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Functional shiftability in the mass merchandising discount channel

Norek, Christopher David, Ph.D.
The Ohio State University, 1994

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FUNCTIONAL SHIFTABILITY IN THE
MASS MERCHANDISING DISCOUNT CHANNEL

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Christopher David Norek, B.S., M.B.A., M.A.B.A.

* * * * *

The Ohio State University
1994

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Adviser
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Administration
To Mom and Dad
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            Emphasis in Logistics and Transportation

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Chapter I: Introduction

Background

Recent developments in the mass merchandising retail channel such as the consolidation of the retail base and increased access to information technology have moved the retail industry toward an increased focus on improving operating efficiency. One way to increase channel efficiency and lower channel costs recognized by early marketing and economic scholars is to ensure that specific channel functions are performed by the channel member that can perform them most efficiently. In the current mass merchandising discount retail channel, significant changes have recently occurred in the locus of performance of certain functions or tasks. See Appendix A for a definition of a marketing channel and this specific channel. This research was designed to examine the phenomenon of functions being shifted between channel members in the mass merchandising discount retail channel and to identify some factors which may be causing the shifts.

Regardless of the changes in the current retail channel, the idea of increasing efficiency by transforming resources is a common business strategy. For instance, replacing manpower with automation or technology has been a strategy pursued by many companies. Historically, this type of resource transformation has occurred within the borders of companies. There are signs, however, that these resource transformations or transfers are crossing the traditional boundaries of firms to include fellow channel
members. In an effort to increase the efficiency of the channel and lower channel costs, companies are enlisting the help of channel partners in utilizing resources more effectively.

For example, some manufacturers are selling through the mass merchandising discount channel are beginning to perform functions which had been performed by wholesalers or retailers in the past. The shifting of functions by channel members to their channel partners is usually intended to either increase the overall efficiency of the channel or to increase a firm's own profits (Mallen 1973). Stigler (1951) also takes a similar economic efficiency perspective in determining when it is appropriate for a company to spin-off or outsource a specific function. Although various definitions exist for the term "efficiency," the lowest total cost is the most common definition in relation to this topic whether this lowest cost is for an individual firm or the channel as a whole. Mallen (1973, p.19) defines efficiency as "the lowest total average costs." This low cost definition will be used throughout the rest of this research rather than the more nebulous term "increased efficiency."

The potential or actual transfer of responsibility for performing specific channel functions or tasks has been referred to as functional shiftability. Some authors wrote specifically on issues relating directly to functional shiftability (See Coase 1937, Stigler 1951, Mallen 1973); however, little directly applied work in the retail channel has been published since. Therefore, this study has attempted to bridge the gap between existing theory and actual occurrences in the current retail channel. Functional shiftability is not a new concept; however, its increasing visibility and occurrence within the mass merchandising discount channel set the groundwork for additional study. Functional
shifts, their evolution, and their outcomes lead to the major questions addressed in this dissertation research:

<table>
<thead>
<tr>
<th>Are functions shifting in the mass merchandising discount channel?</th>
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<tr>
<td>and</td>
</tr>
<tr>
<td>If functions are shifting, what are the reasons for and the consequences of the shifting of these functions in the mass merchandising discount channel?</td>
</tr>
</tbody>
</table>

The early authors specifically stress the importance of low cost in the assignment of channel function responsibility. However, there are signs that economic power may be a key factor in determining functional shiftability in the current mass merchandising discount channel. Therefore, the underlying reasons for the current functional shifts may not be based on lowest cost to the channel. Mallen (1973) touched on but did not emphasize the issue of power in functional shiftability. Unfortunately, there is little additional hard evidence supporting the influence of economic power on functional shiftability. Background information on the mass merchandising discount channel may, however, help clarify this economic power concept.

The portion of the total sales in the mass merchant discount retail industry accounted for by the largest firms is so substantial that the potential for economic power to determine functional shifts is particularly relevant. To illustrate the concentration in the mass merchandising discount channel, the top three retailers in terms of sales volume, Wal-Mart, Kmart, and Target, accounted for $83.092 billion dollars a year in 1993 (Discount Store News 1994, p. 32). The total sales figure accounts for 79% of the total
sales in the discount department store or mass merchant discount channel. The following sales numbers portray the economic power position from the sales volume perspective and show a clear case of oligopsony in the mass merchandising discount channel.

Table 1. Sales of the Three Largest Mass Merchant Discounters

<table>
<thead>
<tr>
<th>Company</th>
<th>1993 Sales</th>
<th>% of Industry</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wal-Mart</td>
<td>$44,900 Billion</td>
<td>43%</td>
<td>43%</td>
</tr>
<tr>
<td>Kmart</td>
<td>$26,449 Billion</td>
<td>25%</td>
<td>68%</td>
</tr>
<tr>
<td>Target</td>
<td>$11,743 Billion</td>
<td>11%</td>
<td>79%</td>
</tr>
</tbody>
</table>

(Discount Store News 1994, p. 32)

Judging by these numbers, these mass retailers have a great deal of bargaining power with their suppliers.

This strong economic position has changed a great deal over the last ten years. In 1983, the discount department store channel had a total sales figure of $73.3 billion (Discount Store News 1984, p. 18). Then, companies which now constitute the “Big 3” accounted for only 36.3% of total channel sales volume (Discount Store News 1984, p. 17). Therefore, in the last ten years, if economic power is assumed to equate to sales, the economic power of these companies has more than doubled. This increase in economic power may be a key reason for the recent functional shifts. Heflebower (1956) states that economic power might be a result of the retailer’s individual ability to award or take away a sizable increment of a supplier’s volume. It is this ability of a retailer to take away a
sizable increment of a suppliers volume that portrays the issue of economic power in this research.

Another potential source of power in addition to sheer sales volume is the degree of geographic penetration of each retailer. In total, the three largest mass merchant discounters do business in virtually all 50 states with a total of 4,830 stores (Discount Store News 1994, p. 32). This accounts for 45% of total stores in this retail category. Geographic coverage gives retailers power over manufacturers in that selling to the larger retail companies provides for almost automatic national distribution and exposure for the manufacturer and its products. Little (1970) states that the desire for full market coverage by manufacturers tends to weaken their position in the channel vis-a-vis the retailers (Little 1970). The multi-level merchandiser can choose from a variety of "manufacturers' offerings which it may add, exclude, or drop almost at will." (Little 1970, p. 35)

Also, the multi-level merchandiser's size and position in the market, enable them to offset a great deal of "uncertainty for manufacturers regarding the acceptance of products by assuring them access to widespread markets." (Little 1970, p. 35) From a supplier or vendor point of view, being locked out of any one or more of the "big three's" merchandise mix may seriously impede a manufacturer in efforts to create a strong national presence in the retail marketplace. In addition, this desire for full market coverage by manufacturers tends to weaken their position with retailers. (Little 1970, p. 35) The results of this study will help clarify the role of economic power in determining functional shiftability in the mass merchandising discount channel.
Functional Chart for the Retail Channel

The chart following this section shows the functions necessary in a channel and sets the stage for this research by illustrating the types of functions which may be shifted. The term "function" has been understood to have several different meanings throughout marketing literature (see Appendix A for a few examples). One author even uses the word "task" in the definition for a function. Due to this confusion, authors frequently give their own definitions. For the purposes of this study, a distinction between function and task is necessary to delineate the difference between the more broad "function" and the more specific "task". The following definitions will be used in this research:

- **task**—a discrete, single activity necessary to allow a product to progress from raw material through sale to final consumer.
- **function**—a closely related group of activities necessary to allow a product to progress from raw material through sale to final consumer.

In essence, the distinction between the two terms is that a function is broader and might consist of several tasks.

The following comments from Hollander and Bucklin serve as a basis for the channel function/task chart. Hollander (1964) stated that functions can be contracted out, shifted, or shared among channel members. Bucklin then stated

"The institutional structure of the channel is the division of functions among separate organizational entities—i.e. among the various firms and the consumer." (1966, p. 11)

and

"control over certain groups of channel activities generally is relegated to a single institution. The work may be performed by the institution or contracted to others." (1966, p. 12)
The functional chart ties into these opinions and details those tasks necessary for the movement of product through the current mass merchandising retail channel. The far left column lists the functions followed by four other columns. The second column shows who traditionally performed each of the functions with "M" representing the manufacturer or vendor, "R" representing the retailer, "T" representing a transportation company, and "S" representing the raw material supplier. The next two columns detail the functional responsibility under a vendor-managed inventory program, a category management program (See Appendix A for definitions of these concepts), and general functional changes possible in the future. The last column shows with an "X" those functions which a third party might perform. One additional note is that those functions designated by "M,R" are those functions that can be performed by either the manufacturer or retailer and those designated by "M/R" are those functions performed by both the vendor and retailer. Bucklin (1966) stated that some functions might be performed several times in the channel by as many as four institutions. One possibility of increasing efficiency of the channel would be to eliminate this duplication of channel task performance.

This chart will serve as a basis of support for this research effort. The breakdown of the product delivery process shows the functions or tasks required to get a product to the end user. The identification of the channel dynamics and operating practices relating to functional shiftability will be more easily understood with this chart serving as a basis for the research. The research addresses this chart both for its current functional responsibility and for future changes.
Table 2. Physical Distribution Functions Necessary for Product to Progress to Final Consumer

<table>
<thead>
<tr>
<th>Functions</th>
<th>Tradit</th>
<th>VM</th>
<th>Cat. Mgmt</th>
<th>Potent. Mgmt</th>
<th>Third Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Material Procurement</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Raw Material Transportation</td>
<td>M,S</td>
<td>M,S</td>
<td>M,S</td>
<td>M,S</td>
<td>X</td>
</tr>
<tr>
<td>Raw Material Storage</td>
<td>M</td>
<td>M,S</td>
<td>M</td>
<td>M,S</td>
<td>X</td>
</tr>
<tr>
<td>Raw Material Inventory Control</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Forecasting</td>
<td>M/R</td>
<td>M/R</td>
<td>M/R</td>
<td>M/R</td>
<td>M/R</td>
</tr>
<tr>
<td>Production</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Packaging/Merchandise Preparation</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>- UPC Item Codes</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>X</td>
</tr>
<tr>
<td>- Carton Packaging</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>X</td>
</tr>
<tr>
<td>- Case Pack (Re) Configuration</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>X</td>
</tr>
<tr>
<td>- Custom Packaging</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>X</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>-Customer Specific Consumer Pkg.</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>X</td>
</tr>
<tr>
<td>- Display Packaging</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>X</td>
</tr>
<tr>
<td>- Bonus Offer Goods</td>
<td>M</td>
<td>M</td>
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Statement of the Problem

Recent structural/environmental changes such as the consolidation of the retail base and the increase in access to information technology in the retail channel may be the impetus for many operational and strategic changes for both manufacturers and retailers (Felgner 1989). A consequence of these changes is the presence of functional shifts where a channel member performs a function it had not performed in the past. As an example of a potential functional shift in the discount department store channel, Kmart has asked 20 of its 200 toy vendors to sell their goods to Kmart on consignment allowing the retailer to delay paying for inventory until it reaches store shelves (Duff and Jereski 1993). This practice would force vendors to be financially responsible for the inventories in Kmart's distribution centers. This is a shift in the function of financial risk-taking by requiring that a vendor be financially responsible for the inventory for a longer period of time than with normal sales procedures. Consignment sales are an example of a function where the retailer is shifting function performance by transferring the responsibility of financial risk to its vendors.

Kmart stressed that selling on consignment is "not a condition of doing business with Kmart" while, at the same time, one toy supplier said that if they did not sign up for the consignment program, they could no longer do business with Kmart (Duff and Jereski 1993). This example supports the argument that economic power may play an important role in determining functional shiftability because of Kmart's size and status as the second largest retailer in mass merchant discounting. Heflebower (1956) speaks of this type of economic power with which a retailer has the ability to take away a sizable
increment of a supplier's volume. Being in a power position obviously affords certain benefits in business dealings. In the case of retailers possessing economic power, this position may allow the retailer to dictate to its vendors that the partner should perform particular functions that the retailer had traditionally performed.

Transfers of functional responsibility are sometimes seen as adding value to the production process. Davenport states that suppliers can add value to logistical processes through such tasks as packaging to suit customer requirements (Davenport 1993). This packaging most likely would have been performed by the retailer in traditional business arrangements thus implying a possible functional shift. Based on current channel actions, the concept of functional shiftability is becoming increasingly important in today’s mass merchandising discount channel.

Chapter 2 covers relevant literature regarding functional shiftability. Following the development of this literature review, areas of opportunity for further research were identified. The following are shortcomings of existing research that offered opportunity for further examination based on the literature review:

1) There are no research efforts in recent literature that examine what functions or tasks are shifted in the mass merchandising discount retail channel.

2) The processes of the shifting of channel functions in the mass merchant discount channel are not well known.

3) The results of the shifting of channel functions in the mass merchant discount retail channel are not well known.

4) The reasons for the shifting of channel functions in the mass merchant discount retail channel are not well known.
5) Without knowledge of past functional shifts and their consequences, channel participants are not able to anticipate and prepare for future changes in responsibility for function performance.

6) The knowledge or lack of knowledge about costs incurred by firms taking on additional functions has not been examined.

**Objectives of the Research**

This research was intended to address the issues relating to the shifting of functions within the mass merchandising discount retail channel. The overall goals of this effort were to answer the following major questions:

1) Are functions being transferred?

2) If yes, which functions are being shifted and why are they shifting?

3) How are the burdens and benefits of the functional shifts being shared in the channel?

4) Do firms (manufacturers) know the costs of performing individual functions?

5) To what extent are third party logistics providers used to perform the functions being shifted?
More generally, why the functions are shifted and how channel members react to functional shifts have been researched. Therefore, focusing on the current operations in the channel offered avenues to determine reasons for the shifting of functions.

Three examples of functional shiftability in the current discount retail channel are consignment sales, vendor-managed inventory, and merchandise preparation. In fact, as a point of clarification, these particular concepts may actually encompass a number of functions which, in turn, encompass a number of tasks. For example, VMI includes functions such as forecasting, merchandise replenishment, and inventory monitoring. These broader issues will be referred to as management of processes because they portray processes made up of several functions. See Appendix A for a definition. A brief discussion of these concepts will help clarify functional shiftability occurring in the discount retail channel.

Consignment sales, as previously mentioned, can be considered one way of shifting the responsibility for the financial risk of holding inventory. Consignment sales are likened to the idea of vendor-managed inventories where manufacturers manage the inventory in their customer's facilities until the product is shipped to stores; however, in consignment sales, the responsibility transferred is only the financing of the goods.

Vendor-managed inventories (See Appendix A for a definition) are a major functional shift considering the expense and effort required to effectively manage inventory. If a firm can eliminate this function from its functional mix, that firm can save a tremendous amount of both time and money. The shift of inventory management may, however, increase the efficiency of one firm to the detriment of the channel as a whole. The detriment to the channel as a whole would result if the inventory management function for one firm is suboptimized causing increased costs for the total channel.
Merchandise preparation is another function which has started to become more of a manufacturer responsibility as compared to past practices where the retailer performed or paid for tasks such as carton labeling, special pallet configuration, and special packaging requests. The provision of shelf-ready merchandise by manufacturers is becoming increasingly important to retailer purchasing groups. Therefore, additional packaging-oriented tasks may be asked of vendors prior to delivery in the future. Consignment sales, vendor-managed inventory, and merchandise preparation are a few examples of the processes comprising many functions being shifted between members in the channel.

Scope of the Research

The mass merchandising retail channel is composed of many segments. There are grocery stores, department stores, discount stores, specialty stores, club stores, variety stores, catalog stores, and even mail order houses. Researching all of these merchandising formats would be an effort of unmanageable size. Therefore, this study focused on just one segment or subset of this large retail channel, the mass merchant discount channel or discount department store channel. The economic structure and the recent growth of this retail segment was such that a study relating to functional shiftability in this channel is timely (see page 48 for a definition of this channel). The retailers in this channel and their vendors served as the information base for the research thereby allowing for a dyadic data collection set. A small sample of third party logistics providers were used as information sources.
From a conceptual point of view, this research focused on the process of functional shifts, the consequences of functional shifts, and the reasons for functional shifts in the mass merchandising retail channel. In addition to these concepts, other topics were covered including possible responses to changes in functional mixes and trends in the channel which will affect functional mixes in the future. Research into these areas may uncover opportunities on which channel members may capitalize if the mass merchandising retail channel continues to experience change.

**Research Questions to be Answered**

The following are the research questions addressed in the research effort. A more detailed look at these questions along with background information on them is shown in Chapter 3 and in Chapter 4.

**Causes and Consequences of Functional Shifts**

Q1: Are functions being shifted between manufacturers and retailers?

Q2: Are the retailers the initiators of the functional shifts?

Q3: Do larger retail firms (those over $5 billion per year in sales) push more functions to manufacturers than smaller retail firms?

Q4: Is compliance to meet new functional requirements required of suppliers?

Q5: Are larger manufacturing firms more likely to reduce the functional responsibilities placed on them by the retailers than smaller manufacturing firms?

Q6: If manufacturers are innovative and try to anticipate retailer demands, can they reduce the burden of having to perform extra functions?

Q7: Is the pushing back of functions to manufacturers by retailers causing manufacturers to push functions back onto their suppliers?
Knowledge of Costs of Performing Transferred Functions

Q8: Do firms (manufacturers) know the costs of performing additional functions?

Q9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?

Q10: Do manufacturers know the profitability of each of their customers on a detailed basis?

Third Party Use for Performing Transferred Functions

Q11: Are companies using third parties to perform the new functions?

Q12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?

Q13: Are third parties used more for specific packaging tasks than more comprehensive functions like inventory management?

Equity of Channel Costs and Benefits

Q14: Do the functional shifts occur to lower the costs of the total supply chain?

Q15: Are firms compensated by their channel partner for taking on more functions?

Q16: Are costs of the shifted functions shared between manufacturer and retailer if the manufacturer?

Q17: Are financial or business penalties levied on suppliers for the non-performance of additional functions?

Q18: Do manufacturing firms believe that they benefit from the performance of additional functions?
Research Methodology of the Study

This research effort consisted of two parts. The first part consisted of exploratory research which gathered information via extensive interviews of members of the mass merchandising discount channel. The information collected in this exploratory part of the study served as a basis for developing and refining the research questions. The second part of the research consisted of a two-page mail survey. See Appendix D for a copy of the survey and its accompanying cover letter. This survey collected information that addresses the research questions. Once the surveys were returned, the data was analyzed to determine commonalities or disparities within the channel relating to the concept of functional shiftability by comparing responses to the survey questions. As a result of this research, suggestions for coping with future challenges relating to functional shiftability might be provided. For further information on the survey data collection effort and data analysis, see Chapter 4.

