. Fast
8. Intelligent
9. Easy to make enemies
10. Talk to much
11. Smart
12. Lazy
13. Unpleasant
14. No privacy
15. Active
16. Narrow interests
17. Loyal
18. Hard to meet

SUPERVISION
1. Asks my advice
2. Hard to please
3. Impolite
4. Praises good work
5. Tactful
6. Influential
7. Up-to-date
8. Doesn't supervise enough
9. Quick tempered
10. Tells me where I stand
11. Annoying
12. Stubborn
13. Knows job well
14. Bad
15. Intelligent
16. Leaves me on my own
17. Lazy
18. Around when needed

Table 3.3

Job Satisfaction Measure Scoring Procedure

Response	Weight
Yes to a positive item	3
No to a positive item	0
Yes to a negative item	0
No to a negative item	3
"?" to any item	1

Source: Smith, Kendall and Hulin (1969)

Table 3.4

Internal Consistencies of JDI Components

Scale Component	Correlation of Random Split-Halves	Correlations Corrected to Full Length by Spearman-Brown Formula
Work	.73	.84
Pay	.67	.80
Promotions	.75	.86
Supervision	.77	.87
Co-Workers	.78	.88

Source: Smith, Kendall and Hulin (1969, Table 4.3, 74)

Table 3.5

Reliability and Validity Assessment
of Job Satisfaction Measure

Author	Reliability	Validity
Smith, Kendall and Hulin (1969)	See Table 3.8	Discriminant, Convergent
Futrell (1979)	Alphas for Components range from .67 to .93, with mean of .87	Discriminant, Convergent
Johnston, Parasuraman, Futrell and Black (1990)	Time 1: .85 Time 2: .92	Nomological

Role Ambiguity and Role Conflict

The Scales. Role ambiguity and role conflict are measured using scales developed by Rizzo, House and Lirtzman (1970). As indicated in Chapter 2, an estimated 85 per cent of the studies in which these two constructs have been measured have utilized the Rizzo, House and Lirtzman scales to do so (Jackson and Schuler 1985). The scale measuring role ambiguity consists of six items and the scale measuring role conflict consists of eight items. Respondents were asked to indicate the degree to which the condition described in an item existed for him/her on a 7-point scale ranging from "Definitely Not True" to "Extremely True." Item scores were then summed and divided by the number of items in each scale to form role ambiguity and role conflict scores. The items for the role ambiguity scale are in Table 3.6 and the items for the role conflict scale are in Table 3.7.

Table 3.6

Items Measuring Role Ambiguity

1. I feel certain about how much authority I have.
2. There are clear, planned goals and objectives for my job.
3. I know that I have divided my time properly.
4. I know what my responsibilities are.
5. I know exactly what is expected of me.
6. Explanation is clear of what has to be done.

Items are measured on a scale of 1 to 7, with anchors of
1 = Definitely Not True   7 = Extremely True

Table 3.7

Items Measuring Role Conflict

1. I have to do things that should be done differently.
2. I receive an assignment without the manpower to complete it.
3. I have to buck a rule or policy in order to carry out an assignment.
4. I work with two or more groups who operate quite differently.
5. I receive incompatible requests from two or more people.
6. I do things that are apt to be accepted by one person and not accepted by others.
7. I receive an assignment without adequate resources and materials to execute it.
8. I work on unnecessary things.

Items are measured on a scale of 1 to 7, with anchors of
1 = Definitely Not True   7 = Extremely True

Reliability and Validity. Evidence of the reliability and validity of the role ambiguity and role conflict scales is found in past studies. In developing the scales Rizzo, House and Lirtzman (1970) examined the reliability of the measure using Kuder-Richardson internal consistency reliabilities with Spearman-Brown corrections. Their original work utilized two samples which they labeled sample A and sample B. Sample A consisted of 199 employees (35 per cent of the total number of employees) randomly selected from the central offices and main plant of a firm. Sample B consisted of all 91 people who made up the research and engineering division of the same firm. For the items making up the role ambiguity scale, sample A had a reliability of .78 and sample B had a reliability of .81. For the items making up the role conflict scale, sample A had a reliability of .81 and sample B had a reliability of .82.

In their meta-analysis of role ambiguity and role conflict, Jackson and Schuler (1985) found the average reported reliability coefficient scores to be .79 for both measures. This included scores reported for 15,956 subjects in 63 samples for role ambiguity and scores for 13,005 subjects in 45 samples for role conflict. Rizzo, House and Lirtzman (1970) also reported information which suggested both nomological and discriminant validity. Bearden, Netemeyer and Mobley (1993) presented evidence from studies by Teas (1983) and Johnston, Parasuraman, Futrell and Black (1990) which supported the reliability and validity of the two scales. This information concerning role ambiguity is summarized in Table 3.8 and information concerning role conflict is in Table 3.9.

Table 3.8

Reliability and Validity Assessment of Role Ambiguity

Author	Reliability	Validity
Rizzo, House and Lirtzman (1970)	Kuder-Richardson Sample A: .78 Sample B: .81	Nomological, Discriminant
Teas (1983)	Alpha: .82	Nomological

Table 3.8, continued

Author	Reliability	Validity
Johnston, Parasuraman, Futrell and Black (1990)	Time 1: .81 Time 2: .82	Nomological

Table 3.9

Reliability and Validity Assessment of Role Conflict

Author	Reliability	Validity
Rizzo, House and Lirtzman (1970)	Kuder-Richardson Sample A: .82 Sample B: .82	Nomological, Discriminant
Teas (1983)	Alpha: .88	Nomological
Johnston, Parasuraman, Futrell and Black (1990)	Internal Consistency Via LISREL Time 1: .81 Time 2: .85	Nomological

Shepherd and Fine (1994) reviewed criticisms of the two scales' reliability and validity. They found that "Reliability coefficients for the scales when used in a sales setting range from an acceptable .74 to a respectable .90" (60) and that there was ample evidence of the validity of the original scales. Their conclusion was that comparisons of validity and reliability "are made difficult by the fact that researchers have modified the scale content and the response format across studies" (60). They also believed that the use of different scale items and response formats could also explain some of the conflicting and differing results of research purporting to use the Rizzo, House and Lirtzman (1970) scales. They indicate that the scales should be used in their original form when researchers are concerned about discriminant validity, when the interest is in global or general role conflict or role ambiguity, or when researchers are replicating or extending specific works of others who utilized the scales. They suggest using variations of the scale or even other scales when specific sources of conflict or ambiguity are of interest, when reliability coefficients can be improved or when the researcher believes the subject's ability or motivation to respond will be greater.

Organizational Commitment

The scale. In this study, organizational commitment is measured using the Organizational Commitment Questionnaire (OCQ) developed by Porter, Steers, Mowday and Boulian (1974) because of its wide use. The items that constitute this scale are listed in Table 3.10 below. It should be noted that some researchers have used a shorter, 9-item version of the scale using only the positive worded items.

Table 3.10

Items Measuring Organizational Commitment

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 this organization to my friends as a great organization to work for.

3. I feel very little loyalty to this organization. (R)

4. I would accept almost any type of job assignment in order to keep working for the 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. (R)

8. This organization really inspires the very best in me in the way of job performance.

9. It would take very little change in my present circumstances to cause me to leave this organization. (R)

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. (R)

12. Often I find it difficult to agree with this organization's policies on important matters relating to its employees. (R)

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. (R)

(R) - indicates reverse scored items

Items were measured on a scale of 1 to 7, where
1 = Strongly Disagree 7 = Strongly Agree

As indicated in Chapter 2, the OCQ is by far the most widely used method of measuring organizational commitment (Mathieu and Zajac 1990). Respondents are asked to indicate their agreement or disagreement with each of 15 statements using a 7-point scale ranging from "Strongly Agree" to "Strongly Disagree." Of the 15 items, six (see Table 3.10) require reverse scoring. Responses are then summed and divided by the number of items with the result being the respondents organizational commitment score.

Reliability and Validity. Mowday, Steers and Porter (1979) present evidence of the reliability and validity of the Organizational Commitment Questionnaire. By 1979, the researchers had administered the OCQ to a total of 2563 subjects in nine different work organizations working in a wide variety of jobs. In some of the studies a 9-item version of the scale using only the positively worded items was used.

Evidence of internal consistency was presented utilizing coefficient alpha, item analysis and factor analysis. Coefficient alpha for the 15-item scale ranged from .82 to .93 over the studies as shown in Table 3.11.

Table 3.11

Internal Consistencies for Organizational Commitment Measure

Type of Job	N	Coefficient Alpha
Public Employees	569	.90
*Classified University Employees	243	.90
*Hospital Employees	382	.88
Bank Employees	411	.88
Telephone Co. Employees	605	.90
*Scientists and Engineers	119	.84
Auto Company Managers	115	.90
Psychiatric Technicians	60	.82-.93**
Retail Management Trainees	59	NA

*nine-item scale was used
**range over four time periods

Source: Mowday, Steers and Porter 1979 (Table 3, 232)

Average item-to-total score correlations ranged from .36 to .72 for the 15 items with most (nine of fifteen) being over .60. The researchers also present factor analysis results which show a single-factor solution. Finally, test-retest reliability was examined utilizing data from two studies. In one study, using psychiatric technicians, test-retest reliabilities were r = .53, .63 and .75 over 2-, 3- and 4-month periods. In another study, with retail management trainees as subjects, the test-retest reliability was r = .72 and .62 for 2- and 3-months.

The researchers presented five items of evidence which, "when taken together, are suggestive of convergent validity" (234). They determined that there was an acceptable level of discriminant validity as indicated by sufficiently low correlations between the OCQ and job involvement, career satisfaction and the five job satisfaction components of the JDI. Finally, evidence of predictive validity for the OCQ was also presented as significant relationships between the OCQ and turnover, tenure, absenteeism and performance were demonstrated.

Bearden, Netemeyer and Mobley (1993) presented evidence from studies by Michaels, Cron, Dubinsky and Joachimsthaler (1988); Good, Sisler and Gentry (1988) and Johnston, Parasuraman, Futrell and Black (1990) which supported the reliability and validity of the OCQ. This information is summarized in Table 3.12.

Table 3.12

Summary of Reliability and Validity of Organizational Commitment Measure

Author	Reliability	Validity
Mowday, Steers and Porter (1979)	coefficient alpha (see Table 3.11) item analysis factor analysis test-retest	convergent, discriminant, predictive
Michaels, Cron, Dubinsky and Joachimsthaler (1988)	alpha = .90	Nomological
Good, Sisler, and Gentry (1988)	alpha = .91	Nomological
Johnston, Parasuraman, Futrell and Black (1990)	Time 1: .88 Time 2: .93	Nomological

Market Orientation

The Scale. The Narver and Slater (1990) measure of market orientation is used in this study. For each of the 15 items that make up this measure, respondents are asked to indicate the extent their business unit engages in the activity described or has the described orientation toward customers, competitors or employees. The statements in this scale are presented in Table 3.13 below.

Table 3.13

Items Measuring Market Orientation

1. Our salespeople regularly share information within our business concerning competitor's strategies.

2. Our objectives are driven primarily by customer satisfaction.

3. We discourage employees outside of sales/marketing from meeting with customers. (R)

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.

Table 3.13, continued

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.

Items were measured on a scale of 1 to 7, where
1 = Not at All 7 = To an Extreme Extent

(R) - indicates reverse scored item

Seven response choices were given ranging from "Not at All" to "To An Extreme Extent." Six of the scale items measure the customer orientation component of market orientation, four items measure the competitor orientation component and five items measure the interfunctional coordination component. Item three was reverse scored and then all responses were summed and divided by 15, the number of total items in the scale, to obtain a score for each respondent.

<u>Reliability and Validity.</u> Narver and Slater (1990) provide evidence of the reliability and validity of their three-component model of market orientation both in the study introducing the model and in later studies. To assess reliability in the first study, the researchers randomly divided a sample of responses from 371 members of top management teams from 140 strategic business units of a major

corporation into two sub-samples. Coefficient alphas for the three dimensions of market orientation for sample one, sample two and a later study are given in Table 3.14. They range from .71 to .87. Also in the table are the coefficient alphas for long term horizon and profit emphasis, two decision variables that were dropped from further analysis due to unacceptably low reliability scores. In a later study (Slater and Narver, 1994), the coefficient alphas for the three component scales ranged from .73 to .88.

Table 3.14

Cronbach Alpha Scores of Marketing Orientation Dimensions

	Narver and Slater (1990)		Slater and Narver (1994)
Dimension	Sample 1 Cronbach Alpha	Sample 2 Cronbach Alpha	Cronbach Alpha
Customer Orientation	.85	.86	.87
Competitor Orientation	.71	.72	.72
Interfunctional Coordination	.71	.73	.77
Long-Term Horizon	.47	.40	
Profit Emphasis	.13	.00	

A Cronbach alpha score of .88 was attained when the fifteen items were combined into one scale (Narver and Slater, 1990). In the same study, the authors provided evidence of face validity and then, by showing convergent validity, discriminant validity and concurrent validity, evidence of construct validity. Evidence of the reliability and validity of the scale is summarized in Table 3.15.

Table 3.15

Reliability and Validity of Market Orientation Measure

Author	Reliability	Validity
Narver and Slater (1990)	Cronbach Alpha .88	Face Construct Convergent Discriminant Concurrent
Slater and Narver (1994)	Cronbach Alpha .80	
Siguaw, Brown and Widing, II (1994)	Cronbach Alpha .88	

Vertical Exchange Relationship

The Scale. In this study, vertical exchange theory is measured using a 24-item scale developed by Tanner, Jr., Castleberry and Ridnour (1994). The scale items are listed in Table 3.16. Respondents are instructed to indicate their degree of disagreement or agreement with each statement based on a seven point scale ranging from "strongly disagree" to "strongly agree." To arrive at a measure of VER, item 23 is reverse scored, responses are summed and divided by 24, the total number of items in the scale.

Table 3.16

Items Measuring Vertical Exchange Relationship

1. My manager encourages me to offer my views on work related topics.

2. I know where I stand with my manager

3. I know how satisfied my manager is with my work.

4. My manager values the quality of my work activities.

5. My manager would assist me in resolving my work problems at his/her expense.

6. My manager believes in my potential.

7. My manager recognizes my contribution to the team.

8. My manager recognizes my contribution to the company.

9. My manager appreciates my efforts to do a good job.

10. My manager appreciates the amount of work I accomplish.

11. I appreciate my manager's contribution to my performance.

12. My manager and I are friends.

13. My manager and I have a strong basis for a common ground.

14. My manager's business philosophy is generally similar to mine.

15. My manager's attitude on company issues is generally similar to mine.

Table 3.16, continued

16. My manager's attitude on sales strategies is generally similar to mine.

17. My manager's attitude on sales policies and procedures is generally similar to mine.

18. My manager's personal (nonbusiness) values are similar to mine.

19. During planned, regularly scheduled meetings between myself and my manager, he/she is informal, relaxed, and comfortable.

20. I would avoid discussing topics with other members of my sales team that might make my boss look bad.

21. When necessary, I would defend the character of my manager.

22. I would defend and justify my manager's decision process, if he/she were not present to do so.

23. I would not defend the reputation of my manager. (R)

24. My manager is honest.

Items were measured on a scale of 1 to 7, where
1 = Strongly Disagree 7 = Strongly Agree

(R) - indicates reverse scored item

Reliability and Validity. Other than studies by Tanner, Jr., Castleberry and Ridnour (1994) and Tanner, Jr., Ridnour and Castleberry (1997) using the same sample, no studies have used this particular scale. Therefore, only one test of the dimensionality, reliability and validity of the scale is available.

The researchers used a total of 25 in depth interviews with salespeople to develop 42 items for consideration. The items were then examined for face validity by a panel of academics. No modifications were deemed necessary. A questionnaire was then pretested on five salespeople and again no modifications were deemed necessary. A survey of a national sales organization was done resulting in 574 completed surveys.

Results of an iterative factor analysis procedure indicated two dimensions existed rather than the three posited by the researchers. One dimension, labeled work, was made up of 11 items and the other dimension, labeled affect, was made up of 13 items. A total of 18 items were deleted due to low loadings or cross loading.

The Cronbach alpha measure for the work dimension was .95 and for the affect dimension .89 offering sufficient evidence of the scale's reliability. Other than indications of face validity, no specific information concerning validity is given. Correlations are not given, so it is not possible to speculate as to the convergent and divergent validity of the scale. Reliability and validity information is summarized in Table 3.17 below.

Table 3.17

Reliability and Validity of Vertical Exchange Measure

Author	Reliability	Validity
Tanner, Jr., Castleberry and Ridnour (1994)	Cronbach alpha = .85	Face

The Research Instrument

The portions of the research instrument used in this dissertation are presented in Appendix A. Group 1 of this instrument measures perceptions of the market orientation of the firm. Group 2 measures role ambiguity in items 1-6 and role conflict in items 8-14. Group 4 measures organizational commitment in items 1-15. Group Five measures job satisfaction and items 1-24 in Group Seven measure vertical exchange relationship. Group Eleven requests a variety of demographic information from the respondents. The other sections of the questionnaire are not related to this study.

Research Design

The sampling frame for this survey was the salesforce of a national publishing company. The questionnaire was administered via the internet. An e-mail message was sent from the Executive Vice President of Sales indicating that each salesperson would soon receive an e-mail from a doctoral student requesting their assistance in a study. The e-mail from the doctoral student transmitted a link to a website containing the first part of the survey. After respondents had finished the first part of the survey, they submitted their responses and received a note of thanks and a link to the second part of the survey. This process of submitting and receiving a link to the next part of the survey was repeated twice more until respondents had answered all four survey parts. It was expected that each section would take an average of 15 to 20 minutes. Respondents who missed or skipped a question on the first three parts of the survey received an indication of the question(s) not answered and were required to go back and answer the question(s) before they could submit the particular section.

Statistical Methodology

Moderated regression analysis, using the framework suggested by Sharma, Durand and Gur-Arie (1981), was the primary statistical technique used for data analysis. This framework combines moderated regression analysis with subgroup analysis to not only identify moderator variables, but also to indicate the type of moderator variable present.

