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By

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ABSTRACT

INFORMATION UTILIZATION IN THE MARKETING CHANNEL DYAD: ASSESSING THE EFFECTS OF RELATIONAL CHARACTERISTICS

By

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In a business environment characterized by continued globalization and rapid advances in information technology, sustainable advantage is becoming less a matter of obtaining timely, credible information and more a matter of effectively utilizing information. Despite the quantities of information that firms receive from partners in the marketing channel, and that information's critical importance in influencing strategies and decisions, little attention has been paid to how firms utilize information provided by their channel partners.

This dissertation synthesizes the literature on information utilization in the areas of market research utilization, the marketing-R&D interface, and marketing plan utilization. Subsequently, it develops a microeconomic and transaction costs model to study research questions concerning how a firm's utilization of information received from a channel partner is influenced by relational characteristics such as satisfaction with prior general and informational outcomes, operational and boundary spanning cooperation, trust in credibility, trust in benevolence, and expectations of continuity.

The unit of analysis is a "critical incident" report provided by the supplier on how shelving management can be improved through the use of Direct Product Profitability (DPP), planogramming, or other shelving set up methods. Using EQS, the model was tested on a sample of 301 grocery supplier-grocery chain dyads.

Results of the study indicate that trust in credibility and boundary spanning cooperation directly affected information utilization, whereas operational cooperation, satisfaction with prior general outcomes, and satisfaction with prior informational outcomes had indirect effects. These research findings are compared and contrasted with those from previous research. Managerial implications concerning how to enhance a channel partner's use of information are discussed, as are directions for future research.

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CHAPTER ONE

INTRODUCTION

"We are drowning in information and starved for knowledge" (Naisbett, 1984).

The motivation, objectives, purpose and scope of the research are described in this chapter. The study was undertaken to investigate the utilization of information in a distribution channel. First, the research problem is defined. Next, information utilization is defined, and its importance is discussed. The motivation and purpose of this research and specific research questions are identified, and the scope and research domain for this research are set forth. The expected contributions and limitations of the study are discussed next. An overview of the remainder of the dissertation concludes this chapter.

1.1 Definition of the Problem

Utilization of information received by a firm from a channel partner can improve channel coordination and enhance the efficiency, profitability, strategic capability, and comparative advantage of firms in the channel. However, there are many obstacles to effective information utilization in a marketing channel's environment, including difficulties in the channel relationship, characteristics of the information sender and receiver, and attributes of the message and the medium.

Characteristics of the channel relationship are an important determinant of information utilization in the marketing channel dyad. Thus, the research problem in this study was to determine which relational characteristics significantly affect the utilization of information received by a firm from a channel partner. Using the results of this research, firms can devise strategies to improve their information utilization, and ultimately their performance.

1.2 Importance of Information Utilization

Utilization of information for decision making and knowledge base enhancement is a critical component of a firm's sustainable competitive advantage and performance (Glazer 1991; Porter and Millar 1985). It can serve as a substitute for inventory (Dudley and Lasserre 1989), a means of influencing buyers or augmenting product value in the marketing process (Moriarty and Spekman 1984), and a way of controlling processes and activities within the organization (Bruns and McFarlan 1987). Information can enable a firm to produce products at lower cost, differentiate itself from competitors, target markets, raise entry barriers, and even change the nature of the market itself through product innovation or positioning of the firm (Bergeron, Buteau, and Raymond 1991; McFarlan 1984; Porter 1985).

Generally speaking, information can be obtained from any source in the firm's environment: its own internal environment, other firms in the marketing channels within which it operates, customers, or the macroenvironment (Achrol, Reve, and Stern 1983). In turn, that information can be used strategically to accomplish the goals and purposes of the firm. These purposes may include transforming the firm

itself, its products, or its relationships with customers or suppliers in order to meet its objectives of survival, growth, efficiency, and control over its environment (Kumar 1991).

Continuing, rapid advances in information technology have made more and more information readily available to firms, while at the same time requiring them to compete in a knowledge intensive environment (Achrol 1991; Menon and Varadarajan 1992). Competitive advantage in the marketplace is becoming less a matter of obtaining timely, credible information and more a matter of who can effectively utilize the information they have at hand (Moorman, Deshpande, and Zaltman 1992; Porter and Millar 1985). Effective utilization involves more than merely generating and/or gathering information. Firms must make "informational and interpersonal investments" to evaluate the content, context, meaning, and quality of information, and make it actionable to the immediate or long-term decisions of the firm (Arrow 1973; Moorman, Zaltman, and Deshpande 1992, p. 316).

In some instances, information should not be utilized at all due to poor quality, information overload, or other circumstance causing the gain from utilization to be less than the cost of processing the information. In these instances, the task of the decision maker is to make the correct decision about whether to invest in utilizing the information (Glazer, Steckel, and Winer 1992).

1.3 Definitions of Information and Information Utilization

Glazer (1991) defined information as "data that have been organized or given structure--that is, placed in context--and thus endowed with meaning" (p. 2). The fundamental information problem facing a firm is to maximize its performance and success in the face of the task uncertainty it faces. Thus, information that is organized and meaningful to the firm will be relevant to the firm's operations, either by affecting decision making in the firm, or by developing management's knowledge base for future activity. Meaningful information is also comprehensible, novel (which includes confirmatory information where uncertainty remains in the task environment), and credible (Gottlieb 1985; Moenaert and Souder 1990b).

All assessments of information content depend to some degree on the context or environment in which the assessment takes place. The value or meaning of information comes from what one seeks to accomplish, as well as the payoff matrix from decisions made under different information states. In this study, the general information context comprised the channel environment and the decision makers in the firm who determine whether and how information supplied by a channel partner is to be used.

As Menon and Varadarajan (1992) noted, information utilization has been described in a variety of ways. John and Martin (1984) defined information utilization as the degree to which information directly guides decisions and behavior, such as the decision to introduce a new pricing strategy or to pursue a strategic relationship with a vendor. Patton (1978) discussed information utilization in terms of the

reduction of uncertainty among decision makers. Thus, utilized information can be viewed as affecting perceptions of the decision makers' costs and payoff matrix. From Anderson, Ciarlo, and Brodie's (1981) broader perspective, information may be considered as utilized if exposure to that information results in any behavioral, cognitive, and/or affective changes in the individual, even in the absence of an explicit decision context.

Most empirical studies of information utilization have focused on instrumental usage--that is, the direct applications of information to solve a problem and make a decision (Caplan, Morrison, and Stambaugh 1975). However, instrumental utilization is only one way a firm can use information. Information can be used for general enlightenment and building the corporate knowledge base (Beyer and Trice 1982). It can also be used for symbolic purposes, such as for the sake of appearances. This can include such activities as making the supplier feel involved in the decision making (Menon and Wilcox 1994). Indeed, some information utilization scales that purport to measure instrumental usage nonetheless contain questions that would appear to measure utilization of other types.

Menon and Wilcox (1994) developed a measure of information utilization of market research findings based on six types of information utilization identified in the literature (see Table 1-1). First, congruous use is action oriented, for instrumental or decision making purposes, and used in a manner consistent with the intentions and implications of the study findings. This is equivalent to the instrumental utilization discussed by many authors (cf. Deshpande and Zaltman 1982, 1984,

Table 1-1
Menon and Wilcox's Types of Information Utilization

Type	Definition	Examples
Congruous Use (Instrumental/Decision Making)	Action oriented, for instrumental or decision making purposes, used in a manner consistent with the purposes of the provided report.	Make or change a decision regarding: Price/product mix changes, entering a new market, product purchase
Incongruous Use	Action oriented, for instrumental or decision making purposes, used in a manner inconsistent with the purposes of the provided report.	Seek to make or change a firm's decision or price, product mix, etc., for reasons of internal politics or private agenda.
Positive Use	Action oriented, for symbolic or ritualistic purposes, used in a manner consistent with the purposes of the provided report.	Symbolic incorporation of report contents into decision process to show individuals inside or outside the firm that certain behavior is valued (i.e. benchmarking, quality, or competitiveness studies).
Cynical Use	Action oriented, for symbolic purposes, used in a manner inconsistent with the purposes of the provided report.	Symbolic incorporation of report contents into decision process for political, internal agenda, or appearance's sake before supervisors/firm management.
Product Based Use (Knowledge Enhancing)	Knowledge enhancing use of the provided report.	Information applied to organization learning, to start discussion, provide fresh perspective.
Process Based Use	Knowledge enhancing use of information obtained from seeking/obtaining the report.	Learning through the process of developing a relationship with the information provider, and seeking/ obtaining the report.

1987; Moorman, Zaltman and Deshpande 1992). Second, incongruous use is action oriented, instrumental, and used in a manner inconsistent with the research intention; for example, information that is distorted or taken out of context to justify a decision.

Third, cynical use is action oriented, used for symbolic purposes, and used ritualistically even though the users see no value in it. Usually the users perceive that their superiors or some other audience does perceive value in the process. Examples would include incorporation of research findings into a recommendation purely for appearance's sake or political purposes, as well as the use of information as a scapegoat to explain poor performance. Fourth, positive use is action oriented, symbolic, and used not so much for the value in the information but for the message that utilization (for example, of benchmarking, quality, or competitiveness studies) sends to other individuals inside or outside of the firm.

Product based use, the fifth type of information usage, is the employment of the product of the research study itself to enhance the knowledge base of the firm. This sort of organizational learning is quite common in firms, and can occur either through deliberate efforts at learning or through low-involvement learning (Greenwald and Leavitt 1984; Petty, Cacioppo and Schumann 1983; Weiss 1980). Firms can learn from reports from suppliers and customers, as well as through direct contact with them. Sixth, process based use is the utilization of knowledge obtained from the process of engaging in the research study. In this instance, Menon and Wilcox suggested that the very process of setting up the research task, developing

a relationship with a supplier or customer, or implementing study recommendations can result in additions to the knowledge base of the firm, independent of the resulting exchange of information between the parties themselves.

Two of Menon and Wilcox's six dimensions and corresponding scales--congruous use and product based use--were adapted for use in this study. These two, representing instrumental and knowledge enhancing use of the information product, are the aspects of information utilization that have been identified most consistently in the literature. In addition, Menon and Wilcox's (1994) empirical results showed that congruous and product based use are the two most common forms of information utilization among managers in the context of a market research report. Although there are no definitions of information utilization that relate to utilization in a channels environment, the activities are analogous, and Menon and Wilcox's definitions and scales can be adapted for examining channels phenomena.

1.4 Motivation for the Research

There has been a small but steady amount of research activity in marketing directed at understanding (1) how firms utilize information obtained from market research sources (cf. Moorman, Deshpande and Zaltman 1992), (2) how individuals in the marketing function and research and development function of an organization utilize information obtained from each other (cf. Gupta and Wilemon 1988a, 1988b; Moenaert and Souder 1990a, 1990b), and (3) how firms attribute credibility to and utilize information from marketing planning processes (Piercy and Morgan 1994).

There has also been a great deal of research concerning the issue of communication strategy in marketing (Mohr and Nevin 1990).

One of many key roles information plays is in the management of organizational interdependence (Rockart and Short 1989). Channel partners are a major source of information for firms, and information systems that facilitate the generation and utilization of information across organizational boundaries "allow major improvements in organizational effectiveness and constitute one of the most important competitive weapons available to the organization" (Bergeron, Buteau, and Raymond 1991, p. 89). This is particularly true when firms enter into strategic alliances (Bowersox 1990) or information partnerships (Konsynski and McFarlin 1990).

However, despite the significant quantities of information that firms receive from partners in the marketing channel, and the critical importance of that information in influencing the strategies and decisions the focal firm undertakes, little attention has been given to how firms utilize information provided by their channel partners. There has been a lack of discussion regarding (1) how firms sharing information with their channel partners can seek to ensure that their communications are received by the target party with an "open ear" and used for their intended purpose, (2) what conditions within the relationship and the channel environment influence how and why firms utilize information obtained from channel partners, and (3) how more effective information utilization and channel partner strategies directed toward that goal affect firms' performance.

1.5 Purpose of the Research

In recognizing the limited nature of research on information utilization in the marketing channel relationship, the researcher believed that a further understanding of how and why organizations utilize information received from channel partners is necessary if marketing scholars and practitioners are to understand fully the importance and performance implications of information utilization. Greater understanding of the information utilization process would allow for the development of more effective communication strategies and increased qualitative and quantitative outcomes (Mohr and Nevin 1990).

The principal research questions addressed in this research concern the effect of relational characteristics in the channel dyad on information utilization. They are:

1. What is the impact of trust, cooperation, and expectations of continuity on a firm's instrumental (decision making) and knowledge enhancing utilization of information provided by a channel partner?

2. What is the impact of prior general outcomes and prior informational outcomes in a relationship on a channel member's trust, cooperation, expectation of continuity, and instrumental and knowledge enhancing utilization of information provided by a channel partner?

In these instances, "impact" on instrumental use refers to the independent variable affecting the actual decisions in the firm; i.e., decisions are altered, changed, or made/not made instead of the reverse. "Impact" on knowledge

enhancing use refers to the independent variable affecting the use of information to provide new insights or knowledge, gain fresh perspective, or start discussion regarding an issue.

The purposes of this research are therefore (1) to develop and validate adequate measures of these constructs and (2) to develop and test a model of information utilization in the channel dyad that addresses these questions.

1.6 Scope and Research Domain

There are inordinate numbers of types and classifications of information that can be exchanged in a channels context. Information can be routine or nonroutine in nature; strategic, operational, or tactical; product or nonproduct related, and so on. For purposes of illustration, a partial list of types of strategic, operational, and tactical information is shown in Table 1-2.

Clearly, information relating to prices or specific product quotations is handled differently from information that can affect strategic choices of the firm. The processing of large quantities of transaction related data (through EDI techniques, for example) is an important marketing concern, as is the processing of strategically oriented market analyses. This research focused on utilization of information that is both complex and operational in nature; specifically, information shared by the channel partner that may assist the channel member in product stocking activities that improve performance of the product category.