Assumptions/Limitations

One limitation of the mail survey research has to do with the connection with the survey administration and the conclusions drawn from the survey responses. The survey was constructed with a priority on ease of completion. In other words, due to the time constraints of the executives being surveyed, the survey questions were made as easy to answer as possible. Therefore, issues such as the decision making processes for functional shiftability were not addressed in order to reduce time requirements of the participants. This often resulted in dichotomous rather than continuous variables in the mail survey. For example, many “Yes/No” questions were included.
The issues of functional shiftability were sometimes indirectly addressed by the survey questions and other times directly. The indirect examples are where a caution to the reader is warranted. The reader must understand that interpretation of the results of those issues indirectly addressed by dichotomous variables hinges upon the author's formulation of the survey questions themselves. Therefore, the reader is cautioned of possible misinterpretation of the survey results and must keep his or her own conclusions within the realm of the current data collection. The questions which more directly address the issues were open-ended and do not have the same limitation.

There are some limitations in regard to methodology in the mail survey. The first is that most of the respondents all belong to a major professional organization in the field of logistics. Therefore, the sample is not truly random but rather purposive. Due to this fact, it is not recommended that the results be generalized and applied to other companies or industries; however, the members of the professional organization are considered to be on the leading edge of the industry regarding operating practices. This will allow the information collected to be as progressive and up-to-date as possible.

Rather than attempt to survey the majority of the 10,000 plus suppliers to the discount channel, the largest volume vendors were targeted. This focus on the largest suppliers ensured a comprehensive base of respondents and therefore should make up for the limitations of the sample selection. See Chapter 4 for more detail on the design and conduct of the mail survey. An additional assumption in the research is that the opinions of those who respond to the survey are assumed to apply to the company as a whole.
Potential Contributions of the Research

Theory

A sparse amount of literature has been published on functional shiftability or functional spin-off since Mallen's piece on the topic in 1973. Stigler (1951), McCammon (1963), Hollander (1964), Bucklin (1966) and Mallen (1973) are five of the more well known examples of literature specifically relating to the concept of functional shifts. The theory base for functional shiftability in the retail channel is not extensive. This effort, in addition to affirming or disaffirming previous theory, adds to theory in a manner which creates new theories on functional shiftability in the mass merchandising discount retail channel.

This research adds to the theory base by

1) Verifying the specific functions or tasks being transferred;
2) Identifying how the shifts occur within the mass merchandising discount channel;
3) Attempting to identify causes for the shifts;
4) Examining specifically what the effects of shifting functions within the channel may be.

This research effort may serve as a basis to determine if theories regarding functional shiftability apply not only to the mass merchandising discount channel but to the operations of other retail channels as well. Certainly, definitive conclusions as to the transferability of this research are not possible; however, certain circumstances which are more likely to result in functional shiftability in the mass merchandising discount channel
may in fact be present in other channels. In this case, the conclusions of this research provide guidance to researchers in other segments of the retail channel and possibly in less closely-related areas such as industrial channels.

Practice

In addition to expanding the theory base of the relevant literature, this research provides value to practitioners in the following areas:

1) The research provides evidence of actions within the mass merchandising retail channel which may confirm or disaffirm beliefs of the consequences of the shifting of functions.

2) The work provides insight into how firms react when functions are transferred and possibly how to prepare for shifts before they actually occur. Being prepared for the potential changes in functional mixes will allow proactive firms to get a head start in performing new functions thus allowing them to come up the learning curve faster than competitors. This shortened transition time could be a competitive advantage in the severely competitive discount retail industry.

3) The study attempted to show what functions have been transferred resulting in lower channel costs as well as those shifts which have not necessarily lowered channel costs. This distinction will be based on information gathered from members of both manufacturers and retailers.

4) This research also attempted to identify tasks that are going to be shifted in the future by asking questions oriented toward future channel actions. Anticipating future needs not only benefits both manufacturers and retailers but also third party service providers looking to identify particular market niches of opportunity.
5) The study identifies potential approaches that enable a firm to slow or stop the shifting of a function before it occurs if there is benefit to the firm or the channel as a whole. This identification occurred by examining the dynamics of relations between manufacturers and retailers in the mass merchandising discount retail channel.

6) The research identified attitudes of manufacturers and retailers toward one another thereby identifying areas of opportunity where additional communication can benefit both parties and the channel as a whole.

7) The research identifies underlying trends in the channel regarding buyer-seller relations so that those involved on both sides of the selling dyad can better prepare for future changes in a proactive fashion.

Organization of the Research

The first chapter of this study introduced the research to be conducted and explained the various groundings of the work. Chapter 2 reviews the literature relevant to the research. Chapter 3 covers the findings of the exploratory research consisting of the company interviews and the relation of the literature to current channel operations. In addition, the research questions are linked to both the literature and the exploratory research. Chapter 4 covers in detail the research design and the methodology used in completing the study. Chapter 5 explains the findings of the completed research. Chapter 6 shows the developed conclusions along with the relevant recommendations of the entire study.
Chapter II: Literature Review

To adequately set the premises for a study of this type, a thorough review of literature is a necessary step in the study process. A background of relevant topics from a historical literary perspective will help in developing the basis for the main research issues and the research questions. This chapter will review literature relevant to functional shiftability in the mass merchandising discount retail channel. There are several topic areas of published material which relate to functional shiftability. These are functionality of marketing, vertical integration, transaction cost analysis, functional shiftability, economic power, channel leadership, and current changes in the retail channel. Each one of these areas will be developed and then tied into the major subject which is the shifting of functions within a distribution channel.

Functionality of Marketing

The functionality of marketing refers to the ideas of some of the early authors in marketing literature such as Shaw, Weld, and Clark. These men developed the idea that the marketing process is made up of a series of "functions" which must be performed in getting a product to the final customer. For instance, Arch W. Shaw in *Some Problems in Market Distribution* broke down business into three segments: production, distribution, and facilitating activities (Shaw 1915). Shaw also gave the following functions of middlemen:
1. Sharing the risk
2. Transporting the goods
3. Financing the operations
4. Selling (communication of ideas about the goods)
5. Assembling, assorting and reshipping
   (Shaw 1915, p. 76)

Also, in L.D.H. Weld's *The Marketing of Farm Products* (1916), the author gave an economic perspective similar to Shaw's interpretation that economic activity falls into three main areas, production, distribution, and consumption. In 1922, Fred Clark (p. 11) gave his own delineation of marketing functions.

*The Marketing Functions*

A. Functions of Exchange
   1. Demand creation (selling)
   2. Assembly (buying)

B. Functions of Physical Supply
   3. Transportation
   4. Storage

C. Auxiliary or Facilitating Functions
   5. Financing
   6. Risk-taking
   7. Standardization

Authors such as Breyer and McGarry then expanded the concept of marketing functions to a more detailed and comprehensive topic area. As the study of functionality progressed, the functions continued to be separated and refined into smaller, more specific tasks. The importance of the marketing process and its utilities, which are primarily time and place utility, is shown by Borsodi's comment on the four utilities in business.

"There is absolutely no excuse, therefore, for considering the production of time and place utilities as any less production than the creation of basic and form utilities." (Borsodi, 1927, pp. 28,29)
To show how the functions were broken down into finer segments as time progressed, examples of the functional divisions from some of the later authors is appropriate. Breyer (1934) gave the following marketing functions.

1. Quality-determination function
2. Storage function
3. Contactual function
4. Negotiatory function
5. Measurement function
6. Packing function
7. Transportation function
8. Financing function
9. Payment function
10. Risk bearing function

McGarry (1950, p. 269) used Breyer's functions as a starting point and modified them to become the following:

1. Contactual (Breyer)--the searching out of buyers and sellers
2. Merchandising (Alexander)--the fitting of the goods to market requirements
3. Pricing--the selection of a price high enough to make production possible
4. Propaganda--the conditioning of the buyers or of the sellers to a favorable attitude toward the product or its sponsor
5. Physical distribution--the transporting and storing of the goods
6. Termination--the consummation of the marketing process

This concept of the functionality of marketing is a strong tie to the major topic of functional shiftability by setting the groundwork for the decomposition of the marketing process and the performance of channel tasks.

Goodman and Cox made a unique contribution in the area of functionality of marketing. They looked at the marketing of housebuilding materials "as a vast exercise in logistics" (Goodman and Cox 1956, p. 36). In an extensive study, Goodman and Cox broke down the marketing of housebuilding materials into the minute, specific tasks needed to get necessary materials to the site of a new house. Specifically, they traced from origination to destination at the house the movement of housebuilding materials via
flow charts. In the process, the authors attempted to measure the "real work done in the complete channel" (Goodman and Cox 1956, p. 36). References to functional shiftability occurred a few times in the paper.

1) "...a difference in the sequence of events such that assemblies formerly done on the site itself or in one kind of plant are transferred to another unit in the line of enterprises that make up the channel." (Goodman and Cox 1956, p. 40)

In describing the flexibility of marketing methods they stated that
2) "This flexibility extends into the willingness of enterprises within any flow to redistribute functions among themselves freely." (Goodman and Cox 1956, p. 56)

3) "Anyone in any flow who wants to absorb a task ordinarily performed by others can usually work out a transaction of the kind he wants with appropriate adjustments in price." (Goodman and Cox 1956, p. 57)

Beckman and Davidson (1967) cover marketing functions comprehensively and offer their own definition of a marketing function:

"a major and distinctive economic activity which is inherent in the marketing process, pervades it throughout, and which, through the principle of functionalization and a continuous division of labor, tends to become specialized." (Beckman and Davidson 1967, p. 422)

Basic characteristics of a marketing function (Beckman and Davidson 1967, p. 422-3) are also given as

- Universality or Omnipresence in the Marketing Process
- Vital or Basic Nature
- A Major Economic Activity
- A Distinctive Economic Activity
- Basis for Functional Differentiation
- Tendency to Become Specialized

Beckman and Davidson's relation of functions to functional shiftability is given in the following statement:
marketing functions are indispensable and universal, regardless of the institution that may choose to perform them or the commodity or service in connection with which they may be performed."

(Beckman and Davidson 1967, p. 427)

Alderson added a different perspective by looking at the functions as a system with groups of interrelations rather than individual parts with his concept of functionalism (Alderson 1957).

These thoughts are some of the earlier relations of marketing functions to the concept of functional shiftability. By understanding the origination of the functional school of thought, the premises for transfer of functional tasks are more easily grasped. The relation of the functionality of marketing to the next topic, vertical integration, is portrayed quite well by Walker:

"a firm is defined as an economic and social unit whose primary goal is to produce products for sale to customers in a market. Many activities are typically required to achieve this goal; some of these may be performed by employees of the firm. Other activities are performed by other firms, called suppliers, which deliver products that the firm must pay for in a market. A decision regarding vertical integration is made by a firm whenever it decides whether an activity should be performed by its employees or by the employees of a supplier."

(Walker 1988, pp. 61, 62)

**Vertical Integration**

Research on vertical integration also lends itself to the study of functional shiftability. Vertical integration

"is defined as the combination of technologically distinct economic processes within the confines of a single firm." (Porter 1980, p. 300)

and

"describes a variety of make-or-buy arrangements firms might use to obtain a ready supply of raw materials (and services) and a ready market for their outputs."

(Harrigan 1985, p. 67)

Vertical integration varies in degree, stages, breadth, and form (Harrigan 1983). Vertical integration may be perceived as determining when to add to a company's responsibilities.
Therefore, the converse of integration logic where functions are being spun-off is parallel to functional shiftability. Coase (1937, p. 341) gives some structure to the vertical integration concept.

"a firm will tend to expand until the costs of organising an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organising in another firm."

This statement is the "make or buy" argument of either performing a function in-house versus hiring another firm to perform the function. In addition, "vertical integration or deintegration may be undertaken as the level of strategic risk varies and the firm is more or less qualified to perform the operation relative to the best outside supplier" (Walker 1988, p. 18). It is this argument which ties to the idea of functional shiftability. With functional shiftability, the performance of a function is generally shifted to another channel member for reasons of greater efficiency/low cost.

Two strategies related to vertical integration are nonintegrated strategies and disintegration strategies. Nonintegrated strategies are similar to contracts and are those that do not have any internal transfers or ownership stakes (Harrigan 1983). These nonintegrated strategies apply to the mass merchandising discount channel when vendors sell to retailers based on sales contracts whether they be formal or informal.

Disintegration strategies are those which hold that functions previously performed by an integrated firm are turned over to other firms. Therefore, disintegration strategies would be considered examples of functional shiftability. The link between vertical integration and the next topic, transaction cost analysis, is shown by the following comment:
"vertical integration of technologically separable production stages ultimately turns on transactional considerations."
(Williamson 1975, p. 83)

**Transaction Cost Analysis**

Transaction cost analysis is another topic relevant to this research particularly in the determination of the cost of performing extra channel functions. Transaction cost analysis can be addressed as to the economic importance and relevance to functional shiftability by showing the importance of identifying the cost of performing extra functions. Particularly, transaction cost analysis can help determine if the lowest cost party does perform a specific function. This concept may also be thought of as the transaction cost(s) of dealing with particular channel partners. Transaction cost analysis may benefit a manufacturer by determining the costs of serving a particular customer and the resulting customer profitability.

Transaction cost analysis is an interdisciplinary approach to studying organizations which links economics, organization theory, and aspects of contract law (Williamson 1981). Transaction cost analysis may also be referred to as the "contracting efficiency perspective" (Walker 1988). A comparison between transaction costs and production costs will help clarify the idea of transaction cost analysis. The difference between transaction costs and the more familiar production costs is that transaction costs can be varied by a change in the mode or resource allocation and production costs depend only on the technology and tastes, and would be the same in all economic systems (Arrow 1969, p. 60).

Transaction cost analysis has much of its grounding in works of Coase and a comment from Coase (1937, p. 339) sets early groundwork in the concept.
"A firm becomes larger as additional transactions (which could be exchange transactions co-ordinated through the price mechanism) are organised by the entrepreneur and becomes smaller as he abandons the organisation of such transactions."

The amount of transactions organized can be analogous to the total costs of carrying out transactions if, while keeping cost per transaction equal, more transactions are carried out.

Oliver Williamson followed Coase and explored transaction cost analysis in much greater detail. Williamson (1979, p. 233) states that:

"if transaction costs are negligible, the organization of economic activity is irrelevant, since any advantages one mode of organization appears to hold over another will simply be eliminated by costless contracting."

Few, if any transaction costs are negligible in today's mass merchant discount channel. Technologies such as electronic data interchange are greatly reducing the cost per transaction; however, the costs of performing exchanges in the channel are still significant.

One way of looking at transaction cost analysis examines the cost of carrying out each sales transaction and on an aggregate level, the total cost of dealing with a particular channel partner. Total channel cost relates to the current research where it is unknown whether manufacturers know cost per task and the resulting profitability by customer. Williamson shows the rationality for economizing on costs within the firm with the following:

"The criterion for organizing commercial transactions is assumed to be the strictly instrumental one of cost economizing. Essentially this takes two parts: economizing on production expense and economizing on transaction costs. To the degree that transaction costs are negligible, buying rather than making will normally be the most cost-effective means of procurement.‖ (1979, p. 245)
and that "the object is to economize on the sum of production and transaction costs." (1979, p.245)

In the mass merchandising discount industry, it is unclear whether firms even know their costs well enough to economize on them.

On a more detailed level, transaction cost analysis has three critical dimensions (Williamson 1979, p. 239).

1) Uncertainty
2) The frequency with which transactions recur
3) The degree to which durable transaction-specific investments are incurred

Specifically referring to point 3), when a manufacturer makes an investment in capital to support a customer, the applicability of that investment to other customers determines its true cost. A larger customer base allows an investing company to spread an investment across more units thereby reducing the cost per transaction of this investment. From the perspective of functional shiftability, if a company must take on an extra function which entails a substantial investment, the applicability to other customers determines the cost per transaction of the investment. If this investment is specific only to one customer, the cost of the investment can only be reduced through higher volumes with that customer.

Williamson's argument is that if an investment is specific to one customer, the supplier is committed to that customer. On the other hand, Williamson also states that this relationship is symmetrical in that since the investment is unique, the buyer cannot go to alternative sources of supply to receive the same service. Therefore, both parties are committed to the transaction (Williamson 1981, p. 555). It is possible, however, that this symmetry does not exist in the mass merchandising discount channel.
To protect their own long term survival, all members of a channel should analyze their cost base to determine if transactions/investments with particular business partners are too costly to warrant further business with those partners. However, this could also be viewed from an opposing viewpoint. Some partners in the retail channel, especially retail customers, may be so important to the future well-being of an enterprise that serving them at most any cost must be accomplished. Therefore, the specific costs of each transaction may not be of great importance because the overall costs of not working with that customer/channel partner are even greater. Therefore, the importance of a detailed transaction cost analysis may be reduced.

One way of getting a better estimate of actual costs is through improved methods of product costing. Direct Product Profitability (DPP) is a method of product costing which breaks costs down into activities. This concept has been used in many areas of business. Direct Product Profitability is similar in theory to transaction cost analysis by trying to get at exact costs per activity. More recently, direct product profitability has been overshadowed by the concept of activity-based costing (ABC). Activity-based costing is a process which reveals the links between performing particular activities and the demands those activities make on the organization's resources. This process determines the costs per activity and then assigns them to products based on the activities required to produce that product. Activity-based costing methodology is in contrast to traditional costing methods which focused on product costs rather than activity costs. Direct product profitability and activity-based costing are two methods available for companies seeking to find true product costs. The idea of knowing the specific costs of product distribution includes the knowledge of the costs of dealing with each channel.
partner. The use of activity-based cost accounting in logistics has recently been analyzed in depth by Terrance Pohlen (1993).

**Functional Shiftability.**

The next and most important topic to be reviewed is functional shiftability, a topic without a great deal of recent research attributed to it. The drawback of a small amount of recent literature is not substantial in this case as older research, though not extensive, serves as a strong grounding for functional shiftability. The more specific roots of functional shiftability are found in the works of Stigler, McCammon, Hollander, Bucklin, and Mallen.