Defining Moderators

A moderator variable is a type of specification variable. A specification variable ". . . specifies the form and/or magnitude of the relationship between a predictor and a criterion variable . . . (Sharma, Durand and Gur-Arie 1981, 292). A typology of specification variables is illustrated in Figure 3.1.

Sharma, Durand and Gur-Arie (1981) define a moderator variable as "one which systematically modifies either the form and/or strength of the relationship between a predictor and a criterion variable" and suggest that there are two types of moderator variables. One type affects the strength of the relationship between a dependent and independent variable. The other type modifies the form of the relationship between a dependent and independent variable.

In the first type of moderator variable, there is no interaction between a predictor and the proposed moderator variable and the proposed moderator is not related to either the criterion or predictor variable (Sharma, Durand and Gur-Arie 1981). This type of moderator is called a homologizer and in this situation

> . . . the error term is posited to be a function of the moderator variable. Therefore, partitioning the total sample into homogeneous subgroups with respect to the error variance should increase the predictive efficacy of the classic model for specific subgroups (292).

	Related to Criterion and/or Predictor	Not Related to Criterion and/or Predictor
No Inter- action with Predictor	1 Intervening, Exogenous, Antecedent, Supressor, Predictor	2 Homologizer Moderator
Interaction with Predictor Variable	3 Quasi Moderator	4 Pure Moderator

Figure 3.1

Typology of Specification Variables

Source: Sharma, Durand and Gur-Arie 1981 (Figure 1, p. 292)

In the second type of moderator variable, there is interaction between the proposed moderator and the predictor variable. If the proposed moderator is related to the criterion and/or predictor, then it is a quasi moderator. If the proposed moderator is not related to the criterion or predictor variable, then it is a pure moderator (Sharma, Durand and Gur-Arie 1981).

Identifying Moderators

Sharma, Durand and Gur-Arie's (1981) framework for identifying moderators is illustrated in Figure 3.2. In the framework, three regression equations are examined if there is one predictor variable (x), one proposed moderator (z) and one criterion variable (y). These equations are:

1: $y = a + b_1x$
2: $y = a + b_1x + b_2z$
3: $y = a + b_1x + b_2z + b_3xz$

The framework then considers four possible results of examining the three regression equations. The results determine into which quadrant of Figure 3.1 the proposed moderator will be placed.

Result 1: If in equations 2 and 3, b_3 is not significant (i.e., there is no interaction) and b_2 is significant, then z is not a moderator variable, but one of the variables in quadrant one of Figure 3.1.

Result 2: If in equations 2 and 3, b_3 is not significant and b_2 is not significant, then subgroup analysis must be conducted by splitting the sample into quartiles based on the proposed moderator. If the subgroups differ significantly with respect to R^2 then z is a homologizer (quadrant two of Figure 3.1). However, if the subgroups do not differ significantly with respect to R^2, then z is not a specification variable and is not in any of the quadrants of Figure 3.1.

Result 3: If in considering equations 1, 2 and 3, b_1 is significant in equations 1 and 2, b_2 is significant in equations 2 and 3, and b_3 is significant in equation 3 (i.e., there is interaction between x and z), then z is a quasi moderator (quadrant three of Figure 3.1).

Result 4: If in considering equations 1, 2 and 3, b_1 is significant in equations 1 and 2, b_2 is not significant in equations 2 and 3, and b_3 is significant in equation 3, then z is a pure moderator (quadrant four of figure 3.1).

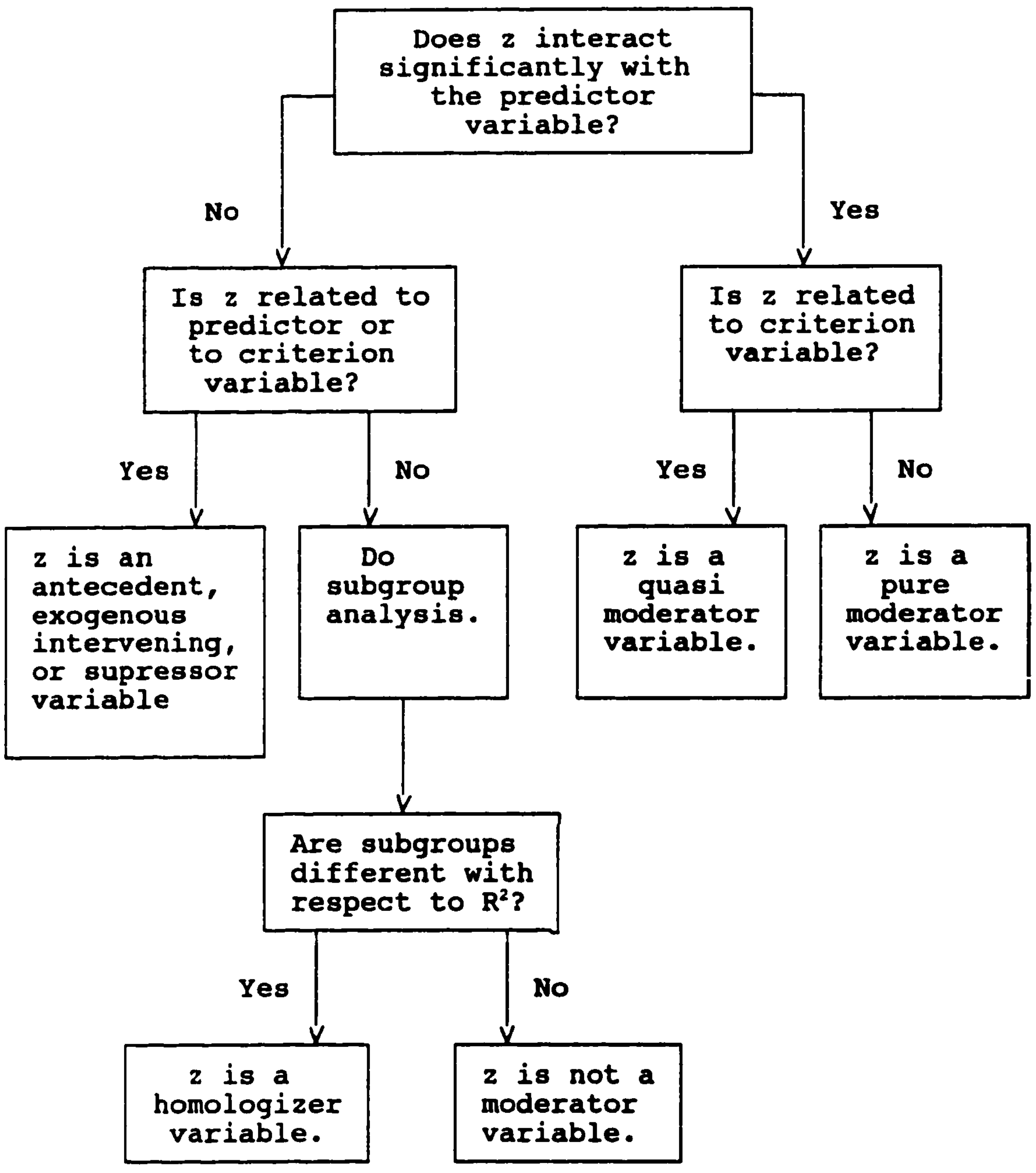

Figure 3.2

Framework for Identifying Moderator Variables

Source: Sharma, Durand and Gur-Arie 1981 (Figure 3, p. 297)

Chapter Summary

In this chapter, formal hypotheses were suggested based on the literature reviewed in Chapter 2. These hypotheses proposed that vertical exchange relationship is a moderator of the relationships between market orientation and the role variables. Next, the operationalization of the variables was considered. In so doing the items making up the measures were listed and the historical reliability and validity of the measures were examined. Next, discussion of the research instrument, research design and statistical methodology were presented. The research instrument was a questionnaire which was delivered via the internet to a publishing company's national sales force. The resulting data has been analyzed using moderated regression analysis. The next chapter, Chapter 4, consists of a presentation of the analysis of the data.

CHAPTER 4

RESULTS

The purpose of this chapter is to present the results of the data analysis. First, data collection methods and demographic characteristics of the sample are presented. Next, an assessment of nonresponse bias is presented. This is followed by an examination of the reliability, validity and generalizability of the factors making up the vertical exchange relationship scale and of the other measures used in this study. Following this, the descriptive statistics for the scales and a comparison of the means and coefficient alphas of the scales in the present study are compared to those from previous studies. In consideration of the skewness of the data collected, an assessment of the possibility of social desirability response bias is presented. Next, the hypotheses posited in Chapter 3 are tested using moderated regression analysis. Following this, the mediation effects of the dimensions of the relationships between market orientation and vertical exchange relationship are examined. The final section of this chapter contains concluding remarks regarding the analysis of the data.

Collection of the Data

The sampling frame consists of 269 salespeople employed by a major publishing company. An e-mail from the Executive Vice-President for Sales was sent to each salesperson telling them they would soon receive an e-mail from a doctoral student asking them to participate in a survey research project. His e-mail encouraged them to participate. The subsequent e-mail directed the salespeople to a website where they answered the survey questions. Survey questions were set up on the website so that respondents were able to indicate their answers by "clicking" their desired response for each question. This means that for each of the dissertation measures each question was followed by seven numbers with empty circles or "radio" buttons beside each. Respondents who wanted to answer "3" simply clicked the button beside the "3" which then became a dark circle as opposed to an empty circle. The dark circle enabled respondents to see that the question had been answered as well as to see their answer. For the customer orientation scale nine numbers and associated radio buttons were used. For the job satisfaction measure three radio buttons were used corresponding to the possible answers of "yes," "no" and "?."

A follow-up e-mail was sent to the salesforce by the Vice-President one week after the first e-mail and a second follow-up e-mail was sent about two weeks later. Each follow-up e-mail thanked those who had responded and encouraged those who had not to do so. Each follow-up e-mail contained a link to the questionnaire website. Completed surveys were received from 195 of the salespeople for a response rate of 72.5 per cent.

Characteristics of the Sample

Important characteristics of the sample are presented in Tables 4.1 and 4.2. These characteristics include, in Table 4.1, demographic characteristics of age, gender, race, marital status and highest level of education. Job characteristics of 1998 gross pay, 1998 percentage of quota achieved, average hours on the job per week and years of sales experience are in Table 4.2. The average age of the respondents is 39.5 years with a median of 38 years and a range of 42 years. The minimum age is 23 years and the maximum is 65 years. Almost 60 per cent of the respondents are 40 years old or younger. Just over 55 per cent are female, almost all (91.3 per cent), are white and most (75.5 per cent) are married. Over 95 per cent of the respondents have a college degree with 15 per cent having completed some graduate school and 18 per cent having completed a graduate degree.

The mean for the number of years of sales experience is 13.5 years with a median of 12 years and a range of 37 years. The minimum is no years and the maximum is 37 years. Some 25 per cent of the respondents have 6 or less years of sales experience and about 23 per cent have more than 20 years of sales experience. The respondents spend an average of 54.5 hours per week on the job with the median being 55. The range is 96 hours with a minimum of 4 hours and a maximum of 100 hours. About 56 per cent of the respondents report working between 50 and 60 hours per week. The average gross pay in 1998 was just over $56,000 with a range of $105,000. The minimum gross pay among the respondents in 1998 was $20,000 with the maximum being $125,000. About 22 per cent earned under $30,000 and about 25.4 per cent earned over $69,000. The percentage of quota achieved in 1998 ranged from a minimum of 60 per cent to a maximum of 145 per cent for a range of 85 per cent. The average quota achieved was 103.6 per cent with a median of 101 per cent. Almost 51.5 per cent of the respondents exceeded their quota for 1998.

Table 4.1

Selected Demographic Characteristics

	Category	Percentage in Category	Overall Mean	Median	Range	Overall Min	Overall Max
AGE	23-30	20.2	39.5	38	42	23	65
	31-40	39.4					
	41-50	23.9					
	over 50	16.5					
GENDER	Male	44.6					
	Female	55.4					
RACE	Asian	0.5					
	Black	2.5					
	Hispanic	1.5					
	Other	3.0					
	White	91.3					
MARITAL STATUS	Married	75.5					
	Never Married	14.1					
	Separated/ Divorced	9.4					
	Widowed	0.5					
HIGHEST EDUCATION LEVEL COMPLETED	Some College	4.2%					
	College Degree	62.5%					
	Some Graduate School	15.1%					
	Graduate Degree	18.2%					

Table 4.2

Selected Job Characteristics

	Category	Percentage in Category	Overall Mean	Median	Range	Overall Min	Overall Max
1998			56.18	55	105	20	125
GROSS PAY	20-29.5	22					
(in 000s)	30-54	27.1					
(173 of 195)	55-69	25.5					
	over 69	25.4					
1998			103.6	101	85	60	145
PERCEN-	60-95	27.2					
TAGE OF	96-100	21.4					
QUOTA	101-110	30					
ACHIEVED	over 110	21.4					
(of 195)							
AVERAGE			54.5	55	96	4	100
HOURS	4-49	22.5					
ON THE	50-54	22.5					
JOB PER	55-60	33.5					
WEEK	over 60	21.5					
(191 of 195)							
YEARS			13.5	12	37	0	37
OF SALES	0-6	25.3					
EXPER-	7-12	27.4					
IENCE	13-20	24.7					
(186 of 195)	over 20	22.6					

Nonresponse Error Assessment

Nonresponse error is assessed by examining the differences among various groups. Group membership is based on the order in which the members of the groups responded. For the scale variables and selected other variables, the mean for the first half of respondents is compared to the mean of the second half; the mean of the first quartile is compared to the mean of the fourth quartile and the means of the first, second and third waves of respondents are compared. Waves were determined based on the e-mails sent by the Executive Vice-President for Sales. Wave one (n=56) consists of those who responded after the first e-mail, but before the second e-mail. Wave two (n=107) is made up of those who responded between the second and third e-mails, and wave three (n=32) consists of those who responded after the third e-mail. Analysis of variance is used to ascertain whether or not there were significant differences between the groups at the .05 level of significance. Variables examined include the measures included in the dissertation as well as the salespeople's age, their percentage of 1998 quota achieved, average hours on the job per week and years of sales experience.

The results of the analysis of variance are shown in Tables 4.3 and 4.4. There are no significant differences in the means at the .05 level of significance between early and late respondents for any of the scale variables, age or the job related variables for any of the categories of responses examined. Therefore, nonresponse error is not considered to be a problem with this sample.

Table 4.3

Comparison of Means of the Scale Variables

	Halves		Quartiles		Waves		
	First	Second	First	Fourth	First	Second	Third
Job Satisfaction							
N	97	98	48	49	56	107	32
Mean	165.5	166.2	168.6	162.7	168.6	166.2	159.9
F	.034		1.204		1.106		
Significance	.854		.275		.333		
Market Orientation							
N	97	98	48	49	56	107	32
Mean	4.61	4.70	4.61	4.86	4.60	4.65	4.80
F	.457		1.825		.408		
Significance	.500		.180		.666		
Organizational Commitment							
N	97	98	48	49	56	107	32
Mean	5.33	5.33	5.49	5.23	5.42	5.29	5.30
F	.001		1.280	.	.414		
Significance	.979		.261		.661		
Role Ambiguity							
N	97	98	48	49	56	107	32
Mean	2.51	2.56	2.37	2.45	2.39	2.57	2.65
F	.146		.148		.774		
Significance	.703		.701		.463		
Role Conflict							
N	97	98	48	49	56	107	32
Mean	3.21	3.11	3.10	3.19	3.30	3.00	3.5
F	.276		.107		2.444		
Significance	.600		.744		.089		
Vertical Exchange Relationship							
N	97	98	48	49	56	107	32
Mean	5.86	5.93	5.86	5.80	5.79	5.91	5.99
F	.350		.111		.658		
Significance	.555		.740		.519		

Table 4.4

Comparison of Means of Age and Job Related Variables

	Halves		Quartiles		Waves		
	First	Second	First	Fourth	First	Second	Third
Age							
N	91	97	45	49	52	105	31
Mean	40.7	38.5	40.5	37.0	41.0	39.6	36.8
F	2.547		3.572		1.963		
Significance	.112		.062		.143		
Average Hours on the Job per Week							
N	93	98	46	49	54	105	32
Mean	53.2	55.6	52.7	56.1	53.8	54.3	55.8
F	1.402		1.419		.216		
Significance	.238		.237		.806		
Percentage of 1998 Quota Achieved							
N	81	92	37	47	44	98	31
Mean	105.6	102.0	105.1	101.5	104.3	104.3	100.9
F	3.428		1.454		.885		
Significance	.066		.231		.414		
Years of Sales Experience							
N	91	95	43	49	51	103	32
Mean	14.0	13.0	14.0	11.9	14.2	13.8	11.5
F	.641		1.612		1.096		
Significance	.424		.208		.336		

Measurement Issues

The purpose of this section is to examine the multi-item scales used in the study for accuracy and applicability. Malhotra (1999) suggests this be done by assessing the reliability, validity and generalizability of each scale (see also Churchill, Jr. 1979 and Peter 1979). Before this is done, consideration will be given to the purity of the various scales as suggested by Churchill, Jr. (1979).

It should be noted that Peter (1979, 16) indicates that a useful guideline related to sample size and sample error is that the number of subjects should be at least ten times the number of items or five times the number of items in measures involving a large number of items. In this study, the number of items in the various measures ranged from 6 items measuring role ambiguity to 24 items measuring vertical exchange relationship to 72 items measuring job satisfaction. The sample size for this study is 195, so this guideline has been greatly exceeded for all scales except job satisfaction where the ratio of respondents to items is about 4 to 1. It is believed that due to the large number of items this is an adequate sample size.