Table 1-2
Strategic, Operational, and Tactical Types of Information

Strategic	Customer Segmentation Analysis SWOT (Strength, Weakness, Opportunity, Threat) Analysis Strategic orientation Analyses of Market Share Experience Curve Analysis Product/Market Life Cycle Analyses Portfolio Analyses Studies of Competitors
Operational	Payment Terms Types of Goods and Services Sold Balance Sheets Credit Ratings Supplier capabilities Performance Ratings Customer Lists Direct Product Profitability (DPP) Reports Sales Forecasts
Tactical	Delivery Schedules Production Schedules Price Lists Contract Terms Daily Sales Figures Marketing Tactics Shipping Records

One industry in which information about stocking management systems is exchanged regularly is the food and grocery products industry. Stocking management systems in the food and grocery products industry include Direct Product Profitability (DPP) methods and planograms. Direct Product Profitability is a method of accounting whereby indirect product costs such as handling, inventory, and shelving costs are more accurately calculated and assigned to products. This

enhances the ability of retailers to manage their stocking activities to improve profits. Planograms are an analytical tool for creating a schematic depicting how products are to be displayed in a retail store, based on the nature of the display space as well as cost and profitability considerations.

When each program (and improvements to each program) is used, it helps buyers manage store shelving to improve profits and performance. Channel partners sharing such information may also benefit by (1) having their products viewed in a more favorable light, thus potentially increasing their own sales and performance, and (2) improving the quality of their relationship with the channel members. Thus, this information can be extremely valuable to users as a means of making better marketing decisions, enhancing their own knowledge base, and improving their performance. In this research, shelving management information was the scope of information explored, and a report on how shelving management can be improved was the unit of information.

This type of report was selected as the information focal point because (1) it is information that grocery product suppliers are likely to have, and thus would be a reasonable and available candidate for transmission to grocery chain buyers; (2) both parties are aware that the information might be relevant, comprehensible, and helpful to distributors; (3) the transmittal of this report is a relatively discrete event; and (4) unlike product specification data or transaction related information such as delivery dates, its use is likely to be influenced by relational as well as operational

concerns. The supplier-distributor relationship was selected in order to maximize the expected relevance of the information transmitted.

1.7 Expected Contributions of the Research

The research is expected to contribute to the theory of information utilization in marketing channels in three ways. First, building on a review of the information utilization literature in other fields, a theoretical framework for information utilization in marketing channels is developed, based on microeconomic and transaction cost considerations. Second, a measure of information utilization in marketing channels is developed, incorporating both instrumental and knowledge enhancing utilization. Also, new measures for prior informational outcomes and boundary spanning cooperation are developed. Third, the developed model rectifies a lack of research in this area and suggests that utilization of information by a firm is a function of the distributor's perceptions of prior information and performance outcomes, operational and boundary spanning cooperation, trust in the partner's credibility and benevolence, and relational continuity. The possibility that different forms of trust and cooperation may have different effects on information utilization is an important consideration for both marketing scholars and marketing practitioners.

This study also has several implications for managers and firms. First, information utilization is a fundamental task of the firm. A better understanding of how the marketing channel relationship affects utilization can improve the firm's decision making and organizational learning activities, and thus performance.

Second, the model provides a managerially relevant basis for channel members to use in developing strategies for promoting the effective utilization of information they receive from channel partners, which could be expected to improve the organizations' task related planning, implementation, and/or performance. This study will have particular relevance for the implementation of shelving management systems by grocery chains.

Third, channel partners will gain a greater understanding of how their relationship with the channel member affects the buyer's and the firm's response to the information they communicate. This could spur suppliers to improve the channel relationship, and will also enable them to commit additional resources and devise additional strategies to increase the utilization of their reports. Further, the buyer's and firm's utilization of the channel partner's information may reduce the buyer's utilization of information provided by a competitor, further enhancing the competitive benefit to the supplier. Again, this study is particularly relevant for grocery product suppliers seeking to persuade the grocery chains they deal with to improve their shelving management systems.

Fourth, firms in a channel relationship often commit a large amount of resources to improving communication in the channel, when in reality poor quality of communications is only one reason why transmitted information may not be utilized. This study will enable firms to design communication systems more effectively, with fewer wasted resources.

1.8 Limitations

This dissertation has several limitations. First, only characteristics of the supplier-distributor relationship are studied for their effect on information utilization. Second, the unit of analysis of the shelving management report within the context of interaction between the supplier and the grocery store chain may be sufficiently idiosyncratic that the external validity of the findings may be limited. Third, several new measures are used. Although appropriate scale development paradigms were followed, the constructs may still have one or more validity difficulties. Fourth, the analysis of shelving management reports that the key informant selected may not give an accurate picture of information utilization in the firm's day-to-day activities. Fifth, the lack of a second informant to confirm the relationships in the model limits the credibility of the results. All of these issues may be addressed through future research.

1.9 Overview of the Dissertation

This dissertation consists of six chapters, including this introductory chapter. Chapter Two contains a review of the literature on information utilization and its antecedents in marketing related areas. The literature review is classified into three areas: (1) utilization of information in the marketing-R&D interface, (2) utilization of market research information, and (3) other marketing articles concerning information utilization, including utilization of marketing plan information. This literature is then discussed and summarized.

Chapter Three contains a synthesis of the literature; a model of information utilization from a microeconomic and transaction cost perspective is described. The research methodology is described in Chapter Four. Included is a discussion of measure development, the item pool for constructs, the sampling frame, the key informant, mailing and follow-up, evaluation of nonrespondents, measure purification and reliability, and the hypothesis testing approach. The findings of the study are described in Chapter Five. Finally, the contributions of the study are discussed in Chapter Six.

CHAPTER TWO

LITERATURE REVIEW

This chapter is divided into four parts. In the first three sections, the literature on (1) information utilization in the marketing-R&D interface, (2) use of market research information by marketing personnel, and (3) information utilization in other areas of the marketing field is discussed. Because very limited research has been conducted on information utilization in a channels context, these articles are the basis for the development of theory in the channels area. In the fourth section, this literature is discussed and summarized, and a theoretical framework is advanced to serve as a foundation for developing and testing hypotheses concerning the utilization of information provided by a channel partner.

2.1 Information Utilization in the Marketing-R&D Interface

Product innovation is an activity that requires the combined efforts of many functions in the firm. For product innovation to be commercially successful, it is essential that marketing and R&D departments in a firm (1) interact successfully with each other, resulting in the consistent, quality exchange of information between functions, and (2) utilize the information received from the other department in the innovation process (Gupta, Raj, and Wilemon 1985a, 1985b; Souder 1987; Young

1979). Most studies of the marketing-R&D interface have focused on the link between integration and/or interaction and project success (cf. Gupta, Raj, and Wilemon 1986; Hise et al. 1989; Parry and Song 1993; Song and Parry 1992). Many researchers who have examined information utilization have looked at information transfer between different types of individuals within a functional area, such as gatekeepers, scientists, and engineers (Allen 1985; Gerstenfield and Berger 1980; Pelz and Andrews 1966; Rosenbloom and Wolek 1970; Tushman 1977).

Despite being "rare exceptions" (Moenaert and Souder 1990b), some investigations of information utilization in the marketing-R&D interface have been performed, as discussed below (see also Table 2-1). These built on the above-mentioned literature, and because this study examined the utilization of marketing information received from an outside firm, the primary focus was on those articles examining marketing personnel's use of information provided by R&D personnel. The purpose of these articles is to (1) determine the informational needs of the user and (2) examine the antecedents of and influences on information transfer between functional areas of the firm (Allen 1985). Technological innovation is considered a process of reducing uncertainty (Allen 1985; Johnston and Gibbons 1975); this perspective is broad enough to include both decision making and knowledge enhancing components of information utilization.

Gupta and Wilemon (1988a) examined why research and development personnel resist using information provided by marketers within the firm. The principal reasons that were given related to poor information quality; information was

too often inaccurate, incomplete, too narrowly focused, not timely, or unrealistic. Also, respondents reported difficulties with the working style or technical competence of marketing personnel. Finally, some R&D managers stated that their own organization was responsible in some instances. Problems here included time constraints, hubris, past history of failures, or internal biases.

Table 2-1
Information Utilization Articles Concerning the Marketing-R&D Interface

Study	Summary
Gupta and Wilemon (1988a)	Examined why R&D personnel resist using information provided by marketing personnel. Empirical survey found that favorable perceptions of information related to information quality, accuracy, completeness, timeliness, realism, perceived technical competence and working style of marketing managers, user time constraints, and user biases.
Gupta and Wilemon (1988b)	Studied characteristics of credible information and credible managers. Empirical survey with factor analysis showed that information credibility was related to realism, perceived validity, analyzability, objectivity, completeness, consistency, and quality of presentation.
Moenaert and Souder (1990b)	Presented a source-message-medium-receiver characteristics model of information utilization. Suggested that information utility is composed of part-worths of credibility, comprehensibility, relevance, and novelty.
Moenaert et al. (1994)	Studied communication characteristics of successful product innovating firms in technical industries. Survey showed that communication flows between marketing and R&D personnel were increased by project formalization, organizational formalization, decision making decentralization, positive interfunctional climate, and role flexibility.

Gupta and Wilemon (1988b) examined how R&D managers viewed the credibility of both marketing information and marketing managers. The characteristics of credible information and credible managers were explicated by

means of factor analysis. Credible information was found to be realistic and valid, well analyzed and presented, objective, consistent and complete, and useful and appealing. Credible marketing managers were those who were cooperative and trustworthy, competent and helpful, friendly and social, easy to work with, fair, knowledgeable about R&D, rational, and respected. Both source and information credibility were viewed as necessary antecedents to information use.

Moenaert and Souder (1990b) reviewed the use of information within both the marketing and R&D functions and presented a model for extrafunctional information utilization based on a utilitarian perspective. Following Rogers and Agarwala-Rogers (1976), use was analogous to a change in the receiver's knowledge, attitudes, or overt behavior. Based on a set of exploratory interviews, Moenaert and Souder suggested that the utilization of R&D information by marketing personnel (and vice versa) was determined by (1) media characteristics (personal vs. impersonal, written vs. oral); (2) message attributes (recency, validity, timeliness, actionability, accuracy); (3) source and receiver characteristics (interaction, education, experience, trust); and (4) contingency or structural elements (formalization, centralization, innovation stage, interfunctional climate). These attributes affected the perceived relevance, novelty, credibility, and comprehensibility of the information, which determined the degree to which that information was used. The underlying premise was microeconomic and transaction cost based, with utilization decisions based on the utility of the information received.

Moenaert et al. (1994) collected data from both marketing and R&D personnel in research projects and found that cross-functional communication flows increased under conditions of formalization of projects, decentralization of decision making, and positive interfunctional climate. Role flexibility (the willingness to assume extrafunctional tasks) in R&D personnel significantly increased R&D to marketing communications, but marketing role flexibility did not significantly affect marketing to R&D communications. Formalization and interorganizational climate also were positively correlated with commercial success of the innovation project. Information utilization itself was not studied. Utilization was implied to some degree in the scale for information received, but as both marketing and R&D often perceive the information provided by the other party to be incomplete or inaccurate (Gupta and Wilemon 1985a, 1988b), the applicability of these conclusions to utilization is uncertain.

2.2 Use of Marketing Research Information by Marketing Personnel

As sophisticated information technology systems become increasingly available to the average firm, competitive advantage has become less a matter of who has information and more a matter of who is effectively using information (Moorman, Zaltman, and Deshpande 1992; Porter and Millar 1985). The Marketing Science Institute (1990) considered "improving the utilization of market information" to be its top research priority for the 1990s.

A steady stream of articles over the last 15 years has provided many insights into the factors that facilitate or impede a firm's utilization of information provided by

a marketing researcher (see Table 2-2). Deshpande and Zaltman (1982) examined the use of market research by marketing managers in consumer goods industries. In all of Deshpande and Zaltman's studies, utilization was defined instrumentally; that is, information used was information that affected decisions of the firm. Their data showed that high quality of the research content, interaction between the market researcher and marketing manager, political acceptability and actionability of the report, and a confirmatory research purpose all increased the use of research. The effect of interaction between market researcher and marketing manager was primarily indirect--by increasing the perceived quality and political acceptability of the report and by reducing its surprise content. Organizational formalization had a very strong negative effect on use; centralization, surprise content, and an exploratory research purpose also had negative effects.

In their 1984 article, Deshpande and Zaltman examined the same issue, manager's use, but they measured it based on researchers' perceptions of that use. Several interesting differences were found. Content quality, interaction, political acceptability, and actionability remained as positive influences, but interaction replaced content quality as the most significant positive influence, and political acceptability was considered far more important in the eyes of researchers than in the eyes of managers. A confirmatory research purpose was now seen as a negative influence on perceived use, and surprise content and an exploratory research purpose were now considered as positive influences by this sample of

Table 2-2
Articles Concerning Use of Marketing Research Information by Marketing Personnel

Study	Summary
Deshpande and Zaltman (1982)	Studied factors affecting instrumental use of market research information by consumer good marketing managers. Survey showed that high quality of research content, researcher-manager interaction, political acceptability of the results, and confirmatory research purpose increased utilization. Organizational formalization, centralization, surprise content, and exploratory purpose decreased utilization.
Deshpande and Zaltman (1984)	Studied factors affecting researchers' perceptions of instrumental information utilization by consumer goods marketing managers. Survey showed that high quality of the research content, researcher-manager interaction, political acceptability of the results, surprise content, and exploratory research purpose increased perceived manager's utilization. Confirmatory purpose decreased utilization.
Deshpande and Zaltman (1987)	Investigated the factors influencing instrumental use of marketing information by industrial marketing managers. Survey found that formalization and an exploratory research purpose were associated with increased information utilization. Surprise content of the information reduced information utilization.
Lee, Acito, and Day (1987)	Used a laboratory experiment to explore how decision makers evaluate and use market research information. Perceived information quality and use were affected by prior beliefs, and qualitative vs. quantitative nature of market research information.
Moorman, Deshpande, and Zaltman (1992)	Empirical survey investigated behavioral factors influencing instrumental utilization of market research information. Dyad type, trust, perceived quality of interaction, and user's desire for researcher's involvement increased utilization.
Menon and Varadarajan (1992)	Presented a model of instrumental and knowledge enhancing information utilization based on environmental and information task characteristics, information and innovation culture, communication flows, and information characteristics.
Menon and Wilcox (1994)	Presented and tested a six-faceted measure of information utilization (see Table 1-1).

researchers. Because researchers could have only a limited understanding of the organizational structure of the focal firm, those variables were not studied.