The idea of the potential transfer of responsibility for performing tasks between members of the channel is referred to as "functional shiftability." Stigler's "The Division of Labor is Limited by the Extent of the Market" (1951) shows an economic perspective in determining when it is appropriate for a company to spin-off or outsource a specific function. McCammon (1963) stated that intermediaries take over functions because they can perform the functions at lower costs than their clients. Therefore, it might make economic sense to shift the responsibility of a function.

Hollander (1964) addressed issues which relate to functional shiftability in the retail industry. He said that a firm's total costs might be reduced by contracting out, sharing, or shifting activities (Hollander 1964). Louis Bucklin also referred to an idea similar to functional shiftability as "functional substitutability." He states

"Substitutability holds that under competitive conditions channel institutions jointly will so arrange their functional tasks as to minimize total channel costs with respect to some desired level of output."

(Bucklin 1966, p. 15)
Bucklin defined functional substitutability as "the capability of acts of different marketing functions to replace one another in the provision of channel outputs (Bucklin 1966, p. 107).

Then, Mallen (1973) expanded on Stigler's ideas on turning over functions to other channel members. In his article, Mallen addresses the reasons for the determination of functional mixes which are the combinations of functions or tasks that each member of the channel performs. Each of these authors will now be covered in greater detail to show their unique contributions to the area of functional shiftability.

**George Stigler**

Stigler in "The Division of Labor Is Limited by the Extent of the Market" (1951) provides a bridge between the early authors who wrote on the functionality of marketing and the concept of functional shiftability or functional spin-off with his own delineation of marketing functions and view of the firm:

"For our purpose it is better to view the firm as engaging in a series of distinct operations: purchasing and storing materials, transforming materials into semifinished products and semifinished products into finished products, storing and selling the outputs, extending credit to buyers, etc. That is, we partition the firm not among the markets in which it buys inputs but among the functions or processes which constitute the scope of its activity." (Stigler 1951, p. 29)

Specifically, Stigler gives a type of "life cycle" for functions in a channel. When a company begins making and marketing a new product or performing a new process which requires a new task or tasks, the company typically performs the function itself as the volumes involved are not large enough for an outside firm to gain economies in performing the function. As more companies begin to produce similar products or
perform similar processes, a critical mass begins to emerge whereby a third party could
perform the specified function more efficiently than each individual firm by combining the
volumes from the various firms to realize economies of scale. Third party performance
continues until the product or process faces decline or the firm’s requirement for the
function becomes so large that it can perform it most efficiently as the third party while
also eliminating the transaction cost. Here, the economies of scale begin to disappear and
the producing companies are forced to perform the function in-house again. In this
sense, functional shiftability might be the shifting of the function to a third party provider
rather than to a direct channel partner or the direct channel partner shifting the function to
a third party.

Much of Stigler’s ideas are based on the economic efficiency of performing a
function. He describes, in economic terms, when a function should be outsourced by
considering the cost curves of individual functions. This outsourcing decision is based
on cost. The company which can perform a function for the lowest cost will take
responsibility for that function. Therefore, this is a combination of ideas from transaction
cost analysis and functional shiftability and, in fact, predates both concepts.

Bert C. McCammon, Jr.

McCammon (1963) wrote on a topic on which Mallen later expanded. This topic is an extension of Stigler’s logic which has to do with the spinning-off
of a function and the reintegration later in the life stages of a product or function.
He states that by aggregating the requirements of users, an intermediary can
perform

"the designated function(s) at optimum scale, or alternatively,
intermediaries, by aggregating user requirements, can more fully utilize
existing (though nonoptimum) facilities."
As output expands or as technology changes, the client firms reach a point at which they can perform the delegated functions at an optimum scale. When this point is reached, functions tend to be reabsorbed and the channel becomes more completely integrated."  
(McCammon 1963, p. 81)

Stanley Hollander

In 1964, Hollander published "Who Does the Work of Retailing." In this article, Hollander set his own groundwork for functional shiftability in the retail channel. Hollander (1964) stated that functions can be contracted out, shifted, or shared among channel members. His particular reference to the concept of shifting functions in retailing makes his input more industry-specific for the literature in relation to this research on the mass merchandising discount channel.

Louis Bucklin

Bucklin, in his 1966 monograph, uses and defines the term "functional substitutability" which is similar to functional shiftability. Again in 1973, Bucklin refers to the concept when speaking of the argument for the locus of control residing with the retailer. He stated that control in the hands of the retailers "eliminates numerous acts within the channel, particularly those designed merely to influence other institutions." (Bucklin 1973, p. 178)

and

the "question is what additional costs must the retailer incur if he assumes control and whether these will be less than the savings derived from the abandonment of producer control." (Bucklin 1973, p. 178)

Bruce Mallen

The phrase "functional shiftability" may be an outgrowth of Bruce Mallen's 1973 article, "Functional Spin-Off: A Key to Anticipating Change in Distribution Structure." In
this piece, Mallen uses the term "functional mix" as a basis for spin-off. This idea of functional mix was also referred to by Stigler when he said the firm is partitioned among the functions or processes which constitute the scope of its activity (1951). A functional mix is that group of channel tasks a firm performs or has responsibility for performing. Mallen expands on this idea and Stigler's idea of turning over functions to specialists to define functional spin-off. Based on Mallen's work, it seems that over time, the primary responsibilities for performing particular functions can change depending on the dynamics of the channel resulting in changes in the functional mixes of channel members.

This idea of shifting responsibility for performance of channel functions has gained increased attention in the current mass merchandising discount channel. The efforts in this channel to increase overall efficiency have resulted in the shifting of functions or rearrangement of functional mixes for particular channel members. A few points from Mallen's piece regarding functional mixes in the channel may underlie the reasons that show that research into this area of the retail channel will be valuable.

- Marketing functions can be allocated in different mixes to different channel members.
  - The functional mixes will be patterned in a way which provides the greatest profit either to the consumer (in the form of lower prices and/or more convenience) or the channel members with the most power (which depends on market structure).
  - Should one or more channel members (or potential members) see an opportunity to change the functional mix of the channel in order to increase his profits, he will attempt to do so.
  - Should the attempt be successful, and if the functional mix change is big enough, it will (by definition) change the institutional arrangement of the channel, i.e., the channel structure. (Mallen 1973; p. 19)

In the same piece, Mallen continues on with a statement that underlies the basis for functional shiftability:
"The fundamental premise of this paper is that given a specific level of 
demand, firms will try to maximize profits by designing or selecting a channel 
which will generate the lowest total average costs for their organizations. 
This drive for efficiency and its anticipated effects on the four dimensions 
of channel structure can be evaluated through the concept of 'functional spin-
off.'" (Mallen 1973, p. 19)

**Economic Power**

The concept of power may be an integral part of the explanation for 
functional shifts within today's mass merchandising discount retail channel. The 
literature in the power area is extensive as evidenced by the comprehensive 
literature review done by Gaski (1984). However, this study will stay focused on 
non-behavioral aspects of the power concept. Of direct relevance to the channel in 
question, is Heflebower's description (1956) of a market with competitive-like 
suppliers selling to oligopsony-like mass distributors. In this scenario, strong 
concentration in the hands of the retailers might cause consumers to lose in the 
long run. This consumer loss would occur under this oligopsonistic structure

"only if the reduction in volume by the smaller-scale retailers were to bring 
about such concentration among mass distributors that the assumption that 
they resell in a competitive market would become untenable."

(Heflebower 1956, p. 284)

Particularly, two types of power are directly relevant: economic power 
and position power. Little (1970, p. 32) develops these two types of power. He 
states that economic power is ultimately manifest in concentration of capital 
resources. With economic power, a channel leader will have "the ability to 
enforce, through economic sanction, a reward and penalty system within the 
interorganizational structure (Little 1970, p. 34)." Economic power is relevant to 
the mass merchandising discount channel as the top three retailers account for 
79% of total channel sales. Smaller retailers offer only a few customers to a
channel system and thus their bargaining position relative to larger firms is insignificant (Little 1970).

The other type of power, position power,

"evolves from the placement of a firm, function or activity in a given structure. The locus of a particular establishment in a channel (geographically or in terms of a functional or activity flow, for example, negotiation or ownership transfer) may confer power—a capacity to direct or to change—on the person or firm who holds that place or position " (Little 1970, p. 32)

In addition, Little states that the key determinant in terms of position power is access to markets (Little 1970, p. 33). Position power is especially applicable to the mass merchandising discount channel since the top three retailers account for 45% of the stores in this retail segment and therefore a large portion of the geographic coverage in the channel.

This study will stay as objective as possible in regard to the presence and consequences of channel power. Therefore, behavioral aspects of power will not be developed in this research study. The next section will relate the concept of functional shiftability to the concept of economic power.

The Relevance of Economic Power to Functional Shiftability

The following comments from Mallen's article may have foreshadowed the importance of economic power in today's mass merchandising discount channel:

- The functional mixes will be patterned in a way which provides the greatest profit either to the consumer (in the form of lower prices and/or more convenience) or the channel members with the most power (which depends on market structure).
- Should one or more channel members (or potential members) see an opportunity to change the functional mix of the channel in order to increase his profits, he will attempt to do so.

(Mallen 1973; p. 19)

These comments from Mallen bring about the possibility that functional shiftability is determined by power in the channel rather than by efficiency/lowest cost. Specifically, economic power is a variable which may have a great influence on functional shiftability. However, most authors including Stigler, Bucklin, and McCammon justify the spinning-off of channel functions on the basis of total channel efficiency/lowest cost. In other words, the firm who can perform a function at the lowest total costs will take over a function. It is possible that economic power may override the total channel efficiency argument in favor of lowering the costs of the most powerful channel member. Over time, however, the use of economic power might result in a more efficient channel with lower total costs.

The current situation in the mass merchandising discount retail channel brings the power versus efficiency argument to the forefront of channel relations. This study will address power from an economic rather than a behavioral perspective. Particularly, the two types of power Little refers to, economic power and position power will be addressed. This idea of economic power is closely related to the next topic of channel leadership.
Channel Leadership

In most every channel, one firm usually has a greater influence on the rest of the channel than its partners. The specific name or term for this channel leader varies with different authors. Fisk gives a description of a marketing channel as being

"under the control of a single firm in the sense that a single enterprise directs the allocation of resources for all agencies in the channel without interfering with the objectives of independent agencies which participate in the channel flows." (Fisk 1961, p. 210)

He continues by saying

"These controllers or decision makers do not set goals for other firms in the constituent marketing channels, but they do decide what kind of agencies shall be combined to form the distribution network for systems they organize." (Fisk 1961, p. 210)

McCammon and Little (1965, p. 329) describe this concept of channel leadership as follows:

"A single enterprise usually 'administers' the channel. It initiates, coordinates, and controls most or all of the activities undertaken."

In a similar manner, McCammon (1973) uses the term "channel administrator." This term has been described as "an individual firm which usually controls a given marketing channel in the sense that it directs the allocation of resources for all channel members." (McCammon 1973, p. 86) Davidson and McCarthy use the term "channel captain" for essentially the same purposes. The idea of a channel controller, channel captain, channel administrator, or channel leader is key to the idea of functional shiftability in the current mass merchandising
discount retail channel. If the transfer of functions in the retail channel is
dependent upon a particular firm that drives other members of the channel, that
firm is most likely the channel captain.

**Current Changes in the Retail Channel**

The last area of literature review is in the area of current changes in the retail
channel with a specific emphasis on the movement of functions among channel members.
Managerial and trade publications illustrate the current state of affairs in the mass
merchandising discount channel. However, there is not a great deal of information
regarding functional shifts in the current trade press. One of the reasons for this lack of
information is that many companies are not comfortable talking about the burdens
resulting from having to perform additional functions. A review of the current channel
concepts relating to functional shiftability will provide a final jumping point from
literature from which to launch this research and illustrate its possible contributions to the
field. Two concepts, vendor-managed inventory and category management, will be
covered briefly as examples of functional shiftability in the current channel.

Vendor-managed inventory is a concept which has recently gained visibility.
Vendor-managed inventory is often referred to as VMI and might also be called
"continuous replenishment". (Copacino 1993) Under this operating scenario, the
supplier manages the inventory supply of their products in a customer's facility.
Typically, the facility is a warehouse or distribution center. Vendors actually monitor
inventory levels and place orders on themselves eliminating the need for a buyer at the
retail firm to monitor inventory and place orders. In vendor-managed inventory or
continuous replenishment, the administrative burden for inventory management and replenishment at the warehouse of the customer is shifted back to the manufacturer thus qualifying the concept as a functional shift (Copacino 1993). The following is a more detailed description of the vendor-managed inventory scenario.

"a manufacturer monitors inventory levels at its customer's warehouse(s) and assumes responsibility for replenishing that inventory to achieve specified inventory-turn targets and customer-service levels. The manufacturer thus makes the replenishment decision, rather than waiting for the customer to reorder the product. The customer continues to own the inventory, but those inventories often are dramatically reduced in a continuous-replenishment arrangement."

(Copacino, 1993, p. 23)

Another current concept is category management. Category management will be referred to in a different way in this research than might be generally accepted. To relate the concept to functional shiftability, when category management is discussed in this study, it will refer to only when the actual category management is done for a retailer by a supplier. The other side of the issue is that many manufacturers have already realigned themselves into category management rather than the more traditional brand management scenario on their own. The concept of category management is made up of three interrelated elements (Harris and McPartland 1993, pp. 5-6).

1) It is a philosophy for strategically managing a retailer's or a supplier's business that recognizes categories as strategic business units for the purpose of planning and achieving sales and profit goals.
2) It is a process through which retailers and suppliers jointly develop strategic category plans.
3) It is an organizational concept that dictates the integration of responsibility for buying and merchandising decisions. This integration is essential to allow category managers to effectively allocate the assets of product inventory, space and customer traffic.
Literature Review Summary

In summary, the functionality of marketing, vertical integration, transaction cost analysis, functional shiftability, economic power, channel leadership, and current changes in the retail channel all are integral pieces in explaining the historical groundings behind the concept of functional shiftability in the mass merchandising discount retail channel. The functionality of marketing decomposes the marketing process into specific functions which are performed by various members of the retail channel. By describing the functions required in the mass merchandising retail channel, the basics of functional shiftability or the shifting of responsibility for the performance of these functions between channel members is better understood. The concept of vertical integration or its converse vertical disintegration/deintegration also logically fits as a piece in developing functional shiftability. More specifically, when a firm decides to shift performance of a function which was previously its own responsibility, functional shiftability and a form of vertical disintegration occurs.

Transaction cost analysis also is important in describing the economic aspects of functional shiftability. Specifically, what are the costs of performing additional functions for particular customers and then what are the total costs of dealing with those channel members who expect additional special service. With accurate information regarding transaction costs, members of the mass merchandising discount retail channel will be better prepared to determine the profitability of particular channel partners.

Functional shiftability is the central concept of this research. The literature review of this topic recognizes the original authors who provided unique contributions to this concept. This study was intended to identify and report the similarities and differences
between the logic behind functional shiftability brought forth in literature and the logic behind the concept in the current mass merchandising discount retail channel.

Economic power sets the groundwork for exploring whether functional shiftability is always determined by drives for channel efficiency or if power allows firms to become internally efficient to the possible detriment of the channel. This argument for economic power is related to the concept of channel leadership. The terms “channel captain” and “channel administrator” were given as examples of the channel leaders.

The last topic addressed in this literature review was current changes in the retail channel and covered two of the more visible recent functional shifts. In each of these concepts, a set of tasks rather than a single task is being shifted to a channel member who did not previously perform those tasks. There are, however, single task shifts such as carton labeling and case pack size changes occurring.

This chapter has covered the literary basis for functional shiftability and surrounding topics such as the functionality of marketing, transaction cost analysis, economic power, and current retail channel issues. Theories from previous authors like Coase, Stigler, and Mallen were shown in relation to functional shiftability that may no longer hold in the mass merchandising discount channel. For example, the idea that the lowest cost performer takes on a task may not hold in the current channel. The next chapter is an aggregation of the findings from an exploratory phase of research which determined the operations of the current discount channel relating to functional shiftability. This exploratory phase gave the author a better knowledge of the various issues involved with functional shiftability and allowed for a much more educated refining of the research questions. In addition, the exploratory research gave insight into the accuracy of
existing theory regarding functional shiftability in the mass merchandising
discount channel.
Chapter III: Exploratory Research

Background

The previous chapter covered the major conceptual contributions regarding functional shiftability and the concepts surrounding functional shifts. The recent changes in the discount retail channel have been drastic enough that prevailing opinion regarding functional shiftability may no longer be applicable. Therefore, exploratory research was necessary to help define the current channel and identify the most timely and important issues that are candidates for further research.

The primary goal of exploratory research is to help the researcher fully understand the nature of the problem which is functional shiftability. The strength of this approach is the realism of the setting in which the study is conducted (Davis and Cosenza 1985).

Design of the Exploratory Research

The exploratory research consisted of extensive interviews of members of the mass merchant discount channel. To most accurately uncover the reasons for the functional transfer of tasks within this segment of the retail channel, both sides of the selling dyad, manufacturers and retailers, were interviewed. The exploratory research was conducted in conjunction with a study done by Andersen's Logistics Strategy Practice for the Warehousing Education and Research Council (WERC). Andersen's
study was entitled "The Impact of Mass Merchandisers on the Warehousing Industry." Through an agreement between Andersen Consulting and the author, additional questions were added to the Andersen questionnaires to address the concept of functional shiftability. See Appendices B and C for the questions applicable to functional shiftability asked of both the manufacturers and retailers in the exploratory research.

The Andersen study consisted of 28 detailed company interviews/case studies, 13 manufacturers, 9 retailers, and 6 third party providers and service organizations. The case study approach was beneficial in that it was possible to gain a deeper understanding of the issues involved than would be possible under other, more passive methods. For example, in-person interviews allowed certain questions to be tailored to a specific interviewee as the interview progressed. Therefore, more specific information was pursued when the opportunity presented itself. Although an interview questionnaire helped guide and structure the sessions, the author was able to ask additional questions to get greater detail as the opportunity presented itself. This flexibility allowed the author to get more information in different subject areas depending on the perceived knowledge and experience of the individual or company being interviewed.

The majority of the case study interviews were in-person and were often attended by several members of a firm. Interviews with multiple participants allowed for a more comprehensive coverage of the pertinent issues. In addition, multiple person interviews helped reduce the possibility of one person's opinion varying greatly from that of others within the company. Working with Andersen gave the author the opportunity to interview firms that otherwise would have been very difficult, if not impossible to interview in a separate study.
The purpose of the exploratory research was to more clearly define the issues relevant to functional shiftability. The exploratory research accomplished this goal by clarifying known channel issues and identifying others. With this additional information, initial research questions were refined and the mail questionnaire was then designed based on more accurate information. This refining process enabled the data collection from the mail survey to be more relevant and appropriate than if the key issues were developed void of detailed current channel information.