As demonstrated in Chapter 2, the multi-item scales utilized to measure role conflict, role ambiguity, job satisfaction and organizational commitment are well established and frequently utilized scales (Jackson and Schuler 1985, Brown and Peterson 1993, Mathieu and Zajac 1990). The scale utilized to measure market orientation has also been well established through past use (Narver and Slater 1990, Siguaw, Brown and Widing, II 1994, Slater and Narver 1994), but not to the extent of the scales measuring the role variables. Because of the extensive use and proven nature of these scales it is not deemed necessary to undertake purification measures on these scales. The reliability and validity of these scales, as shown in past studies were summarized in Table 3.4 (Role Ambiguity), Table 3.5 (Role Conflict), Table 3.9 (Job Satisfaction), Table 3.12 (Organizational Commitment) and Table 3.15 (Market Orientation). The reliability of these scales, as the reliability relates to the current research, will be indicated below.

As indicated in Chapter 2, the multi-item scale measuring vertical exchange relationship is a relatively new scale. Therefore, examining the reliability and validity of this scale in depth is seen as a necessary step prior to doing further analysis.

Reliability

Reliability refers to the degree to which measures are free from error and therefore the extent to which they produce consistent results if repeated measures are made on the same characteristic (Peter 1979: 6 and Malhotra 1999: 281). Churchill, Jr. (1979: 70) says that, "Coefficient alpha is the basic statistic for determining the reliability of a measure based on internal consistency." Therefore this measure is used to demonstrate the reliability of the scales used in this research. The coefficient alphas for job satisfaction, organizational commitment, role ambiguity, role conflict, market orientation and vertical exchange relationship are .91. .87, .82, .84, .93 and .95 as shown in Table 4.5. These measures are well above the .70 recommended by Nunnally (1978) for basic research.

Table 4.5

Coefficient Alphas for the Study Scales

Variable	Alpha	N of cases	N of items
Job Satisfaction	.91	195	72
Organizational Commitment	.87	195	15
Role Ambiguity	.82	195	6
Role Conflict	.84	195	8
Market Orientation	.93	195	15
Vertical Exchange Relationship	.95	195	24

As the goal of this research is to examine the moderating effects of the different dimensions of the vertical exchange relationship scale on the relationship between the market orientation of the firm and the role variables, it is necessary to examine the dimensions which make up the vertical exchange relationship scale. Prior research using the 24-item version of the vertical exchange measure utilized in this research has shown the scale to be a two dimensional scale (Tanner, Jr., Castleberry and Ridnour 1994 and Tanner, Jr., Ridnour and Castleberry 1997) although it was originally conceptualized as a three-dimensional scale (Tanner, Jr., Castleberry and Ridnour 1994). The factors were labeled work and affect. In the present research using factor analysis to determine the dimensions and coefficient alpha to determine their reliability as suggested by Churchill, Jr. (1979), three dimensions are identified. As initially proposed by Tanner, Jr., Castleberry and Ridnour (1994) the factors have been labeled work, loyalty and congruence.

A maximum likelihood factor analysis using an oblique rotation shows four factors for the 24-item scale as indicated in Table 4.6. Examination of this result indicates that four items (11, 12, 13 and 19) showed evidence of cross loading and two items (23 and 24) did not load on any of the factors with a factor loading above .40. These six items were deleted and a second iteration resulted in the three factors indicated in Table 4.7. The items making up each of the factors are shown in Table 4.8.

Table 4.6

Initial Factor Analysis

Item	Factor 1	Factor 2	Factor 3	Factor 4
VER8	.97	-.05	-.01	-.17
VER7	.97	-.02	-.02	-.19
VER3	.93	-.04	-.04	.24
VER9	.88	-.02	.04	-.08
VER10	.87	-.05	.08	-.05
VER4	.86	.09	-.02	-.03
VER2	.83	.04	-.04	.31
VER6	.81	-.02	.09	-.12
VER5	.58	.18	.09	.09
VER11	.47	.34	.15	-.04
VER1	.47	.30	.06	.17
VER13	.46	.06	.38	.03
VER12	.43	.02	.34	.12
VER19	.39	.25	.15	.08
VER21	.19	.85	-.06	-.05
VER22	.12	.72	.10	.01
VER20	-.11	.57	.03	.01

Table 4.6, continued

Item	Factor 1	2	3	4
VER15	-.03	-.11	.95	.04
VER14	.09	.00	.82	-.05
VER17	.01	.11	.70	-.16
VER18	-.08	.13	.62	.07
VER16	.23	-.01	.59	-.12
VER24	.15	.19	.40	.18
VER23	.07	.15	.11	-.17
Eigenvalue	13.03	2.03	1.15	1.04
% of Variance	54.30	8.47	4.79	4.32

Table 4.7

Final Factor Analysis

	Factor 1	2	3
VER8	.96	-.08	.03
VER7	.95	-.06	.02
VER3	.93	.01	-.09
VER9	.88	-.05	.07
VER4	.87	.08	-.03
VER10	.87	-.06	.09
VER2	.83	.09	-.02
VER6	.81	-.05	.12
VER5	.59	.17	.09
VER1	.50	.23	.03
VER21	.23	.81	-.01
VER22	.16	.70	.13
VER20	-.09	.53	.06

Table 4.7, continued

	Factor 1	2	3
VER15	-.03	-.06	.92
VER14	.08	.00	.83
VER17	.00	.06	.76
VER16	.21	-.05	.64
VER18	-.04	.13	.57
Eigenvalue	10.36	1.93	1.11
% of Variance	57.57	10.72	6.15

Table 4.8

Dimensions of Vertical Exchange Relationship

Work Dimension

1. My manager encourages me to offer my views on work related topics.
2. I know where I stand with my manager.
3. I know how satisfied my manager is with my work.
4. My manager values the quality of my work activities.
5. My manager would assist me in resolving my work problems at his/her expense.
6. My manager believes in my potential.
7. My manager recognizes my contribution to the team.
8. My manager recognizes my contribution to the company.
9. My manager appreciates my efforts to do a good job.
10. My manager appreciates the amount of work I accomplish.

Table 4.8, continued

Loyalty Dimension

20. I would avoid discussing topics with other members of my sales team that might make my boss look bad.

21. When necessary, I would defend the character of my manager.

22. I would defend and justify my manager's decision process, if he/she were not present to do so.

Congruence Dimension

14. My manager's business philosophy is generally similar to mine.

15. My manager's attitude on company issues is generally similar to mine.

16. My manager's attitude on sales strategies is generally similar to mine.

17. My manager's attitude on sales policies and procedures is generally similar to mine.

18. My manager's personal (nonbusiness) values are similar to mine.

Coefficient alphas and descriptive statistics are shown for each of these three factors in Tables 4.9 to 4.11. The factor labeled work consists of 10 items. It has an alpha of .96 and the lowest item-to-total correlation for any item is .62. The factor labeled loyalty consists of three items. It has an alpha of .76 and the lowest item-to-total correlation of any item is .47. The third factor, congruence, consists of 5 items. It has an alpha of .89 and the lowest item-to-total correlation of any item is .57. The alphas and item-to-total correlations for the established scales as well as the three identified dimensions of vertical exchange relationship are well above the minimums recommended by Nunnally (1978) and appear to be reliable.

Table 4.9

Coefficient Alphas and Descriptive Statistics
for the Work Dimension of VER

	Item Mean	Item Std. Dev.	Item-total Correlation	Alpha if item Deleted
VER1	6.13	1.15	.62	.97
VER2	6.06	1.18	.86	.96
VER3	5.96	1.21	.87	.96
VER4	6.03	1.17	.87	.96
VER5	5.55	1.38	.72	.96
VER6	6.15	1.11	.84	.96
VER7	6.17	1.04	.89	.96
VER8	6.13	1.08	.90	.96
VER9	6.22	1.07	.89	.96
VER10	6.03	1.09	.88	.96

Alpha = .96

Table 4.10

Coefficient Alphas and Descriptive Statistics
for the Loyalty Dimension of VER

	Item Mean	Item Std. Dev.	Item-total Correlation	Alpha if item Deleted
VER20	5.69	1.38	.47	.88
VER21	6.17	1.01	.71	.58
VER22	5.98	1.06	.67	.61

Alpha = .76

Table 4.11

Coefficient Alphas and Descriptive Statistics
for the Congruence Dimension of VER

	Item Mean	Item Std. Dev.	Item-total Correlation	Alpha if item Deleted
VER14	5.80	1.06	.81	.83
VER15	5.69	1.23	.78	.84
VER16	5.83	1.00	.69	.86
VER17	5.75	1.09	.76	.84
VER18	5.33	1.29	.57	.90

Alpha = .89

Validity

Validity, according to Peter (1979: 6) indicates, "the degree to which instruments truly measure the construct which they are intended to measure." Malhotra (1999: 283) defines validity as, "The extent to which differences in observed scale scores reflect true differences among objects on the characteristics being measured, rather than systematic or random errors." Validity can be assessed using a number of different criteria. Nunnally (1978: 109) offers a "commonsense point of view" concerning validity:

> If over the course of numerous investigations a measuring instrument produces interesting findings and tends to fit the construct name applied to the instrument, then investigators are encouraged to continue using the instrument in research and to use the name to refer to the instrument.

Certainly, the role variable scales meet this commonsense criteria as would the market orientation scale. Their validity has been demonstrated (see Chapter 2). The vertical exchange scale, however, does not meet this "commonsense" criteria and is examined here. Several criteria are considered here in assessing the validity of the VER scale. Generally, three aspects of validity are considered (Malhotra 1999: 28). They are content validity, criterion validity consisting of concurrent validity and predictive validity and construct validity including convergent, discriminant and nomological validity).

Content Validity. Content validity (also referred to as face or consensus validity) refers to how well the content of a scale represents the measurement task at hand (Malhotra 1999: 283). Heeler and Ray (1972: 361) state that this type of validity "exists when a measure `looks as if' is should indicate a particular variable or concept." Nunnally (1978: 92) indicates two criteria for ensuring content validity. The first is that the scale is made up of a "representative collection of items" and the second is that "sensible" procedures be used to construct the scales. Tanner, Jr. et al. (1994), appear to have followed the procedures suggested by Churchill, Jr. (1979) in constructing their measure of vertical exchange relationship. Therefore, the criteria of Nunnally and Heeler and Ray would be satisfied in that the result of their procedures is a scale which looks as if it represents the domain encompassed by vertical exchange relationship.

Criterion Validity. Criterion validity is concerned with ". . . whether the measurement scale performs as expected in relation to other variables (criterion variables) selected as meaningful criteria" (Malhotra, 1999: 283). Determining criterion validity consists of examining the scale in comparison to other measures (criterion variables) administered at the same time (concurrent validity) or at a later time (predictive validity). In assessing concurrent validity scales which measure something thought to be present at the same time as the current measure would be utilized. These may consist of entirely unrelated measures or shorter or different versions of the current measure. A high correlation between the current measure and the criterion measure would indicate concurrent validity. In assessing predictive validity, the current measure is gathered and used to "predict" another measure. A high correlation would indicate predictive validity. As no criterion variables were used in this study, it is not possible to assess the criterion validity of this measure.

Construct Validity. Sufficient evidence of construct validity is simply if "the supposed measures of the construct behave as expected" (Nunnally 1978: 103). Churchill, Jr. (1979: 70) suggests that construct validity is also indicated by "the extent to which the measure correlates with other measures designed to measure the same thing." In assessing the construct validity of the measures of the three dimensions of vertical exchange relationship, we will examine the convergent, discriminant and nomological validity of the measures.

Convergent validity refers to the extent to which a measure correlates with other measures designed to measure the same construct while discriminant validity refers to the extent to which a measure shows no correlation with measures from which it is supposed to differ (Malhotra 1999: 283). Peter (1981: 137) states that "Convergent validity is based on the correlation between responses obtained by maximally different methods of measuring the same construct" and that discriminant validity is measured by "demonstrating that a measure does not correlate very highly with another measure from which it should differ." Because only one method was used for measuring the various VER dimensions, it is not possible to assess the convergent validity of these measures.

Past research shows that the variables in the present study should be highly correlated. There are no variables in the study that one would not expect to show correlation with the VER dimension variables. Therefore, it is not possible to make an assessment of the discriminant validity of the VER dimensions.

Peter (1981: 135) suggests that nomological validity is based upon "investigation of constructs and measures in terms of formal hypotheses derived from theory" and that nomological validation "entails investigating both the theoretical relationship between different constructs and the empirical relationship between measures of those different constructs." Past empirical studies based on theory have demonstrated correlations between VER and the role variables (Castleberry and Tanner, Jr. 1986; Lagace 1990; Tanner, Jr. and Castleberry 1990; and Tanner, Jr., Dunn and Chonko 1993). Significant correlations between the different dimensions of VER and the role variables are also found in this study as indicated in the correlations shown in Table 4.12. This demonstrates evidence of the nomological validity of the VER dimensions.

Table 4.12

Study Variable Correlations

	MO	JS	OC	RA	RC	Work	Loy-alty	Congru-ence
MO	1.00							
JS	.43**	1.00						
OC	.47**	.56**	1.00					
RA	-.42**	-.50**	-.47**	1.00				
RC	-.43**	-.46**	-.48**	.32**	1.00			
Work	.27**	.54**	.34**	-.52**	-.20**	1.00		
Loyalty	.20**	.24**	.19**	-.12	-.16*	.47**	1.00	
Congruence	.29**	.45**	.21**	-.33**	-.23**	.66**	.56**	1.00

** = Correlation is Significant at the 0.01 level (2-tailed)
* = Correlation is Significant at the 0.05 level (2-tailed)

Generalizability

According to Malhotra (1999: 284), generalizability is the extent to which a sample based study would apply to the whole population. Peter (1979: 10) explains generalizability as ". . . whether scores obtained in the sampled conditions of measurement are representative of the universe scores for those conditions." Peter points out (1979: 10) that measures cannot be taken over all possible situations in a universe, so the question of generalizability is one of whether or not the conditions under which the study was made adequately reflect all possible conditions. This dissertation uses as its sample representatives from one company.

The salesforce is spread across the United States, but the salespeople are engaged in selling one main product to one main target market. Therefore, one would have to be careful in generalizing the results of this dissertation to other salesforces.

Section Conclusion

This section has examined the reliability, validity and generalizability of the scales used in this study. Reliability was demonstrated using measures of coefficient alpha. Content validity and, as a part of construct validity, nomologic validity were substantiated. Criterion validity and, as a part of construct validity, convergent validity were not substantiated. The generalizability of the present study was not substantiated.

Descriptive Statistics

The purpose of this section is to present the descriptive statistics for the measures used in this study. This section will also compare the means and coefficient alphas of this study to other studies. Table 4.13 contains the descriptive statistics for each of the study variables including the mean, median and mode for each of the measures. Table 4.13 also presents the standard deviation, skewness, kurtosis, minimum, maximum and range for each measure. Each measure was derived from the responses of the 195 salespeople who took part in this study. Table 4.14 shows the dispersion of scores by 20th percentile scores with categories consisting of the 20%, 40%, 60% and 80% cutoff scores. Table 4.15 shows the percentage of scores at various ranges on the 3-point scale used for job satisfaction and the 7-point scales used for the other variables in this study.

Table 4.13

Descriptive Statistics for Study Variables

	JS	MO	OC	RA	RC	Work	Loyalty	Congruence
Mean	2.30	4.66	5.33	2.53	3.16	6.04	5.95	5.68
Median	2.39	4.87	5.47	2.50	3.00	6.20	6.00	5.80
Mode	2.39	5.80	5.67	2.00*	2.38	7.00	7.00	6.00
Std. Dev.	0.37	.99	.88	1.05	1.30	.99	.95	.92
Skewness	-1.21	-.58	-1.02	1.03	.50	-1.45	-.96	-.73
Kurtosis	1.54	-.17	1.47	1.26	-.47	2.21	.74	.53
Minimum	0.88	1.53	1.67	1.00	1.00	1.90	2.33	2.40
Maximum	2.94	6.60	6.73	6.33	6.75	7.00	7.00	7.00
Range	2.06	5.07	5.07	5.33	5.75	5.10	4.67	4.60
Possible Values	1-3	1-7	1-7	1-7	1-7	1-7	1-7	1-7

* Multiple modes exist. The smallest value is shown.

JS = Job Satisfaction
MO = Market Orientation
OC = Organizational Commitment
RA = Role Ambiguity
RC = Role Conflict
Work = Work Dimension of Vertical Exchange Relationship
Loyalty = Loyalty Dimension of Vertical Exchange Relationship
Congruence = Congruence Dimension of Vertical Exchange Relationship

Table 4.14

Score Dispersion Breakdown by 20th Percentiles

	JS	MO	OC	RA	RC	Work	Loyalty	Congru ence
20%*	2.04	3.73	4.61	1.53	2.00	5.50	5.00	4.80
40%*	2.29	4.53	5.20	2.17	2.63	6.00	6.00	5.60
60%*	2.44	5.04	5.67	2.67	3.38	6.50	6.33	6.00
80%*	2.60	5.53	6.07	3.17	4.38	6.90	7.00	6.40
Mean	2.30	4.66	5.33	2.53	3.16	6.04	5.95	5.70
Possible Values	1-3	1-7	1-7	1-7	1-7	1-7	1-7	1-7

*Indicates the percentage or respondents whose score was equal to or less than the value indicated

JS = Job Satisfaction
MO = Market Orientation
OC = Organizational Commitment
RA = Role Ambiguity
RC = Role Conflict
Work = Work Dimension of Vertical Exchange Relationship
Loyalty = Loyalty Dimension of Vertical Exchange Relationship
Congruence = Congruence Dimension of Vertical Exchange Relationship

Table 4.15

Score Dispersion by Percentage between Scale Points

	JS	MO	OC	RA	RC	Work	Loyalty	Congruence
<1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-1.9	15.4	0.5	0.5	30.3	19.0	0.5	0.0	0.0
2-2.9	84.1	6.7	1.6	41.0	30.2	0.5	0.5	0.5
3-3.9		16.4	6.6	19.5	22.1	3.6	2.1	3.3
4-4.9		32.3	18.5	5.1	18.4	8.2	10.2	16.9
5-5.9		47.2	38.5	3.1	7.7	24.1	22.1	32.3
6-6.9		25.6	5.6	1.0	2.6	45.1	42.0	36.9
7		0.0	0.0	0.0	0.0	18.0	23.1	10.3
Mean		4.66	5.33	2.53	3.16	6.04	5.95	5.7
Possible Values	1-3	1-7	1-7	1-7	1-7	1-7	1-7	1-7

JS = Job Satisfaction
MO = Market Orientation
OC = Organizational Commitment
RA = Role Ambiguity
RC = Role Conflict
Work = Work Dimension of Vertical Exchange Relationship
Loyalty = Loyalty Dimension of Vertical Exchange Relationship
Congruence = Congruence Dimension of Vertical Exchange Relationship

Job Satisfaction

Mean job satisfaction scores are obtained by summing the numbers corresponding to the responses on the 72 items making up the scale (see Table 3.7) and dividing by 72. Thus the possible values range from 0 to 3. For this study, the mean is 2.3 with the median being 2.39 and the mode also being 2.39. The minimum value is 0.88 and the maximum value is 2.94 making the range 2.06. The standard deviation is 0.37. There is substantial skewness in the distribution of job satisfaction scores. This is addressed under the heading "Skewness of Data" below.