Deshpande and Zaltman (1987) also investigated factors affecting industrial marketing managers' utilization of marketing information. Because industrial marketing managers tend to use customer contact as an alternative to formal marketing research, the use of marketing information rather than market research was the subject of study. Thus, the information could have come from a multitude of sources. In this context, formalization increased information utilization, as did exploratory research purpose. A confirmatory purpose and centralization both had a nonsignificant negative effect. Surprise content once again had a negative effect on utilization.

Lee, Acito, and Day (1987) used a laboratory experiment to investigate the effect of decision makers' prior beliefs on information utilization. The results suggest that research confirming prior beliefs is much more likely to be judged as high in quality and utilized than is research refuting prior beliefs.

Moorman, Deshpande, and Zaltman (1992) examined the effects of several behavioral factors on the use of marketing research. In addition, they looked at these effects for different types of dyads, including researcher-researcher vs. researcher-manager, marketer-marketer vs. marketer-nonmarketer, and interorganizational vs. intraorganizational (within-firm vs. between-firm) dyads. For the "basic" researcher-manager dyad in the main effects model, perceived quality of interaction was the only variable studied that had a direct effect (positive) on

for researcher involvement positively affected use indirectly, through perceived quality of interaction. All three variables directly or indirectly increased the user's commitment to the research relationship, but the hypothesized linkage between commitment and use was nonsignificant.

Mixed support was found for the propositions that these relationships were stronger for researcher-researcher dyads and weaker for marketer-nonmarketer dyads. Of particular interest to this study is the effect of interorganizational as compared to intraorganizational dyads. For interorganizational dyads, trust continued to have a positive effect on interaction and commitment, but now it had a negative effect on the user's desire for researcher involvement. Interaction had a dramatically higher effect on utilization. Commitment by the user to the relationship now had a significant negative effect on utilization.

Menon and Varadarajan (1992) reviewed the literature on "marketing knowledge use." They suggested that studies measuring only utilization for decision making were not only inconsistent (often measuring conceptual and symbolic as well as instrumental usage) but, by measuring a relatively rare form of utilization, limited as well. They suggested three types of research use: action oriented (encompassing instrumental and symbolic use), knowledge enhancing (based on both the research process and the research project), and affective use. Finally, they proposed a model of knowledge utilization in firms based on (1) environmental factors; (2) task characteristics, such as complexity; (3) organizational characteristics, such as structure, information and innovation culture, and internal

and external communication flows; and (4) information factors, such as information cost, information credibility, and information usefulness.

As discussed in Chapter One, Menon and Wilcox (1994) developed a series of scales to measure six types of research information utilization. They conceptualized information utilization as a second-order construct made up of two first-order factors: appropriate usage and inappropriate usage. Congruous or instrumental usage, knowledge enhancing usage of the research project and research process, and positive symbolic usage loaded on the appropriate usage first-order factor, whereas incongruous and cynical usage loaded on the inappropriate usage first-order factor. Despite allowing three sets of error terms to correlate, model fit was only moderate; the Goodness of Fit Index (GFI) was .84, and the Non-Normed Fit Index (NNFI) was .925.

2.3 Other Marketing Articles Concerning Information Utilization

One of the earliest articles on information utilization was Caplan, Morrison, and Stambaugh's (1975) classic development of the "two-communities theory" of knowledge utilization. In evaluating the use of social science research information by U.S. government officials, the authors found that the principal reason for low utilization was that the researchers and the users belonged to two separate communities. Each community had its own separate norms, values, socialization methods, and truth tests that bore on evaluative judgments of usable research, and these differences were exacerbated by different languages and mutual distrust. This contention is confirmed in the differences Deshpande and Zaltman (1984) found

between researchers' and managers' perceptions of what influenced the managers' information utilization.

Several other articles in the marketing literature contained insights concerning the utilization of information (see Table 2-3). John and Martin (1984) and Piercy and Morgan (1994) discussed the utilization of marketing plans by marketing departments. John and Martin found that organizational formalization and centralization increased both perceived credibility and utilization of information for decision-making purposes. Specialization and spatial dispersion (physical distance between the parties) within the marketing area were not significantly related to utilization; however, spatial dispersion was negatively related to perceived credibility.

Through factor analysis, Piercy and Morgan also identified five behavioral problems that can develop in the planning process: (1) planning recalcitrance, whereby planning activities are actively resisted and subverted; (2) politics and myopia, which reflected shortsightedness and a focus on internal political considerations; (3) alienation and uncertainty, reflecting confusion, fear of making mistakes, and a lack of management support; (4) planning avoidance; and (5) a "squirm factor" related to being able to avoid planning responsibility. All five problems were negatively related to a measure combining elements of both plan credibility and plan utilization. Separately, perceptions of thoroughness in the marketing planning process were positively related to credibility and utilization of the marketing plan.

Table 2-3
Other Marketing Articles Concerning Information Utilization

Study	Summary
John and Martin (1984)	Examined the effects of the structure of marketing-plan-related activities on the perceived credibility and instrumental utilization of marketing plan output. Survey results showed that organizational formalization and centralization increased perceived credibility and utilization. Physical distance between the parties decreased credibility.
Piercy and Morgan (1994)	Empirical survey studied the effect of behavioral problems on credibility and usage of marketing plans. Planning thoroughness increased credibility and utilization. Five behavioral problems decreased utilization: (1) planning recalcitrance, (2) politics and myopia, (3) alienation and uncertainty, (4) planning avoidance, and (5) avoidance of planning responsibility. Effective plan utilization requires dealing with these issues.
Wilton and Myers (1986)	Proposed and tested a model for the formation of information utility expectation and information utility. Lab experiment results supported the hypotheses that increases in information credibility, relevance, and novelty increased perceived information utility. Conceptual tasks were associated with greater information utility and use. Disconfirmation of expectations for information was shown to be a contributor to information utility.
Moriarty and Spekman (1984)	Examined factors affecting utilization of four types of information (commercial vs. noncommercial, personal vs. impersonal) during an industrial buying process. Salient factors included conflict in the decision process, buyer's confidence, and buyer and departmental risk factors.
Monczka, Giunipero, and Reck (1981)	Used survey data and factor analysis to identify six types of supplier information of use to purchasing agents in the purchase process: (1) sourcing capability, (2) supplier performance, (3) labor union data, (4) supplier's other customers, (5) contract terms and conditions, and (6) pricing data.
Spekman (1988)	Used survey data and factor analysis to identify five categories of supplier information important to purchasing professionals: (1) product data, (2) service data, (3) price data, (4) experience with supplier, and (5) availability of supplier. Further, firms perceiving themselves to be strategically vulnerable placed more importance on information concerning product reliability, maintenance support, and supplier availability.
Monczka, Nichols, and Callahan (1992)	Used survey data and factor analysis to identify 12 categories of supplier information important to purchasing agents in the purchasing department. Supplier capabilities and financial position/threats were the most important. The value of different types of information varied according to the type of purchase.

Wilton and Myers (1986) examined the effect of prior expectations on both instrumental and conceptual information utilization. Their methodology was a laboratory experiment in which individual subjects learned about and evaluated a new technology. Findings supported the hypotheses that (1) increases in information credibility, relevance, and novelty are associated with increased perceived information utility; (2) individuals using information for conceptual purposes perceive greater utility and use information more than those using information for instrumental purposes; and (3) the higher (lower) information expectations are, the more likely it is that expectations will be negatively (positively) disconfirmed, lowering (raising) perceived utility and use. Wilson and Myers's work strongly supported Menon and Varadarajan's (1992) contention that information utilization studies that do not include conceptual utilization are narrow and flawed to some degree. Also, disconfirmation of expectations may be an important determinant of information utilization. Specifically, the history of the relationship, including prior outcomes, may strongly influence decisions on whether or not to utilize information coming from a particular source, especially if expectations previously have been disconfirmed.

Several researchers have sought to identify characteristics of information that would be of particular value to buyers. Moriarty and Spekman (1984) investigated factors that affected certain types of information utilized during the purchasing process for industrial products. Characteristics of the buying situation such as the existence of conflict in the decision process, the buyer's personal confidence, and

personal and departmental risk from a poor decision all led to increased use of personal information sources. Another significant finding was that the use of impersonal, noncommercial sources (such as trade associations and rating services) remained strong up to the vendor selection stage of the purchasing process.

Monczka, Giunipero, and Reck (1981) used factor analysis to identify six supplier information factors, or types of information that are useful to purchasing departments in the purchase decision: sourcing capability, supplier performance, labor union data, suppliers' other customers, contract terms and conditions, and pricing data. Spekman's (1988) analysis yielded five informational factors: product, service, price, experience with supplier, and supplier availability. Findings of this study showed that the more purchasing professionals perceived their firms to be strategically vulnerable in the marketplace, the greater the importance they placed on receiving information from suppliers about product reliability, maintenance support, and supplier availability.

Monczka, Nichols, and Callahan (1992) conducted a more comprehensive study that identified 12 information factors; a supplier's capabilities and financial position/potential threats were the two most significant factors. However, the value of different types of information varied according to the type of purchase (raw materials, unique and standardized engineered components, and so on). As expected, cost information became more important and supplier capabilities became less important as products became more standardized and available from alternative sources. Also, purchasers of maintenance, repair, and operations (MRO) suppliers

tended to be less concerned about information regarding the supplier's financial position and more concerned about their socioeconomic status (disadvantaged/ minority supplier) than were purchasers of other types of products.

These studies on organizational buying contain several important considerations for building a model of information utilization in the marketing channel. First, to ensure theoretical soundness, proper survey response, and managerial relevance of the results, the type of information studied should have value to the focal firm. Second, source characteristics and message type apparently interact in determining information utilization.

2.4 Discussion and Summary

In specifying an information utilization measure, it is clear that it must include both instrumental and conceptual components (Menon and Varadarajan 1992; Menon and Wilcox 1994; Wilton and Myers 1986). The predominant theoretical framework used to model information utilization seemed to be utilitarian in nature (Moenaert and Souder 1990b), although the underlying theory was rarely specified. Indeed, much of the literature discussed above was atheoretical, with variables of a particular category (organizational structure, message characteristics, and so on) being examined in sets.

Thus, the most profitable means of building on the existing literature would be to work within a utilitarian schema, with microeconomic and transaction cost rationales for each hypothesis being clearly delineated. In addition, these frameworks could be used to provide additional insight into the utilization process.

It should be noted that several other perspectives on information utilization could be employed. If conceptual and instrumental utilization is viewed as the result of a decision by the firm, then other frameworks that seek to explain decisions in a channels environment could be employed. For example, the behavioral paradigm (Sterm 1969) could provide the effect of channel conflict and power on utilization. Resource dependency theory would suggest that information utilization is a strategic response by a firm to conditions of uncertainty and dependence (Pfeffer and Salancik 1978). Employing the relational contracting paradigm would lead to examining the effect of interfirm normative obligations, especially those related to information sharing and usage, on utilization. These are all promising avenues for future research, but in the absence of an existing theory for a channels environment, starting from the same base employed in the existing literature is appropriate.

As Moenaert and Souder (1990b) noted, the constructs employed in many of these studies tend to be complementary, regardless of the specific research domain. By expanding their source-channel-message-receiver slightly, the findings presented above can be arranged and summarized in order to present the basis of a model explaining the utilization of information provided by a channel partner. Each of the variables described below and in Table 2-4 affects utilization through the information utility part-worths of relevance, novelty, credibility, and comprehensibility (Moenaert and Souder 1990b). The actual synthesis of these findings and development of the model is presented in Chapter Three.

Table 2-4
Types of Variables Affecting Information Utilization

Category	Typical Variables
Environmental Attributes	Environmental dynamism, environmental diversity, environmental capacity, competitive intensity
Source Characteristics	Expertise, geniality, credibility, fairness, characteristics of liaison personnel, education
Media Characteristics	Message form (written, oral, electronic), message formality, richness of the information channel
Message Characteristics	Validity, timeliness, actionability, political acceptability, completeness, relevance, recency, familiarity, clarity, accuracy, surprise
Relational Characteristics	Interaction, integration, trust, commitment, cooperation, formalization, interorganizational climate, prior outcomes, domain similarity
Receiver Characteristics	Information task environment, time constraints, cost to process information, propensity to use outside information, organizational formalization, organizational centralization

Source: Adapted from Moenaert and Souder (1990b).

The list of variables affecting information utilization in a channels environment can be classified as follows (see Table 2-4): First are characteristics of the environment (Menon and Varadarajan 1992), which have not been examined in any detail to date. These could include conditions such as environmental dynamism, diversity, capacity, and competitive intensity (Achrol and Stern 1988; Jaworski and Kohli 1993). The second category of variables concerns characteristics of the relationship, such as the degree of interaction between and integration of the parties, trust, commitment, formalization, centralization, interorganizational climate, and prior

outcomes and other history of the relationship (Deshpande and Zaltman 1982, 1984, 1987; Moenaert and Souder 1990a, 1990b; Moenaert et al. 1994; Moorman, Deshpande, and Zaltman 1992; Wilton and Myers 1986). These variables are of particular interest in the present research because (1) variables that have been significant in one research domain usually have been significant in other domains (although some effects, such as formalization and centralization, have been inconsistent in sign); (2) integration and trust in particular have been cited as drivers of other effects (Deshpande and Zaltman 1982, 1984, 1987; Moorman, Zaltman, and Deshpande 1992); (3) relational variables can be expected to have a significant effect on utilization in a channels context; and (4) channel partners should be able to develop strategies to manage the relationship in order to improve utilization.

Third, characteristics of the source firm can be expected to influence information utilization by the focal firm. Such traits include the expertise, geniality, credibility, and fairness of the source firm as a whole, as well as properties of the liaison personnel (Gupta and Wilemon 1988a, 1988b; Moenaert and Souder 1990b).