**Initial Selection of Firms to Target for Interviews**

**Retailer Selection**

The Andersen project team was interested in getting a cross-section of retailing and manufacturing firms involved in mass merchandising. A list of the top 100 retailers (Stores 1993) was used to identify potential firms to interview. The top ten mass merchants were specifically targeted along with a cross-section of the next 90 firms. The mass merchants selected included various retailing formats including traditional department stores, home improvement chains, and mass merchant discounter. A major selection criterion was the size of retailer measured in annual sales dollars. Geographic coverage, whether regional or national, was a factor but geographic coverage is generally a function of overall size. The larger retail companies tend to operate more stores over a larger territory than smaller retail companies.

The category of retailer relevant to this study on functional shiftability is relatively distinct. For instance, national firms in the mass merchant discount channel generally have over $10 billion in annual sales. Most discount retailers carry a very similar product
assortment and then differentiate themselves from their competition using target marketing with different merchandising or selling strategies. For instance, some retailers portray a discount look and feel whereas others portray a higher class image. From a pricing standpoint, the biggest difference among discount retailing firms is whether they sell on an everyday low price or on a promotional basis.

The retail firms used as a basis for this functional shiftability research were a subset of the Andersen Consulting sample and included only mass merchant discounters. The following table shows the retailer breakdown of the mass merchant discount firms used for this study of functional shiftability.

Table 3. Geographic Coverage of Retailers Interviewed

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Retailers</th>
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</thead>
<tbody>
<tr>
<td>National</td>
<td>3</td>
</tr>
<tr>
<td>Regional</td>
<td>2</td>
</tr>
</tbody>
</table>

Manufacturer Selection

The Fortune 500 list (Fortune 1993) was used to select potential manufacturing firms. A selection criteria for manufacturers was that the firm had to sell to the mass merchant discount retail channel. As in the retailer selection, a cross-section of firms was targeted. This implied that a variety of firms who manufactured different products were potential interviewees of the Andersen project team. In fact, the research was specifically designed to cover a diverse group of product lines. The manufacturing companies interviewed by the Andersen project team for the case studies included producers of paper goods, health and beauty aids, toys, office supplies, power tools, electronics, and apparel. Therefore, the firms selected produce a wide variety of products. This cross
section of firms was necessary to avoid any bias that might be generated if only a small
group of consumer products was represented.

**Final Selection of Firms**

Once the target list was completed, initial contact was made with the companies to
identify the decision maker who had the authority and company responsibility for the
relevant functions. Once contact was made with the appropriate individuals, agreement to
participate in the study was then determined followed by the setting of a date on which to
perform the interview. Companies declined to participate for a variety of reasons. A few
examples included company policy against survey participation, lack of time available,
and concerns of proprietary information.

**Selection of Personnel within Firms**

Within each manufacturing and retailing company studied, there was a set of
potential interview candidates. The functional groups which were appropriate to
interview in a manufacturing company were sales which includes those who sell to retail
customers; inventory control which includes those individuals responsible for allocating
inventory to customers, managing distribution center inventory, and communicating
requirements to production; management information systems which includes those
individuals responsible for linking electronically to customers for electronic purchase
orders, advance ship notices, and other transaction sets; transportation which includes
those individuals responsible for meeting customer delivery windows or appointments;
warehouse/distribution center operations which includes those individuals responsible for preparing merchandise to be shipped to the mass merchants including carton labeling and special packaging; customer service which includes those individuals responsible for handling special customer requests and complaints from the retail customer base.

The functional groups which were appropriate to interview in a retail firm are buying/merchandising which includes those individuals who are responsible for negotiating and purchasing product from vendors; distribution center operations which includes those individuals responsible for tasks such as receiving product from vendors and merchandise assortment and shipment to stores; merchandise planning/inventory control which includes those individuals responsible for managing distribution center inventory and planning store stocking and inventory requirements; quick response which includes those individuals responsible for coordinating vendors and transportation partners in implementing Quick Response or other programs; transportation which includes individuals responsible for scheduling inbound merchandise in collect situations and also outbound to store shipments; Management Information Systems which includes individuals responsible for linking electronically to vendors and transportation companies for such transactions as electronic purchase orders or electronic funds transfer.

These functional groups were identified in relation to the questions to be asked in the interviews. The interview questions had a range of topic areas to be covered. Those individuals representing the aforementioned functional areas were deemed appropriate to answer the questions posed.

The final number of participants from each firm varied from one to seven across the companies interviewed. The actual subset of the individuals chosen to interview depended on the company decision maker's determination if a particular individual's input
would be valuable. The other factor was the availability of the individual on the day of the scheduled meeting. Therefore, the same positions were not represented in all companies for all interviews. As such, it was the author's responsibility to make sure that all relevant subjects were covered in each interview. An important criterion in the selection of individuals depended less on their actual title than their visibility of the corporation's operations. If an individual had cross-functional visibility, that person was knowledgeable in many areas and provided valuable input to the study.

Size of Sample

The number of interviews of manufacturing firms who sell to the discount department channel was thirteen and the number of retail discounters interviewed was five. In addition, six third party service organizations were interviewed. After initial interviews, it was found that manufacturers could best describe issues relating to functional shiftability by being able to articulate what extra burdens they experienced as a result of the shifting of functions. Therefore, having a larger sample of manufacturers than retailers makes for a strong data collection base while not under representing the retailers.

Assumptions/Limitations

Since the sampling of companies chosen as participants in the exploratory research was not random, some limitations apply to the interpretation of the results. A limitation of the exploratory research is a function of the sample size. With the case study
method, the time commitment involved to interview each firm is extensive thereby prohibiting a very large sample. With a smaller sample of firms studied, results cannot be generalized across the entire industry being researched. Direct generalization to other companies or industries not represented is not recommended.

On the other hand, there are important benefits to using the case study method chosen. Extensive case studies provide insights not available in other methods of research because of the great detail and widened scope of company specific data collected. With this study approach, questions can be explored in greater depth during interviews than a more passive research approach like mail surveys. The participants selected were those companies believed to be on the leading edge of industry practices and who drive changes within the industry. For this reason, the retailers and manufacturers interviewed were all relatively large companies.

All of the companies interviewed for the exploratory research were multi-million dollar firms. Whether a company is a manufacturer or a retailer, being large in sales dollars affords the financial stability to invest in leading edge operational improvements. For instance, small companies may be able to invest in technology or programs once these technologies are proven to be successful; however, they typically do not have the financial resources to invest in a trial and error process testing the newest technologies or programs. Leading edge operational improvements are often out of a small company's reach and include important progressive investments in technologies in addition to investments in employee education and market research.

Selection of larger companies is also based on the argument of economic power as an impetus for functional shifts being emphasized in the research. For example, a large retailer might possess the scale economies and efficiencies described earlier to be the low
cost performer of a particular channel function or task. However, their economic power might allow them to dictate the performance of that particular function or task to a supplier.

An additional assumption made in the course of this research was that the opinions of those individuals interviewed within each company are assumed to be the views of the company as a whole. A final assumption was that the sample is large enough to determine the major changes in functional shifts occurring in the channel.

Findings of Exploratory Research

To collect the necessary information, extensive interviews were conducted with representatives of manufacturing, retailing, and third party logistics companies in the mass merchant discount channel. The information from the interviews made it possible to gain more accurate information on the pertinent issues and helped refine the research questions. In addition, the information aided in constructing the most appropriate survey questions.

The remainder of this chapter summarizes the findings of the interviews and will cover several topic areas including individual logistical tasks, management of comprehensive channel functions, and channel issues surrounding functional shiftability. The first of these topic areas includes the individual logistical tasks identified in the exploratory research for which responsibility has either shifted among channel members or will shift in the near future. These tasks are carton labeling, special pallet configuration, case pack size changes, and special packaging requests. The second topic area includes some comprehensive management processes or functions which might be comprised of many individual
tasks. These functions are vendor-managed inventory, consignment sales, and category management. Following a discussion of these functions, there will be discussions of the following issues surrounding functional shiftability: knowledge of costs of performing additional functions, determination of actions based on firm size, use of third party logistics providers to perform the additional functions, involvement of the rest of the supply chain in functional shifts, actions possible to resist retailer changes, and overall benefits/drawbacks of functional shiftability. To conclude the chapter, a summary will be given that links the theories from the literature review to current channel activities. Within this summary, the basis for the research questions will be given to serve as an introduction to the methodology provided in Chapter 4.

Specific Logistical Tasks

Carton Labeling

There has been a great deal of discussion in the mass merchant discount channel regarding the generation and application of carton labels which can be read by scanners and personnel in each retailer's distribution center. More specifically, the topic of concern is who should produce the labels, who will apply the labels, and who will pay for the costs incurred. Traditionally, the retailers bought the software necessary to generate the labels and printers, and purchased the labels which were applied to the products flowing through their distribution centers. The exploratory research found that in most cases, the retailer is still responsible for labeling cartons; however, there is strong sentiment
that this function is already being transferred or will be transferred to manufacturers.

From the retailer's perspective, cross-docking of products is made much easier if the retail distribution center labels are on the cartons when they arrive at the retailer distribution center. However, if vendors handle this function, a difficulty arises in label generation. This difficulty is that each of the major discount retailers has its own unique barcode label. To deal with this uniqueness, one vendor explained that it had to have a dedicated printer for each customer in order to produce unique labels. Another company said it had its own "machine room" where all the retailer specific printers were housed. On the other hand, another of the manufacturers did not see a problem with the software capabilities as far as printing different labels. A company which specializes in designing and printing labels was found by one of the vendors to be ahead of even the big discount retailers in terms of label requirements.

In regard to who pays for the software, printers, and labels, the interviews showed that the manufacturer is usually responsible for these costs when they begin performing this function. An additional cost which is often not considered is the actual application of the labels. Label application is a manual task and it is difficult to label the cartons until just prior to shipping because actual orders for the product haven't been placed or because current systems cannot handle the labeling process as the products come off the production line. This manual label application causes the costs of the manufacturer serving the retailers to increase.
This problem of carton labeling gets even more complicated when standard labels like the Uniform Code Council (UCC) 128 come into play. The UCC standards are intended to provide a benchmark for the entire industry's use of technology. These standards are also intended to make the industry more uniform; however, many retailers already had proprietary scanning systems set up to read their unique labels prior to UCC 128. Therefore, reconfiguring of systems to handle the UCC 128 will be slow to occur because it will require those firms with proprietary systems to discard a portion of their system and start again. The consensus among manufacturers is that there will never be a common standard as each customer wants unique information on their labels. Overall, it seems that the responsibility for carton labeling and its accompanying costs are being shifted to the manufacturers.

Special Pallet Configuration

In order to speed product flow through their distribution systems, many retailers are beginning to ask their vendors to configure store-specific mixed pallets of product which can be quickly cross-docked and sent to individual stores. Traditionally, manufacturers sent full pallets of like product to retailer distribution facilities where pallets were broken down and store specific pallets were built. This pallet configuration is another function the retailers are beginning to push to their vendors in order to save time in their distribution centers. With the transfer of this task, costs will obviously be reduced in the retailer systems at the expense of the suppliers.
Some manufacturers interviewed are not equipped to handle the building of mixed pallets. As a result, they outsource this function to a third party logistics provider. Another comment given in the interviews was that mixed pallets are only possible or make sense for retailers that have a door-per-store setup in the distribution centers. This door-per-store concept is where a distribution center door and docked trailer are designated for a particular store. Merchandise is loaded into the store’s trailer until the trailer fills up or enough time expires that the truck is sent to the store. Without the door-per-store concept, the benefit of the flow through nature of mixed pallets is diminished.

The smaller manufacturers that ship in smaller volumes do not seem to be as affected by store specific pallet requests as larger vendors. This may occur because the orders from smaller vendors into the retailer distribution center may not consist of volumes large enough to send a full pallet of that supplier’s merchandise to a store. A larger manufacturer may have several different products going to a specific store with case volumes that make a pallet shipment possible.

Another issue relating to this special pallet configuration is that some retailers will not accept a shipment coming from more than one vendor distribution center to their facility. In this case, some manufacturers have to circumvent normal processes to consolidate the order on one pallet prior to shipping to the retail distribution center. This may require a vendor to transship product to a mixing facility for that particular customer before delivery.
Case Pack Size Changes

Operations can also be improved in a retailer's system by having vendors deliver product in case pack sizes that eliminate or reduce the amount of excess product that is held in the backrooms of stores. This backroom issue is related to a concept called "make it fit" where the optimal case pack sizes are those that allow an entire case of product to fit on a store shelf so store personnel do not have to take excess stock into the backroom. One large retailer stated that store handling is greatly reduced with smaller cases. This reduced handling is a result of store employees not having to return product to the backroom and remove it again later. In addition, the average storage time for backroom merchandise with this retailer is 16 weeks. Therefore, it makes sense to eliminate as much backroom storage as possible.

The ability to fit an entire case on the store shelf reduces the need for retailers to do broken case picking in their distribution centers. If case sizes are such that smaller but full cases can be sent to stores, handling within a retailer's system is reduced. In this case, retailers don't have to breakdown cases in the distribution center. Store labor and backroom storage are reduced as well. One of the largest discount retailers believed that smaller case packs are also beneficial to vendors because the vendor's product gets out to the customer faster than with larger cases which would require a break pack operation.

To increase their operating efficiencies by reducing piece pick and break pack operations, some retailers are telling their vendors to reduce their case pack sizes. There are some important issues that arise with case pack changes. For
example, one manufacturer currently can handle only a "one size fits all customers" case pack policy and this was not acceptable to a retail customer. To satisfy this customer's demand, this new case pack size was then implemented throughout the vendor's system for all customers. In this case, the supplier's salespeople and the retail buyer do not negotiate a different price for a special case pack size so the manufacturer takes on the extra cost.

Another manufacturer had to reduce its carton size from 300 units per case to 40 units per case. This change was only for one customer so the manufacturer has to manually break down the larger cases and repack the product into smaller cases. In this scenario, there was no compensation or additional payment made by the retailer for this extra service. Unfortunately, for the suppliers, most manufacturing lines are not flexible enough to easily switch between different case pack sizes for the same product. Therefore, case pack size changes are often difficult for vendors to handle.

One of the larger retailers mentioned that smaller vendors have a more difficult time producing smaller case packs. The dynamics of smaller vendors is a key issue in that the retailer said that new products are often produced by the smaller vendors and these vendors are less flexible on case packs, delivery, EDI, and other requirements; however, the supplier did say the smaller companies are faster with new product introductions. Based on the exploratory research, it seems that the retailers are beginning to increase their emphasis on smaller case packs to increase efficiencies in their systems while raising the costs of compliance for their suppliers.
Special Packaging Requests

In addition to case pack sizes, there is another important packaging issue with which manufacturers must contend. That is differentiation in packaging of the product to show a unique product on the retailer's shelf. Each retailer would like to have a manufacturer's product packaged to portray that they stock a product the competition does not have. Packaging is looked upon as a way to add value and to get the attention of the consumer. This packaging might entail using different colors on the package and different markings on the outer case. One manufacturer estimated that one of its products might be packaged 30 different ways. With this supplier, customers can change the packaging at the time they place their order. Each product packaging configuration is inventoried separately which reduces efficiencies in inventory management by increasing the number of SKUs.

Different consumer selling unit pack sizes also compound the issue of packaging for the manufacturer in addition to outer case packs. Both manufacturers and retailers are constantly trying to hit different ranges of prices at the retail level. In one instance, a manufacturer has gone from 15 to 12 to 9 unit selling packs. Plants have to be flexible to adjust to these changes. As with outer case pack changes, a difficulty arises when older plants don't have the flexibility to make the necessary changes on the production line.

Yet another twist on packaging given by a representative of one of the retailers was that retailers will be putting a greater burden on the vendors by asking them to pick by single selling units and put the units in a tote of some sort.
that will be sent to a specific department in a particular store. This same person emphasized the push for vendors delivering floor-ready merchandise so the retailer has "no extra preparation" to do on the products. Another term, "customer ready," was also mentioned describing goods as a step beyond floor-ready. For example, customer-ready goods might be those that are hung with the tags facing the customer with color codes to aid the consumer. In summary, the desire for retailers to offer unique products causes difficulties in vendor product preparation and inevitably raises costs.

Management of Processes
Vendor-Managed Inventory

A key finding from the interviews is that vendor-managed inventory (VMI) is a topic with an uncertain future in the discount mass merchandising channel (See Appendix A for a definition of VMI). Opinions range from VMI being inevitable for everyone in the future to VMI not progressing past its current spotty implementation. One comment from a manufacturer was that the biggest issues in VMI are philosophical. The organization has to accept that VMI is the right thing to do without concern of short-term payback. A vendor should expect that volumes will be reduced in the short term as excess inventories are drawn down to VMI levels where less safety stock is held.

One note on this discussion is that the type of VMI being discussed only refers to the management of inventory by manufacturers in the retailer distribution centers and not in retail stores. Vendor-managed inventory is a clear case of
functional shifability as a function traditionally performed by the retailer now being performed by the manufacturer. The manufacturer under this scenario manages the inventory of its products to retailer specifications up to and in the retailer distribution center. Based on the interviews, some discussion has occurred regarding VMI at the store level but little progress has been made on this alternative. In fact, two of the big three retailers have determined that it is not really worth the trouble for suppliers to replenish at the store level.

The initiative for VMI was mainly due to the efforts of one of the largest discount mass merchants. This company's reasoning for the logic of VMI was that each mass merchant has approximately 60,000 to 70,000 SKUs in each store. If the retailer manages the inventory for these items, they cannot focus on each item in great detail; however, a manufacturer that has 50-100 items can devote more time to this smaller number of items to keep inventory levels down and in-stock levels up.

The contrasting side of this argument that is held by the two of the largest discount mass merchants is that vendors cannot manage retailer inventory better than the retailers can themselves. INFOREM is a replenishment software package produced by International Business Machines (IBM). This popular package is used by both manufacturers and retailers in this channel. The retailers that are less interested in VMI take the point of view that if both the retailer and manufacturer use the same forecasting/replenishment package, it is unlikely that the manufacturer can do a better job managing inventory in the retailer distribution centers. Therefore, the vendors don't provide value-added service for them in inventory management. The cautious approach regarding VMI implementation
taken by one retailer is that they want to make sure a manufacturer can handle the task before responsibility is shifted. This retailer stated that they have a fixed amount of space in the distribution centers. In the past, they had experienced space problems created by having outside firms manage their inventory. The caution of retailers in VMI implementation is probably also due to a uneasiness of losing control of inventory levels with VMI.