The scores from the present study are dispersed as indicated in Table 4.14 with 20% of the respondents showing scores between 0.88 and 2.04, 20% are between 2.05 and 2.29, 20% are between 2.30 and 2.44; 20% are between 2.45 and 2.60 and 20% have scores over 2.60.

The mean job satisfaction score in this study is 2.30. This is comparable to the mean of 2.20 obtained by Brown, Siguaw and Widing, II (1994) and the mean of 2.32 obtained by Jones, Kantak, Futrell and Johnston (1996) as shown in Table 4.16. In a study outside the sales area Porter, Steers, Mowday and Boulian (1974) had means ranging from 124.5 (1.73) to 161.9 (2.25) for a group of psychiatric technician trainees. This would indicate that the salsespeople in this study were comparable in job satisfaction to the samples in other sales-related studies and slightly more satisfied than the psychiatric technician trainees studied by Porter, Steers, Mowday and Boulian (1974). In the present study the coefficient alpha is .91 as compared to .90 and .94 in the studies in sales settings previously mentioned indicating a high degree of internal consistency.

Table 4.16

Job Satisfaction - Comparisons across Studies

Study	Mean	Alpha
Porter, Steers, Mowday and Boulian (1974) measured 2 groups, at 4 different times	161.9 / 130.0 152.0 / 127.7 155.4 / 136.4 146.9 / 124.5	.82 to .93 across the 4 time frames
Siguaw, Brown, Widing, II (1994) (divided score by 72)	2.20	.90
Jones, Kantak, Futrell and Johnston (1996) (divided score by 72)	2.32	.94
Present Study	2.30	.91

Organizational Commitment

Mean organizational commitment scores are obtained by reverse scoring the appropriate items, summing the responses on each of the 15 items and dividing by 15. A 7-point response scale is used, thus the possible values range from 1 to 7. For this study, the mean is 5.33, the median is 5.47 and the mode 5.67. The minimum value is 1.67 and the maximum value 6.73 for a range of 5.07. The standard deviation is .88. There is substantial skewness in the distribution of organizational commitment scores. This is addressed under the heading "Skewness of Data" below.

Table 4.17 shows that, in the present study, 20% of the respondents have scores of 4.61 or less, 20% of the respondents are between 4.62 and 5.20, 20% are between 5.21 and 5.67, the next 20% are between 5.68 and 6.07 and the top 20% are at 6.08 or above. As shown in Table 4.13, the largest group of respondents (38.5%) are between 5 and 5.9 on the 7-point scale.

As indicated in Table 4.17, the mean score of 5.33 is comparable to the means reported in other studies. Siguaw, Brown and Widing, II (1994) reported a mean of 4.92 in a study using respondents from different firms within the same industry. Studies outside of the sales area reported means ranging from 3.0 for a group of psychiatric technician trainees in a one year training program (Porter, Steers, Mowday and Boulian 1974) to 5.3 for auto company managers (Mowday, Steers and Porter 1979). Means reported for other samples outside the sales area in other industries using the full 15-item scale were 4.5, 5.2 and 4.7 and samples using a 9-item version of the scale had means of 4.4, 4.6 and 5.1. This would indicate that the salespeople in the present study have, overall, a little higher level of organizational commitment than those in most other studies. Russ and McNeilly (1995) used a 14-item version of the scale and obtained an alpha of .92 while Siguaw, Brown and Widing, II (1994) reported an alpha of .88. The alpha for the present study is .87 indicating a high level of internal consistency.

Table 4.17

Organizational Commitment - Comparisons across Studies

Study	Mean	Alpha
Porter, Steers, Mowday and Boulian (1974) measured 2 groups, at 4 different times	4.0 / 3.5	NR
	4.3 / 3.5	NR
	4.3 / 3.3	NR
	4.0 / 3.0	NR
Mowday, Steers and Porter (1979)	4.5	.90
4 different studies	5.2	.88
	4.7	.90
	5.3	.90
3 different studies, 9-item version	4.6	.90
	5.1	.88
	4.4	.84
Siguaw, Brown, Widing, II (1994)	4.92	.88
Russ and McNeilly (1995) used 14-item version	NR	.92
Singh, Verbeke and Rhoads (1996) 3-item, 5-point scale	3.74	.65
Present Study	5.33	.87

Role Ambiguity

Mean role ambiguity scores are obtained by summing the responses on each of the 6 items making up the scale and dividing by 6. A 7-point response scale is used, thus the possible values range from 1 to 7. For this study, the mean is 2.53, the median is 2.50 and there are multiple modes. The minimum value is 1.00 and the maximum value 6.33 for a range of 5.33. The standard deviation is 1.05. There is substantial skewness in the distribution of role ambiguity scores. This is addressed under the heading "Skewness of Data" below.

Table 4.14 indicates that, in the present study, 20% of the respondents have scores of 1.53 or less, 20% of the respondents are between 1.54 and 2.17, 20% are between 2.18 and 2.67, the next 20% are between 2.68 and 3.17 and the top 20% are at 3.18 or above. As shown in Table 4.15, 41% of the respondents are between 2 and 2.9 on the 7-point scale. As a lower number indicates less role ambiguity, indications are that the sample, overall, has a fairly low level of role ambiguity.

As indicated in Table 4.18, the mean score of 2.53 is comparable to the mean score of 2.87 reported by Siguaw, Brown and Widing, II (1994) indicating that the group of salespeople in the present study have about the same amount of role ambiguity as in the earlier study. Other sales studies have used more (Tanner, Jr., Dunn and Chonko 1993) and fewer response points (Singh, Verbeke and Rhoads 1996 and Jones, Kantak, Futrell and Johnston 1996) so it is not possible to compare the present study to them. As Table 4.18 shows, two recent studies in the sales area reported alphas the same as (Jones, Kantak, Futrell and Johnston 1996) and very close to (Siguaw, Brown and Widing, II 1994 and Tanner, Jr., Dunn and Chonko 1993) the alpha of .82 in the present study. Other studies in sales settings have had alphas ranging from .74 to .90 (Shepherd and Fine 1994) using a variety of versions and scale items. Overall, the coefficient alpha scores indicate a high degree of internal consistency for this scale.

Table 4.18

Role Ambiguity - Comparisons across Studies

Study	Mean	Alpha
Shepherd and Fine (1994) Reviewed 18 studies in the sales area utilizing role ambiguity - scale items ranged from 5-7	NR	.74 to .90
Tanner, Jr., Dunn and Chonko (1993)		
inside salespeople / outside salespeople	29.72 / 27.41	.77
hired-hands / middles / cadre	24.67 / 28.94 / 33.54	.77
Siguaw, Brown, Widing, II (1994)	2.87	.81
Singh, Verbeke and Rhoads (1996) 3-item, 5-point scale	2.30	.71
Jones, Kantak, Futrell and Johnston (1996) 6 items, 5 response points	1.85	.82
Present Study	2.53	.82

Role Conflict

Mean role conflict scores are obtained by summing the responses on each of the eight items and dividing them by eight. A 7-point response scale is used, thus the possible values range from 1 to 7. For this study the mean is 3.16, the median is 3.00 and the mode is 2.38. The minimum value is 1.00 and the maximum value 6.75 for a range of 5.75. The standard deviation is 1.30. The role conflict scores have a skewness of .50.

Table 4.14 shows that in the present study 20% of the respondents have scores of 2.00 or less, 20% of the respondents are between 2.01 and 2.63, 20% are between 2.64 and 3.38, the next 20% are between 3.39 and 4.38 and the top 20% are at 4.39 or above. As shown in Table 4.15, 30.2% of the respondents are between 2 and 2.9 on the 7-point scale.

As shown in Table 4.19, the mean score of 3.16 is comparable to the mean score of 3.66 reported by Siguaw, Brown and Widing, II (1994) indicating that the two groups have about the same amount of role conflict. Other sales studies have used more (Tanner, Jr., Dunn and Chonko 1993) and fewer response points (Singh, Verbeke and Rhoads 1996 and Jones, Kantak, Futrell and Johnston 1996) so it is not possible to compare the present study to them. The coefficient alpha of .84 in the present study is a little higher than the .74 reported by Jones, Kantak, Futrell and Johnston (1996) and about the same as the .82 reported by Siguaw, Brown and Widing, II (1994). A high level of internal consistency is indicated by the reported coefficient scores.

Table 4.19

Role Conflict - Comparisons across Studies

Study	Mean	Alpha
Shepherd and Fine (1994) Reviewed 13 studies in the sales area utilizing role conflict - reported many different versions in terms of item content and/or response format	NR	.78 to .88
Tanner, Jr., Dunn and Chonko (1993)		
inside salespeople / outside salespeople	20.90 / 22.91	.81
hired hands / middles / cadre	23.07 / 20.88 / 19.56	
Siguaw, Brown, Widing, II (1994)	3.66	.82
Singh, Verbeke and Rhoads (1996) 3-item, 5-point scale	2.54	.74
Jones, Kantak, Futrell and Johnston (1996) 8 items, 5 response points	1.85	.74
Present Study	3.16	.84

Market Orientation

Mean market orientation scores are obtained by reverse scoring item 3, adding the responses to the 15 items making up this scale and dividing the summated score by 15. A 7-point response scale is used, thus the possible values range from 1 to 7. For this study the mean is 4.66, the median is 4.87 and the mode is 5.80. The minimum value is 1.53 and the maximum value 6.60 for a range of 5.07. The standard deviation is .99. The skewness is moderate, -.58, and is addressed below.

Table 4.14 shows that in the present study, 20% of the respondents have scores of 3.73 or less, 20% of the respondents are between 3.74 and 4.53, 20% are between 4.54 and 5.04, the next 20% are between 5.05 and 5.54 and the top 20% are at 5.55 or above. As shown in Table 4.15, 47.2% of the respondents are between 5 and 5.9 on the 7-point scale indicating that the biggest group of respondents believed their firm to engage in market-oriented practices to a considerable extent.

As indicated in Table 4.20, the mean of the present study, 4.66, is comparable to the mean of 4.74 found by Siguaw, Brown and Widing, II (1994) in a sales setting. The mean in the present study is also comparable to most of the means (4.28, 4.68, 4.77, 4.77) reported for different firms outside of sales settings (Narver and Slater 1990, Slater and Narver 1994) indicating that the present sample believes their firm is about as market-oriented as other respondents in other samples believed their respective firms to be. The coefficient alpha of .93 in the present study is higher than the .88 reported by Siguaw, Brown and Widing, II (1994) and Narver and Slater (1990) and also higher than the .80 reported by Slater and Narver (1994). Overall, the reported coefficient alpha scores indicate a great deal of internal consistency for this measure.

Table 4.20

Market Orientation - Comparisons across Studies

Study	Mean	Alpha
Narver and Slater (1990) Commodity / Specialty / Distribution companies	4.28 / 4.77 / 4.76	.8810
Slater and Narver (1994)	4.68	.80
Siguaw, Brown, Widing, II (1994)	4.74	.88
Present Study	4.66	.93

Vertical Exchange
Relationship Scale

The only previous use of this scale was reported in two different articles using the same sample (Tanner, Jr., Castleberry and Ridnour 1994 and Tanner, Jr., Ridnour and Castleberry 1997). Through factor analysis they identified two dimensions to this version of the vertical exchange scale even though three dimensions were hypothesized. In the present study three dimensions are ascertained using factor analysis. One dimension, which they labeled work, had 10 items and corresponds to the 10 items making up the work dimension found in the present study. Their other dimension, labeled affect, contains 14 items. Three of these items make up the loyalty dimension in the present study and five of these items make up the congruence dimension in the present study. Six of the items making up the affect dimension in the studies by Tanner, Jr. and colleagues did not sufficiently load or showed indications of cross loading to the extent that they were omitted from the present study. If used as a single dimensional scale, the 18 items in the present study would have a coefficient alpha of .95.

Work Dimension of Vertical Exchange Relationship. Work scores are obtained by summing the responses to the 10 items making up this scale and dividing the summated score by 10. A 7-point response scale is used, thus the possible values range from 1 to 7. For this study the mean is 6.04, the median is 6.20 and the mode is 7.00. The minimum value is 1.90 and the maximum value 7.00 for a range of 5.10. The standard deviation is .99. There is substantial to extreme skewness in the distribution of the scores of this dimension. The skewness was -1.45. This is addressed under the heading "Skewness of Data" below.

Table 4.14 shows that in the present study 20% of the respondents have scores of 5.50 or less, 20% of the respondents are between 5.51 and 6.00, 20% are between 6.01 and 6.50, the next 20% are between 6.51 and 6.90 and the top 20% are at 7.00. As shown in Table 4.15, 45.1% of the respondents are between 6 and 6.9 with 18.0 at 7.0 on the 7 point scale. These results indicate, overall, a high degree of work relationship.

As indicated in Table 4.21, Tanner, Jr. and colleagues (1994) did not report a mean value for the two dimensions they identified, so it is not possible to compare the means of this study with prior studies. However, Tanner, Jr. and his colleagues (1994) did indicate a coefficient alpha of .95 for the work dimension.

The present study finds an alpha of .96 for this dimension indicating a very high degree of internal consistency for this dimension.

Table 4.21

Vertical Exchange Relationship - Comparisons across Studies

Study	Mean	Alpha
Tanner, Jr., Castleberry and Ridnour (1994)		
Work Dimension (10 items)	NR	.95
Affect Dimension (14 items)	NR	.89
Present Study		
Work Dimension (10 items)	6.04	.96
Loyalty Dimension (3 items)	5.95	.76
Congruence Dimension (5 items)	5.68	.89
Overall (24 items)	5.89	.95

Loyalty Dimension of Vertical Exchange Relationship. Loyalty scores are obtained by adding the responses to the three items making up this scale and dividing the summated score by 3. A 7-point response scale is used, thus the possible values range from 1 to 7. For this study the mean is 5.95, the median is 6.00 and the mode is 7.00. The minimum value is 2.33 and the maximum value 7.00 for a range of 4.67. The standard deviation is .95. The skewness measure is -.96 for this dimension and indicates that there is moderate to substantial skewness in the distribution of the scores of this dimension. This is addressed under the heading "Skewness of Data" below.

Table 4.14 shows that in the present study 20% of the respondents have scores of 5.00 or less, 20% of the respondents are between 5.01 and 6.00, 20% are between 6.01 and 6.33, the next 20% are between 6.34 and 6.90 and the top 20% are at 7.00. As shown in Table 4.15, 42.0% of the respondents are between 6 and 6.9 with 23.1% of the respondents at 7.00 on the 7 point scale. This indicates, overall, a high loyalty relationship.

The only previous uses of this scale identified two dimensions and not three as in this dissertation. Therefore, it is not possible to compare means or alphas from previous studies with the present study.

<u>Congruence Dimension of Vertical Exchange Relationship.</u> Congruence scores are obtained by adding the responses to the five items making up this scale and dividing the summated score by 5. A 7-point response scale was used, thus the possible values range from 1 to 7. For this study the mean is 5.68, the median is 5.80 and the mode is 6.00. The minimum value is 2.40 and the maximum value 7.00 for a range of 4.60. The standard deviation is .92. The skewness measure of -.73 indicates that there is moderate skewness in the distribution of the scores of this dimension. This is addressed under the heading "Skewness of Data" below.

Table 4.14 shows that in the present study 20% of the respondents have scores of 4.80 or less, 20% of the respondents are between 4.81 and 5.60, 20% are between 5.61 and 6.00, the next 20% are between 6.01 and 6.40 and the top 20% are at 6.41 or higher. As shown in Table 4.15, 36.9% of the respondents are between 6 and 6.9 with another 32.3% of the respondents between 5.00 and 5.90

on the 7-point scale. This indicates a high congruence relationship, even though the mean score on this dimension is lower than the mean scores on the work and loyalty dimensions.

The only previous uses of this scale identified two dimensions and not three as in this dissertation. Therefore, it is not possible to compare means or alphas from previous studies with the present study.

Conclusion

This section has presented the descriptive statistics for the measures used in this study. The means and coefficient alphas for these measures were, where possible, compared to those of previous studies. The dispersion of scores was also shown by groups of 20 percentiles and by the percentage between each scale point.

Skewness of Data

The purpose of this section is to address two issues related to the skewness of the data analyzed in this dissertation. The first issue is the likelihood of erroneous statements resulting from using skewed data. The second issue is that of the skewness being caused by social desirability response tendencies on the part of the respondents. As a part of the second issue, reasons for suspecting socially desirable responding are discussed along with results of an investigation into the possibility of socially desirable responding.

Consequences of Skewed Data

Skewness refers to the symmetry of scores about the mean (Malhotra 1999) or to the extent of the lopsidedness of the data (Nunnally 1978). The skewness of the measures used in this dissertation ranges from moderate to just short of extreme (Hopkins and Weeks 1990, 725, Figure 1). This violates the assumption of normal distribution that is generally regarded as one of the criteria for many types of multivariate statistics. (Nunnally 1978, 138-39).