Fourth, attributes of the firm receiving the information, such as characteristics of the information task, time constraints, propensity to use outside information, prior beliefs and expectations, and other behavioral attributes, can promote or impede information utilization (Gupta and Wilmon 1988b; Lee, Acito, and Day 1987; Menon and Varadarajan 1991; Moriarty and Spekman 1984; Piercy and Morgan 1994; Wilton and Myers 1986).

Fifth, characteristics of the information channel, such as media type (written, oral, electronic), whether the message content is formally or informally communicated, and the breadth or richness of the channel, can affect utilization (Moenaert and Souder 1990b). Finally, characteristics of the message itself, such as its timeliness, consistency, comprehensibility, actionability, and political acceptability, can have a material effect on the utilization of the information contained in that message (Deshpande and Zaltman 1982, 1984, 1987; Gupta and Wilemon 1988a, 1988b).

CHAPTER THREE

A CONCEPTUAL MODEL OF INFORMATION UTILIZATION IN THE CHANNEL DYAD

The discussion from the preceding chapter is synthesized in this chapter, and a theoretical model of a channel member's utilization of information provided by a channel partner is presented. First, a microeconomic and transaction cost model of information utilization is introduced. Second, the process of developing the model is discussed. Third, the constructs are defined. Subsequently, formal hypotheses and their underlying theoretical rationale are presented, linking seven constructs to information utilization.

3.1 A Microeconomic and Transaction Costs Model of Information Utilization

As shown in Chapter Two, there are several ways to conceptualize the process of utilizing information received from a channel partner. However, the prevailing tendency in the information utilization literature is to view the utilization decision as utilitarian in nature (Moenaert and Souder 1990b). From this perspective, firms maximize profit by allocating resources to various tasks (such as

information utilization) so that the marginal gain from each of the allocation centers equals the marginal cost (Anderson, Lodish, and Weitz 1987).

Transaction cost theory is also based on the principle of maximizing the economic efficiency of the firm, but it relaxes certain assumptions of classical microeconomics. Specifically, the assumptions of perfect knowledge about outcomes and frictionless markets (zero transaction costs) are removed. This means that firms incur costs (1) to gather information on whether information provided by the channel partner should be used, (2) to decide to use or not to use the information, and (3) to monitor utilization outcomes to assess retrospectively whether use of the channel partner's information was the correct decision.

These transaction costs in the information utilization decision are added to other decision costs when a firm decides whether utilization is appropriate. There are several implications of this. For example, some information may require the expenditure of significant transaction costs to determine whether it should be used. If this information is also relationship specific (i.e., of value only in the context of an ongoing relationship with that firm) and the firm's expectation of continuity of the relationship is low, then the firm may decide that there is insufficient time to gain benefits from the information before a new channel relationship must be established.

3.2 Model Development

In developing a model of information utilization for this research, it was desirable to select variables that could explain a significant proportion of the information utilization that would occur in the study, and that were reasonably well

grounded in the literature on both information utilization and marketing channels. Also, it was deemed important that the research variables be managerially relevant and that the results could serve as a basis for channel partners developing strategies to manage information utilization in the channel. Finally, confounding effects from omitted variables needed to be avoided.

Based on these criteria, the decision was made to examine the effect of relational characteristics in the channel on the utilization of information transmitted between channel partners. This decision formed the basis of the research questions for this study:

1. What is the impact of trust, cooperation, and expectation of continuity on a firm's instrumental (decision making) and knowledge enhancing utilization of information provided by a channel partner?

2. What is the impact of satisfaction with prior outcomes in a relationship on trust, cooperation, expectation of continuity, and a firm's instrumental and knowledge enhancing utilization of information provided by a channel partner?

Two types each of satisfaction with prior outcomes, cooperation, and trust were selected as model variables, as well as expected continuity of the relationship. Cooperation between firms rather than integration between firms was selected for two reasons. First, measures of cooperation are better grounded and developed in the channels literature than are measures of integration. Second, the use of cooperation enabled modeling of the effects of both operational cooperation, i.e., cooperation directed at performance outcomes, and boundary spanning cooperation,

i.e., cooperation by the two firms in activities aimed at integrating the two organizations. Definitions of these constructs are shown in Table 3-1.

3.3 Specification of Hypotheses

Figure 3-1 shows the hypothesized relationships between the specific variables in the model. The constructs in this model represent a subset of the variables that could have been selected for the research (see Table 2-4). However, as mentioned above, examination of relational variables was considered to be the appropriate focus for this dissertation.

The fundamental reason for selecting variables concerning satisfaction with prior outcomes, cooperation, trust, and expectation of continuity is that these attitudes and behaviors are considered to increase the perceived benefit of information utilization (either for instrumental or knowledge enhancing purposes), decrease the costs of utilization, and/or decrease the risk of utilizing the information studied in the research. These seven factors are discussed in the following paragraphs, and the hypotheses concerning constructs in the model are set forth.

3.3.1 Satisfaction With Prior Outcomes

The impact of satisfaction with two types of prior outcomes on information utilization was explored in this study. First, satisfaction with general outcomes is examined. Then the effects satisfaction of prior informational outcomes on information utilization are considered.

Table 3-1
Definition of Variables

Variable	Definition
Satisfaction with Prior General Outcomes	A channel member's positive affective attitudes and feelings concerning the full domain of the channel partner's channel related activities (Ganesan 1994; Schul, Little, and Pride 1985).
Satisfaction with Prior Informational Outcomes	A channel member's positive affective attitudes and feelings concerning the channel partner's activities related to information sharing and exchange in the channel (Ganesan 1994; Schul, Little, and Pride 1985).
Operational Cooperation	Similar or complementary coordinated actions taken by firms to achieve mutual general performance outcomes or singular performance outcomes with expected reciprocation over time (Anderson and Narus 1990).
Boundary Spanning Cooperation	Similar or complementary coordinated actions taken by firms to achieve integration of the firms, where integration is the strategic linking of functionally specialized groups from separate firms while preserving their individual orientations (Anderson and Narus 1990; Moenaert and Souder 1990b).
Trust in Credibility	A channel member's belief that the channel partner is honest or credible, stands by its word, has the required expertise to fulfill role obligations faithfully and sincerely, and is sincere (Ganesan 1994; Kumar, Scheer, and Steenkamp 1995).
Trust in Benevolence	A channel member's belief that the channel partner has intentions and interests beneficial to the channel members that extend beyond contractual commitments, is interested in the channel member's welfare, is willing to accept short-term dislocations, and will not take unexpected actions that have a negative impact on the channel member (Anderson, Lodish, and Weitz 1987; Ganesan 1994; Kumar, Scheer, and Steenkamp 1995).
Expectation of Continuity	A channel member's belief that the relationship with the supplier will continue (Anderson and Weitz 1989).
Information Utilization	A channel member's employment of information received from a channel partner for purposes of decision making or knowledge enhancement (Menon and Varadarajan 1992; Menon and Wilcox 1994).

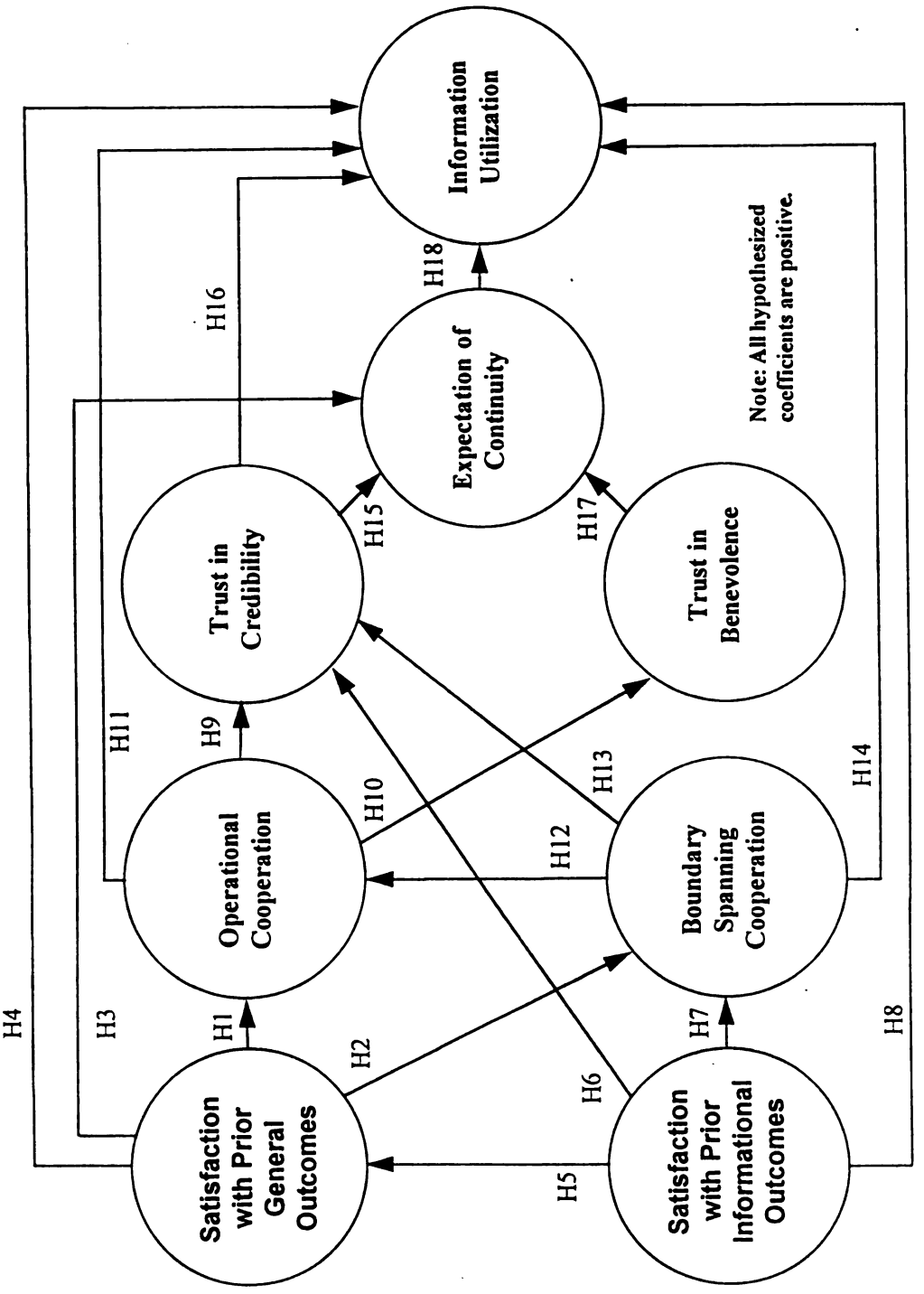

Figure 3-1: Proposed structural model.

A firm's satisfaction with prior general outcomes (i.e., profitability, competitive position, working relationship) resulting from a channel relationship reflects a positive affective state concerning the whole domain of the channel partner's channel related activities, and thus the overall relationship (Ganesan 1994). This results in an expectation of positive subsequent outcomes (Wilton and Myers 1986). It is suggested that this positive expectation raises the perceived potential benefit for both the channel member and the channel partner from cooperation in operational matters, as well as from cooperation in boundary spanning activities (see Table 3-1). In addition, cooperation involves a commitment of assets and a certain risk. Outcomes that result in firm satisfaction should also lower the perceived risk of future cooperation.

> H1: Satisfaction with prior general outcomes is positively related to operational cooperation.

> H2: Satisfaction with prior general outcomes is positively related to boundary spanning cooperation.

Satisfaction with prior general outcomes can be expected to increase the perceived continuity of the relationship based on increasing incentives and lowering risks to stay in the relationship. Satisfaction from these greater outcomes should increase expectations of relevance and credibility of the information provided by the channel partner (Wilton and Myers 1986), as well as the actual perceived relevance and credibility. Expected economic gains from information utilization will therefore be higher, and risks lower.

> H3: Satisfaction with prior general outcomes is positively related to expectation of continuity of the relationship.

H4: Satisfaction with prior general outcomes is positively related to information utilization.

Satisfaction with prior informational outcomes in the channel relationship reflects positive attitudes and feelings concerning the channel partner's activities specifically related to information sharing and exchange in the channel. This can include attitudes and feelings regarding the message characteristics of the information communicated by the channel partner, such as information quantity, quality, timeliness, validity, relevance, credibility, clarity, and political acceptability. Satisfaction or dissatisfaction can also reflect media content (e.g., insufficient personalization or oral explanation of written documents) or source characteristics (i.e., unhappiness with liaison personnel). These can bear directly on the expected value of future information received from that channel partner, as well as the value of certain activities in the relationship. First, because informational outcomes are also a component of general outcomes, a linkage between the two is posited:

H5: Satisfaction with prior informational outcomes is positively related to satisfaction with prior general outcomes.

Also, satisfaction with prior informational outcomes results from the information provided to the firm being valuable and usable. The dimensionality of information utility has been discussed by many writers (cf. Bailey and Pearson 1983; Larcker and Lessig 1980; Wilton and Myers 1986). Moenaert and Souder's (1990b) synthesis and extension of this research suggests that information utility comprises the part-worths of relevance, novelty, credibility, and comprehensibility. Thus, it is suggested that satisfaction with prior outcomes increases the focal firm's trust in the

credibility of the channel partner. Further, it is posited that such satisfaction would also increase boundary spanning cooperation. The rationale is that boundary spanning cooperation is a joint activity to integrate the two firms so that the exchange of information can be facilitated. In other words, boundary spanning activity is an investment of resources designed to reduce the transaction costs of handling information in the channel. Satisfaction with prior informational outcomes would increase the perceived benefits from further boundary spanning activities, thus making investment of resources to cooperate more attractive.

> H6: Satisfaction with prior informational outcomes is positively related to the channel member's trust in the channel partner's credibility.

> H7: Satisfaction with prior informational outcomes is positively related to the channel member's perceptions of boundary spanning cooperation.