The primary initiator of VMI was a retailer but when its manufacturers made the investment and committed to making VMI a success, the manufacturers wanted to involve more customers. As with many of the tasks that are being shifted, once one customer has been brought on board, additional customers do not require a great deal of effort. In fact, a critical mass of customer implementations may be necessary to cost justify the investment. The end result is that some manufacturers are trying to prove the merits of VMI to the more reluctant retailers. Pilot programs or tests of VMI on a trial basis are occurring with the reluctant merchants before any further implementation occurs. The manufacturers must prove that they are as effective as the retailers themselves in inventory management. In one example, a retailer ordered too much of a vendor's product and the vendor showed that they could manage the inventory better by revealing the VMI results achieved with another retailer. Some vendors that have invested a great deal of time and money into making VMI successful are still trying to bring more retailers on board with the VMI programs.

One of the factors which clouds the future of VMI is that the retailer that initiated much of the VMI implementation with its vendors has since drastically reduced the number of vendors that perform VMI for them. In fact, many of the
vendors taken off this program had already invested a great deal of time, effort, and money in VMI processes and systems including software packages made for VMI implementation and use. Therefore, these vendors were unhappy with the result of the program and did not feel they were given enough of a chance to prove their capability in VMI.

On a different topic, it seems that the smaller manufacturers are less likely to be asked to perform VMI for retailers. The volumes involved must be large enough to offer benefit from VMI use. To illustrate this, one of the largest retailers that is reluctant regarding VMI implementation has only eleven out of 9000 vendors on VMI. These eleven are the larger volume suppliers of this retailer.

There is contention as to the benefits resulting from VMI use. A few manufacturers look at VMI as a requirement of the future and don't expect any early benefits. Another vendor says the only advantage to VMI is if they can use the information to drive their manufacturing cycle. That is if production can be more closely tied to demand to reduce inventory levels. Yet another vendor said it had not yet seen the benefits of VMI but would after the company linked VMI with materials requirements planning (MRP) to realize benefits in manufacturing. More closely matching production with demand is an important objective of VMI so that overall inventory levels do not have to cover as much forecast error.

Still other vendors just look at VMI as a way to take costs out of the retailer system and add to the manufacturers. However, one manufacturer stated that if VMI is managed properly, it will not take profit away from the manufacturer and give to the retailer. It is the vendor's job to ensure that the extra
costs are not absorbed into their system. As an example, this vendor said that it can shift costs from sales allowances to systems for VMI so total costs won't increase. Their opinion was that the portion of every sales dollar devoted to costs can be manipulated to make sure the manufacturers are not overburdened.

The retailer benefits as stated by a manufacturer are reduced people, reduced inventory and the associated carrying costs, reduced assets, and improved in-stock at the stores. Retailers had to change their point of view with VMI to refocus their outlook from buying on a deal basis to maximizing turns. VMI eliminates repetitive, time-consuming work for the buyers or rebuyers allowing them to have more time to devote to the merchandising side of the business.

One of the manufacturers with a more positive view of VMI gave the following benefits they receive from VMI: visibility of retailer stock levels which allows them to send an order to a retailer any time the vendor thinks the retailer needs more goods; increased in-stock levels resulting in higher sales and fewer stockouts; leveled out inventory in the system allowing a better prediction of retailer need.

One of the least enthusiastic retailers in regard to VMI stated that if VMI becomes pervasive and their vendors are performing inventory management for others, they would go to VMI to avoid subsidizing their competition. In other words, if a retailer is paying the same amount for a product as a competitor which has the vendor in question handling their inventory management, the non-VMI retailer is paying for the performance of VMI for its competition. At this stage,
the non-VMI retailer would agree to go have their vendor take over inventory management responsibilities.

A technical issue in the implementation of VMI is the transmission of point-of-sale data. To ensure that the most timely information is used to make replenishment decisions, sales data from stores must be transmitted back to the vendor managing the inventory as soon as possible. Therefore, data should be transmitted as close to real-time as possible. Realistically, daily transmission is sufficient for VMI; however, at least one of the retailers not using VMI currently only transmits its point-of-sale data weekly. This would require an additional change to the vendor’s systems.

In summary, there is no definitive direction or opinion of VMI based on the interviews. It looks like VMI will stay with the industry but its final form and level of use is still to be determined. One definitive comment is that the smaller retailers and manufacturers with smaller volumes will be the last to experiment with VMI if they test the concept at all.

**Consignment Sales**

In consignment sales, the title to the products does not transfer to the retailer until either it leaves the retailer's distribution center or it is sold at the consumer end. The latter is the more well-known scenario than the former scenario in which the responsibility for payment for the goods occurs when the products leave the retailer DC. However, in the current channel, the consignment sales that are being discussed only involve vendors up to the product leaving the
retailer's DC. This is a form of functional shiftability in that the risk-taking of financing the inventory is transferred back to the manufacturer for a longer time period than traditionally occurs.

The following comments show the disparity in opinions regarding consignment sales. One of the retailers sees a push toward paying vendors at point-of-sale. Another vendor stated similarly that in the future, the vendor won't get paid until the product is scanned. Still another vendor stated that consignment is only a matter of terms and that the retailers really weren't seeking consignment.

A more progressive supplier stated that they currently turn their goods 32 times per year with certain customers implying consignment is already occurring. This opinion is a result of the turn being so fast that the retailer would have to pay so often that it is similar to traditional consignment sales. In fact, one comment that arose in the interviews was that with the drastic increases in turns that have occurred on some vendors products, the retailers are having to pay much faster and that they might try to delay payment. This speed of payment might negate the idea of consignment sales because with consignment and higher turns, the retailers may have to pay faster than they currently are paying. In general, there has been some talk regarding consignment; however, its use does not seem to be a major factor in the future.
The idea of category management addressed in this research is that in which the manufacturer manages an entire product category in a retailer's store. This management consists of designing the department and allocating shelf space to products rather than shelf level inventory management and product replenishment. One manufacturer mentioned that its marketing people would like to own and manage retail store inventory but they believed that retailers would never give the manufacturer the ability to manage inventory at this level. This runs parallel to the VMI situation where store level VMI is a long way off if it is a possibility at all.

A description of how category management is performed by one manufacturer for one of its largest customers will clarify this discussion. In category management, the manufacturer actually does the plan-o-gram for the retailer for a specific product category. In addition, issues like department colors and fixtures are determined by the vendor. As a result, the colors of the department may reflect the vendor in charge of that category.

New competitive products are routed through the vendor performing category management to determine product viability and shelf space allocation. This scenario of one supplier determining shelf space for its competition's products was unheard of in the past. The visibility and control provided by category management for a vendor would seem to make category management a function that all manufacturers would like to gain the responsibility for in contrast to many of the other functions being shifted. For most other functions being
shifted, the vendors would rather not perform because they add to their cost base without providing significant benefit. The vendor in this example believes that for a manufacturer to handle category management for a retailer, the vendor has to be the number one or two company in market share in the particular category. Private label products and proliferation of smaller brands that begin to squeeze the number one player out are the two major threats to category management seen by the vendor.

Category management gives the vendor more and a higher level of retailer penetration. The vendor involved commented that even their competitors believe category management makes sense. The vendor in the example also believes it is very objective in determining shelf space allocation and they take their own products out of the plan-o-gram if the profitability of the item is below that of other potential products. This category management was initiated by the vendor since it was number one in the category and the vendor thought trade spending was too high. An opportunity was identified in category management to reduce this trade spending.

A similar idea regarding category management was brought out by a third party logistics provider that sees an opportunity in having the products for an entire retail department sent to their facility by vendors and then department specific rather than store specific orders are organized and sent to a store. The pallet would go right to a particular store aisle because it is comprised of only goods in that area. Under this scenario, the third party organizes shipment for a retailer of many competing products from the same category.
Category management overall is one way that the manufacturers can gain some kind of foothold with the retailers to ensure more vendor-retailer cooperation in the future. In fact, one of the more interesting comments from all the interviews was an extension of category management in which the future retailer would consist of kiosks operated by individual vendors within the retailer stores with little if any intervention from the retailer. In this perhaps farfetched scenario, the merchandising operations are also transferred to the vendors whereas currently, only the logistical operations are those being transferred.

One issue not addressed in this discussion are the legal ramifications of category management. In reference to legality, one of the retailers mentioned that one of its competitors challenged three vendors in one category to come up with a strategy as a group for 1994 to drive the category's planning events. The vendors complied with the request but the retailer making the comment questioned the legality of the action since the offer was not extended to the other players in that category. There are some interesting legal issues relating to category management; however, this study is focusing on the practices occurring in the channel rather than the legality of these practices.

Channel Issues Surrounding Functional Shiftability

Knowledge of Costs of Performing Additional Functions

From a theoretical standpoint, the prevailing argument regarding costs is that the firm that can perform a channel function at lowest cost should take responsibility for that task. If, in the current mass merchandising discount channel, the lowest cost firm does not have responsibility, then this channel's
actions run counter to accepted theory. This exploratory research attempted to determine the validity of this theory in relation to this channel. The first question to be answered was if the vendors even know their costs well enough to get at true costs of performing extra functions. Knowledge of the costs to perform the extra function will allow a company to track its own profitability more accurately. There is some question in the discount retail channel as to whether or not the lowest cost performer takes over a function, especially if the costs are not even known to make this determination possible.

The overwhelming opinion of the manufacturers in discussing the accuracy of their costing systems is that they do not do a good job of tracking their distribution costs. Therefore, accurately determining the profitability of specific customers is not probable. The issue that arises from this point is that it might not be in a vendor's long run best interest to serve a customer that requires more in distribution costs than the vendor receives in profit. One vendor stated that it seems like they can't be making money with all the new demands of retailers including additional task performance but they don't have a choice unless they want to pull out of markets. This runs parallel to the argument that to have national distribution, a vendor must sell to the Big 3 discount retailers.

One example of the lack of maturity in costing in the channel is that activity-based costing is not used by many of the manufacturers. Therefore, it is harder for them to determine customer profitability. Most vendors know direct costs like freight and the cost of carton labels and software but they admit that there are hidden costs not identified. One manufacturer mentioned that they can determine customer profitability from one-time, static studies but do not have their
costing systematized to track costs over time. Another supplier said that the two largest discount mass merchants are the two most profitable accounts on a traditional basis; however, they cannot tell overall profitability of these customers without finding more hidden costs of service. In the end, these hidden costs like manual outbound load inspection might make these large accounts average or even less than average in profitability.

A dissenting opinion regarding supplier costs is that one vendor stated that per unit costs may have increased for manufacturers and decreased for retailers but even the supplier's total costs have decreased as a result of mass merchant initiatives. This vendor has worked with retailers to save money in areas other than distribution and they believe total costs have decreased even though per unit distribution costs have increased. Possibly closer cooperation between suppliers and their retail customers will allow a more accurate knowledge of costs and will identify ways to eliminate duplicate channel tasks to lower total costs.

One third party logistics provider claimed that the manufacturers have no idea of what their distribution costs are including inventory carrying cost and order filling costs. They claim the vendors only know outbound freight costs. This third party believes lack of cost knowledge has impeded the forming of relationships as firms do not know the benefits of certain initiatives because they cannot determine accurate costs.
One interesting point on the issue of firm size is that there is a sequence of events that occurs in the discount mass merchandising channel that begins with the largest three retailers Wal-Mart, Kmart and Target. These companies seem to be the first to initiate functional demands within the channel for their vendors. The demands are placed on all vendors but the largest volume suppliers are those that the retailers are most concerned about. If the largest volume suppliers implement the changes, the retailers are not as concerned about getting the smaller volume vendors to comply right away.

Once the larger vendors implement the changes, the initiation of the changes throughout the rest of the channel reverses in that these large vendors then work to get the changes implemented with their smaller retail customers. In other words, the larger vendors begin to push the smaller retailers in making the changes. For example, vendor-managed inventory was initiated by one of the Big 3 retailers. Then, after the largest suppliers of this retailer implemented VMI, these manufacturers went to the smaller retailers and asked to perform VMI for them. After the vendors implement a new requirement, the more customers involved with this requirement, the larger the critical mass and the greater the opportunity to realize economies of scale.

Another issue concerns the strategy of a smaller, regional discount mass merchant retailer. This retailer has made it clear that it will follow the lead of the Big 3 in terms of technology. They are content to let the bigger players struggle with new technology and operational improvements until the processes are
refined. In addition to this philosophical reason, these smaller retailers may not be able to afford the expense of trial and error in terms of the new technologies. This idea of the smaller retailers following the Big 3 is evidenced by the comment of a manufacturer that many smaller retail customers are now requesting similar services as the Big 3.

There seem to be two different opinions of how the vendors deal with the requests of the smaller retailers. One opinion is that if the vendor can handle a request from a smaller retailer, they will. In fact, one supplier mentioned that it hadn't turned down any requests from the smaller customers. On the other hand, a regional retailer stated that they don't have the leverage with vendors to force their own standards so they follow the Big 3.

A factor that was mentioned as far as limiting the influence of the smaller retailers is the pervasiveness of financial troubles including bankruptcies and Chapter 11 filings. One vendor commented that until the financial difficulties occurred, the smaller retailers were just as demanding as their larger competitors. Now, with the largest suppliers, the smaller retailers often do not have as much clout and have to wait until the vendor "gets" to them for specific requests.

Overall, this process of requirements flowing from the largest retailers to the largest manufacturers to the smaller retailers seems to hold based on the interviews of the channel members. It also seems that the small vendors are not the focus of compliance from the retail side. On another issue, a regional retailer stated that it must be able to deal with any vendor regardless of its ability to provide value added services. This opinion of retail service does not mean the
smaller suppliers are not asked to comply but rather it seems that the retailers are satisfied if they can get the largest volume vendors to comply.

**Use of Third Party Logistics Providers to Perform the Additional Functions**

The discussion of third party use in this research is primarily focused on whether third party logistics providers are used by suppliers to comply with retailer requests by performing additional functions like case pack changes, special pallet configurations, and vendor-managed inventory. One comment in regard to third party storage which is appropriate is that vendors may have to go to third party market-oriented storage in areas far from the vendor’s facilities to allow compliance with decreasing customer lead times. As the lead time demands continue to become more stringent, the suppliers simply cannot meet them with long transit times. Therefore, the use of market-oriented outside storage can be of benefit in meeting the mass merchant requirements.

One vendor commented that it is hard to truly add value in the channel particularly with third parties because it is hard to get ahead of meeting mass merchant demands. One of the largest retailers mentioned that the smaller manufacturers are looking for turn-key solutions from third parties. An observation of third party use is that the retailers seldom if ever use third parties but the manufacturers that serve them are growing customers of third party logistics providers. It also seems that third parties are used for more discrete tasks like pallet configuration or case repack than for more comprehensive
functions like vendor-managed inventory. The mail survey data addressed if and why third parties are used for the performance of shifting functions.

**Involvement of the Rest of the Supply Chain in Functional Shifts**

An issue not extensively talked about in this channel is to what extent the demands from the retailers are being transferred back up the channel to parties further away from the customer such as the suppliers of the vendors. To illustrate the occurrence of this change, one of the largest consumer goods manufacturers which performs vendor-managed inventory for its retail customers, has its suppliers manage their own raw material inventory in the same manner. The involvement of raw material suppliers is more visible in the clothing and textile industry's use of quick response principles; however, the movement of functions back up the channel is less visible in the consumer goods industry.

As a result of the interviews, the idea of further involvement of other channel members is occurring; however, the degree to which it is occurring is small. One vendor stated that itself and a supplier will eventually be sharing costs and have alliances as they do on the retailer end but they are still being developed. If the term "supply chain management" is to apply to the mass merchandising discount channel, involvement of upstream channel members has to occur.
Possible Actions to Resist Retailer Changes

Since the trend of functional shiftability is that the vendors are taking on more task responsibility, vendors might benefit by finding ways of stopping or slowing the transfer of tasks and their accompanying costs. Based on the interview results, it seems that the best way to keep workings in the channel more equitable is for the vendors to try to be ahead of the mass merchant requests. For example, one vendor understands its cost structure very well. In addition, the vendor understands the cost structure of the channel in addition to the requests of the retailers. This vendor believes it can more easily convince retailers of the pros and cons of vendors performing additional tasks. For instance, one large vendor took a request from the Big 3 regarding UCC 128 labels and, after working with the mass merchants, a much simpler and less expensive method of meeting label requests was agreed upon. Being progressive in thinking rather than reacting to retailer demands seems to be the best way to ensure that inefficiencies and extra costs do not result within the channel.

From a more traditional standpoint, brand loyalty is another way vendors can retain some clout without having to continually give greater service to the retailers. One problem with brand loyalty is that the retailers are continually increasing the number of private label products the vendors are making for them. Vendors must keep new branded products in the pipeline and try to keep them from being easily copied or privately branded.
Another way to reduce mass merchant clout would be for the vendors to try and direct the end consumers to other retail outlets. One vendor felt it could push end consumers to specific retailer groups but not to specific retailers. However, this type of "consumer steering" could raise legal issues if handled improperly. One supplier was very honest in a comment that until the vendors get all the waste out of their processes, they cannot expect to convince the retailers that they are asking too much of the suppliers. Once vendors become efficient internally, they will be more likely to work with retailers rather than be dictated to regarding functional performance. Again, detailed knowledge of operating costs is an important issue in bargaining with retailers.

Overall Benefits/Drawbacks of Functional Shiftability in the Mass Merchandising Discount Channel

In summary, the workings of functional shiftability in the mass merchandising discount channel may contradict the original theories regarding the shifting of functions. It seems that of all the tasks mentioned that are being shifted from retailer to manufacturer, only category management is a task that vendors might seek out seeing benefit to themselves. The other tasks and comprehensive functions, case pack size changes, special packaging requests, special pallet configurations, vendor-managed inventory, and consignment sales are seen as a primary way for retailers to push costs back onto their suppliers. Most manufacturers have not seen any benefits of the extra tasks they are
performing for their retail customers. In addition, there does not seem to be cost analysis to determine the lowest cost channel provider.