However, this evidence of non-normal distribution does not appear to be a problem in the present study for a number of reasons. First, while the statements resulting from the analysis may not be exactly correct, they will be exact enough for interpretation. Second, the measures being used are continuous, as opposed to dichotomous. Finally, the sample size is large.

Nunnally says the situation of non-normality may lead to statements that are not exactly correct, but that " . . . this is not a great problem. . . . Unless these assumptions are seriously violated, no real problem in interpretation is involved" (Nunnally 1978, 139). He explains that in examining correlations, the shape of the distributions has little effect on correlation.

> . . . experience indicates that changes in the shape of one distribution seldom alter a correlation of .50 by more than five points. For correlations of .30 or lower, even drastic changes in the shape of one distribution (e.g., changing a normal distribution to one that is extremely skewed) tend to have very little effect. Thus the results of correlating two continuous variables in most studies in psychology would be about the same whether the distributions were shaped the same or somewhat differently" (Nunnally 1978, 142-43).

Nunnally (1978, 143) indicates that shapes of distributions have only "slight effects" when continuous measures are used in studies and when large samples of at least 100 are used.

Hopkins and Weeks (1990) indicate that the robustness of ANOVA and the t test to non-normality have made them widely popular. They offer that normality is ordinarily no longer a critical issue and that in most research applications, non-normality has no practical consequences on the accuracy of probability statements when conventional significance tests are used. They advocate reporting and examining the shape of the distribution. They argue that, even though skewness and kurtosis are not as widely reported as the mean, median and mode, that they should be reported due to their important descriptive information.

The highly negative skewness of the measures in this dissertation means that there are more scores above the mean than below the mean. Although the skewness score for role ambiguity is positive, the direction of the skewness is toward the "better" or more desirable answer which is a lower answer in this case. The skewness for role conflict is positive. Role conflict is the only measure which is lopsided toward the undesirable direction. More scores are above the mean than below the mean indicating most of the respondents have more role conflict than the average. A possible cause of the skewness of the measures could be a social desirability response bias on the part of the respondents.

Social Desirability Response Bias

Socially desirable responding (SDR) refers to "the tendency of individuals to present themselves favorably with respect to current social norms and standards" (Zerbe and Paulhus 1987, 250). Socially desirable responders' answers are not accurate, but are desirable from a social standpoint (Malhotra 1999). There are a number of reasons to suspect that SDR may have played a part in the skewness of the measures in this dissertation. In this section these reasons will be discussed.

Much of the questionnaire methodology employed in this dissertation is along the lines of a self-inventory. Nunnally (1978, 253) describes a self-inventory as a situation in which individuals are trusted to describe their own traits in a frank and honest manner. Self-inventories ask the individual to tell what they are like as a person. Nunnally says self-inventories tend to be dominated by a general factor of social desirability, but are still the best general approach to measuring a wide variety of personality traits. Although Nunnally refers to personality traits, Nederhof (1985, 263) states that "Social desirability is one of the most common sources of bias affecting the validity of experimental and survey research findings."

Another reason to suspect social desirability is that the subjects of this study are salespeople. Zerbe and Paulhus (1987) cite a study by Rosenthal (1969) which showed that a number of behaviors that would be advantageous in sales settings were exhibited by subjects who scored highly on a measure of social desirability. These behaviors included speaking in a more enthusiastic tone of voice, smiling more often and slanting their bodies more towards others. Certainly, these would all be desirable behaviors of the sample involved in this dissertation and would describe good salespeople. However, this does not provide evidence of SDR.

Studies have shown that the role variables are related to socially desirable responding. Following a meta-analysis of the potential confounding effects of social desirability, Moorman and Podsakoff (1992) concluded that job satisfaction ($r = .22$), organizational commitment ($r=.18$), role ambiguity ($r=-.24$) and role conflict ($r=-.18$) were all moderately correlated with socially desirable responding.

Finally, confidentially is cited as a factor in socially desirable bias (Nunnally 1978, Nederhof 1985, Malhotra 1999). Malhotra indicates that e-mail is only "moderately good" for controlling social desirability due to the fact that respondent's are aware that their names can be located on the return e-mail. E-mail was used extensively in gathering data from the sample in this dissertation. Even when the subject's anonymity is well protected, there may still be a problem. The problem is the subjects finding it credible that anonymity will be preserved (Rosenkrantz, Luthans and Hennessey 1983).

All of the above are reasons for suspecting socially desirable responding, but none, individually or collectively, are evidence of SDR. Next, results of an investigation into the possibility of socially desirable responding are discussed.

Investigation into Socially Desirable Responding

Two different subgroupings of the total sample were used to investigate the possibility of socially desirable responding. In the first subgrouping, respondents were divided into two groups based on their responses to the statement, "I believe that my answers on this survey will remain confidential" from the questionnaire. On the questionnaire, subjects responded to the above statement with a number from 1 to 7 with 1 indicating "Strongly Disagree" and 7 indicating "Strongly Agree." The distribution of these answers is indicated in Table 4.22.

Table 4.22

Distribution of Answers for Social Desirability Proxy Question

Response	1	2	3	4	5	6	7
Frequency	2	8	12	46	26	65	29
Per Cent	1.0	4.1	6.2	23.6	13.3	33.3	14.9

Those who responded with an answer that indicated agreement with the statement (5, 6 or 7) are placed in one subsample and the rest of the sample is placed in another subsample. The means of the two subsamples' scores on market orientation and the role variables are then compared using a multiple analysis of variance procedure. Results of this procedure are shown in Table 4.23.

Table 4.23

MANOVA Results of Confidentiality Question

	Mean	F	Sig.
Job Satisfaction		10.20	.00
Low Group	2.19		
High Group	2.37		
Organizational Commitment		2.65	.105
Low Group	5.22		
High Group	5.43		
Role Ambiguity		3.56	.06
Low Group	2.73		
High Group	2.43		
Role Conflict		.34	.56
Low Group	3.22		
High Group	3.12		
Market Orientation		5.25	.02
Low Group	4.46		
High Group	4.79		

The reasoning behind this exercise is that those who do not agree that their answers will remain confidential will answer in a more socially desirable way than those who believe their answers will remain confidential. The results indicate significant differences in the means of the two groups on the measures for job satisfaction and market orientation. However, in each case, the group which was expected to answer in a more socially desirable way did not. The means of the group who do not agree that their answers will remain confidential show less job satisfaction and less market orientation than the group who do agree that their answers will remain confidential. This provides some indication that the group that do not agree that their answers will remain confidential did not inflate their answers to make them more socially desirable.

In the second subgrouping, respondents are divided into two groups based on whether or not they have the most socially desirable scores possible on any of the VER dimension. The reasoning behind this is that anyone who answers in a socially desirable way will have the highest possible score on at least one of these scales. Another reason for focusing on these scales is because the mode was 7 for two of them. This division of the sample resulted in a subsample of 64 who have the most socially desirable score possible on one or more of the dimension measures. The most socially desirable score is a score of 7.0. As before, the means of the two subsamples' scores on market orientation and the role variables are compared using a multiple analysis of variance procedure. The results of this procedure are shown in Table 4.24.

Table 4.24

MANOVA Results of Groups Based on Possible Scores

	Mean	F	Sig.
Job Satisfaction		3.70	.06
No 7s	2.27		
One or More 7s	2.38		
Organizational Commitment		3.94	.05
No 7s	2.27		
One or More 7s	2.38		
Role Ambiguity		6.25	.01
No 7s	2.66		
One or More 7s	2.27		
Role Conflict		2.57	.11
No 7s	3.27		
One or More 7s	3.16		
Market Orientation		3.38	.07
No 7s	4.60		
One or More 7s	4.84		

The results indicate significant differences in the means of the two groups on the measures for role ambiguity and organizational commitment. The means are statistically different; however, a difference of .11 on job satisfaction and .39 on role ambiguity would have little managerial significance. As before, this provides some indication that the group that would be expected to answer in a significantly more socially desirable manner did not do so.

Section Conclusion

This section has addressed the skewness of the data used in this dissertation. The first part of this section examined the likelihood of erroneous statements resulting from using skewed data. The second part examined the idea that the skewness could be caused by socially desirable response tendencies on the part of the respondents. The third part discussed results of an investigation into the possibility of socially desirable responding. Indications are that the data is not contaminated by socially desirable response bias.

Hypotheses Tests

The purpose of this section is to present results of the testing of the hypotheses stated in Chapter 3. As explained in Chapter 3, this is done using moderated regression analysis following guidelines established by Sharma, Durand and Gur-Arie (1981). Briefly, the procedure is to run three regression equations for each of the hypotheses. The purpose of the first equation is to determine if a relationship exists between market orientation and, separately, each of the role variables of job satisfaction, organizational commitment, role ambiguity and role conflict. The second equation is used to determine if there is a relationship between each of these role variables, separately, and each of the three dimensions of vertical exchange relationship. The third regression equation is used to determine if their is a relationship between the interaction term made up of the market orientation measure and, separately, each of the VER dimensions. Based on the typology of

Sharma, Durand and Gur-Arie (1981) presented in Figure 3.1, four outcomes are possible.

The first possible outcome concerning the role of the VER dimensions is that they could be a pure moderator. This would be indicated where the interaction term (market orientation X VER dimension) is significantly related to the criterion (role) variable while the proposed moderator (VER dimension) is not related to the criterion variable.

The second possible outcome concerning the role of the VER dimensions is that they could be a quasi-moderator. This would be indicated where the interaction term (market orientation X VER dimension) is significantly related to the criterion (role) variable while the proposed moderator (VER dimension) is related to the criterion variable.

The third possible outcome concerning the role of the VER dimensions is that they could be a homologizer variable. This would be indicated where the interaction term (market orientation X VER dimension) is not significantly related to the criterion (role) variable while the proposed moderator (VER dimension) is not related to the criterion variable or predictor variable. In this case, subgroup analysis would be necessary to see if subgroups are different in their respective R^2s. If subgroups are the same with respect to their R^2s, then the proposed moderator would be the type of moderator known as a homologizer. If subgroups are the same with respect to their R^2s, then the proposed moderator is not a moderator.

The fourth possible outcome concerning the role of the VER dimensions is that they could be a either a(n) antecedent, exogenous, intervening or supressor variable. This would be indicated where the interaction term (market orientation X VER dimension) is not significantly related to the criterion (role) variable while the proposed moderator (VER dimension) is related to the criterion variable or predictor variable.

Job Satisfaction Hypotheses

The results of the regressions related to the job satisfaction hypotheses are shown in Table 4.25. The hypotheses and their results are as follows.

$H1_a$: The work dimension moderates the relationship between job satisfaction and market orientation.

This hypothesis was supported. Because the interaction term is significant (p = .01) and the work dimension is related to job satisfaction (p = .00), the work dimension is a quasi-moderator. A subgroup analysis is performed by dividing the sample into three groups based on their work scores. The first group (low) contains 72 respondents and their scores are 5.9 or lower. The second group (middle), consists of 60 salespeople and they have work scores ranging from 6 to 6.7. The third group (high) of 66 respondents has scores over 6.8. The results of the subgroup regressions are in Table 4.21.

Table 4.25

Regression Results Related to Job Satisfaction

	Intercept	Market Orientation	Dimension	MO X Dimension	R^2
$H1_a$	1.54	.43**	Work		.19
	.72	.31**	.46**	Work	.37
	-.60	1.14**	1.04**	-2.57**	.39
$H1_b$	1.54	.43**	Loyalty		.19
	1.23	.40**	.16*	Loyalty	.20
	1.56	.20	.02	.27	.20
$H1_c$	1.54	.43**	Congruence		.19
	.91	.33**	.35**	Congruence	.29
	.01	.85*	.73**	-.74	.30

Standardized Regression Coefficients are Reported **p< .01 *p<.05

Table 4.26

Subgroup Analysis of the Work Dimension

	Intercept	Market Orientation	R^2
Low	1.16	.48**	.22
Middle	2.04	.25*	.05
High	1.84	.39**	.14

Standardized Regression Coefficients are Reported **p< .01 *p<.05

$H1_b$: The loyalty dimension moderates the relationship between job satisfaction and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant ($p = .67$) and the loyalty dimension is positively related to job satisfaction ($p = .02$), the loyalty dimension is an antecedent variable to job satisfaction.

$H1_c$: The congruence dimension moderates the relationship between job satisfaction and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant ($p = .14$) and the congruence dimension is positively related to job satisfaction ($p = .00$), the congruence dimension is an antecedent variable to job satisfaction.

Organizational Commitment Hypotheses

The results of the regressions related to the organizational commitment hypotheses are shown in Table 4.27. The hypotheses and their results are as follows.

$H2_a$: The work dimension moderates the relationship between organizational commitment and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant ($p = .23$) and the work dimension is positively related to organizational commitment ($p = .00$), the loyalty dimension is an antecedent variable to organizational commitment.

Table 4.27

Regression Results Related to Organizational Commitment

	Intercept	Market Orientation	Dimension	MO X Dimension	R^2
H2a	3.39	.47**	Work		.21
	2.41	.41**	.23**	Work	.26
	.81	.83*	.53*	-.59	.26
H2b	3.39	.47**	Loyalty		.21
	2.93	.45**	.10	Loyalty	.22
	2.35	.60	.20	- 1.20	.22
H2c	3.39	.47**	Congruence		.21
	3.05	.44**	.08	Congruence	.22
	3.54	.32	-.01	.18	.21

Standardized Regression Coefficients are Reported **$p < .01$ *$p < .05$

$H2_b$: The loyalty dimension moderates the relationship between organizational commitment and market orientation.

There is no support for this hypotheses. Because the interaction term is not significant ($p = .73$) and the loyalty dimension is not related to organizational commitment ($p = .13$), it is necessary to see if the loyalty dimension is related to market orientation. This relationship is significant at the .00 level of significance ($t = 2.79$). Thus, the loyalty dimension is either a(n) antecedent, exogenous, intervening or supressor variable and not a moderator variable.

$H2_c$: The congruence dimension moderates the relationship between organizational commitment and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant (p = .74) and the congruence dimension is not related to organizational commitment it is necessary to see if the congruence dimension is related to market orientation. This relationship is significant at the .00 level of significance (t = 4.27). Thus, the congruence dimension is either a(n) antecedent, exogenous, intervening or supressor variable and not a moderator

variable.

<u>Role Ambiguity Hypotheses</u>

The results of the regressions related to the role ambiguity hypotheses are shown in Table 4.28. The hypotheses and their results are as follows.

Table 4.28

Regression Results Related to Role Ambiguity

	Intercept	Market Orientation	Dimension	MO X Dimension	R^2
H3a	4.60	-.42**	Work		.17
	6.86	-.30**	-.44**	Work	.35
	8.84	-.74*	-.76**	.61	.35
H3b	4.60	-.42**	Loyalty		.17
	4.84	-.41**	-.04	Loyalty	.17
	2.44	.11	.32	-.69	.17
H3c	4.60	-.42**	Congruence		.17
	5.72	-.35**	-.22**	Congruence	.21
	7.89	-.81*	-.55*	.65	.21

Standardized Regression Coefficients are Reported **p< .01 *p<.05

$H3_a$: The work dimension moderates the relationship between role ambiguity and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant (.19) and the work dimension is negatively related to role ambiguity (.00), the loyalty dimension is an antecedent variable to role ambiguity.

$H3_b$: The loyalty dimension moderates the relationship between role ambiguity and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant ($p = .24$) and the loyalty dimension is not related to role ambiguity ($p = .52$) it is necessary to see if the loyalty dimension is related to market orientation. This relationship is significant at the .00 level of significance ($t = 2.79$). Thus, the loyalty dimension is either a(n) antecedent, exogenous, intervening or supressor variable and not a moderator variable.

$H3_c$: The congruence dimension moderates the relationship between role ambiguity and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant ($p = .22$) and the congruence dimension is negatively related to role ambiguity ($p = .00$), the congruence dimension is an antecedent variable to role ambiguity.

Role Conflict Hypotheses

The results of the regressions related to the role conflict hypotheses are shown in Table 4.29. The hypotheses and their results are as follows.

Table 4.29

Regression Results Related to Role Conflict

	Intercept	Market Orientation	Dimension	MO X Dimension	R^2
H4a	5.79	-.43**	Work		.18
	6.38	-.41**	-.09	Work	.19
	8.44	-.78*	-.36	.51	.19
H4b	5.79	-.43**	Loyalty		.18
	6.35	-.41**	-.08	Loyalty	.18
	6.79	-.49	-.14	.10	.18
H4c	5.79	-.43**	Congruence		.18
	6.50	-.40**	-.11	Congruence	.19
	7.00	-.48	-.18	.12	.19

Standardized Regression Coefficients are Reported **$p< .01$ *$p<.05$

$H4_a$: The work dimension moderates the relationship between role conflict and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant (p = .32) and the work dimension is not related to role conflict (.17), it is necessary to see if the work dimension is related to market orientation. This relationship is significant at the .00 level of significance (t = 3.86). Thus, the work dimension is either a(n) antecedent, exogenous, intervening or supressor variable and not a moderator variable.

$H4_b$: The loyalty dimension moderates the relationship between role conflict and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant (p = .86) and the loyalty dimension is not related to role conflict (p =

.21), it is necessary to see if the loyalty dimension is related to market orientation. This relationship is significant at the .00 level of significance (t = 2.79). Thus, the loyalty dimension is either a(n) antecedent, exogenous, intervening or supressor variable and not a moderator variable.

$H4_c$: The congruence dimension moderates the relationship between role conflict and market orientation.

There is no support for this hypothesis. Because the interaction term is not significant (p = .82) and the congruence dimension is not related to role conflict, it is necessary to see if the congruence dimension is related to market orientation. This relationship is significant at the .00 level of significance (t = 4.27). Thus, the congruence dimension is either a(n) antecedent, exogenous, intervening or supressor variable and not a moderator variable.