Satisfaction with prior informational outcomes can be expected to increase the channel member's perception of the relevance of the present information supplied by the channel partner. Also, perceived expected benefits from utilization increase, and perceived risks from utilization decrease. Thus, satisfaction with prior informational outcomes directly influences one firm's perception of the utility of present information provided by another firm. Wilton and Myers (1986) suggested that disconfirmation of expectations for information is a powerful determinant of information utilization, lending further credence to this proposition.

> H8: Satisfaction with prior informational outcomes is positively related to information utilization.

3.3.2 Cooperation

In the marketing literature, cooperation is defined as "similar or complementary coordinated actions taken by firms in interdependent relationships to achieve mutual outcomes or singular outcomes with expected reciprocation over time" (Anderson and Narus 1990, p. 45). In this study, it is suggested that two different types of cooperation may have distinct effects on other variables in the model (see Table 3-1). Rather, the types of cooperation are similar, but the domains of the coordinated actions differ.

Operational cooperation may be considered to be cooperation that is focused on general performance outcomes for the two firms. Boundary spanning cooperation can be defined as similar or complementary actions focused on achieving outcomes in both firms related to integrating the two firms. Moenaert and Souder (1990a) described integration as the "strategic linking of functionally specialized groups while preserving their individual orientations" (p. 95). They described three mechanisms for integration: task specification (such as task planning and scheduling), organization structure design (such as formalization or centralization), and methods of promoting an organizational climate of integration (for example, establishing a common corporate culture).

Anderson and Narus (1990) demonstrated that cooperation between firms leads to trust. Although they did not distinguish between trust in a partner's credibility and trust in a partner's benevolence, it is suggested that operational cooperation does, in fact, positively affect both. This was partially supported by

Gupta and Wilemon (1988), who found that cooperation between marketing and R&D increased a channel member's perceptions of the partner's credibility. Because operational cooperation is an investment in joint outcomes, it should also increase beliefs in a partner's benevolence. Thus:

> H9: Operational cooperation is positively related to a channel member's trust in the channel partner's credibility.
>
> H10: Operational cooperation is positively related to a channel member's trust in the channel partner's benevolence.

Operational cooperation can also be expected to result in greater interaction between the channel partners. This would include greater sharing of informational needs and the context of information usage, which would improve the quality of information shared by a channel partner and reduce the cost of providing it. Also, the channel member's information needs are expected to become more focused on information that can be provided only by this partner. This means that the channel member is relatively more likely to use information from this channel partner rather than other sources. Finally, this focus on information provided by the channel partner means that transaction costs to process information from the channel partner will be reduced. Therefore:

> H11: Operational cooperation is positively related to information utilization.

Because boundary spanning cooperation is focused on integration outcomes, its effects are posited to be different from those of operational cooperation. First, in order for firms to cooperate in an operational manner, they need to be able to have mechanisms for exchanging information about their respective needs, goals,

operations, and so on. Boundary spanning cooperation can therefore contribute to operational cooperation:

> H12: Boundary spanning cooperation is positively related to operational cooperation.

Boundary spanning cooperation is a mutual investment toward improved integration and increased interaction, which should improve the quality of information shared by a channel partner, as well as the perceived credibility of the information. Thus, a firm's trust in a partner's credibility should be positively affected. This belief is supported by Moorman, Deshpande, and Zaltman's (1992) finding that interaction did increase trust. However, there is no reason to posit a link between boundary spanning cooperation and trust in a partner's benevolence.

> H13: Boundary spanning cooperation is positively related to a channel member's trust in a channel partner's credibility.

Mechanisms for increasing integration, such as task specification, organizational structure design, and organizational climate improving activities all are means of improving the interaction between the two firms, and should therefore increase information utilization (Moorman, Deshpande, and Zaltman 1992). In addition, a significant purpose of boundary spanning activities is to lower the cost of processing information passed between the boundaries of the firm.

> H14: Boundary spanning cooperation is positively related to information utilization.

3.3.3 Trust

Kumar, Scheer, and Steenkamp (1995) noted that a consensus seems to be developing that interpersonal trust has two components. The first is trust in the partner's honesty or credibility, which encompasses a belief that a channel member stands by its word (Anderson and Narus 1990), has the required expertise to render role obligations faithfully and reliably (Ganesan 1994), and is sincere (Scheer and Stern 1992). The second is trust in the partner's benevolence, which is the belief that a channel member has an interest in the welfare of the focal firm (Ganesan 1994), is willing to accept short-term disparities in outcomes (Anderson, Lodish, and Weitz 1987), and will avoid taking unexpected actions that will have a negative effect on the focal firm (Anderson and Narus 1990).

Using a unidimensional trust construct, Anderson and Weitz (1989) showed that trust in a channel partner was positively linked to a firm's expectation of continuity for the relationship. Ganesan (1994) tested for links between two trust constructs and long-term orientation. For both retailer and vendor, only trust in a channel partner's credibility was significant. These results suggest that trust in a partner's benevolence is likely to increase the focal firm's expectations of relational continuity, because both parties are likely to gain from continuing the relationship.

Trust in the partner's credibility implies that the information the channel partner provides to the firm is credible and reliable; thus, the focal firm is more likely to use that information (Gupta and Wilemon 1988a, 1988b; Moenaert and Souder 1990b). Thus:

H15: A channel member's trust in the channel partner's credibility is positively related to the channel member's expectation of continuity for the relationship.

H16: A channel member's trust in the channel partner's credibility is positively related to the channel member's information utilization.

H17: A channel member's trust in the channel partner's benevolence is positively related to the channel member's expectation of continuity for the relationship.

Following Ganesan (1994), residuals between the two trust constructs are assumed to covary because of correlated errors.

3.3.4 Expectation of Continuity

Expectation of continuity for the relationship is defined as the channel member's expectation that the relationship with the channel partner will continue (Anderson and Weitz 1989). As such, it includes the channel member's perceptions of both parties' intentions to continue the relationship (Kumar, Scheer, and Steenkamp 1995). A firm that perceives the relationship will continue will expect to have a greater amount of time to recover transaction costs that need to be invested in order to effectively utilize information provided by the supplier. Also, a longer relationship means that there is more time to realize benefits from relationship-specific information provided by the partner. Finally, a continuing relationship implies less risk from utilizing relationship-specific information that could be costly should the relationship be terminated. Thus:

H18: A distributor's expectation of continuity for the relationship is positively related to the distributor's information utilization.

3.4 Conclusion

A theoretical model that can be used to assess the influence of relational factors on information utilization was described in the preceding section. In the next chapter, indicators and measures for the constructs in the model are provided.

CHAPTER FOUR

METHODOLOGY

The research methodology used to empirically test the soundness of the proposed model and hypotheses is presented in this chapter. First, the development of operational measures for the model constructs is discussed. Second, the unit of analysis is described. Third, the sampling frame and nature of the key informant are examined. Finally, survey mailing and follow-up procedures are described.

4.1 Measure Development

To test the theory proposed in Chapter Three, valid scales had to be developed to measure the constructs of interest. Validation methods are composed of criterion-related, content-related, and construct-related procedures (Cronbach and Meehl 1955). Scale development paradigms such as those described by Churchill (1979) and Gerbing and Anderson (1988) are designed to guide the researcher in developing valid scales, and are followed in this instance.

Because using single-item measures of constructs can cause significant research difficulties due to overspecificity and random error (Churchill 1979; Jacoby 1978; Nunnally 1978), multiple-item measures were developed. Based on the defined constructs, a parsimonious set of scale items was generated to fully capture

the construct domain (Churchill 1979; Gerbing and Anderson 1988; Saxe and Weitz 1982). Using the existing literature, literature on related concepts with questions that could be reworded, and the theoretical framework underlying the construct definitions, many items were generated for each construct. Following Churchill (1979), care was taken in generating these items to ensure that the set of items included those with slightly different shades of meaning, in order to fully capture the construct.

The next step in scale development was to conduct a pretest to refine the items. A two-stage pretest methodology was employed. First, five academicians and five practitioners who were willing to participate in the pretest were contacted. These individuals were (1) researchers who had published in fields related to the subject of the dissertation, and/or (2) practitioners who were experienced in supplier-distributor relationships and in dealing with supplier-provided information. Five of the ten individuals had direct experience in food and grocery operations.

Pretesters were given a list of construct definitions and a list of scale items. They were asked to (1) assign each item to the construct they thought appropriate; (2) note when they thought the item could represent more than one construct in the model; (3) comment on and suggest changes for items that appeared vague, ambiguous, and/or difficult to understand; and (4) describe additional scale items that they thought might capture additional facets of the constructs (Churchill 1979).

Items that were found to be ambiguous or that appeared to load on more than one construct were modified or deleted. In the second stage of the pretest

procedure, a mock survey instrument was developed that contained the modified scale items. This survey instrument was the subject of in-person interviews with two grocery chain buyers. Based on their recommendations, additional changes in the survey format, instructions, and scale items were made to ensure clarity and readability. The final scale items in the survey instrument are shown in Table 4-1.

4.2 Unit of Analysis

As mentioned in Chapter One, numerous types of information can be exchanged in a marketing channel. The unit of analysis selected for this research was a distributor's response to a report developed by a supplier on how shelving management can be facilitated. Grocery suppliers often give grocery buyers formal or informal reports on how certain new or improved shelving set up methods can increase sales and profits for the buyer's product categories.

Grocery buyers were asked to identify two such reports they had received in the previous six months, one each from their leading supplier and their second leading supplier. Further, respondents were asked to categorize each report as pertaining to (1) direct product profitability (DPP) set up methods, (2) planogramming set up methods, or (3) other shelving set up methods. They were also asked to briefly describe each report.

Table 4-1
Scale Items Included in the Questionnaire

SATISFACTION WITH PRIOR GENERAL OUTCOMES

Please describe your feelings with respect to this supplier's **general performance** during the past year:

V1. Displeased--Pleased
V2. Sad--Happy
V3. Dissatisfied--Satisfied
V4. Negative Past Experience--Positive Past Experience

SATISFACTION WITH PRIOR INFORMATIONAL OUTCOMES

Please describe your feelings with respect to your **information outcomes** (quantity and quality of information, openness to information exchange, access to needed information, etc.) from this supplier during the past year:

V5. Displeased--Pleased
V6. Sad--Happy
V7. Dissatisfied--Satisfied
V8. Negative Past Experience--Positive Past Experience

OPERATIONAL COOPERATION

Scale Anchors: 1=Minimal Cooperation 7=Extensive Cooperation

V9. Improving product sales.
V10. Improving the competitive position of both firms.
V11. Improving product profitability.

BOUNDARY SPANNING COOPERATION

Scale Anchors: 1=Minimal Cooperation 7=Extensive Cooperation

V12. Establishing an atmosphere of teamwork and trust.
V13. Resolving disputes between the two firms.
V14. Setting up information sharing mechanisms.
V15. Developing competant liaison personnel.
V16. Developing teams/task forces for solving problems.
V17. Developing feedback mechanisms.
V18. Determining responsibilities and commitments in the relationship.

Table 4-1
Scale Items Included in the Questionnaire

TRUST IN CREDIBILITY

Scale Anchors: 1= Strongly Disagree 7=Strongly Agree

V19. When this supplier gives us a rather unlikely explanation, we're still confident that they're telling the truth.
V20. When this supplier gives us suggestions about our business operations, we know that they're sharing their best judgment.
V21. This supplier has often provided us with inaccurate information (R).
V22. This supplier usually keeps their promises to us.
V23. Our firm can count on this supplier to be sincere.

TRUST IN BENEVOLENCE

Scale Anchors: 1= Strongly Disagree 7=Strongly Agree

V24. Though situations change, we believe this supplier will be ready and willing to offer us assistance and support.
V25. When making important decisions, this supplier is concerned about our well-being.
V26. When we share our problems with this supplier, they respond with understanding.
V27. We can count on this supplier to consider how its decisions and actions will affect us.
V28. When it comes to important matters, we can depend on this supplier's support.

EXPECTATION OF CONTINUITY

Scale Anchors: 1= Strongly Disagree 7=Strongly Agree

V29. We expect our relationship with this supplier to last a long time.
V30. Renewal of our relationship with this supplier is virtually automatic.
V31. It is unlikely that our firm will still be doing business with this supplier in two years (R).

Table 4-1
Scale Items Included in the Questionnaire

INFORMATION UTILIZATION

Scale Anchors: 1= Strongly Disagree 7=Strongly Agree

Decision Making (Instrumental) Utilization

V32. A decision was made that fit with at least some of the suggestions in this report.
V33. One or more findings in this report significantly impacted on a decision.
V34. It's possible that without this report different decisions would have been made.
V35. It was worth reading this report because some of the points had a sizable effect on a decision we made.
V36. This report was used to decide an issue of significance.

Knowledge Enhancing Utilization

V37. The findings in this report were used to provide new insights.
V38. The findings in this report gave a fresh perspective about something.
V39. The findings in this report provided new knowledge about something.
V40. The findings in this report were used to start discussion about an issue.
V41. The findings in this report were used to learn something new about our business.

4.3 Sampling Frame

The relationship between the supplier and distributor was selected to maximize the expected relevance of the information transmitted as well as the managerial relevance of the research. To minimize unexplained variance, it was decided to sample supplier-distributor relationships in only one industry.

The sampling frame selected was a sample of grocery chain buyers. To ensure a representative sample, no more than one buyer per grocery chain was selected. To capture a wide array of relationships, key informants were asked to provide information regarding both their first and second leading suppliers.

The model examined in this research contains nine variables. In addition, the measure development procedure allowed for the creation of additional variables from an item pool if a construct should need to be measured by more than one indicator. To ensure that there would be at least ten complete survey responses for each variable, a minimum sample size of 150 was sought.

4.4 Key Informant

This study relied on data from a single key informant on the distributor's side of the marketing channel dyad. Because the study concerned the effect of perceptions of distributors about their information utilization, this was an appropriate methodology. Although some interesting avenues of research could have been explored in a dyadic manner, this research was so exploratory that it was judged more important to thoroughly explore the distributors' perceptions at this time. Also, the discrete unit of analysis (e.g., reports selected by the purchasing agent) made the development of a second key informant problematic.