One comment made in the course of the interviews may sum up the sentiments of many of the manufacturers in relation to functional shifts. A third party logistics provider stated that the retailers are “getting out of the labor business.” This statement runs parallel to the retailers asking their suppliers to handle functions like store specific pallet configuration, case pack sizes, and special packaging requests. Having the supplier handle these tasks allows the retailer to reduce its labor force. This labor reduction also applies to vendor-managed inventory; however, the jobs eliminated in the retailer’s operations under this concept would more likely be at headquarters rather than in the distribution center or the store.

This exploratory research identified some areas that would greatly benefit from further study. It also seems to contradict some of the traditional theories of functional shiftability. The origins of functional shiftability stated that the low cost performer of a channel function would take over that function. However, in the current discount retail channel, it seems that the retailers are pushing functions to their suppliers without a determination of the lowest cost provider. These observations lead to the research questions being addressed in the mail survey.
Research Questions and Background Information

Causes and Consequences of Functional Shifts

There were pertinent statements made in the interviews in reference to the causes and consequences of functional shifts. Overall, it appears that the retailers are the origination point or initiator of the functional shifts. Theory regarding economic power and oligopolistic industries suggests that the larger retail firms can reduce the bargaining power of other channel members. Little (1970, p. 35) states that "the desire for full market coverage tends to weaken" the position of the manufacturers in relation to the retailers. The reduction of supplier bargaining power may be occurring in the current mass merchandising discount channel where the large retailers are using their channel position or economic power to get more out of their vendors. Specifically, the retailers are pushing functions back to their suppliers. Mallen's comments on firms with power increasing their own profits seem applicable in this channel. Hollander (1964) also addressed this issue when he suggests that retailers might shift activity either back up the channel to suppliers or forward to consumers.

Conventional theory also implies that some type of analysis would have to be performed to determine the low cost performer of a task or function. Retailers are beginning to ask and in many cases tell their suppliers to perform extra functions without a cost analysis. Some of the functions might be performed more efficiently by the retailer but they still are able to push additional functions back onto their suppliers. This allows retailers to decrease their costs and to realize the accompanying increase in profitability.
It seems that in the current discount retail channel that low cost is not a
driver in determining functional performance. However, this was not unanimous
throughout all of the companies and regarding all of the functions. Due to this
lack of unanimity, the following research questions explored some key issues.

Q1: Are functions being shifted between manufacturers and retailers?
Q2: Are the retailers the initiators of the functional shifts?
Q3: Do larger retail firms (those over $5 billion per year in sales) push
more functions to manufacturers than smaller retail firms?
Q4: Is compliance to meet new functional requirements required of
suppliers?
Q5: Are larger manufacturing firms more likely to reduce the functional
responsibilities placed on them by the retailers than smaller manufacturing
firms?
Q6: If manufacturers are innovative and try to anticipate retailer demands, can they reduce the burden of having to perform extra functions?
Q7: Is the pushing back of functions to manufacturers by retailers causing manufacturers to push functions back onto their suppliers?

Knowledge of Costs of Performing Transferred Functions

Another important issue relating to functional shiftability is the issue of
costs. Transaction cost analysis would support analysis of the costs of each
transaction and the costs of dealing with specific customers. However, the
current discount retail channel members, particularly vendors, may not know their
costs well enough to bargain effectively with their retail customers. Specifically,
are the costs of performing the extra channel functions asked of them even
known? If a supplier does not know it's costs on a detailed level, it cannot
effectively bargain with it's retail customers. It was found in the exploratory
research that most manufacturers are not sophisticated enough in their costing systems to determine the cost of performing additional functions. As an extension of this idea, the profitability of the customer base is typically not known to an accurate degree.

With this in mind, it is possible that the cost of not doing business with certain customers is more important than determining the costs of performing certain functions for them. The possibility of losing the large retail customers may be perceived as reducing the long term viability of the business itself and might outweigh the cost per transaction or customer. Therefore, transaction cost analysis in this case might simply be a question of whether a company can survive if it does not meet the needs of the large customers. If these manufacturers could accurately cost out their processes, they might realize that these "important" customers might actually be a drain on company resources rather than a source of profit. The firms interviewed currently believe that determination of actual costs via some type of transaction cost analysis is not as important as serving the customers.

The following research questions addressed these issues relating to costs.

Q8: Do firms (manufacturers) know the costs of performing additional functions?

Q9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?

Q10: Do manufacturers know the profitability of each of their customers on a detailed basis?
Third Party Use for Performing Additional Functions

This issue of low cost also crosses into the use of third party logistics providers. Traditional theory would state that third parties would emerge and handle functions where they are the low cost provider. Stigler (1951) states that a firm contracts out a function when the third party can perform the function more efficiently meaning at lower total cost.

Mallen (1973) suggests that firms will spin-off or shift a function when another firm can perform that task more efficiently. Therefore, it might make economic sense for smaller firms without economies of scale to consider contracting out functions and paying for their performance. In this scenario, the third party could realize economies of scale from a group of companies' tasks pooled together and lower total costs. In addition, less sophisticated manufacturers and retailers might benefit from contracting out functions they do not have the technology to perform.

It seems that much of traditional theory may be ignored in the current channel since the lowest cost performer issue may not be addressed. This shifting of functions to a third party based on low cost is contrasted to the larger retail players that may be able to get their suppliers to perform the functions for free. In this case, the retailers do not have to go through the economic rationalization of comparing the performance of functions in-house versus the hiring of a third party service provider.

The current channel may or may not support this theory that third parties will take on tasks for which they are the low cost provider. A relevant question is if vendors use third parties to perform the extra functions because the vendor is not capable or if the third party is perceived as being the lower cost provider. A result of the exploratory research involving a third party provider shows that the
use of third party logistics companies by manufacturers in serving the mass merchant retailers is growing. However, the vendors themselves did not express a great propensity to use third parties beyond a few limited examples. The following research questions attempted to get at the reasons for using or not using third party logistics companies.

Q11: Are companies using third parties to perform the new functions?

Q12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?

Q13: Are third parties used more for specific packaging tasks than more comprehensive functions like inventory management?

Equity of Channel Costs and Benefits

Also relating to the idea of cost knowledge is whether there is an attempt at equity in sharing the burden of costs in the channel. As mentioned, traditional theory on functional shifts suggests that the low cost firm at performing a particular function will take over that function. However, the current discount retail operations show that low cost may not even play a role in determination of responsibility for function performance. The broad question is if there are any deliberate attempts at lowering the total channel costs or are the retailers just trying to reduce their own cost base? Comments from Mallen address this issue:

- The functional mixes will be patterned in a way which provides the greatest profit either to the consumer (in the form of lower prices and/or more convenience) or the channel members with the most power (which depends on market structure).
- Should one or more channel members (or potential members) see an opportunity to change the functional mix of the channel in order to increase his profits, he will attempt to do so.  

(Mallen 1973; p. 19)
Retailers in the current channel possessing economic power may be attempting to reduce functional performance for their own profit.

In general, suppliers that are performing these additional functions are not realizing much benefit for taking on the extra costs. In fact, in certain cases, failure to take on these tasks can result in loss of business with that customer as evidenced by the Kmart consignment sales for toys example where an anonymous vendor said business with Kmart would be stopped without cooperation (Duff and Jereski 1993). Overall, these increases without compensation take profit out of the manufacturer's business operations to the benefit of retailers. The manufacturers interviewed also stated that they cannot easily raise their prices to account for the extra responsibility.

The following research questions addressed these issues relating to equity in the channel:

Q14: Do the functional shifts occur to lower the costs of the total supply chain?

Q15: Are firms compensated by their channel partner for taking on more functions?

Q16: Are costs shared between manufacturer and retailer if the manufacturer is not paid extra for the additional functions?

Q17: Are financial or business penalties levied on suppliers for the non-performance of additional functions?

Q18: Do manufacturing firms believe that they benefit from the performance of additional functions?

This chapter summarized the findings of the exploratory research. The exploratory research found that functions are indeed being shifted in the mass merchandising discount channel answering the first major question of this research. In addition, the specific logistical tasks being shifted in the channel
were covered including carton labeling, special pallet configurations, and case pack size changes. Broader processes or groups of functions that are being shifted were identified including vendor managed inventory, consignment sales, and category management. After these shifts were covered, traditional theories were related to the exploratory research and the research questions that resulted from the exploratory research. The next chapter covers the detailed methodology of the administration of the mail survey and the data analysis.
Chapter IV: Methodology

This research effort consisted of a mail survey to support or reject the research questions relating to functional shiftability. The case studies from the previous chapter were exploratory and involved various members of the mass merchandising discount channel thereby constituting a field study approach. The following diagram illustrates the relationship between nonscientific business research and scientific business research and helps explain this research effort particularly the relation of the exploratory research to the mail survey data collection:

![Diagram](Source: Davis and Cosenza 1985, p. 327)

Figure 1. Basic Analytical Framework for Business Research

The exploratory research discussed in Chapter 3 identified issues regarding functional shiftability that could be more precisely researched in a follow-up study.
involving a mail survey. The intent of the exploratory research was discovery of the pertinent current channel issues of functional shiftability and therefore addressed the left side of the business research framework. The exploratory research generated the information necessary to refine preliminary research questions into the precise final questions. The mail survey addressed the right hand portion or the scientific business research portion of the business research diagram. Statistical testing occurred after the mail survey was administered. The mail survey was a combination of the description/prediction and causal testing formats of scientific business research.

**Questions Addressing Main Research Issues**

The following are the general questions that the data collection effort specifically attempted to answer:

1) Are functions being transferred?

2) If yes, which functions are being shifted and why are they shifting?

3) How are the burdens and benefits of the functional shifts being shared in the channel?

4) Do firms (manufacturers) know the costs of performing individual functions?

5) To what extent are third party logistics providers used to perform the functions being shifted?
Overview of Mail Survey Data Collection

The data collection entailed using a survey to gather the data needed to test the research questions refined after the company interviews were conducted and analyzed. The sample selected for the survey consisted primarily of a subset of members of a national professional organization in the field of logistics. The survey was sent to managers within firms classified as being in one of the following types of firms and in one of the following industries:

Type of Firm
- Manufacturing Firm
- Merchandising Firm

Industry
- Appliances
- Chemicals (Includes Household and Soaps)
- Clothing and Textiles
- Electronics
- Entertainment Products
- Food and Beverage
- Hardware
- Health and Beauty Aids
- Office Equipment and Supplies (excluding paper)
- Paper and Related Products
- Pet Products

The questionnaire was sent primarily to representatives from companies who were not participants in the company interviews from the exploratory research. However, the survey was sent to a few individuals already interviewed in the exploratory research as pretest participants. Before the entire sample was asked to respond to the survey, the survey was pretested with five logistics managers. With suggestions from the pretest participants, the survey was refined to both increase respondent understanding and to increase the usability of the
responses. See Appendix D for a copy of the actual mail survey and its accompanying cover letter which was sent out to the sample.

As was the case with the selection of firms to interview for the exploratory research, the major criterion used in selecting manufacturing firms in the survey phase was that the company had to do business in the mass merchandising discount retail channel. Similarly, the retail representatives for the survey sample were all discount department stores.

Procedure for Data Collection via the Mail Survey

To ensure the highest possible response rate for phase two, the following process was used to collect the survey data:

1) A list of 2,505 names of employees of manufacturing firms fitting the industry description was pared down to those firms doing business with the mass merchant discounters. In addition, individuals with transportation in their job descriptions were removed unless a transportation manager was the only name available in a targeted company. Removal of transportation executives was done because the issues researched did not call for expertise on the transportation side of the retail industry.

2) A list of 864 names of employees of merchandising firms fitting the description of industry listed above was pared down to only those individuals representing mass merchant discounters.
3) A subset of 209 of the total 3,369 names of both manufacturers and merchandisers was chosen as initial contacts.

4) The list of the companies represented by the 209 names was sent to two of the ten largest discount retailers. Representatives of these two retailers knowledgeable of the vendor base reviewed the list and added 28 vendors who were not on the original list but accounted for a large volume of their business. The intent was to have a sample that covered a majority of the channel sales volume rather than a majority of the vendors selling to the discount retail trade. One of the largest mass discounters estimated that the list accounted for approximately 50% of their dollar volume.

5) The survey was pretested with five logistics managers to refine the questions asked and their wording to ensure more accurate data collection. Comments from the pretest participants included “covers the issues” and “comprehensive.”

6) In an attempt to increase the response rate, the entire subset was contacted by telephone in advance of sending the survey to request participation in the study. The affiliation with The Ohio State University and the survey purpose as a critical part of dissertation research was stressed in the telephone contact. In addition, individuals were offered a summary of the survey results if they attached a business card to the survey. They also were able to respond anonymously and send their card under separate cover. It has been shown that prenotification via
telephone can increase response rates by as much as 16% (Haggett and Mitchell 1994, p. 101).

7) Prior to the phone contact, a letter was sent to each potential survey respondent which provided them the background of the research, its purpose and university affiliation, and notice that the author would be calling them to ask for their participation. The survey length of two pages was stressed to diffuse concerns of time constraints. In addition, the confidentiality of any and all responses was guaranteed. The letters were sent in batches of 70 to 90 so that the author could attempt to make contact with an entire batch in one day.

8) Six days after the first batch of initial letters were sent, the author attempted to phone each member of this group. The time lag was meant to allow the postal service to deliver the letters and to allow each recipient time to read the letter before they were called. Unfortunately, sometimes the time elapsed in the mail went upwards of seven to ten days thereby not allowing the call to follow the letter. The total time is a combination of Ohio State, U.S. Postal Service, and the recipient's company mail service processing times. See Appendix D for a copy of the initial letter.

9) Each potential respondent was contacted a maximum of four times. If the respondent was reached, it was determined whether or not they would be able to participate. However, there were instances where even though the potential respondent was reached, another call at a more convenient time was necessary. If
a respondent was reached and agreed to participate or take a look at the survey, the survey and an accompanying cover letter were sent that day to the individual. See Appendix D for these items.

10) If a potential respondent had phone mail, a series of four messages were left with a day's separation between calls. See Appendix D for the messages. If a potential respondent wasn't reached after the fourth message, the survey and accompanying letter were mailed the day the fourth message was left. For those individuals without phone mail, messages were left with secretaries or assistants and followed up suggested times.

**Timing:**

1. The initial letters were sent in batches beginning August 26, 1994. A total of three batches was used to cover a total of 237 possible respondents.

2. Calls began on September 1 to the first batch of potential respondents, six days after the initial letter was sent. Then, each group's letters were sent out one day apart.

3. This process of mailings and initial calling of each group continued until the entire targeted sample was called at least once. Then, the process of following up the initial calls continued until all individuals were either contacted or were left the
final voice mail message and were sent the survey. Thirteen individuals were faxed a copy of the survey rather than the use of mail per their request.

4. The last mailing of any surveys occurred on September 13, resulting in a total of thirteen days of calling. Some stray calls were placed after this but this date was the official ending of calls.

5. Surveys started coming back one week after the first were sent. By October 4, 42 surveys were returned by mail or fax. To encourage a higher response rate, a "reminder" letter was sent to the 116 remaining individuals who may have not responded by October 4. Many of the individuals attached their business cards requesting a summary of the survey results which allowed tracking of the majority of individuals and allowed the author to better identify who needed a second survey sent to them. The last survey used in the data analysis was received on October 19. Stragglers were anticipated and in fact arrived; however, the analysis was begun after October 19. The total process resulted in approximately seven weeks of survey contacting, mailing and receiving.

6. A total of 72 respondents requested a copy of the survey results. This was comprised of 68 manufacturers and four retailers.
Responses

The initial targeted sample consisted of 237 individuals. By the end of the calling, the list changed somewhat as the individual contacted referred another party or a new person was in the original contact's position. In the end, 141 targeted individuals agreed to have the survey sent to them. Another 17 were not reached after the fourth phone mail message and sent the survey. Twenty were not reached at all either on vacation or not able to take the call. Ten were bad contacts where the correct individual was not reached. Thirty seven did not do business with the mass merchandising discount channel and were not sent surveys. Only one individual reached over the phone declined being sent a survey.

Five individuals who were sent the survey were not able to participate due to company policy. Another eight individuals realized that they did not do business with this channel after the survey was sent.

A total of 90 responses were returned resulting in a 57% response rate. Of these, 85 were manufacturers and 5 were retailers. Thirteen of the surveys were faxed back rather than sent through the mail.

Comment

The survey process was a long and tedious one. The researcher firmly believes that the calling especially was important in ensuring a high response rate. Particularly, the relatively short survey and relative ease of response with many "YES" or "NO" type questions also helped increase the response rate.
For those who did not return the survey, a few reasons can be speculated. One is that after seeing the survey, the information called for was deemed too proprietary to allow for disclosure. Another reason is that the individual simply did not have enough time to fill out the survey. For example, one individual commented that he was inundated with survey requests on a regular basis.

Another possible reason for non-participation was that the survey was passed to another individual in the organization and was not followed up. It was evident that the surveys were "delegated" to individuals not contacted by the supplying of business cards from people not contacted.

**Data Analysis**

The following are the research questions that were answered in this research. Chapter 3 showed the link or relevance of the these research questions to literature and current channel actions. Each research question will now be linked to one or more questions from the mail survey. In addition, the statistical technique that will be used to analyze the data for each hypothesis is given.
Table 4. Research Questions and their Reporting Statistics

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Reporting Statistic(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: Are functions being shifted between manufacturers and retailers?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval, Cochran’s Q</td>
</tr>
<tr>
<td>Q2: Are the retailers the initiators of the functional shifts?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q3: Do larger retail firms (&gt; $5 billion per year in sales) push more functions to manufacturers than smaller retail firms (&lt;$5 billion per year in sales)?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q4: Is compliance to meet new functional requirements required of suppliers?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q5: Are larger manufacturing firms more likely to reduce the functional responsibilities placed on them by the retailers than smaller manufacturing firms?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q6: If manufacturers are innovative and try to anticipate retailer demands, can they reduce the burden of having to perform extra functions?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q7: Is the pushing back of functions to manufacturers by retailers causing manufacturers to push functions back onto their suppliers?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q8: Do firms (manufacturers) know the costs of performing additional functions?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?</td>
<td>Count, Percentage of Total Responses</td>
</tr>
<tr>
<td>Q10: Do manufacturers know the profitability of each of their customers on a detailed basis?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q11: Are companies using third parties to perform the new functions?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?</td>
<td>One-Way ANOVA based on Percent of Company Sales to Mass Merchants</td>
</tr>
<tr>
<td>Q13: Are third parties used more for specific packaging tasks than more comprehensive functions like inventory management?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q14: Do the functional shifts occur to lower the costs of the total supply chain?</td>
<td>Count, Percentage of Total Responses, One Way ANOVA based on Percent of Company Sales to Mass Merchants, Response Categorization</td>
</tr>
<tr>
<td>Q15: Are firms compensated by their channel partner for taking on more functions?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval, Response Categorization</td>
</tr>
<tr>
<td>Q16: Are costs shared between manufacturer and retailer if the manufacturer is not paid extra for the additional functions?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval</td>
</tr>
<tr>
<td>Q17: Are financial or business penalties levied on suppliers for the non-performance of additional functions?</td>
<td>Estimate of Population Proportion, 95% Confidence Interval, Response Categorization</td>
</tr>
<tr>
<td>Q18: Do manufacturing firms believe that they benefit from the performance of additional functions?</td>
<td>Count, Percentage of Total Responses, Response Categorization</td>
</tr>
</tbody>
</table>
Causes and Consequences of Functional Shifts

Q1: Are functions being shifted between manufacturers and retailers?