Section Conclusion

Hypotheses testing using moderated regression techniques suggested by Sharma, Durand and Gur-Arie (1981) supports the hypotheses that the work dimension of vertical exchange relationship moderates the relationship between job satisfaction and market orientation. The work dimension is a quasi-moderator. None of the other hypotheses are supported and; in each case, the proposed moderator was shown to be a(n) antecedent, exogenous, intervening or supressor variable. Table 4.30 summarizes the results of the hypotheses testing.

Table 4.30

Summary of Hypotheses Testing

Hypothesis	Result
$H1_a$: The work dimension moderates the relationship between market orientation and job satisfaction	Work is a quasi-moderator
$H1_b$: The loyalty dimension moderates the relationship between market orientation and job satisfaction	Loyalty is not a moderator
$H1_c$: The congruence dimension moderates the relationship between market orientation and job satisfaction	Congruence is a predictor
$H2_a$: The work dimension moderates the relationship between market orientation and organizational commitment	Work is not a moderator
$H2_b$: The loyalty dimension moderates the relationship between market orientation and organizational commitment	Loyalty is not a moderator
$H2_c$: The congruence dimension moderates the relationship between market orientation and organizational commitment	Congruence is not a moderator
$H3_a$: The work dimension moderates the relationship between market orientation and role ambiguity	Work is not a moderator
$H3_b$: The loyalty dimension moderates the relationship between market orientation and role ambiguity	Loyalty is not a moderator
$H3_c$: The congruence dimension moderates the relationship between market orientation and role ambiguity	Congruence is not a moderator

Table 4.30, continued

Hypothesis	Result
$H4_a$: The work dimension moderates the relationship between market orientation and role conflict	Work is not a moderator
$H4_b$: The loyalty dimension moderates the relationship between market orientation and role conflict	Loyalty is not a moderator
$H4_c$: The congruence dimension moderates the relationship between market orientation and role conflict	Congruence is not a moderator

Mediating Effects of the VER Dimensions

In all but one case, the dimensions of vertical exchange relationship fall into the category Sharma, Durand and Gur-Arie labeled "Intervening, Exogenous, Antecedent, Suppressor, Predictor" (1981, 292, Figure 1). For the purposes of this dissertation, it is desirable to further examine the role of the dimensions of vertical exchange relationship in the relationships mentioned above. In this section, it will be ascertained whether or not the VER dimensions act as mediators in the relationships described above.

Mediators

A variable functions as a mediator to the extent that, " . . . it accounts for the relation between predictor and the criterion" (Baron and Kenny, 1986, 1176). They say that mediators help in explaining how or why effects occur. Diagram 4.1

is a diagram depicting the causal chain of mediating effects. In the diagram there are three paths. Path C represents the direct impact of an independent variable on a dependent variable. Path A represents the impact of the independent variable on a mediator variable, and path B represents the impact of the mediator variable on the dependent variable. In this dissertation, we are interested in the role variables as the dependent or outcome variables, the VER dimensions as mediators and market orientation as the independent variable.

```
        Path A                          Path B
      ┌──────────────> Mediator (Z) ────────┐
      │                                     │
      │                                     v
Independent (Y) ─────────────────────> Dependent (X)
                        Path C
```

Figure 4.1 Casual Chain of Mediating Effects

If a variable meets the following conditions it functions as a mediator (Baron and Kenny, 1986, 1176):

> a) variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e., Path A)
>
> b) variations in the mediator significantly account for variations in the dependent variable (i.e., Path B) and
>
> c) when Paths A and B are controlled, a previously significant relationship between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path C is zero.

Seldom does a mediator reduce Path C to zero since most events have multiple causes. They suggest a reasonable goal would be to seek mediators that reduce the effects of Path C rather than eliminate them. A significant reduction would show a variable to be a strong mediator, but, for an effect to occur, would not be both a necessary and a sufficient condition.

Determining Mediation

Baron and Kenny (1986) suggest a process of estimating and interpreting the following three regression equations to test for mediation effects.

1) Z = Y, that is regressing the proposed mediator on the dependent variable.

2) Y = X, that is regressing the dependent variable on the independent variable.

3) Y = X + Z, that is regressing the dependent variable on both the independent variable and the proposed mediator.

If the following conditions hold, then mediation is established (Baron and Kenny, 1986, 1177).

1. The independent variable must affect the mediator in the first equation.

2. The independent variable must be shown to affect the dependent variable in the second equation.

3. The mediator must affect the dependent variable in the third equation.

4. All conditions must hold in the predicted direction and the effect of the independent variable on the dependent variable must be less in the third equation than in the second equation. The significance and size of the coefficients must be examined.

Mediation Results

The results of the mediation regressions related to job satisfaction show that all three VER dimensions partially mediate the relationship between market orientation and job satisfaction. Table 4.31 shows that market orientation affects the proposed moderators, the dimensions of vertical exchange relationship. Table 4.32 shows that market orientation affects job satisfaction. Finally, Table 4.32 shows that each dimension of VER affects job satisfaction and that the effects of market orientation are less in the presence of the dimensions.

Table 4.31

Regression Results for Effects of Market Orientation on the VER Dimensions

	Intercept	Market Orientation	R^2
Work	4.79	.27**	.07
Loyalty	5.06	.20**	.03
Congruence	4.41	.29**	.08

Standardized Regression Coefficients are Reported **p< .01 *p<.05

Table 4.32

Regression Results for Effects of Market Orientation and the VER Dimensions on the Role Variables

Dependent	Intercept	Market Orientation	Work	Loyalty	Congruence	R2
Job Sat	1.54	.43**				.18
Job Sat#	.72	.31**	.46**			.37
Job Sat#	1.23	.40**		.16*		.20
Job Sat#	.91	.33**			.35**	.29
Org Com	3.39	.47**				.07
Org Com#	2.41	.41**	.23**			.21
Org Com	3.39	.45**		.10		.22
Org Com	3.05	.44**			.08	.22

Table 4.32, continued

Dependent	Intercept	Market Orientation	Work	Loyalty	Congruence	R2
Role Amb	4.60	-.42**				.17
Role Amb#	6.86	-.30**	-.44**			.35
Role Amb	4.84	-.41**		-.04		.18
Role Amb#	5.72	-.35**			-.22**	.21
Role Con	5.80	-.43**				.18
Role Con	6.38	-.41**	-.09			.19
Role Con	6.36	-.41**		-.08		.18
Role Con	6.50	-.40**			-.11	.19

Standardized Regression Coefficients are Reported **p< .01 *p<.05
#Indicates a Partially Mediated Relationship

The results of the mediation regressions related to organizational commitment show that the work dimension partially mediates the relationship between market orientation and organizational commitment. Table 4.31 shows that market orientation effects the proposed mediators. Table 4.32 shows that neither the loyalty nor congruence dimensions have significant effects on organizational commitment when regressed with market orientation. The work dimension does have a significant effect on organizational commitment when regressed on job satisfaction along with market orientation. Table 4.32 also shows that the effects of market orientation are significant and are less in the presence of the work dimension than when regressed alone on organizational commitment.

The results of the mediation regressions related to role ambiguity show that both the work and congruence dimensions partially mediate the relationship between market orientation and role ambiguity. The loyalty dimension does not act as a mediator. Table 4.31 shows that market orientation effects the proposed mediators. Table 4.32 shows that the loyalty dimension has no significant effects on role ambiguity when regressed with market orientation. The work and congruence dimensions do have a significant effect on job satisfaction when regressed on job satisfaction along with market orientation. Table 4.32 also shows that the effects of market orientation are significant and are less in the presence of the work and congruence dimensions than when regrèssed alone on role ambiguity.

The results of the mediation regressions related to role conflict show that none of the dimensions of VER mediate the relationship between market orientation and role conflict. Table 4.31 shows that market orientation effects the proposed mediators. Table 4.31 shows that none of the dimensions have a significant effect on role conflict when regressed with market orientation. Therefore, there is no indication that any of the dimensions mediate the relationship between market orientation and role conflict.

Chapter Summary

This chapter has presented the results of the data analysis. Data collection methods and demographic characteristics of the sample were presented followed by an assessment of the possibility of non-response bias. Response bias was not indicated. Next the reliability, validity and generalizability of the factors making up the vertical exchange relationship scale and of the scales used in this study were assessed. The scales were shown to be reliable with each scale having a coefficient alpha in excess of the .70 recommended by Nunnally (1978: 245). Content and, as a part of construct validity, nomologic validity were substantiated. Criterion validity and, as a part of construct validity, discriminant and convergent validity were not substantiated. The generalizability of the present study was not substantiated.

Descriptive statistics were presented and it was demonstrated that the means and coefficient alphas of the scales in the present study compared favorably to those from previous studies. The data in the dissertation was highly skewed and this issue was addressed. The hypotheses presented in Chapter 3 were tested using moderated regression analysis with the results being the identification of one quasi-moderator. Finally, the mediating effects of the dimensions of vertical exchange relationship on the relationship between market orientation and the role variables was examined. In six of the twelve relationships, one of the dimensions was a partial mediator. Tables 4.33 and 4.34 summarize the relationships found in Chapter 4 of this dissertation.

Table 4.33

Summary of Relationships Indicated by Regression in Chapter 4

Relationship	Result
VER Work Dimension and Job Satisfaction	**
VER Work Dimension and Organizational Commitment	**
VER Work Dimension and Role Ambiguity	**
VER Work Dimension and Role Conflict	**
VER Loyalty Dimension and Job Satisfaction	**
VER Loyalty Dimension and Organizational Commitment	**
VER Loyalty Dimension and Role Ambiguity	ns
VER Loyalty Dimension and Role Conflict	**
VER Congruence Dimension and Job Satisfaction	**
VER Congruence Dimension and Organizational Commitment	**
VER Congruence Dimension and Role Ambiguity	**
VER Congruence Dimension and Role Conflict	**
Market Orientation and Job Satisfaction	**
Market Orientation and Organizational Commitment	**
Market Orientation and Role Ambiguity	**
Market Orientation and Role Conflict	**
Market Orientation and VER Work Dimension	**
Market Orientation and VER Loyalty Dimension	**
Market Orientation and VER Congruence Dimension	**

**p<.01 *p<.05 ns - no significance

Table 4.34

Summary of Moderator/Mediator Relationships Indicated in Chapter 4

Relationship	Result
The work dimension moderates the relationship between market orientation and job satisfaction	QM\PM
The loyalty dimension moderates the relationship between market orientation and job satisfaction	PM
The congruence dimension moderates the relationship between market orientation and job satisfaction	PM
The work dimension moderates the relationship between market orientation and organizational commitment	PM
The loyalty dimension moderates the relationship between market orientation and organizational commitment	ns
The congruence dimension moderates the relationship between market orientation and organizational commitment	ns
The work dimension moderates the relationship between market orientation and role ambiguity	PM
The loyalty dimension moderates the relationship between market orientation and role ambiguity	ns
The congruence dimension moderates the relationship between market orientation and role ambiguity	PM
The work dimension moderates the relationship between market orientation and role conflict	ns
The loyalty dimension moderates the relationship between market orientation and role conflict	ns
The congruence dimension moderates the relationship between market orientation and role conflict	ns

QM - Quasi-Moderator   PM - Partial Mediator   ns - no significance

CHAPTER 5

DISCUSSION AND IMPLICATIONS

The purpose of this chapter is to discuss and interpret the results of this dissertation. A discussion of the research findings and their managerial implications are provided in the first section. The second section contains suggestions for future research. The next section addresses limitations of the study and, in the final section, contributions of the study are presented.

Research Findings and Managerial Implications

This section will first examine the moderating effects of the vertical exchange dimensions on the relationships between market orientation and the role variables. Next, other results will be highlighted and finally the finding of three dimensions of the vertical exchange measure will be discussed.

Moderating Effects of the VER Dimensions

The purpose of this dissertation is to examine the moderating effects of the dimensions of the vertical exchange relationship on the relationship between firm market orientation and salesperson role variables. The results of this study indicate that the relationship between job satisfaction and market orientation is moderated by the work dimension of VER. The work dimension affects the form of this relationship and is a quasi-moderator. Other hypotheses concerning the moderating effects of the VER dimensions on the relationship between firm market orientation and salesperson role variables are not supported.

In the hypothesis that is supported, an examination of subgroups based on high, middle and low work scores shows that the form of the relationship between market orientation and job satisfaction varies according to the groups. The standardized regression coefficients for the three subgroups are .477 for the low group (t = 4.54, significance = .00), .252 for the middle group (t = 1.99, significance = .05) and .394 (t = 3.35, significance = .00). The R^2s for the three regression equations are .22, .05 and .14, respectively.

The managerial implications of this finding are that market orientation could play a role in overcoming job dissatisfaction caused by a poor salesperson/sales manager work relationship. In situations where the sales manager is unable or unwilling to establish a high work dimension relationship, then job satisfaction could be increased by concentrating on the firm's customer orientation. One situation where this could occur would be when a sales manager is supervising such a large number of salespeople that it is not possible to give each salesperson enough individual attention, feedback and support to establish a high work dimension relationship. Extra efforts should be made then for the firm to be market oriented and to be perceived as being market oriented.

The fact that no other hypotheses were supported means that the relationship between market orientation (an antecedent variable) and the role variables (outcome variables in this case) does not vary with the level of any of the VER dimensions. This means those relationships are consistent across all levels of the vertical exchange relationship dimensions and that efforts to make the sales manager/salesperson relationship better or letting the relationship deteriorate on any of the dimensions will not affect the way market orientation affects the role variables. The one exception is, of course, the role of the work dimension on the relationship between market orientation and job satisfaction.

Other Results Concerning the VER Dimensions

Market Orientation and the VER Dimensions. Each of the dimensions of the vertical exchange relationship is significantly related to firm market orientation. Narver and Slater (1990) found that top managers in groups that measured higher in market orientation measured higher in human resource skills. The results of this dissertation expand this finding even further to show that the higher human resource skills (in the form of VER) translate the market orientation into positive job satisfaction and organizational commitment and negative role ambiguity and role conflict. The managerial implication is that to be a market-oriented firm, managers at all levels need superior human relations skills.

Market orientation has been demonstrated to be positively associated with profitability (Narver and Slater 1990) and business performance (Jaworski and Kohli 1993). The managerial implication then is that VER could well be not only the mechanism through which a salesperson's perception of their firm's market orientation is developed, but also the mechanism by which a firm communicates and carries out its desired market orientation. Past research (Siguaw, Brown and Widing, II 1994) has indicated a relationship between the market orientation of the firm and the customer orientation of the salespeople. Their words offer a summary of the importance of the VER role

> . . . management can be very influential, through its recruitment, training, evaluation, and reward systems, in molding the orientation of its sales force to conform to the firm's selected orientation. In other words, the firm can elect to provide the resources and motivation to encourage rather than discourage customer-oriented selling (113).

Mediator Role of the Dimensions of VER. The role of the vertical exchange relationship dimensions in the relationships of interest in this dissertation appears to be more of a mediator role than a moderator. Moderators specify when certain effects will hold and mediators tell why or how such effects will occur. In the words of Baron and Kenny (1986), "Mediators explain how external physical events take on internal psychological significance" (1177) while moderators affect "the direction and/or strength of the relation . . . "(1174). Because many influences could play a part in translating the effects of market orientation into the role variables, one would not expect to see complete mediation, but rather partial mediation. A partial mediation is not a necessary and sufficient condition for something to occur, but reductions in the regression coefficients and p values of an independent variable when potential mediators are added to a regression equation would indicate the potency of any mediation (Baron and Kenny, 1986). The mediating effects of the dimensions varied in terms of their role in mediating the relationship between market orientation and the role variables. It should be noted, due to the concerns discussed earlier pertaining to socially desirable response tendencies and the skewness of the data, that measurement error tends to cause successful mediators to be overlooked (Baron and Kenny, 1986, 1177). If there is measurement error, then the dimensions may play more of a mediating role than what is disclosed in this dissertation.

Job Satisfaction. This dissertation confirms the previously reported positive relationships between job satisfaction and vertical exchange relationship (Lagace 1990, Tanner, Jr. and Castleberry 1990) and job satisfaction and market orientation (Siguaw, Brown and Widing, II 1994) . This dissertation also expands what is known about these relationships with indications that all three dimensions of VER identified in the dissertation are positively associated with both market orientation and job satisfaction. Additionally, the results indicate that the work dimension of VER partially moderates the relationship between market orientation and job satisfaction and that all three VER dimensions are partial mediators of this relationship. This means that the three dimensions; work, loyalty and congruence, each play a role in translating the market orientation of the firm into job satisfaction.

The results indicate that the work loyalty dimension does not play as large a role as do the work dimension and the congruence dimension in mediating the relationship between market orientation and job satisfaction. The managerial implication is that in order to maximize the salesperson's job satisfaction derived from working for a market-oriented firm, the sales manager should attempt to maximize all three dimensions of the vertical exchange relationship.

Organizational Commitment. Castleberry and Tanner, Jr. (1986) found a positive relationship between vertical exchange relationship and organizational commitment. Jaworski and Kohli (1993) and Siguaw, Brown and Widing, II (1994) reported a positive relationship between market orientation and organizational commitment. This dissertation confirms and expands these findings with indications that all three VER dimensions are positively related to organizational commitment and that the work dimension is a mediator of the relationship between market orientation and organizational commitment. For theory building purposes, it is significant and well worth noting that the loyalty and congruence dimensions do not mediate this relationship.

An interpretation of the mediation regression results is that through the work dimension the manager reinforces the market orientation of the firm and the salesperson becomes more organizationally committed. Even though a salesperson may think and believe like their manager (congruence dimensions) and may be willingly to publicly support their manager (loyalty dimension), these dimensions do not play a part in transferring market orientation into organizational commitment. This may indicate that the salesperson does not see their sales manager as "the firm," but that the sales manager is separate from the firm and that the firm and the sales manager contribute to organizational commitment in different ways. The loyalty dimension may be acting as a measure of commitment to the manager.