Campbell (1955) suggested that key informants should have roles that make them knowledgeable about the issues being researched, and be able and willing to participate in the research. The key informants for this study were the buyers for the distributors. The buyer is the primary contact person for most suppliers and is knowledgeable about the relationship and the reports on shelving management facilitation provided by the supplier. The buyer also has a significant amount of responsibility and authority for shelving management decisions.

4.5 Mailing and Follow Up

To ensure that a minimum sample size of 150 was attained, a list of 913 grocery chains was randomly selected from the Directory of Supermarket, Grocery, and Convenience Store Chains. Grocery chains with less than $10 million in listed annual sales were excluded. For each selected chain, a buyer listed in the directory was randomly selected for contact. Because meat and produce sections of the store normally are not arranged using conventional shelving sets, buyers listed as purchasing for those product categories were excluded from consideration.

These 913 grocery chain buyers were telephoned to solicit their willingness to participate in the survey. The buyers were offered a free summary of the research results in exchange for their participation. Participating buyers were mailed a questionnaire packet containing the survey instrument, a cover letter, a brightly colored "bullet" page reiterating the points in the cover letter, an "instruction stuffer" briefly restating how to select shelving set up reports for evaluation, a postage-paid return envelope, a handwritten "please/thank you" note, and a sharpened pencil. All envelopes were hand stamped.

A follow-up letter was mailed to buyers 12 to 14 days following the initial mailing. Twelve to 14 days later, a second questionnaire packet with a new cover letter was mailed to buyers who had not yet responded.

CHAPTER FIVE

RESEARCH FINDINGS

The empirical results of the research are presented in this chapter. The final sample is described, and survey responses are profiled. Next, results of tests for nonresponse bias are reported. Procedures for measure purification are described, and the reliability and validity of the final measures are evaluated. Finally, test results for the proposed model are reported, including tests of individual parameters, overall model significance, and goodness of fit.

5.1 Final Sample

As summarized in Table 5-1, telephone contact was attempted with one buyer from each of 913 grocery chains in order to ask for their participation in the research survey. Of the 913 buyers, 11 belonged to chains that were found to be out of business or unlocatable. Seven hundred sixty-two buyers were successfully reached via telephone. Despite at least three and sometimes five attempts at contact, 140 buyers could not be reached and were excluded from the survey.

Of the 762 buyers who were contacted, 63 stated that the survey instrument did not apply to them and their company. Principal reasons included (1) the chain being primarily meat markets, gourmet supermarkets, or warehouses (and thus

lacking conventional set ups); and (2) the chain not receiving any reports or suggestions from its suppliers of the nature described in this research. Of the remaining 699 buyers, 49 buyers declined and 650 agreed to participate in the survey.

Table 5-1
Response Rate Summary

Total Number Called	913	
Out of business/unlocatable		11
Unable to reach		140
Survey did not apply/excluded		63
Declined to participate		49
Willing to participate		650
Final Sample (Willing + Declined)	699	
Survey did not apply/excluded		44
Survey responses		217
Response Rate: 217/(699-44)	33.1 %	

5.2 Survey Response

Usable survey responses were received from 217 of the 650 buyers who were mailed surveys. Of the remaining, 44 buyers responded by mail or by telephone with notifications that the survey instrument did not apply to either their grocery chain or their specific responsibilities as a buyer. Reasons for such notifications were similar to those described above. The resulting response rate was 217/(699-44) or 33.1%.

Of these 217 respondents, 175 were able to provide information about reports they had received from their suppliers. The other 42 (many of whom called to

discuss their ability to complete the survey) did not receive shelving management reports as discussed in the survey. However, these buyers did complete other parts of the survey. Listwise deletion caused these surveys to be omitted from the present analysis.

From the 175 firms came information about 175 leading suppliers and 126 second leading suppliers, including evaluations of shelving set up reports received from those suppliers. Thus, the response sample for analysis consisted of 301 channel relationships.

Respondents selected and evaluated a wide variety of suggested set up reports that they had received from suppliers. The most common reports evaluated included (1) movement or velocity reports, (2) planograms, (3) direct product profitability reports, and (4) miscellaneous reset suggestions based on sales data, traffic flow, seasonal tie ins, and so on.

5.3 Evaluation of Nonrespondents

It was important to determine whether those informants who completed and returned the questionnaire were representative of the population of buyers surveyed. To evaluate the possibility of nonresponse bias, the group of firms with buyers responding to the survey was compared to the overall sample of 699 firms. The sampling distributions of (1) the number of stores in the chain and (2) annual sales were compared, using data contained in the Directory of Supermarket, Grocery, and Convenience Store Chains. Chi-square goodness-of-fit tests were conducted to compare the distributions in the respondents' group and the sample frame.

The low chi-squares and high probabilities (significance all above .05) reported in Table 5-2 indicate a lack of significant difference between the respondents' group and the sample frame. This suggests that nonresponse bias was negligible.

Table 5-2
Goodness-of-Fit Test on Distributions of the Sample and the Sample Frame

a. Number of Stores in Chain			
Number of Stores	No. of Firms in the Sample (N = 217)	No. of Firms in the Sample Frame (N = 699)	Chi-Square Test
n/a	1	2	
2	47	160	$\chi^2 = 0.27$
3-4	65	208	df = 4
5-9	53	171	p = .99
10-49	36	113	
50+	15	45	
b. Annual Sales for Chain			
Annual Sales	No. of Firms in the Sample (N = 217)	No. of Firms in the Sample Frame (N = 699)	Chi-Square Test
n/a	18	40	
under $15mm	43	150	$\chi^2 = 1.58$
$15mm - $24mm	43	138	df = 4
$25mm - $49mm	49	145	p = .84
$50mm - $99mm	29	92	
$100mm +	35	134	

5.4 Measure Purification and Reliability

Following Gerbing and Anderson (1988), the proposed measures were purified by assessing their reliability and unidimensionality. First, each of the items in the proposed scales was assessed using item-to-total correlations. Each scale item showed a correlation above .40; thus, no items were deleted at this point. Second, a confirmatory factor analysis was performed using EQS (Bentler 1989) to ensure that (1) the scale items were unidimensional; (2) convergent validity was established, with each indicator loading on the relevant construct; and (3) the fit of the overall measurement model was adequate. Several measures were dropped due to their lack of unidimensionality. Third, Cronbach's alpha was calculated to assess the reliability of each summated scale.

Table 5-3 contains (1) a list of the retained and dropped measures, (2) Cronbach's alpha for each scale, and (3) the results of the EQS confirmatory factor analysis. Examining the alpha coefficients reveals that six of nine alpha coefficients were greater than .80, and four were greater than .90. This indicates good reliability of these constructs (Nunnally 1978). The alpha coefficients for expectation of continuity, information utilization for decision making, and information utilization for knowledge enhancement were less than .80, but all exceeded .70, making them satisfactory for exploratory research.

For the confirmatory factor analysis, all of the remaining scale items exhibited item-construct correlations significant at $p < .001$. For the overall confirmatory model, the Bentler-Bonett Non-Normed Fit Index and the Comparative Fit Index

Table 5-3
Measurement Model and Confirmatory Factor Analysis by EQS

Constructs/Items	EQS Item-Construct Correlation Stand.	t-value	Cronbach Alpha
SATISFACTION WITH PRIOR GENERAL OUTCOMES			.9218
V1. Displeased--Pleased	.901		
V2. Sad--Happy	.893	23.55	
V3. Dissatisfied--Satisfied	.885	23.05	
V4. Negative Past Experience--Positive Past Experience	.759	17.05	
SATISFACTION WITH PRIOR INFORMATIONAL OUTCOMES			.9409
	.926		
V5. Displeased--Pleased	.927	28.94	
V6. Sad--Happy	.905	26.99	
V7. Dissatisfied--Satisfied	.810	20.45	
V8. Negative Past Experience--Positive Past Experience			
OPERATIONAL COOPERATION			.8684
V9. Improving product sales.	.857		
V10. Improving the competitive position of both firms.	.871	18.87	
V11. Improving product profitability.	.765	15.65	
BOUNDARY SPANNING COOPERATION			.9103
V12. Establishing an atmosphere of teamwork and trust.	dropped		
V13. Resolving disputes between the two firms.	dropped		
V14. Setting up information sharing mechanisms.	.810		
V15. Developing competent liaison personnel.	.835	17.23	
V16. Developing teams/task forces for solving problems.	.822	16.84	
V17. Developing feedback mechanisms.	.860	18.00	
V18. Determining responsibilities and commitments in the relationship.	.909	19.56	

Table 5-3
Measurement Model and Confirmatory Factor Analysis by EQS

Constructs/Items	EQS Item-Construct Correlation Stand. t-value	Cronbach Alpha
TRUST IN CREDIBILITY		.8109
V19. When this supplier gives us a rather unlikely explanation, we're still confident that they're telling the truth.	dropped	
V20. When this supplier gives us suggestions about our business operations, we know that they're sharing their best judgement.	.760	
V21. This supplier has often provided us with inaccurate information (R).	dropped	
V22. This supplier usually keeps their promises to us.	.733 13.36	
V23. Our firm can count on this supplier to be sincere.	.819 15.21	
TRUST IN BENEVOLENCE		.9195
V24. Though situations change, we believe this supplier will be ready and willing to offer us assistance and support.	dropped	
V25. When making important decisions, this supplier is concerned about our well-being.	.859	
V26. When we share our problems with this supplier, they respond with understanding.	.892 21.35	
V27. We can count on this supplier to consider how its decisions and actions will affect us.	.813 18.07	
V28. When it comes to important matters, we can depend on this supplier's support.	.881 20.87	
EXPECTATION OF CONTINUITY		.7920
V29. We expect our relationship with this supplier to last a long time.	.906	
V30. Renewal of our relationship with this supplier is virtually automatic.	.824 18.58	
V31. It is unlikely that our firm will still be doing business with this supplier in two years (R).	.817 18.31	

Table 5-3
Measurement Model and Confirmatory Factor Analysis by EQS

Constructs/Items	EQS Item-Construct Correlation Stand.	t-value	Cronbach Alpha
INFORMATION UTILIZATION			
Decision Making (Instrumental) Utilization			.7790
V32. A decision was made that fit with at least some of the suggestions in this report.	dropped		
V33. One or more findings in this report significantly impacted on a decision.	.752		
V34. It's possible that without this report different decisions would have been made.	dropped		
V35. It was worth reading this report because some of the points had a sizable effect on a decision we made.	.817	11.87	
V36. This report was used to decide an issue of significance.	.649	10.26	
Knowledge Enhancing Utilization			.7014
V37. The findings in this report were used to provide new insights.	dropped		
V38. The findings in this report gave a fresh perspective about something.	dropped		
V39. The findings in this report provided new knowledge about something.	.798		
V40. The findings in this report were used to start discussion about an issue.	.462	7.06	
V41. The findings in this report were used to learn something new about our business.	.735	9.95	

$\chi^2 = 977.70$, df = 428, $p < .001$
Normed Fit Index = 0.886
Non-Normed Fit Index = 0.921
Comparative Fit Index = 0.932

were above 0.90, indicating a satisfactory fit of the confirmatory measurement model (Bentler and Bonett 1980). The Bentler-Bonett Normed Fit Index was slightly below 0.90, but Bentler (1989) noted that this index is not always a robust estimator when sample sizes are large.

5.5 Evaluation of Multivariate Normality

An important concern in structural equation modeling is the multivariate normality of the sample data. If the data are not close to being multivariate normal, standard estimation methods (such as maximum likelihood estimation) may not be suitable for use.

Table 5-4 shows the means, standard deviations, kurtosis, skewness, and Bera-Jarque statistic and significance level (Greene 1993) of each retained scale item. The Bera-Jarque test for normality combines skewness, kurtosis, and variance information for each scale item, and is chi-square distributed with 2 degrees of freedom.

For 32 of 33 variables, kurtosis was below 1.00, and in the remaining instance it was well below 2.00. Similarly, for 30 of 33 variables, absolute skewness was below 1.00. In the remaining instances, absolute skewness was below 1.40. Given a significance level of $\alpha = .05$, the Bera-Jarque statistic showed no significant deviation from normality for 27 of 33 variables. In the remaining six instances, the departure from normality was not extreme. Thus, it is reasonable to conclude that the data were near multivariate normality and suitable for maximum likelihood estimation.

Table 5-4
Descriptive Statistics of Retained Scale Items

Variable (Retained Scale Item)	Mean	Standard Deviation	Kurtosis	Skewness	B-J Statistic (significance)
V1	5.14	1.28	0.41	-0.77	7.06 ($p < .05$)
V2	5.06	1.22	0.09	-0.52	4.13 (n.s.)
V3	5.03	1.34	0.51	-0.76	5.32 (n.s.)
V4	4.95	1.37	-0.02	-0.68	3.51 (n.s.)
V5	5.11	1.26	0.33	-0.58	4.43 (n.s.)
V6	4.98	1.21	0.12	-0.36	2.11 (n.s.)
V7	4.95	1.29	-0.14	-0.38	1.60 (n.s.)
V8	4.85	1.27	-0.12	-0.32	1.25 (n.s.)
V9	5.32	1.21	0.40	-0.69	8.05 ($p < .05$)
V10	5.19	1.30	0.39	-0.77	6.40 ($p < .05$)
V11	5.01	1.35	0.06	-0.55	2.51 (n.s.)
V14	4.94	1.32	-0.04	-0.52	2.57 (n.s.)
V15	4.95	1.45	-0.04	-0.63	2.14 (n.s.)
V16	4.52	1.52	-0.20	-0.35	0.52 (n.s.)
V17	4.51	1.48	-0.22	-0.35	0.61 (n.s.)
V18	4.68	1.40	-0.10	-0.43	1.24 (n.s.)
V20	4.97	1.30	0.33	-0.62	4.16 (n.s.)
V22	5.43	1.36	0.84	-1.03	9.17 ($p < .05$)
V23	5.32	1.31	0.60	-0.93	9.11 ($p < .05$)
V25	5.08	1.43	0.04	-0.69	2.79 (n.s.)
V26	5.11	1.38	0.21	-0.80	4.69 (n.s.)
V27	4.73	1.47	-0.20	-0.57	1.64 (n.s.)
V28	5.21	1.38	0.13	-0.76	4.21 (n.s.)
V29	5.70	1.37	1.56	-1.28	14.89 ($p < .05$)
V30	5.29	1.69	-0.16	-0.84	1.52 (n.s.)
V31	5.77	1.67	0.71	-1.33	4.20 (n.s.)
V33	5.20	1.54	0.38	-0.88	2.97 (n.s.)
V35	5.07	1.58	-0.30	-0.62	1.27 (n.s.)
V36	4.57	1.66	-0.55	-0.41	0.47 (n.s.)
V39	5.32	1.46	0.70	-0.95	4.97 (n.s.)
V40	4.18	1.74	-0.70	-0.34	0.28 (n.s.)
V41	4.87	1.61	-0.24	-0.64	1.20 (n.s.)