This question was addressed by survey by question #2 in the mail survey which asked respondents to choose the performer of specific functions in the past, now, and in the future. The statistical analysis consisted of an estimate of the population proportion and a 95% confidence interval for the actual population proportion for each function. Cochran's Q was used to determine if the proportions of manufacturer performance in each time period were significantly different supporting that functions are in fact being transferred.

Q2: Are the retailers the initiators of the functional shifts?

This question was addressed by survey question #2 in the mail survey which asked the respondent to choose the initiator of the shift corresponding to the specific listed functions. The statistical analysis consisted of an estimate of the population proportion of all channel manufacturers and retailers who state that retailers are the initiators. This estimation was done on each individual function. A 95% confidence interval was constructed for the actual population proportion for each function.

Q3: Do larger retail firms (those over $5 billion per year in sales) push more functions to manufacturers than smaller retail firms?

This question was addressed by survey question #7 in which the respondents were asked if larger retail firms (those over $5 billion in sales) push more functions back to vendors than the smaller retailers (<$5 billion in sales). The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population
proportion of “YES” responses. A 95% confidence interval was constructed for the actual population proportion.

Q4: Is compliance to meet new functional requirements required?

This question was addressed by survey question #5 given on a Likert scale from 1 to 7 where “1” corresponds to “Voluntary” and “7” corresponds to “Required.” The statistical analysis consisted of an estimate of the population mean. The author constructed a 95% confidence interval for the actual population mean.

Q5: Are larger manufacturing firms more likely to reduce the functional responsibilities placed on them by the retailers than smaller manufacturing firms?

This question was addressed by survey question #9 which asked if larger manufacturers are more likely to reduce the number of tasks being asked of them by retailers. The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population proportion of “YES” responses. A 95% confidence interval was constructed for the actual population proportion.

Q6: Do more progressive manufacturers find innovative ways of being in front of retailer demands allowing them to reduce the burden of having to perform extra functions?

This question was addressed by survey question #8 which asked if a firm can reduce the burden of extra functions by being innovative and proactive with its retail customers rather than reacting to demands. The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population proportion of “YES”
responses. A 95% confidence interval was constructed for the actual population proportion.

Q7: Is the pushing back of functions to manufacturers by retailers causing manufacturers to push functions back onto their suppliers?

This question was addressed by survey question #15 which asked if the manufacturers see the functions being transferred back up the channel. The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population proportion of “YES” responses. A 95% confidence interval was constructed for the actual population proportion.

Knowledge of Costs of Performing Transferred Functions
Q8: Do firms (manufacturers) know the costs of performing additional functions?

This question was addressed by survey question #11 which asked respondents if they know the cost of performing additional functions. The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population proportion of “YES” responses. A 95% confidence interval was constructed for the actual population proportion.

Q9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?

This hypothesis was answered by the second portion of question #11 where the respondent chose from one of three costing options and also had the option of “other.” Those respondents whose chose “YES” to part one went on to
this question. The responses to the type of costing chosen were summarized to show the most commonly mentioned costing methods.

**Q10: Do manufacturers know the profitability of each of their customers on a detailed basis?**

This question was addressed by survey question #12 which asked whether or not the manufacturers know the profitability of each of their retail customers on a detailed cost basis. The response was either a "YES" or "NO" where a "1" corresponds to "YES" and "0" for "NO." The statistical analysis consisted of an estimate of the population proportion of "YES" responses. A 95% confidence interval was constructed for the actual population proportion.

*Third Party Use for Performing Transferred Functions*

**Q11: Are companies using third parties to perform the new functions?**

This question was addressed by survey question #16 which asked if respondents use third parties to perform the new tasks. The response was either a "YES" or "NO" where a "1" corresponds to "YES" and "0" for "NO." The statistical analysis consisted of an estimate of the population proportion of "YES" responses. A 95% confidence interval was constructed for the actual population proportion.

**Q12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?**

This question was addressed by combining the responses of two questions. The percent of sales to mass merchants in question #1 was combined with the response to survey question #16 which asked if the respondent uses third
parties to perform new tasks. The test used was a one-way ANOVA using
groupings from the percent of sales to the mass merchants as the independent
categorized variable with the answer to the third party use question as the
dependent variable.

Q13: Are third parties used more for specific packaging tasks than
more comprehensive functions like inventory management?

This question was addressed by survey question #17 which asked if
respondents are more likely to outsource the performance of more specific tasks
like packaging than more comprehensive functions like vendor-managed
inventory. The response was either a “YES” or “NO” where a “1” corresponds to
“YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the
population proportion of “YES” responses. A 95% confidence interval was
constructed for the actual population proportion.

_Equity of Channel Costs and Benefits_

Q14: Do the functional shifts occur to lower the costs of the total
supply chain?

This question was addressed by survey question #3 which asked for the
reasons for the shifts in task responsibility. The open-ended answers to this
question were categorized into themes and summary statistics were computed.
The relative responses for each category or theme are shown in Chapter 5.

Q15: Are firms are compensated by their channel partner for taking
on more functions?

This question was addressed by survey question #13 which asked if a
firm is compensated either monetarily or otherwise for the performance of the
additional functions. The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population proportion of “YES” responses. A 95% confidence interval was constructed for the actual population proportion. The responses from the second part of the question “If yes, how?” were categorized and analyzed separately.

Q16: Are costs are shared between manufacturer and retailer if the manufacturer is not paid extra for the additional functions?

This question was addressed by survey question #10 which asked the respondent to give the percentage of cost sharing for additional functions that is split between the manufacturer and retailer with the two numbers summing to 100. The statistical analysis consisted of an estimate of the population mean regarding retailer cost sharing. A 95% confidence interval was constructed for the actual population mean.

Q17: Are financial or business penalties levied for the non-performance of additional functions?

This question was addressed by survey question #14 which asked if there have been any penalties for non-performance. The response was either a “YES” or “NO” where a “1” corresponds to “YES” and “0” for “NO.” The statistical analysis consisted of an estimate of the population proportion of “YES” responses. A 95% confidence interval was constructed for the actual population proportion. The responses to the second part of the question, “If yes, what types of penalties were they?” were analyzed separately.
Q18: Do manufacturing firms believe that they benefit from the performance of additional functions?

This question was addressed by survey question #4 which asked what the benefits are for the manufacturers in taking over these new responsibilities. The open-ended answers to this question were categorized and summary statistics were computed. This question was also addressed by survey question #6 which asked if the efficiency gains are shared among the retailer and manufacturer. The statistical test consisted of an estimate of the population mean of the share of the efficiency that the retailers take and the share the manufacturers take. A 95% confidence interval was constructed for the actual population mean for both numbers.

In addition, one way ANOVA and logistic regression were performed on the data. One way ANOVA was used with three different categorical variables, percent of sales to the mass merchants, industry, and respondent title. See Chapter 5 for a detailed explanation.

Explanation of Choice of Statistical Tests

The data collected fits the "the dichotomous data problem." There are three assumptions in this scenario: 1) the outcome of each trial can be classified as a "success" or a "failure;" 2) the probability of a success, denoted by \( p \), remains constant from trial to trial; 3) the \( n \) trials are independent. In addition, \( \hat{p} \) qualifies as a natural estimator of \( p \), the unknown probability of success in a single Bernoulli trial. (Hollander and Wolfe 1973, pp. 15, 22, 23) Therefore, the sample proportion which is computed is the ratio of successes to total trials.
One-way analysis of variance was used to look for differences between group means. ANOVA is robust to violations of assumptions and is appropriate for this analysis. Cochran's Q was used to determine if shifts are occurring in the channel because the responses for the functional responsibility question were not independent. Cochran's Q determines if the proportions computed for different dependent categories are significantly different from each other.

Logistic regression was also used in the analysis since this technique is appropriate where the dependent variables are dichotomous. For the logistic regression, the variable "percent of sales to the mass merchants" was used as the independent or predictor variable.

Summary

This chapter gave a detailed description of the research methodology to be used in this study. With this information, the reader can follow the logic of the author in addressing the research questions posed. The results of the entire study will be presented in Chapter 5 with conclusions and recommendations given in Chapter 6.

Again, the goal of this research effort was to gain an understanding of the functions that are being shifted, the process and consequences resulting from the transition of responsibility for performing specific channel functions, and the reasons for the shifts in function performance.
Chapter V: Results of the Survey

In Chapter 4: Methodology, there were four major topic areas addressed by the survey data collection. These areas are causes and consequences of functional shifts; knowledge of costs of performing transferred functions; third party use for performing additional functions; and equity of channel costs and benefits. Each of these areas are addressed in this chapter as to the overall results of the survey questions which addressed the four topics. In addition, comments accompanying survey question responses were analyzed and addressed within the presentation of the results.

Survey Sample

The initial targeted survey sample consisted of 237 individuals. Each individual was sent a preliminary letter and then called to request their participation in the survey. By the end of the calling period, the list was somewhat different as the individual contacted sometimes recommended another person or a new person was in the original contact's position. In the end, 141 targeted individuals agreed to respond to the survey. Another seventeen were not reached after the fourth phone mail message and were sent the survey. Twenty were not reached at all, either because they were on vacation or not able to take any of the calls. Ten names were bad contacts where the correct individual was
not able to be reached. Thirty seven of the companies contacted did not do business with the mass merchandising discount channel and were not sent surveys. Only one individual reached over the phone declined to participate. Two individuals who were sent the survey replied that they were not able to participate due to company policy. Another six individuals realized that their division or company did not do business with this channel after the survey was mailed.

A total of 91 responses were returned of the 158 sent out resulting in a 57.6% response rate. Of these, 85 were manufacturers and six were retailers. The potential sample was 143 manufacturers and 13 retailers. Therefore, the manufacturer response rate was 58.6% and the retailer response rate was 46.0%. The manufacturers who responded to the survey sold over $20 billion dollars worth of product to the mass merchant discount channel.

In regard to the survey data collection, this process was long and tedious spanning seven weeks. Fortunately, the response rate allowed for comprehensive data analysis and presentation of results. The author firmly believes that the calling was especially important in realizing a high response rate. In addition, the relatively short survey and relative ease of response with many "Yes/No" type questions helped reduce the time required of the respondents and increased the response rate without compromising the robustness of the data.

For the 59 individuals who did not return the survey or respond in some way, a few reasons for non-response can be speculated. One reason might be that after seeing the survey, the information asked for was deemed too proprietary to even allow for anonymous reporting. For instance, one individual sent back a
letter stating that the information sought was proprietary and could not be released. Another reason for non-response might be that the individual simply did not have enough time to fill out the survey. For example, one individual commented that he was inundated with survey requests on a regular basis.

Another possible reason for non-participation was that the survey was passed to another individual in the organization and was not followed up. It was evident that the surveys were "delegated" to individuals not initially contacted because with three of the returned surveys, the business cards attached were from people not contacted via telephone.

Data Analysis and Reporting of Results

Causes and Consequences of Functional Shifts

As a background, a brief description of the terms logistical task, function, and management process will be covered for clarification. A logistical task is the most specific of the three terms representing a discrete activity. A function is made up of two or more logistical tasks. A management process consists of two or more functions. Within this research, the separate terms are used; however, the term functional shiftability applies to all of these concepts. Unless otherwise specified, the term "function" will serve as a general term for this research.

The reader should note that only six out of thirteen retailers responded. Due to this minimal amount of retailer data, only selected responses from this group are reported. In addition, with such a small number of retail respondents, confidence intervals would not be useful and therefore were not computed.
Research Question 1: Are functions being shifted between manufacturers and retailers?

The springboard question for the remainder of the research was whether or not functions are being shifted in the mass merchandising discount channel. Nine functions were identified as visible functions being shifted in the mass merchandising discount channel through the exploratory research. The respondents to the mail survey were asked who they thought performed each function in the past, currently, and who they anticipated the performer to be in the future choosing between the manufacturer and the retailer. For each of the individual questions, an estimate of the population proportion was computed. In addition, a 95% confidence interval was constructed for the actual population proportion. A 95% confidence interval means that the author is 95% confident that the actual population proportion falls within this interval computed around the sample statistic. Another way of interpreting a 95% confidence interval is that:

"if the data collection was repeated under the same conditions and with the same sample sizes in each group, and each time calculated 95% confidence intervals, 95% of these intervals would contain the unknown population mean response." (Norusis 1993, p. 268)

The sample proportion computed is either the percent of respondents saying the manufacturer is responsible for the particular function's performance or the retailer is responsible. Therefore, 100 minus the sample manufacturer proportion or retailer proportion is the sample proportion for the other channel member.

Please note that some respondents circled both manufacturer and retailer for some of these questions. One option was to categorize these responses as 0.5 on a 0 to 1 scale assuming that the respondents meant that the function was
performed jointly or was initiated jointly. This interpretation was the author's opinion when both channel members were circled on a question; however, the author decided that it was not appropriate to include these responses because an arbitrary numerical choice for the variable could possibly adversely affect the accuracy of the analysis. The outcome of these response removals was that the particular variable in question had a slightly wider confidence interval due to the reduction in sample size. The results of the questions regarding performance of the specific logistical tasks are summarized in the following tables.

Table 5. Proportion of Manufacturing Respondents Choosing Manufacturer as Responsible Party for Logistical Tasks

<table>
<thead>
<tr>
<th>Function</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallet</td>
<td>22.1%</td>
<td>46.0%</td>
<td>69.2%</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>30.3%</td>
<td>46.6%</td>
<td>60.6%</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>21.1%</td>
<td>30.5%</td>
<td>35.6%</td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
<td>45.2%</td>
<td>67.6%</td>
<td>76.0%</td>
</tr>
<tr>
<td>Carton Label Preparation/Application</td>
<td>45.5%</td>
<td>70.1%</td>
<td>81.6%</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>73.2%</td>
<td>81.2%</td>
<td>75.8%</td>
</tr>
</tbody>
</table>

Table 6. 95% Confidence Intervals for Proportion of Manufacturing Respondents Choosing Manufacturer as Responsible Party for Logistical Tasks

<table>
<thead>
<tr>
<th>Function</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallet</td>
<td>(12.1,32.0)</td>
<td>(33.6,58.4)</td>
<td>(57.9,80.5)</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>(19.9,40.7)</td>
<td>(35.1,58.1)</td>
<td>(49.1,72.0)</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>(10.3,31.7)</td>
<td>(18.7,42.4)</td>
<td>(23.3,47.9)</td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
<td>(33.7,56.7)</td>
<td>(56.8,78.3)</td>
<td>(66.3,85.7)</td>
</tr>
<tr>
<td>Carton Label</td>
<td>(34.3,56.7)</td>
<td>(59.8,80.4)</td>
<td>(72.8,90.4)</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>(62.9,83.6)</td>
<td>(71.9,90.5)</td>
<td>(65.3,86.2)</td>
</tr>
</tbody>
</table>
The following are the accompanying figures for the retail respondents. A sample proportion of zero means that all the respondents felt that the retailers perform a function and a sample proportion of 100% means that all the respondents felt that manufacturers are performing a particular function.

Table 7. Proportion of Retailing Respondents Choosing Manufacturer as Responsible Party for Logistical Tasks

<table>
<thead>
<tr>
<th>Function</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallet</td>
<td>33.3%</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>25.0%</td>
<td>0.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Customer Specific Product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td>75.0%</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Carton Label</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation/Application</td>
<td>60.0%</td>
<td>20.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>40.0%</td>
<td>20.0%</td>
<td>40.0%</td>
</tr>
</tbody>
</table>

To determine if the proportions over time were different implying that functions are being shifted, Cochran's Q test was run for the three time periods. Cochran's Q test determines if the proportions given by respondents in each time bucket are significantly different. In all of the functions except for case pack changes, the differences between the three time periods were significant with p-values of less than 0.05. Since these values are smaller than the significance level, the value of Q is in the region of rejection and the probabilities of manufacturer performance are different under the past, now, and future time periods. (Siegel 1956, p. 165) Therefore, the data supports the idea that functions are in fact shifting in this channel.
Table 8. Results of Cochran's Q Test on Manufacturing Responses for Past, Now, and Future Responsibility for Logistical Tasks

<table>
<thead>
<tr>
<th></th>
<th>Cochran's Q</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallet</td>
<td>31.2571</td>
<td>.0000</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>18.2424</td>
<td>.0001</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>9.3846</td>
<td>.0092</td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
<td>24.0645</td>
<td>.0000</td>
</tr>
<tr>
<td>Carton Label Preparation/Application</td>
<td>30.1667</td>
<td>.0000</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>2.6429</td>
<td>.2668</td>
</tr>
</tbody>
</table>

Management of Processes

In addition to these specific logistical tasks, topics which account for the management of a process were also addressed. These processes were vendor-managed inventory, consignment sales, and category management. The following table summarizes the results for these topics. Again, the sample proportion represents the percent of respondents who believed that the manufacturer was responsible for the process performance.