Role Ambiguity. This dissertation confirms and expands what is known about previously reported negative relationships between role ambiguity and vertical exchange relationship (Tanner, Jr. and Castleberry 1990; Tanner, Jr., Dunn and Chonko 1993; and Lagace, Castleberry and Ridnour 1993), but raises an interesting question in that the loyalty dimension is not significantly related to role ambiguity. The previously reported relationship between role ambiguity and market orientation (Siguaw, Brown and Widing, II 1994) is also confirmed. The relationship between market orientation and role ambiguity is not moderated by any of the vertical exchange relationship dimensions, but two of the dimensions (work and congruence) appear to be partial mediators.

Vertical exchange relationship, as a uni-dimensional construct, was defined as being "a role making process" (Tanner, Jr., Weeks and Nantel 1995, 291). The work dimension, of the three in the three dimensional VER measure of this dissertation, appears to be this process. This dimension is not so much the manager saying, "You are doing a good job" as in a performance appraisal, but rather whether or not the salesperson knows what the sales manager thinks of the job being done; the salesperson's contribution, effort and amount of work accomplished. Role ambiguity is understanding what is expected, and market orientation is a culture that creates superior value for buyers. This mediating relationship, then, could be interpreted as reducing role ambiguity by letting the salesperson know where they stand in carrying out this role.

The congruence dimension was also identified as a partial mediator. This dimension is concerned with the extent that the values, attitudes and beliefs of the salesperson and sales manager are shared. This result would be interpreted as indicating that when there is a commonality of attitudes concerning market orientation, then role ambiguity is reduced because there is a shared understanding of what needs to be done and why it needs to be done.

Not only is the loyalty dimension not a moderator or mediator, the results indicate that it is not related to role ambiguity. This means that whether the loyalty dimension is high or low has no effect on role ambiguity or in translating the market orientation into an understandable role.

Role Conflict. A negative relationship between role conflict and vertical exchange relationship has been previously reported (Tanner, Jr. and Castleberry 1990; Tanner, Jr., Dunn and Chonko 1993; and Lagace, Castleberry and Ridnour 1993) and this dissertation confirms that finding. In addition, the findings of Siguaw, Brown and Widing, II (1994) concerning the negative relationship between role conflict and market orientation are also confirmed in this dissertation.

The dimensions of vertical exchange relationship are neither moderators or mediators in the relationship between market orientation and role conflict. Role conflict is concerned with incompatible demands or expectations that impinge upon role standards. Because each of the VER dimensions and market orientation are related to role conflict it is not expected that none of them would play a mediating role in the relationship between market orientation and role conflict. Perhaps the lack of mediation indicates once again that the salespeople see the sales manager and the firm as being different. Perhaps, role conflict can come from the firm or from the sales manager, but role conflict from the firm is not seen as coming from the sales manager. In other words possible role conflict from the firm and from the sales manager are seen as being on two different paths.

The Three Dimension Outcome of the VER Measure. This study indicates that vertical exchange relationship is more than the traditional "work support" type relationship studied in the past and is identified here as one dimension of VER. A second dimension identified by this study is a relationship concerned with the public loyalty shown by the salesperson toward the sales manager. The third dimension identified by this study is a relationship concerned with the similarity of the attitudes and values of the two. Past research studies, with only one known exception (Tanner, Jr., Castleberry and Ridnour 1994), have utilized the VER concept as unidimensional even though researchers (Dienesch and Liden) as far back as 1986 have suggested it to have more than one dimension.

Tanner, Jr., Castleberry and Ridnour (1994) found two dimensions when they used this measure of VER to measure the VER of a sample from a business-to-business supply company. As mentioned in Chapter 3 they devised the items for the measure along the three dimensions of leader-member exchange suggested by Dienesch and Liden (1986). These three dimensions were identified by Dienesch and Liden (1986) as loyalty, affect and contribution. Tanner, Jr., Castleberry and Ridnour (1994) posited that, "Loyalty could be seen as a public response to the environment outside the dyad, while affect is exhibited within the dyad." The results of their factor analysis indicated that these two dimensions were not two, but rather one dimension. Why then, in this dissertation sample, are three dimensions identified?

The dissertation sample studied one company consisting of three divisions organized along the lines of former companies merged into the present company over the last five or so years. As a result, each of the three divisions represents a rather distinct area of publishing. This means that the salespeople are spread somewhat thinly across the country with any one location being covered by three people, one from each of the three divisions. The three salespeople would rarely cross paths. The point of this is that these salespeople would rarely have a chance to publicly defend or criticize their sales manager or discuss topics with others from their company that would make their sales manager look bad.

It could also be that the cultures of the two companies subjected so far to this VER measure could be somewhat different in terms of the necessity or properness associated with publicly supporting the sales manager. It could also be that the cultures of the three companies now joined together as one company in the dissertation sample could still be different in regards to public support of the boss. It could also be that this group of salespeople, due to any reorganization associated with the mergers, have not been, as a whole, associated with their present sales managers as long as the salespeople in the company surveyed in Tanner, Jr., Ridnour and Castleberry (1994).

Perhaps the best answer to this question is then, simply, that this is a different salesforce than that of the 1994 study. Tanner, Jr., Castleberry and Ridnour (1994, 30) suggested then that "Future research should examine other types of salesforces, such as missionary . . . . " This sample would best be classified as missionary salespeople. Finally, as posited by Tanner, Jr., Castleberry and Ridnour (1994) the evaluation, compensation and measurement systems of different organizations may all play a part in the formation, maintenance and effects of the quality of vertical exchange relationship.

While this dissertation does not support a two dimensional measure, it does suggest a multi-dimensional measure in that the different dimensions behave differently. This suggests that Diensch and Liden (1986, 626) were correct when they stated that "Exchanges between leaders and members do not fit neatly into a single dimension" and that Tanner, Jr., Castleberry and Ridnour (1994) may have devised the measure to confirm that idea.

The managerial implication of the multi-dimensionality of VER is that the relationship between a sales manager and salespeople may be more complex than previously considered. Indications from this study are that vertical exchange relationship may not be one type of relationship, but three types of relationships with the possibility that all three dimensions may not have the same effect or importance in relation to various aspects of the performance, attitudes, work and lives of salespeople. For the best VER relationship to exist, either from the standpoint of the sales manager or salesperson, one must be aware of and pay attention to all three dimensions of VER.

Section Conclusion. This section has examined the moderating effects of the vertical exchange dimensions on the relationships between market orientation and the role variables. Other results were highlighted and the finding of three dimensions to the vertical exchange measure was discussed.

Limitations of this Study

This study is limited by two categories of factors. One is the skewness of the data and the other is the methodology employed. Because of these limitations, care should be taken when interpreting the results and relating them to other personal selling situations. Each of these limitations is examined in this section.

Skewness of the Data

As indicated in the descriptive statistics presented in Chapter 4 (see Table 4.11), the skewness of the various measures ranges from moderate to severe. The modes of two of the three VER measures are 7.00, which is the maximum possible score. One possible cause of this could be a tendency on the part of the respondents to respond in a socially desirable manner. Two proxy checks of this possibility was made by dividing the sample into two subsamples based on two questions asked in the survey. When the means of the groups were compared, some of the means were statistically different (see Tables 4.91 and 4.92), but in reality there was either not enough difference to matter or the group that was expected to have the higher means did not.

Another possible reason for the skewness may have been non-response of hired-hands. Tanner, Jr. and Castleberry (1990) indicated that high performing hired-hands are less likely to respond to surveys than are low performing hired-hands, cadres and middles. While it cannot be shown whether or not this was the case in this dissertation, it can be said that 11.4 per cent of the respondents disagreed that "Completing this survey was a reasonable thing for the company to ask me to do." Obviously, those who did not think completing the survey was a reasonable thing for the company to ask them to do may not have responded to the questionnaire.

Methodology Limitations

The methodology of the study called for a sample composed of one company. Even though this company is a national company and responses were received from across the nation one must realize that the results obtained in this study are a function of the combination of methods, procedures and goals unique to this company.

A second limitation related to methodology is that each variable was only measured in one way. Therefore is was not possible to establish convergent validity as multiple measures would have allowed. Additional measures would have required more time and effort on the part of the respondents and may have reduced the response rate.

Another limitation could be the use of the internet to conduct this study, although this collection method seemed to be well received and utilized. There may have been those who did not respond due to confidentiality concerns, a lack of familiarity with the process or technical difficulties in logging on to the website.

Considerations for Future Research

Vertical exchange relationship is a construct worthy of continued study due to its many implications concerning the salesforce of a firm. Several areas can be suggested for future research based on the results of this dissertation and the previously reported findings.

Future research should further consider the role of the dimensions of VER in relationships involving the role variables. The previously reported meta-analysis studies for each of the role variables (see Chapter 2) indicated that for many of the relationships studied in the past, the possibility of moderators of the relationships was high. One only has to glance at Tables 2.1 to 2.6 to gain an idea of the moderating role the various dimensions of VER may play in the relationships previously studied. Based on the importance of job satisfaction to turnover, in particular, as an outcome, future research should examine the role of VER in the relationships between each of the following: organizational commitment and job satisfaction, role ambiguity and job satisfaction, and role conflict and job satisfaction. The research questions should concern whether or not the dimensions of VER moderate/mediate these relationships.

Another area of future research should be in the examination of the relationship of VER to the relationship between market orientation of the firm and customer orientation of the salesperson. Siguaw, Brown and Widing, II (1994) found market orientation to be related to the customer orientation and to the role variables, but did not find a relationship between customer orientation and the role variables as they expected. One research question should be whether or not one or more dimensions of VER moderate/mediate the relationship between market orientation of the firm and customer orientation of the salesperson. A second research question should be whether or not the dimensions of vertical exchange relationship are related to customer orientation.

Another area of suggested further study would be in the area of VER, market orientation and unit performance. Narver and Slater (1990) reported a relationship between units measuring high in market orientation and the human resource management skills of the unit leaders. These human resource management skills served as mediators between market orientation and role variables. Future research should seek to determine if the same higher human resource skills serve as moderators/mediators to unit performance. Another research question should be whether or not sales units in market-oriented companies whose managers measure higher overall in VER than other units have higher unit performance?

An additional area of research would be in the further examination of the Tanner, Jr., Castleberry and Ridnour (1994) measure of vertical exchange relationship. A three dimensional measure may help us to better understand the relationship between a sales manager and a salesperson, but first we must better understand the meaning of the measure. For instance, we describe a box by its length, height and width. We do not add the three together and describe a box that is three feet long, two feet high and one foot wide as "six" (3 + 2 + 1). How then do we describe VER if it has three, or even two dimensions? Do relationships have the same amount of each dimension, or are most relationships made up of different amounts of each dimension such that some relationships are, for instance, high on work, low in loyalty and in the middle on congruence? Are there combinations that hold meaning and characterize groups of salespeople so that sales managers should supervise the resulting groups in different ways?

One promising approach to answering these questions is that of a grid approach used to build "cluster profiles" suggested by Tanner, Jr., Ridnour and Castleberry (1997). They used cluster analysis based on work and affect scores to determine three groups they labeled partners, drones and buddies. In their classification, partners were the highest in work and affect; drones were in the middle in work and lowest in affect while buddies were fairly high in affect and low in work. They found that partners had more job satisfaction than buddies and drones and that partners had more satisfaction with their manager than buddies who had more satisfaction with their manager than did drones.

A multi-dimensional measure could allow even more to be learned about the formation and continuing nature of relationships. Early in the leader member exchange literature, it was shown that vertical relationships develop quickly

(Dansereau, Graen and Haga 1975 and Lagace 1990) and remain stable over time (Dansereau, Graen and Haga 1975). It would be of great value to both sales managers and salespersons interested in developing vertical exchange relationships to know and understand which of the dimensions develop first and whether any of the dimensions are necessary for development of other dimensions. Future studies should consider a causal, or latitudinal, design which would allow this type of question to be answered. If, for instance, establishing a congruence relationship was shown to be a necessary condition for a loyalty and/or work relationship, this would tell sales managers or salespersons entering into a new relationship to seek to establish a congruence relationship as a first step to building a strong overall vertical exchange relationship.

Another future endeavor should be to examine the social desirability of the individual items making up the Tanner, Jr., Castleberry and Ridnour (1994) measure of vertical exchange relationship. Examining the social desirability was certainly not a purpose of this dissertation, yet it is noticeable that the modes for two of the three vertical exchange relationship dimensions identified in the dissertation are the highest possible score. The modes for the work and congruence dimensions were 7.0 out of 7.0. Of 195 respondents 45 (23.1 per cent) had a score of 7.0 for the loyalty dimension and 35 (17.9 per cent) had a score of 7.0 on the work dimension. For the congruence dimension, 20 (10.3 per cent) had a score of 7.0. The mode for the congruence dimension was 6.0 and was indicated for 37 (19.0 per cent) of the respondents. The highest possible scores were measured for six respondents on role ambiguity and for two respondents on role conflict. No measures of 7.0 were recorded for any respondent on market orientation or organizational commitment and no measures of 3.0 were recorded for job satisfaction. Of course another explanation for the high scores on the VER dimensions would be that the relationships between the salespeople and sales managers in this company are very high.

Nunnally (1978) and Nederhof (1984), among others, have suggested that the social desirability of the individual items that make up measures be determined and then efforts made, where necessary, to try to reduce the desireability of those items that measure as being highly desirable. Nederhof says this judgement can be made by having respondents rate each item as they complete the questionnaire or by having independent judges rate each item.

Contributions of this Dissertation

This dissertation contributes to what is known about vertical exchange relationship, market orientation and the role variables of job satisfaction, organizational commitment, role ambiguity and role conflict in a number of ways. This dissertation demonstrates the moderating effects of one dimension of vertical exchange relationship and the mediating effects of all three dimensions of vertical exchange relationship. Another contribution is in being the first study to establish a relationship between market orientation and vertical exchange relationship. This dissertation expands past findings related to the relationships between firm market orientation and selected role variables. This study also expands the previous reported relationships between vertical exchange and the role variables. This dissertation is the first known research to substantiate three dimensions of vertical exchange relationship. Finally, this dissertation provides managerial implications and suggests future research into the dimensions of VER, the role variables and market orientation.

The contribution of this study may well be found in the words of Tanner, Jr., Castleberry and Ridnour (1994, 28) when they said,

> Vertical exchange relationships (e.g. salesperson and sales manager) should be treated as a multidimensional construct. . . . The behavior in each of these areas must be considered. Since even the unidimensional construct has been shown to be related to turnover and performance, a fuller description of what actually happens between a leader and member should have considerable value to practitioners who can choose how they operate in vertical relationships.

This study shows VER to be a multi-dimensional construct and that the dimensions do operate differently. It is hoped that the results of this study have increased the understanding of the sales manager/salesperson relationship and will lead to an even fuller understanding in the future.

APPENDIX A

RELEVANT PARTS OF THE DISSERTATION QUESTIONNAIRE

GROUP ONE

DIRECTIONS: The following statements relate to the way your BUSINESS UNIT conducts its business. For these statements BUSINESS UNIT refers to the unit for which you work and not the division or entire corporation if you work in a large corporation made up of several companies or divisions. In the blank on each line please describe your ACTUAL, not desired perception of your business unit at the present time using as your answer a number from the scale below.

1 - This business unit engages in the practice **NOT AT ALL (NONE WHATSOEVER)**

2 - This business unit engages in the practice **TO A SLIGHT EXTENT**

3 - This business unit engages in the practice **TO A SMALL EXTENT**

4 - This business unit engages in the practice **TO A MODERATE EXTENT**

5 - This business unit engages in the practice **TO A CONSIDERABLE EXTENT**

6 - This business unit engages in the practice **TO A GREAT EXTENT**

7 - This business unit engages in the practice **TO AN EXTREME EXTENT**

____ 1.Our salespeople regularly share information within our business concerning competitor's 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 this 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.

GROUP TWO

DIRECTIONS: The following statements relate to your feelings about your particular job. In the first blank on each line please indicate how true or not true you believe the statement to be NOW using as your answer a number from the scale below. In the second blank indicate how true or not true you would have believed the statement to be 12 MONTHS AGO (12 MNTHS AGO). Your answers for the two time periods may be different or the same depending on your feelings. Even if you worked for a different company, business unit and/or supervisor and/or were in a different job 12 months ago please indicate an answer for each situation.

DEFINITELY NOT TRUE 1 2 3 4 5 6 7 EXTREMELY TRUE

NOW 12 MNTHS AGO

____ ____ 1. I feel certain about how much authority I have.

____ ____ 2. There are clear, planned goals and objectives for my job.

____ ____ 3. I know that I have divided my time properly.

____ ____ 4. I know what my responsibilities are.

____ ____ 5. I know exactly what is expected of me.

____ ____ 6. I work on unnecessary things.

____ ____ 7. I have to do things that should be done differently.

____ ____ 8. I receive an assignment without the manpower to complete it.

____ ____ 9. I have to buck a rule or policy in order to carry out an assignment.

____ ____ 10. I work with two or more groups who operate quite differently.

____ ____ 11. I receive incompatible requests from two or more people.

____ ____ 12. I do things that are apt to be accepted by one person and not accepted by others.

____ ____ 13. I receive an assignment without adequate resources and materials to execute it.

____ ____ 14. Explanation is clear of what has to be done.

GROUP FOUR

DIRECTIONS: The following statements (1-15) relate to your feelings about the particular organization for which you are now working and (16-28) about your life. In the first blank on each line please indicate the degree of your agreement or disagreement with each of the statements at the present time (NOW) using as your answer a number from the scale below. In the second blank on each line please indicate what you believe would have been the degree of your agreement or disagreement with each statement 12 MONTHS AGO (12 MNTHS AGO). Your answers for the two time periods may be different or the same depending on your feelings. Even if you worked for a different company, business unit and/or supervisor and/or were in a different job 12 months ago please indicate an answer for each situation.