5.6 Test of the Overall Model

The hypothesized measurement and structural relationships in the proposed model were simultaneously evaluated using maximum likelihood estimation and the EQS structural modeling program. The model converged in 17 iterations and had no difficulty in estimating the model parameters.

As shown in Figure 5-1 and Table 5-5, the fit indices showed a moderately good fit of the overall model. The Bentler-Bonett Normed Fit Index (NFI) was 0.920, the Non-Normed Fit Index (NNFI) was 0.826, and the Comparative Fit Index (CFI) was 0.928. Thus, two of the three were above the minimum acceptable level of 0.90 (Bentler 1990). The chi-square statistic was 125.73 with 15 degrees of freedom and $p < .001$. Although the chi-square test results were unsatisfactory, they were likely inflated by the sample size of 301 (Hayduk 1989). In addition, model fit should be assessed by examining multiple-fit indices (Bagozzi and Yi 1988; Bentler 1990; Hayduk 1989). Based on these results, it is reasonable to conclude that the model fits moderately well, but could be improved following additional modification and/or research.

5.7 Assessment of Measurement Model and Construct Reliability

Information utilization was represented by two indicators, each representing a different type of use: information utilization for decision making purposes and information utilization for knowledge enhancing purposes. It was the only construct with more than one indicator. The standardized loadings for the two indicators were 0.803 for decision making use and 0.554 for knowledge enhancing use.

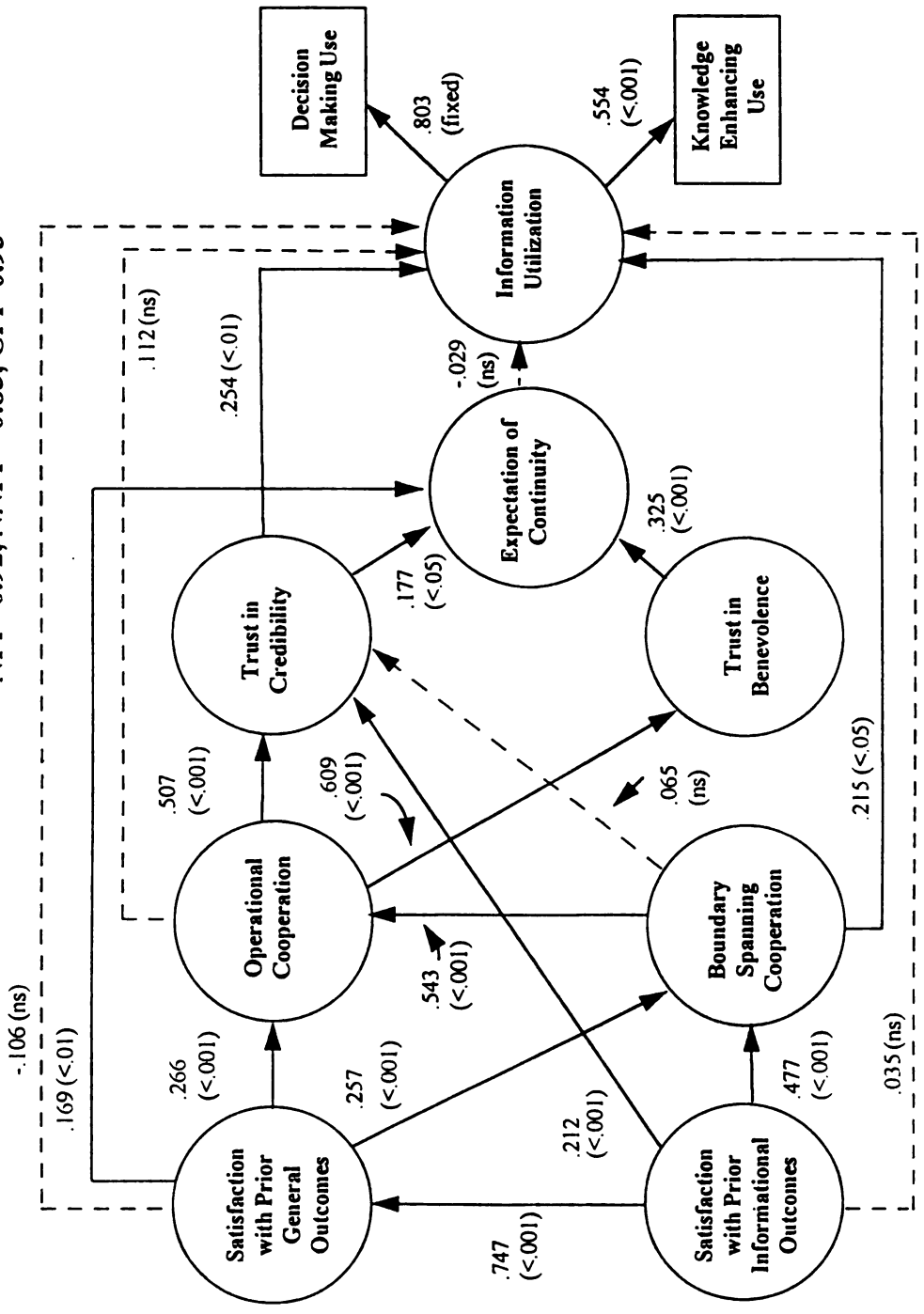

Figure 5-1: Model results.

Table 5-5
Assessment of Structural Model by EQS

Independent Construct Dependent Construct	Hypoth-esis	Stand. Path Coeff.	t-value (significance)	Conclusion
Satisfaction with Prior General Outcomes is positively related to.....				
Operation Cooperation	H1	.266	5.37 ($p < .001$)	Strongly Supported
Boundary Spanning Cooperation	H2	.257	4.08 ($p < .001$)	Strongly Supported
Expectation of Continuity	H3	.169	3.07 ($p < .01$)	Strongly Supported
Information Utilization	H4	-.106	-1.02 (n.s.)	Not Supported
Satisfaction with Prior Informational Outcomes is positively related to....				
Satisfaction with Prior Informational Outcomes	H5	.747	19.46 ($p < .001$)	Strongly Supported
Trust in Credibility	H6	.212	4.84 ($p < .001$)	Strongly Supported
Boundary Spanning Cooperation	H7	.477	7.60 ($p < .001$)	Strongly Supported
Information Utilization	H8	.035	0.32 (n.s.)	Not Supported
Operational Cooperation is positively related to....				
Trust in Credibility	H9	.507	9.62 ($p < .001$)	Strongly Supported
Trust in Benevolence	H10	.609	13.28 ($p < .001$)	Strongly Supported
Information Utilization	H11	.112	1.06 (n.s.)	Not Supported
Boundary Spanning Cooperation is positively related to....				
Operational Cooperation	H12	.543	10.98 ($p < .001$)	Strongly Supported
Trust in Credibility	H13	.065	1.26 (n.s.)	Not Supported
Information Utilization	H14	.215	2.09 ($p < .05$)	Supported
Trust in Credibility is positively related to....				
Expectation of Continuity	H15	.177	2.23 ($p < .05$)	Supported
Information Utilization	H16	.254	2.65 ($p < .01$)	Strongly Supported

Table 5-5
Assessment of Structural Model by EQS

Independent Construct Dependent Construct	Hypoth-esis	Stand. Path Coeff.	t-value (significance)	Conclusion
Trust in Benevolence is positively related to.... Expectation of Continuity	H17	.325	4.42 ($p < .001$)	Strongly Supported
Expectation of Continuity is positively related to.... Information Utilization	H18	-.029	-0.37 (n.s.)	Not Supported

Overall Model Fit:

$\chi^2 = 125.73$, df = 15, $p < .001$
Normed Fit Index = 0.920
Non-Normed Fit Index = 0.826
Comparative Fit Index = 0.928

The unstandardized loading from the information utilization construct to the decision-making-use indicator was fixed in the model at 1.00, in order to identify the model and fix the scale of the construct. Thus, the significance of the loading for decision-making use could not be assessed. However, the coefficient for knowledge enhancing use was significant at $p < .001$.

The composite reliability of a construct is calculated using the standardized loadings and measurement errors for each indicator, and should exceed 0.50 (Fornell and Larcker 1981). The construct reliability for the information utilization construct was 0.6610, suggesting that the two indicators constituted a strong and reliable estimate of the underlying construct.

5.8 Assessment of Hypotheses

The results of tests for the significance of the hypothesized coefficients are shown in Figure 5-1 and Table 5-5. The 18 hypotheses in the model were of two types: (1) those hypotheses linking the relational constructs and (2) those hypotheses linking relational constructs with information utilization. Because the strengths of the results for these two types of hypotheses were significantly different, the two types of hypotheses will be examined separately.

5.8.1 Assessment of Hypotheses Linking Relational Constructs

Twelve hypotheses linked the relational constructs. These hypotheses were modeled to (1) properly capture the effects of each construct on the other and (2) demonstrate the importance of distinguishing between different forms of satisfaction, cooperation, and trust. Significant coefficients were found for 11 of the 12 hypotheses (see Figure 5-1 and Table 5-5).

Hypothesis H1 posited a positive significant relationship between satisfaction with prior general outcomes and operational cooperation. In other words, it was suggested that a firm's satisfaction with the working relationship with its channel partner, including resulting profits, competitive position, and other performance outcomes, leads to greater cooperation between the parties toward mutual profit, sales, and other competitive goals. Hypothesis H1 was confirmed, with the coefficient significant at $p < .001$.

Hypothesis H2 suggested that satisfaction with prior general outcomes increases the perceived benefits and lowers the perceived risks for the channel partners engaging in boundary activities linking the two firms. These activities can include setting up information sharing mechanisms, establishing feedback mechanisms to alert managers in the channel of potential problems or opportunities, and determining which of the firms is responsible for and/or committed to various activities and behaviors in the relationship. Thus, satisfaction with prior general outcomes was posited to lead to increased cooperation between the channel partners in boundary spanning activities. This hypothesis was also confirmed at $p < .001$.

Hypothesis H3 suggested that satisfaction with prior general outcomes increases the perceived benefits for firms remaining in the channel relationship, and thus has a positive effect on expectation of relational continuity. This hypothesis was confirmed, with the coefficient significant at $p < .01$.

Satisfaction with prior informational outcomes concerns the distributor's beliefs pertaining to the supplier's quantity and quality of information supplied, openness to information exchange, willingness to provide needed information, and so on. Because satisfaction with the information flow in a channel relationship is a component of a healthy and satisfactory relationship as a whole, satisfaction with prior informational outcomes was hypothesized to have a significant and positive effect on satisfaction with prior general outcomes (H5).

In addition, it was expected that a distributor's satisfaction with prior informational outcomes would result in (1) placing additional confidence in the reliability of supplier-provided information and (2) increased expectations of benefits to be gained from boundary spanning activities, which facilitate information transmittal. Thus, satisfaction with prior informational outcomes was hypothesized to increase the distributor's trust in the supplier's credibility (H6), as well as boundary spanning cooperation (H7). H5, H6, and H7 were all confirmed, with each coefficient significant at $p < .001$.

These results support the view that satisfaction is a significant direct and indirect driver of channel cooperation, trust, and relational continuity. In particular, satisfaction with prior informational outcomes is a critical precursor (standardized b = 0.477) to boundary spanning cooperation.

Operational cooperation was defined earlier as cooperation that is focused on general performance outcomes for the two firms. In the survey, it was measured by cooperation to improve sales, profits, and competitiveness in the channel, and it was hypothesized to positively affect both trust in credibility (H9) and trust in benevolence (H10). Both coefficients were highly significant (b = .507 and b = .609, respectively; both $p < .001$). This confirms the material role of operational cooperation in developing the distributor's trust in both the credibility and the benevolence of the supplier.

Boundary spanning cooperation was defined as similar or complementary actions focused on achieving outcomes in both firms related to integrating the two

firms. Boundary spanning cooperation was hypothesized to be positively related to both operational cooperation (H12) and trust in credibility (H13). The link between boundary spanning cooperation and operational cooperation was strongly confirmed ($p < .001$), which is consistent with the belief that boundary spanning cooperation removes obstacles that stand in the way of operational cooperation. However, boundary spanning cooperation was not found to significantly affect trust in credibility. Combined with the results for H12, this finding suggests that the effect of boundary spanning cooperation on trust is indirect in nature; by improving operational cooperation, boundary spanning cooperation provides for improved trust in credibility.

The last two hypotheses connecting relational constructs concerned the effects of trust in credibility and trust in benevolence on expectation of continuity (H15, H17). Significant coefficients were found for both hypotheses, confirming previous findings in the literature that trust is a significant contributor to the continuity of channel relationships.

Firms can contribute to their perceived credibility by fulfilling their commitments and role obligations faithfully and reliably, being sincere in their statements and actions, and ensuring that the information they provide to channel partners is believable. Firms can establish a benevolent intention in the eyes of a channel partner by showing an interest in the welfare of the channel partner, being willing to accept short-term disparities in outcomes, and avoiding unexpected actions that will negatively affect the channel partner.

In turn, a channel partner's trust in the supplying firm's credibility and benevolent intention enables the partner to make strategic and tactical decisions based on the long-term continuity of the channel relationship. This can include investments that are tailored specifically to the relationship, such as materials handling systems and joint marketing activities.

5.8.2 Assessment of Hypotheses Concerning Information Utilization

Six hypotheses linked the seven relational constructs with the information utilization construct. Information utilization was a latent construct consisting of two indicators: (1) information utilization for decision-making purposes and (2) information utilization for knowledge enhancing purposes. Significant coefficients were found for two of the six hypotheses.

Boundary spanning cooperation and trust in credibility were hypothesized to have a positive effect on information utilization (H14, H16). These hypotheses were confirmed. For the relationship between boundary spanning cooperation and information utilization, the coefficient of .215 was significant at $p < .05$. For trust in credibility, the coefficient of .254 was significant at $p < .01$.

These findings provide significant evidence that building (1) cooperation focused on boundary spanning activities and (2) trust in the supplier's credibility are important tools for improving a distributor's utilization of information provided by the supplier.

Several hypotheses were not confirmed. Satisfaction with prior general outcomes (H4), prior informational outcomes (H8), operational cooperation (H11), and expectation of continuity (H18) were not found to significantly affect information utilization. Thus, there is no significant evidence that developing these relational factors is an effective means of promoting the use of channel-transmitted information.

5.9 Summary and Conclusions

A breakdown of direct, indirect, and total effects of the seven relational constructs on information utilization is given in Table 5-6. Several points are of interest. First, boundary spanning cooperation had the largest effect on information utilization by virtue of having both direct and indirect effects on the information utilization construct.

Second, satisfaction with prior informational outcomes had three indirect links to information utilization. Its total effect on information utilization was nearly as large as the effects of boundary spanning cooperation and trust in credibility.

Overall, the five variables in the model with non-zero effects accounted for nearly 21% of the variance in the information utilization construct. This is an impressive figure for an exploratory design. Based on this figure, boundary spanning cooperation accounted for approximately 6% of the variance in the model. Trust in credibility and satisfaction with prior informational outcomes each accounted for approximately 5% of the variation in the model.

Table 5-6
Ranking of Total Effects

Information Utilization	Direct	Indirect	Total
Boundary Spanning Cooperation	0.215	0.070	0.285
Trust in Credibility	0.254	n.s.	0.254
Satisfaction with Prior Informational Outcomes	n.s.	0.232	0.232
Operational Cooperation	n.s.	0.129	0.129
Satisfaction with Prior General Outcomes	n.s.	0.107	0.107

CHAPTER SIX

CONCLUSION AND IMPLICATIONS

The findings from this research offer insights into issues that are of significant theoretical and managerial interest. In this final chapter, the theoretical significance of the research findings is considered first. The managerial implications of the research are discussed next, followed by the limitations of the research. Finally, future research directions are described.

6.1 Theoretical Significance of the Research Findings

As discussed in Chapter One, information utilization for decision making and knowledge enhancing purposes is a critical component of developing and sustaining a firm's sustainable advantage and performance. This research advanced the theory of how firms use information they receive from a channel partner in four important ways.

First, this research provided positive evidence that microeconomic and transaction costs theory can be used as a theoretical framework for research on information utilization in marketing channels. Previous research on information utilization has been fragmented and to a large extent atheoretical. Thus, the relationship between independent variables (in this instance, satisfaction,

cooperation, trust, and expectation of relational continuity) and information utilization can be at least partially accounted for by perceived benefits to the firm from utilization, costs from utilization, and risks in utilization. This framework is a promising vehicle for further theory building and application.

Second, this research provided the first empirical evidence that a distributor's relationship with its supplier is an important determinant of the distributor's utilization of information provided by that supplier. In fact, previous research on information utilization has not focused on channel-transmitted information. Five of the seven relational factors in the model were shown to influence the distributor's use of channel-transmitted information. These findings provide channel partners with a major additional incentive for building a strong relationship--that is, enhanced information utilization.

Third, the results of this research provided a plain distinction between the effects of different forms of trust, cooperation, and satisfaction on information use. Specifically, trust in credibility, boundary spanning cooperation, and satisfaction with prior informational outcomes had a much greater effect on information utilization than did trust in benevolence, operational cooperation, and satisfaction with prior general outcomes. This is an important improvement over the use in previous research of undifferentiated, general constructs.

Fourth, this study employed a broader measure of information utilization that more accurately and fully measured the extent of information utilization in a firm. Information utilization was modeled as a latent construct with two manifest

indicators: (1) information utilization for decision making purposes and (2) information utilization for knowledge enhancing purposes. Previous researchers either have not distinguished between these two uses of information, or else have examined only decision making use. Results of the assessment of the measurement model and construct reliability confirmed that buyers perceived these two uses as two dimensions of one underlying information utilization construct. Both types of use enable a firm to develop competitive advantage; thus, both types of information utilization were measured and evaluated.

In addition to developing new insight into a firm's use of channel-transmitted information, this study furnished one significant insight into the channel relationship itself. A distributor's trust in the benevolence of its supplier was found to have a much greater effect on the distributor's expectation of relational continuity than did its trust in the credibility of that supplier. In addition to being of practical assistance to managers, this finding provides further evidence of the usefulness of examining these forms of trust separately.

The preceding insights demonstrate the contribution this research has made to the theories underlying information use and channel relationships. Next, the managerial implications of the research are examined.

6.2 Managerial Implications

The findings of this research offer several practical insights into how managers in a channel relationship can (1) improve the use of information they provide to and/or receive from a channel partner and (2) improve the overall quality

of the channel relationship. Both of these outcomes can be expected to enhance firms' performance by enabling them to improve operational efficiency, coordination in the distribution channel, the quality of marketing decisions, and value provided to the customer.

First, firms need to recognize the importance of developing strategies to promote the use of information they provide to channel partners. Firms often invest a great deal of resources in upgrading inter-firm communication capabilities. However, information that is communicated is not necessarily used. Further, the findings of this research showed that firms do have the ability to influence the use of information they provide. Thus, those firms that can recognize and exploit opportunities to enhance the use of information they provide to channel partners can gain an advantage in the marketplace.

To accomplish this, firms must make enhancing the use of information they provide to channel partners part of their marketing plan. It cannot be assumed that information that is provided will be used. Therefore, the process of developing information sharing strategies must include an analysis of the firm's strengths and weaknesses in promoting information utilization, information utilization opportunities (a supplier's informational needs, an existing network for sharing information, and so on), and threats to information utilization (a poor-quality relationship, untrained liaison personnel, inadequate information sharing mechanisms, and so on).

A second managerial implication is the need for firms to develop strategies to coordinate their information management and relationship management activities.

Because the quality of the relationship between two channel partners affects the use of information sent from one channel partner to the other, firms should ensure that information sharing activities contribute to the quality of the relationship, and vice versa.

In practice, such coordination is rarely accomplished. Firms often view information exchange as a method of solving specific problems or needs for a channel partner. Even when information partnerships are developed with a global view toward strategic competitive advantage, the interaction within a firm between relational marketing activities and information sharing and use has been limited.

Managers can take several practical steps to coordinate information management and relationship management. These include (1) developing executives who understand the strategic benefits and tactical intricacies of a coordinated approach to information and relationship management, (2) establishing an organizational structure that promotes the sharing of information and marketing goals between marketing and information support functions, (3) training both marketing representatives and information support personnel to recognize the relationship between information quality and information use, (4) coordinating the design of information reports to enhance both information use and relationship quality, and (5) using long-term, account-dedicated liaison personnel in the channel relationship.

Developing competent, account-dedicated liaison personnel to interact with a channel partner is a particularly promising strategy for coordinating information

management and relationship management. These individuals would have greater knowledge and expertise for assessing and meeting the informational needs of particular customers, assisting channel partners in using information, enhancing channel cooperation, and gaining the partner's trust. All of these outcomes contribute to improved relationship quality and information use.

Third, managers should enact control mechanisms to evaluate the use of information they supply to channel partners. This can be readily accomplished by asking their partners about the usability, actual usage, and individual users of the provided information for decision making and knowledge enhancing purposes. This control process can be accomplished orally or in writing, and can also be used to gain the channel partner's feedback on how to improve the quality and usability of provided information.

A fourth implication for managers is the need to promote boundary spanning activities. Boundary spanning activities enable two firms to integrate their operations by reconciling their respective needs, goals, and actions. This reconciliation, in turn, leads to greater cooperation toward profit and sales goals, greater trust in the supplier's credibility, and improved use of channel-transmitted information.

Specific boundary spanning or reconciling options include (1) investing time and effort in improving the relationship; (2) establishing an atmosphere of teamwork and trust; (3) setting up mechanisms for resolving disputes between the two firms; (4) communicating regularly; (5) establishing a mutual understanding of each firm's roles, responsibilities, and commitments in the distribution and marketing process;

(6) setting up information sharing mechanisms, including information systems linking the two firms; (7) using long-term, competent liaison personnel to work regularly with the other firm (as discussed above); and (8) developing teams and/or task forces to solve mutual problems.

The final managerial implication concerns the need to improve the distributor's trust in the credibility of the supplier, which in turn improves the use of information provided to that distributor by the supplier. The findings of this research showed that cooperation toward mutual sales, profitability, and competitive goals significantly increases the credibility of the supplier in the eyes of the distributor. Firms must also build credibility by developing a reputation for credibility, providing accurate information, dealing honestly with their channel partners, demonstrating the skill needed to fulfill their obligations in the relationship, and promoting their own value as a credible channel partner.

In summary, the research findings suggest that managers can employ a variety of means to enhance both the quality of their relationships with channel partners and the use of information provided to those channel partners.

6.3 Limitations

There were several limitations in this research. First, self-selected information reports may not give an accurate picture of day-to-day information utilization in the firm. Self-selected reports, or "critical incidents," were used in this study, based on previous use in other research reported in the literature. Also, an a priori judgment was made that a buyer's evaluation of a specific report was a more reliable

assessment of information use than his/her evaluation of a heterogeneous stream of information over a period of time. However, the reports that were evaluated constituted only a fraction of the information received by each respondent.

A second limitation is the lack of a second informant to further validate the responses of the key informant. Multiple informants clearly would have been preferred. However, the use of the "critical incident" unit of analysis made selection of a second informant to assess utilization of that same report problematic.

Finally, studying the utilization of a specific type of report (e.g., a shelving management report) within a specific industry raises concerns about the external generalizability of the research. However, the unit of analysis was chosen in order to make external generalizations possible. First, the shelving management report involved a use intended to improve sales and performance of the channel partner, which is a pervasive need in channel relationships. Second, shelving management reports are not overly technical in nature and usually can be interpreted by grocery buyers. Thus, they are not idiosyncratic technically.

This research can be expected to be externally generalizable to the utilization of similar types of reports in other industries. This model of information utilization may or may not be appropriate for analyzing reports that are highly strategic in nature, highly tactical (delivery dates, invoices, and so on), or idiosyncratic technically (e.g., blueprints).

6.4 Future Research Directions

There are several promising areas for future research. First, the confirmatory factor analysis revealed that the scale items measuring the expectation of continuity construct were significantly cross-loaded with most of the other relational constructs. In other words, these scale items were sufficiently ill-defined to measure not only expectation of continuity, but many of the other relational constructs as well. This may have contributed to a significant understatement of the strength of the relationships between these constructs and expectation of continuity. Removing expectation of continuity from the model could lead to modification of the results.

Second, these results suggest that both firm managers and academic researchers in the marketing field must examine several areas in evaluating the extent to which channel partners use information that is transmitted by the distributor for decision making and knowledge enhancing purposes. In addition to new relational factors, it would be prudent to examine other variables that have been discussed in research on information utilization (see Chapter Two). In particular, characteristics of the firm sending the message, properties of the message itself, and traits of the receiving firm may be appropriate areas for research.

Thus, other potentially important determinants of the extent of information utilization would include (1) expertise and working style of the firm transmitting the information, (2) power and dependency in the relationship, (3) perceived quality of the information received, (4) characteristics of the receiving firm (organizational formalization and centralization, organizational support for implementation,

marketing orientation, and so on), and (5) buyer characteristics (time constraints, role stress, learning and/or performance orientation, and so on).

The existence of intervening variables between the relational constructs and information utilization is a significant possibility. Other characteristics discussed above (perceived information quality, organizational support for implementation, and so on) were not part of this model. These factors, addressed in the literature on information utilization in other marketing related areas, may be significant intermediaries in the model.

Should constructs such as these be added to the model, hypothesized direct relationships currently found to be insignificant might become indirectly significant through one or more paths. This would result in improved model fit and improved determination of the effects on information utilization.

A third research avenue to explore would be suppliers' perceptions of how the information they supply is used by the manufacturer. As Deshpande and Zaltman (1982, 1984) discussed, suppliers' perceptions of how "their" information is used often do not match the distributor's own perceptions of how the provided information is used. Thus, firms supplying information may devise strategies to promote the distributor's use of information, based on the supplier's distorted perceptions of what increases the distributor's extent of information use.

Comparing the supplier's and distributor's respective perceptions would (1) enable information suppliers to develop strategies promoting information utilization that fit with the operating environment of the supplier, (2) enable information users

to work with information suppliers to create conditions conducive to information use, and (3) improve performance of both channel partners by enhancing their ability to provide and use information to meet the objectives of both firms.

Finally, the specific effects of information utilization on firm performance can be explored. A distributor's increased use of information for decision making purposes can be expected to improve the quality of decisions, and thus overall performance. Similarly, greater use of information for knowledge enhancing purposes adds to the knowledge base of the organization, providing new insights and fresh perspectives. This should also lead to improved performance.

There are several intriguing directions for research in this area. First, decision making use and knowledge enhancing use could have different direct and indirect effects on performance improvements from that use. Indeed, there may be different intervening constructs in each instance.

Second, the role of relationship characteristics (satisfaction, cooperation, trust, dependency, and so on), information quality, organizational support for information use, and buyer characteristics (i.e., role conflict, role ambiguity, role overload, learning orientation, and performance orientation) in performance improvements from information utilization can be explored. It is possible that these factors will affect performance improvements from use independently of and differently from their effect on the extent of information utilization.

In summary, this research was the first step on an extended journey to understanding utilization of channel-transmitted information. While some questions

have been answered as a result of this research, even more questions have been raised. These results provide the basis for future research in this area.

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