STRONGLY DISAGREE	DISAGREE	MODERATELY DISAGREE	NEITHER AGREE NOR DISAGREE	MODERATELY AGREE	AGREE	STRONGLY AGREE
1	2	3	4	5	6	7

NOW 12 MNTHS AGO

____ ____ 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 this 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 the 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. It would take very little change in my present circumstances to cause me to 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.

GROUP FIVE

DIRECTIONS: Listed below are words and phrases that represent possible feelings that individuals might have about the job they do. With respect to your own feelings about the particular sales job at which you are now working please indicate a response for each word or phrase as directed below.

Put "Y" in the blank beside an item if the item describes a particular aspect of your job (work, pay, etc.), "N" if the item does not describe that aspect, or "?" if you cannot decide.

Y = YES the item describes my job
N = NO the item does not describe my job
? = I cannot decide whether the item does or does not describe my job

WORK

____ 1. Fascinating
____ 2. Routine
____ 3. Satisfying
____ 4. Boring
____ 5. Good
____ 6. Creative
____ 7. Respected
____ 8. Hot
____ 9. Pleasant
____ 10. Useful
____ 11. Tiresome
____ 12. Healthful
____ 13. Challenging
____ 14. On your feet
____ 15. Frustrating
____ 16. Simple
____ 17. Endless
____ 18. Gives sense of accomplishment

PAY

____ 1. Income adequate for normal expenses
____ 2. Satisfactory profit sharing
____ 3. Barely live on income
____ 4. Bad
____ 5. Income provides luxuries
____ 6. Insecure
____ 7. Less than I deserve
____ 8. Highly paid
____ 9. Underpaid

PROMOTION

____ 1. Good Opportunity for advancement
____ 2. Opportunity somewhat limited
____ 3. Promotion on ability
____ 4. Dead-end job
____ 5. Good chance for promotion
____ 6. Unfair promotion policy
____ 7. Infrequent promotions
____ 8. Fairly good chance for promotion
____ 9. Regular promotions

CO-WORKERS

____ 1. Stimulating
____ 2. Boring
____ 3. Slow
____ 4. Ambitious
____ 5. Stupid
____ 6. Responsible
____ 7. Fast
____ 8. Intelligent
____ 9. Easy to make enemies
____ 10. Talk to much
____ 11. Smart
____ 12. Lazy
____ 13. Unpleasant
____ 14. No privacy
____ 15. Active
____ 16. Narrow interests
____ 17. Loyal
____ 18. Hard to meet

SUPERVISION

____ 1. Asks my advice
____ 2. Hard to please
____ 3. Impolite
____ 4. Praises good work
____ 5. Tactful
____ 6. Influential
____ 7. Up-to-date
____ 8. Doesn't supervise enough
____ 9. Quick tempered
____ 10. Tells me where I stand
____ 11. Annoying
____ 12. Stubborn
____ 13. Knows job well
____ 14. Bad
____ 15. Intelligent
____ 16. Leaves me on my own
____ 17. Lazy
____ 18. Around when needed

GROUP SEVEN

DIRECTIONS: The following statements (1-24) relate to the relationship you have with your salesmanager. In the first blank on each line please indicate the degree of your agreement or disagreement with each of the statements at the present time (NOW) using as your answer a number from the scale below. In the second blank on each line please indicate what you believe would have been the degree of your agreement or disagreement with each statement 12 MONTHS AGO (12 MNTHS AGO). Your answers for the two time periods may be different or the same depending on your feelings. Even if you worked for a different company, business unit and/or supervisor and/or were in a different job at this time 12 months ago please indicate an answer for each situation.

STRONGLY DISAGREE	DISAGREE	MODERATELY DISAGREE	NEITHER AGREE NOR DISAGREE	MODERATELY AGREE	AGREE	STRONGLY AGREE
1	2	3	4	5	6	7

NOW 12 MNTHS AGO

____ ____ 1. My manager encourages me to offer my views on work related topics.

____ ____ 2. I know where I stand with my manager

____ ____ 3. I know how satisfied my manager is with my work.

____ ____ 4. My manager values the quality of my work activities.

____ ____ 5. My manager would assist me in resolving my work problems at his/her expense.

____ ____ 6. My manager believes in my potential.

____ ____ 7. My manager recognizes my contribution to the team.

____ ____ 8. My manager recognizes my contribution to the company.

____ ____ 9. My manager appreciates my efforts to do a good job.

____ ____ 10. My manager appreciates the amount of work I accomplish.

____ ____ 11. I appreciate my manager's contribution to my performance.

____ ____ 12. My manager and I are friends.

____ ____ 13. My manager and I have a strong basis for a common ground.

____ ____ 14. My manager's business philosophy is generally similar to mine.

____ ____ 15. My manager's attitude on company issues is generally similar to mine.

____ ____ 16. My manager's attitude on sales strategies is generally similar to mine.

____ ____ 17. My manager's attitude on sales policies and procedures is generally similar to mine.

____ ____ 18. My manager's personal (nonbusiness) values are similar to mine.

____ ____ 19. During planned, regularly scheduled meetings between myself and my manager, he/she is informal, relaxed, and comfortable.

____ ____ 20. I would avoid discussing topics with other members of my sales team that might make my boss look bad.

____ ____ 21. When necessary, I would defend the character of my manager.

____ ____ 22. I would defend and justify my manager's decision process, if he/she were not present to do so.

____ ____ 23. I would not defend the reputation of my manager.

____ ____ 24. My manager is honest.

GROUP ELEVEN

The questions in this, the last, group relate to YOU, YOUR IMMEDIATE SALES MANAGER and/or YOUR BUSINESS UNIT (FIRM). Please answer all questions to the best of your ability. If your answer is NONE or NEVER, enter 0. Please remember your answers will be kept completely confidential.

THE FIRST GROUP OF QUESTIONS RELATE TO YOUR BUSINESS UNIT (firm). Please note that, as before, business unit (firm) refers to the unit for which you work and not the division or entire corporation if you work in a large corporation made up of several companies or divisions.

1 Does your firm have a formal on-going sales/marketing training program? ___ NO ___ YES

2. Which of the following best describes your firm's compensation plan for salespeople? (CHECK ONE ONLY):

___ Straight commission
___ Straight salary
___ Salary + Commission
___ Salary + Bonus
___ Other (describe ______________________________)

3 .Which of the following is the main business classification of your firm? (CHECK ONE ONLY)

___ SIC 20 Food & Kindred Products
___ SIC 21 Tobacco Products
___ SIC 22 Textile Products
___ SIC 23 Apparel & Other Finished Products
___ SIC 24 Lumber & Wood Products Except Furniture
___ SIC 25 Furniture & Fixtures
___ SIC 26 Paper & Allied Products Equipment
___ SIC 27 Printing & Allied Products
___ SIC 28 Chemicals & Allied Products
___ SIC 29 Petroleum, Coal, Refining & Related Industries
___ SIC 30 Rubber and Miscellaneous Plastic Products
___ SIC 31 Leather & Leather Products
___ SIC 32 Stone, Clay, Glass & Concrete Products
___ SIC 33 Primary Metal Industries
___ SIC 34 Fabricated Metal Products
___ SIC 35 Industrial & Commercial Products
___ SIC 36 Electronic & Other Electrical
___ SIC 37 Transportation Equipment
___ SIC 38 Measuring & Analyzing Instruments
___ SIC 39 Miscellaneous Manufacturing Industries (jewelry, toys, pens, etc.)

4. About what is your firm's annual sales? ______________________

5. About how many sales people does your firm employ? ______________________

6. About how many people does your firm employ? ______________________

7. For how many different divisions of your firm do you sell? ______________________

THE FOLLOWING SECTION RELATES TO YOUR IMMEDIATE SALES MANAGER'S EXPERIENCE AND ACTIVITIES.

1. What is your salesmanager's gender? ____ male ___ female

2. How many YEARS of SALES experience with YOUR FIRM does your sales manager have? _____ years

3. How many YEARS of SALES MANAGEMENT experience with YOUR FIRM does your sales manager have? _____ years

Group 11, continued

4. How many YEARS has your sales manager been with your firm? _____ years

5. How many salespeople report to your sales manager? _____ salespeople

6. Does your salesmanager ever go on sales calls with you? ___ NO ___ YES --> if yes, About how many calls per month? _____ calls

THE FOLLOWING QUESTIONS RELATE TO YOU, YOUR WORK EXPERIENCE AND YOUR SALES ACTIVITIES.

1. Your Approximate YEARS of WORK EXPERIENCE?

_____ years ==> if less than 2 years ___ months

2. Your Approximate YEARS of SALES EXPERIENCE?

_____ years ==> if less than 2 years ___ months

3. Your YEARS in PRESENT JOB?

_____ years ==> if less than 2 years ___ months

4. Your YEARS with PRESENT FIRM?

_____ years ==> if less than 2 years ___ months

5. Your YEARS in SALES with PRESENT FIRM?

_____ years ==> if less than 2 years ___ months

6. Your YEARS in sales with PRESENT BUSINESS UNIT

_____ years ==> if less than 2 years ___ months

7. Your YEARS working under PRESENT SALES MANAGER?

_____ years ==> if less than 2 years ___ months

if less than 1 year was your previous sales manager ____ male ____ female

8. Your YEARS working in PRESENT TERRITORY/LOCATION?

_____ years ==> if less than 2 years ___ months

9. Your YEARS working with PRESENT PRODUCT/SERVICE LINE(S)?

_____ years ==> if less than 2 years ___ months

10. Your total lifetime NUMBER of SALES POSITIONS with ANY FIRM? _____ positions

11. What type of product(s) do you sell?

___Service ___ Tangible Product --> 12. Describe: ________________________________

(EXAMPLE: electronics, chemicals, etc.)

13. What is the title of your sales position? ________________________________

ARE YOU REQUIRED TO DO ANY OF THE FOLLOWING (please check YES or NO)?

14. Sales call reports ___ YES ___ NO

15. Sales projections ___ YES ___ NO

16. Status reports (weekly, monthly, ...) ___ YES ___ NO

17. Annual reports ___ YES ___ NO

Group 11, continued

18. Which of the following BEST describes your present sales position? (Check ONE only):
   - ___ INSTITUTIONAL SELLER (for new buy or modified rebuy situations to nonretail/wholesale customers)
   - ___ ROUTE SALES (for rebuy situations of standardized products to retail outlets, manufacturers, other institutions)
   - ___ MISSIONARY SALES (for "making the sale" but not getting the contract or taking the order)
   - ___ TRADE SERVICER (for business to resellers)
   - ___ TRADE SELLER (for "up-front" selling to wholesale/distributors)
   - ___ OTHER (describe) ______________________________

IN A TYPICAL WEEK, ABOUT HOW MANY TIMES PER WEEK (on average) DO YOU ATTEND/PERFORM THE FOLLOWING ACTIVITIES? (0 if NONE)

1. Sales calls on present customers ___ calls per week
2. Sales calls on prospects ___ calls per week
3. Group sales meetings ___ meetings per week
4. Individual meetings with sales manager ___ meetings per week
5. Receive phone calls from sales manager ___ calls per week
6. Receive notes, e-mail, etc. from sales manager ___ notes per week

IN A TYPICAL WEEK, ABOUT HOW MANY HOURS PER WEEK (on average) DO YOU PUT INTO THE FOLLOWING WORK ACTIVITIES? (0 if NONE)

7. On the job & in job-related activities ___ hours/per week
8. Sales calls on present customers ___ hours/per week
9. Sales calls on prospects ___ hours/per week
10. Driving time to customers/prospects ___ hours/per week
11. Group sales meetings ___ hours/per week
12. Individual meetings with manager ___ hours/per week
13. Forecasts, planning paperwork ___ hours/per week
14. Sales training ___ hours/per week

FOLLOWING ARE DEMOGRAPHIC QUESTIONS ABOUT YOU AND WILL ONLY BE USED TO CATEGORIZE THE RESULTS (all answers are confidential and important in getting meaningful results from this study)

1. What is your gender? ___ Male ___ Female
2. What is your age? _________
3. What is your highest level of education? (CHECK ONE ONLY):

___ some grade school	___ some high school	___ some college	___ some grad school
___ grade school	___ high school grad	___ college degree	___ grad degree

Group 11, continued

4. With what ethnic group do you most identify?

___ Asian ___ Black ___ Hispanic ___ Native American ___ White ___ Other ______________________

5. What was your sales volume

in 1997? $____________ in 1998? $____________

6. What percentage of sales quota did you achieve

in 1997? ___________% in 1998? ___________%

7. Your approximate gross pay (including salary, commissions, bonuses and incentives)
in 1997? $____________ in 1998? $____________

8. Your approximate base salary in 1997? $____________ in 1998? $____________

9. What is your present marital status?

___ Married ___ Never Married ___ Separated/Divorced ___ Widowed

10. What was your marital status 12 months ago?
___ Married ___ Never Married ___ Separated/Divorced ___ Widowed

GROUP TWELVE

DIRECTIONS: The following statements relate to your feelings about this survey and this particular method of delivering a survey. Please indicate the degree of your agreement or disagreement with each of the statements using as your answer a number from the scale below.

STRONGLY DISAGREE	DISAGREE	MODERATELY DISAGREE	NEITHER AGREE NOR DISAGREE	MODERATELY AGREE	AGREE	STRONGLY AGREE
1	2	3	4	5	6	7

_____ 1. If this survey had arrived in the mail and was company sponsored I would have been less likely to have responded than I was likely to respond to an Internet survey.

_____ 2. Surveys of this length would be better done as pencil and paper surveys (mailed to me and returned to you via mail) than via the Internet.

_____ 3 If this survey had arrived in the mail and was not a company-sponsored survey I probably would have completed it.

_____ 4. I believe this survey will provide the company with useful information.

_____ 5. I believe that my answers on this survey will remain confidential.

_____ 6. I believe that if the researchers wanted to identify me with my answers without me knowing it they could.

_____ 7. Completing this survey was a reasonable thing for the company to ask me to do.

_____ 8. If I had to do it over again I probably would not complete this survey.

_____ 9. I have spoken with at least one other company sales person about this survey.

_____ 10. Doing the survey on-line would be more boring than doing the survey by pencil and paper.

Group 12, continued

STRONGLY DISAGREE	DISAGREE	MODERATELY DISAGREE	NEITHER AGREE NOR DISAGREE	MODERATELY AGREE	AGREE	STRONGLY AGREE
1	2	3	4	5	6	7

_____ 11. Doing the survey on-line would take more time than doing the survey by the paper and pencil method would have taken.

_____ 12. If the researchers did this survey again with another company I would recommend they do it on-line.

_____ 13. I had trouble following the directions in the survey.

_____ 14. Remembering the scales was difficult at first.

_____ 15. As I completed the survey it became much easier to remember the scales.

_____ 16. I didn't understand a lot of the questions and had to go back and reread them.

_____ 17. Answering the questions was easy.

_____ 18. I do not believe the company should have participated in this study.

_____ 19. I completed this survey mostly because the company asked me to.

_____ 20. I completed this survey mostly because it was from a doctoral student.

_____ 21. I think it is our duty to complete surveys such as this.

_____ 22. I believe that at least 25 percent of the salesforce will respond to this survey.

_____ 23. I believe that at least 50 percent of the salesforce will respond to this survey.

_____ 24. I believe that at least 75 percent of the salesforce will respond to this survey.

_____ 25. I believe if these researchers ever send me another survey it will be too soon.

26. In considering whether or not to complete this survey confidentiality was (check one):
___ a great concern __ somewhat of a concern __a little concern __ not a concern at all

27. Compared to how long the researchers said it would take me to do this survey (15 to 20 minutes per section) it took me (check one):
___a lot more time ___ about the time they said it would ___a little less time
___somewhat more time ___ somewhat less time
___a little more time ___a lot less time

28. I found myself just checking answers rather than reading the questions (check one):
___a lot ___some ___very little ___almost never ___never

29. How would you rate your ability to get around websites and webpages on the computer? (Check one)
___ poor ___ fair ___ OK ___ good ____ excellent

30. About how much time do you spend a week on the Internet? (check one)
__ less than an hour __ 1-3 hours ___ 4-6 hours ___ 7-10 hours ___ over 10 hours

Group 12, continued

Please indicate your feelings about this survey by marking out or circling the number which best represents your answer.

31. not fun 1 2 3 4 5 6 7 8 9 10 very fun

32. tedious 1 2 3 4 5 6 7 8 9 10 not tedious

33. frustrating 1 2 3 4 5 6 7 8 9 10 not frustrating

34. took forever 1 2 3 4 5 6 7 8 9 10 time flew

35. wouldn't do it again 1 2 3 4 5 6 7 8 9 10 would do it again

36. better by pencil and paper 1 2 3 4 5 6 7 8 9 10 better online

37. directions were not clear 1 2 3 4 5 6 7 8 9 10 directions were clear

38. improvements needed 1 2 3 4 5 6 7 8 9 10 improvements not needed

39. no survey should be done this way 1 2 3 4 5 6 7 8 9 10 all surveys should be done this way

40. if someone asked me if they should complete this survey I would tell them

    definitely not to 1 2 3 4 5 6 7 8 9 10 definitely to

41. boring 1 2 3 4 5 6 7 8 9 10 not boring

APPENDIX B

HUMAN USE APPROVAL MEMORANDUM

LOUISIANA TECH
UNIVERSITY

RESEARCH & GRADUATE SCHOOL

MEMORANDUM

TO: Patrick D. Fountain

FROM: Deby Hamm, Graduate School

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: August 4, 1999

In order to facilitate your project, an **EXPEDITED REVIEW** has been done for your proposed study entitled:

"Moderating effects of vertical exchange relationship on the relationship between firm market orientation and selected salesperson role variables" #1-OL

The proposed study procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Further, the subjects must be informed that their participation is voluntary.

Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study.

If you have any questions, please give me a call at 257-2924.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 7923 • RUSTON, LA 71272-0029 • TELEPHONE (318) 257-2924 • FAX (318) 257-4487 • email: research@LaTech.edu

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IMAGE EVALUATION TEST TARGET (QA-3)

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