Table 9. Proportion of Manufacturing Respondents Choosing Manufacturer as Responsible Party for Management of Processes

<table>
<thead>
<tr>
<th>Function</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-Managed Inventory</td>
<td>22.7%</td>
<td>51.6%</td>
<td>75.7%</td>
</tr>
<tr>
<td>Financial Risk for Inventory in DC</td>
<td>26.8%</td>
<td>30.9%</td>
<td>58.2%</td>
</tr>
<tr>
<td>(Consignment Sales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category Management</td>
<td>20.0%</td>
<td>34.5%</td>
<td>64.2%</td>
</tr>
</tbody>
</table>
Table 10. 95% Confidence Intervals for Proportion of Manufacturing Respondents Choosing Manufacturer as Responsible Party for Management of Processes

<table>
<thead>
<tr>
<th>Function</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-Managed Inventory</td>
<td>(12.5,32.9)</td>
<td>(39.1,64.2)</td>
<td>(65.6,85.8)</td>
</tr>
<tr>
<td>Financial Risk for Inventory in DC</td>
<td>(15.1,38.5)</td>
<td>(18.6,43.2)</td>
<td>(45.0,71.3)</td>
</tr>
<tr>
<td>(Consignment Sales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category Management</td>
<td>(9.8,30.2)</td>
<td>(22.1,46.8)</td>
<td>(51.1,77.2)</td>
</tr>
</tbody>
</table>

The following are the responses for the retailers for the management of the processes.

Table 11. Proportion of Retailing Respondents Choosing Manufacturer as Responsible Party for Management of Processes

<table>
<thead>
<tr>
<th>Function</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-Managed Inventory</td>
<td>66.7%</td>
<td>83.3%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Financial Risk for Inventory in DC</td>
<td>20.0%</td>
<td>20.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>(Consignment Sales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category Management</td>
<td>16.7%</td>
<td>16.7%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

As with the tasks, Cochran's Q test was performed on the process responses from the manufacturers. Based on the results in the following table, the data supports the idea that management processes are in fact shifting in this channel.

Table 12. Results of Cochran's Q Test on Manufacturing Responses for Past, Now, and Future Management of Process Responsibility

<table>
<thead>
<tr>
<th>Process</th>
<th>Cochran's Q</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-Managed Inventory</td>
<td>30.2051</td>
<td>.0000</td>
</tr>
<tr>
<td>Financial Risk for Inventory in DC</td>
<td>25.333</td>
<td>.0000</td>
</tr>
<tr>
<td>(Consignment Sales)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category Management</td>
<td>26.000</td>
<td>.0000</td>
</tr>
</tbody>
</table>
Research Question 2: Are the retailers the initiators of the functional shifts?

For each of the tasks and processes, the respondents were asked to identify the party responsible for initiating the functional change. The following are the manufacturing results for the "initiator" questions with the population proportion being the percent of respondents who said the retailer initiated the changes.

Table 13. Proportion of Manufacturing Respondents Choosing Retailer as Initiator of Functional Change and 95% Confidence Intervals*

<table>
<thead>
<tr>
<th>Task</th>
<th>Sample Proportion</th>
<th>Confidence Interval for Population Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallets</td>
<td>83.8%</td>
<td>(71.3, 96.2)</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>93.7%</td>
<td>(84.9, 100.0)</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>91.7%</td>
<td>(73.3, 100.0)</td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
<td>93.5%</td>
<td>(84.4, 100.0)</td>
</tr>
<tr>
<td>Carton Label Preparation/Application</td>
<td>97.1%</td>
<td>(91.1, 100.0)</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>92.3%</td>
<td>(81.3, 100.0)</td>
</tr>
<tr>
<td>Vendor-Managed Inventory</td>
<td>71.0%</td>
<td>(55.9, 86.2)</td>
</tr>
<tr>
<td>Consignment Sales</td>
<td>85.7%</td>
<td>(64.7, 100.0)</td>
</tr>
<tr>
<td>Category Management</td>
<td>45.4%</td>
<td>(22.9, 68.0)</td>
</tr>
</tbody>
</table>

*Note: The data were adjusted to remove responses where the respondent chose the same party as being responsible for a function in all three (past, now, future) time periods. Therefore, if a respondent did not indicate a change between channel members over time, the response to the particular initiator question was not used for analysis.

The following table shows the responses from the retailers:
Table 14. Proportion of Retailing Respondents Choosing Retailer as Initiator of Functional Change and 95% Confidence Intervals*

<table>
<thead>
<tr>
<th>Task</th>
<th>Sample Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallets</td>
<td>66.7%</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>NA</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>100.0%</td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
<td>100.0%</td>
</tr>
<tr>
<td>Carton Label Preparation/Application</td>
<td>0</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>75.0%</td>
</tr>
<tr>
<td>Vendor-Managed Inventory</td>
<td>50.0%</td>
</tr>
<tr>
<td>Consignment Sales</td>
<td>NA</td>
</tr>
<tr>
<td>Category Management</td>
<td>NA</td>
</tr>
</tbody>
</table>

*Note: The data were adjusted to remove responses where the respondent chose the same party as being responsible for a function in all three (past, now, future) time periods. Therefore, if a respondent did not indicate a change between channel members over time, the response to the particular initiator question was not used for analysis. NA means there were no responses to this question.

The last part of this question on tasks and processes allowed respondents to include functions or tasks not already addressed in an "other" category. Eighteen of the 85 manufacturing respondents added at least one additional task or function. The only tasks or functions mentioned more than once were electronic data interchange (EDI) with two mentions and advance shipment notification (ASN) with four mentions. See Appendix E and F for all of the tasks or functions mentioned in the "Other" category by manufacturers and retailers respectively.

Research Question 3: Do larger retail firms (those over $5 billion per year in sales) push more functions to manufacturers than smaller retail firms?

This question went a step further in detail than the previous question which determined the responsible party and initiator of the shifts by finding out if retail firm size affects the shifting of functions in the channel. The percentage of
manufacturer respondents answering "yes" thereby saying that larger retail firms do indeed push more functions onto their manufacturers was 85.4%. The 95% confidence level for this question was (77.7%, 93.1%). From the retailer perspective, 83.3% believe that the larger retailers (> $5 billion in sales) push more functions onto their suppliers than smaller retailers (< $5 billion in sales). A few manufacturer comments in response to this question were "Yes, large retailers have more leverage so they are more successful but all retailers are trying;" "Yes, they are more successful with implementation;" and "Yes, they have the systems sophisticated enough to use this data." Two of the retail respondent comments were "Yes, because larger firms are already doing more of the functions." and "Always!"

**Research Question 4:** Is compliance to meet new functional requirements required of suppliers?

A third issue in this topic area of causes and consequences attempted to determine if the shifts in task responsibility are voluntary or required. A Likert scale from one to seven was used to test the opinions on complying with shifts in task responsibility. A response of one indicated the compliance with the shifts was voluntary and a response of seven indicated that the compliance was required. On the seven point Likert scale used, four is the neutral response. The mean response for manufacturing respondents on a scale from one to seven was just over five at 5.2 with a standard deviation of 1.37. The 95% confidence interval spanned from 4.9 to 5.4. The mean for the retailer responses was 5.5 on the same seven point scale. Three of the manufacturing respondents commented
that compliance with the shifts are both voluntary and required. In addition, other comments included "moving to the required side" and "almost mandatory."

**Research Question 5:** Are larger manufacturing firms more likely to reduce the functional responsibilities placed on them by the retailers than smaller manufacturing firms?

Fifty percent of the manufacturing respondents agreed that larger manufacturers are more likely to reduce their performance of the number of additional functions to a greater extent than small manufacturers. The 95% confidence interval for the actual population proportion is (38.8%, 61.2%). Of the retailer respondents, 66.7% believed that larger manufacturers are more likely to reduce the number of functions they have to perform for the retailers than smaller manufacturers. Two contrasting ideas were mentioned in comments by the manufacturing respondents regarding this question of manufacturer size. One idea was the larger manufacturers do have more leverage than smaller manufacturers and therefore can reduce their burdens. On the other hand, the larger manufacturers have the resources to perform the functions in question and therefore will more likely be expected to perform the functions for their retail customers than smaller manufacturers. The retail comments which supported this latter idea were that "most small manufacturers do not have the adequate operations staff or the equipment/resources" and "more resources" for large manufacturers.

**Research Question 6:** If manufacturers are innovative and try to anticipate retailer demands, can they reduce the burden of having to perform extra functions?

Another channel dynamics issue is whether the burden of retailer demands can be lessened if a manufacturer is proactive and innovative in dealing with its
retail customers. In other words, in anticipating the retailer demands or channel changes and preparing for them, the manufacturer might be able to switch from being reactive to retailer demands and control its destiny to a greater extent. Of all the manufacturing respondents, 79.5% believe they can reduce the burden of extra functions by being innovative and proactive with their retail customers rather than reacting to demands. The confidence interval for the actual population proportion was (70.5%, 88.5%). From the retailer perspective, all of the respondents felt that manufacturers could reduce retailer demands of performing extra functions by being innovative and proactive with the retail customers. In fact, the retailer comments were "absolutely" and "we expect this."

**Research Question 7: Is the pushing back of functions to manufacturers causing manufacturers to push functions back onto their suppliers?**

A final issue relating to the causes and consequences of functional shifts was if the manufacturers were starting to push some functions back up the channel to their own vendors. Of all manufacturing respondents, 52.4% said that they were shifting functions back to their suppliers. The 95% confidence interval for this figure is (41.6%, 63.3%). Of the retail respondents, half believed their vendors were pushing functions back up the channel. In addition, the respondents who answered "Yes" were asked to mention which functions were being shifted back to their suppliers. The following are the tasks commonly mentioned by manufacturers as shifting back to their own suppliers:
Table 15. Summary of Tasks Transferred Back To Suppliers by Manufacturers

<table>
<thead>
<tr>
<th>Themes</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Raw Material Inventory/Vendor-Managed Inventory with Raw Materials</td>
<td>20.9%</td>
</tr>
<tr>
<td>Labeling/Bar Coding/Price</td>
<td>20.9%</td>
</tr>
<tr>
<td>Ticketing/Hanging</td>
<td>20.9%</td>
</tr>
<tr>
<td>Packaging/Pallet Specifications</td>
<td>18.6%</td>
</tr>
<tr>
<td>Electronic Data Interchange (EDI)</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

Knowledge of Costs of Performing Transferred Functions

Research Question 8: Do firms (manufacturers) know the costs of performing additional functions?

A simple yet important issue in the area of costs is whether or not the manufacturers actually know their operating costs of performing these extra functions for their retail customer base. Of all the manufacturing respondents, 63.4% believed that they do know the costs of performing additional functions. This sample mean response had a confidence interval of (52.9%, 73.9%). Of the retailing respondents, 66.7% believed that they know the cost of performing additional functions.

Research Question 9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?

Those manufacturing respondents who replied that they do know the costs of the additional functions were asked to choose from four methods of costing used to identify these costs including an "other" method choice. The following are the percentages relating to the possible costing choices. Please note that these percentages reflect that some respondents chose more than one method. Therefore, these numbers reflect the total number of times a method was selected.
Table 16. Summary of Costing Methods Used By Manufacturing Respondents (Includes Methods Mentioned More Than Once)

<table>
<thead>
<tr>
<th>Costing Method</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity-Based Costing</td>
<td>58.5%</td>
</tr>
<tr>
<td>One-time Audit</td>
<td>37.7%</td>
</tr>
<tr>
<td>Direct Product Profitability (DPP)</td>
<td>18.9%</td>
</tr>
<tr>
<td>Other</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

If the responses of those who chose only one method of costing are reported, the results are as follows:

Table 17. Summary of Costing Methods Used By Manufacturing Respondents (Includes Methods Mentioned Only Once)

<table>
<thead>
<tr>
<th>Costing Method</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity-Based Costing</td>
<td>54.8%</td>
</tr>
<tr>
<td>One-time Audit</td>
<td>28.6%</td>
</tr>
<tr>
<td>Direct Product Profitability (DPP)</td>
<td>9.5%</td>
</tr>
<tr>
<td>Other</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

The "Other" responses generally involved some type of an internal costing system. For retailers, 75% of those knowing the costs of performing additional functions mentioned activity-based costing as their method for determining costs. This was the only method mentioned frequently by the retailers.

Research Question 10: Do manufacturers know the profitability of each of their customers on a detailed basis?

For this question, 38.6% of the manufacturing respondents felt that they knew customer profitability in a detailed manner by individual accounts. The confidence interval for this figure was (28.0%, 49.5%). The retailers were asked
a similar question. They were asked if they knew the profitability of their supplier's products on a detailed basis. Forty percent of retail respondents said they did know the profitability of their supplier's products on a detailed basis. Respondents who answered "Yes" were asked an open-ended question to tell how they know the costs. There were not any distinct themes; however, one idea that was mentioned in a couple different ways by manufacturers was that some type of margin was determined or costs like freight were known. In addition, some mentioned that the top customers' cost information was known. Respondents who said they did not know customer profitability also had comments. These comments generally said that either they do not know the costs and they should or it is a major problem or that they are working on getting to this stage of knowing costs.

**Third Party Use for Performing Transferred Functions**

**Research Question 11:** Are companies using third parties to perform the new functions for them?

The survey also had a goal of determining the role of third party logistics providers in handling some of the recently shifted functions. The primary question in this area polled respondents on whether or not the firms used third party providers to perform the new tasks. Of all the manufacturing respondents, 38.3% said that they do use third parties to perform new tasks for them. The 95% confidence interval for the actual population proportion is (27.6%, 48.9%). Of the retail respondents, 66.7% said they used third parties to perform tasks for them.
Those respondents who said they did use third parties were asked to list the functions they outsourced. The following is a summary of the most commonly mentioned tasks:

Table 18. Summary of Tasks Performed by Third Parties Mentioned by Manufacturing Firms

<table>
<thead>
<tr>
<th>Tasks Mentioned</th>
<th>Percent of Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Packaging</td>
<td>42.9%</td>
</tr>
<tr>
<td>Repacks, Case Size Changes</td>
<td>32.1%</td>
</tr>
<tr>
<td>Mixed Pallets/Special Pallets</td>
<td>25.0%</td>
</tr>
<tr>
<td>Labeling</td>
<td>17.9%</td>
</tr>
<tr>
<td>Direct Store Delivery</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

The retailers mentioned similar functions they outsource to those mentioned by the manufacturers. The issue of outsourced functions was also addressed in the question which determined the performers and initiators of the shifting tasks or functions. Respondents were asked to check which of the functions they outsource. The following are the results of asking if a third party was used for the nine tasks and processes covered earlier.
Table 19. Summary of Functions Selected as Being Performed by a Third Party

<table>
<thead>
<tr>
<th>Functions</th>
<th>Percent of Respondents Using Third Parties for Specific Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallets</td>
<td>16.5%</td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>11.8%</td>
</tr>
<tr>
<td>Department Specific Cartons/Totes</td>
<td>1.2%</td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
<td>10.6%</td>
</tr>
<tr>
<td>Carton Label Preparation/Application</td>
<td>5.9%</td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>4.7%</td>
</tr>
<tr>
<td>Vendor-Managed Inventory</td>
<td>2.4%</td>
</tr>
<tr>
<td>Financial Risk for Inventory in DC (Consignment Sales)</td>
<td>3.5%</td>
</tr>
<tr>
<td>Category Management</td>
<td>0</td>
</tr>
</tbody>
</table>

The difference between the two preceding charts is that the first chart from the open-ended question has broader categories than Table 19 which may account for the differences in percentages. The responses in Table 18 encompass one or more of the tasks in the lower chart.

Research Question 12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?

This question was analyzed by combining the responses of the question asking if the firm uses third parties to their response to percent of sales sold to mass merchants. The term “smaller” manufacturers has been refined to be firms who sell a smaller percentage of their annual sales dollars to the mass merchant channel. The results for this comparison are as follows where the sample proportion is the percent of respondents for each category who said they used third parties:
Table 20. ANOVA Results for Use of Third Parties with Percent of Sales to Mass Merchants as Categorized Variable

<table>
<thead>
<tr>
<th>Percent of Sales to MM</th>
<th>Sample Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>20.8%</td>
</tr>
<tr>
<td>Medium</td>
<td>45.0%</td>
</tr>
<tr>
<td>Large</td>
<td>33.3%</td>
</tr>
<tr>
<td>Very Large</td>
<td>58.8%</td>
</tr>
</tbody>
</table>

The ANOVA run for this question resulted in a p-value of .082, greater than .05 and therefore the differences between these sample proportions are not significant.

**Research Question 13:** Are third parties used more for specific packaging tasks than more comprehensive functions like inventory management?

Of the total manufacturer responses, 64.3% of the firms represented said that they would be more likely to use third parties for the performance of specific rather than broader functions. The confidence interval for the actual population proportion is (54.0%, 74.6%). Of the retail respondents, 83.3% said they would use third parties to outsource specific functions like packaging than more comprehensive functions like vendor-managed inventory.

A final question relating to third party use asked for company rationale for using third parties. These responses were analyzed to determine how much of a factor cost was in third party use. The following are the common responses for third party use rationale. The retail respondents used similar rationale for outsourcing functions.
Table 21. Manufacturer Reasons for Use of Third Parties

<table>
<thead>
<tr>
<th>Reasons for Third Party Use</th>
<th>Percent of Total Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Cost/Cost</td>
<td>57.7%</td>
</tr>
<tr>
<td>Flexibility/Risk Reduction</td>
<td>26.9%</td>
</tr>
<tr>
<td>Capacity/Space</td>
<td>13.5%</td>
</tr>
<tr>
<td>Expertise/Third Party More Efficient</td>
<td>11.5%</td>
</tr>
<tr>
<td>Reduced Personnel/Labor/Cheaper Labor</td>
<td>9.6%</td>
</tr>
<tr>
<td>Reduced Investment</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

Equity of Channel Costs and Benefits

Research Question 14: Do the functional shifts occur to lower the costs of the total supply chain?

Channel costs relating to functional shifts are an important topic. One aspect of channel cost is whether or not the functional shifts occur to lower the costs of the total supply chain. This issue of lowering supply chain cost was addressed indirectly by the open-ended which asked why the functional shifts occur. The following are the common themes mentioned in the responses to this question.

Table 22. Reasons Functions Are Shifted in the Mass Merchandising Discount Channel

<table>
<thead>
<tr>
<th>Reasons Mentioned</th>
<th>Percentage of Mentions of Total Responses Given</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase Retail Profits/Lower Retail Costs</td>
<td>37.7%</td>
</tr>
<tr>
<td>Push/Power</td>
<td>19.5%</td>
</tr>
<tr>
<td>Cost of Doing Business/Meet</td>
<td></td>
</tr>
<tr>
<td>Customer Requirements</td>
<td>10.4%</td>
</tr>
<tr>
<td>Retail Efficiency</td>
<td>9.1%</td>
</tr>
<tr>
<td>System Wide/Supply Chain Efficiency</td>
<td>7.8%</td>
</tr>
<tr>
<td>Partnering</td>
<td>6.5%</td>
</tr>
<tr>
<td>Cost/Efficiency without Mention of Beneficiary</td>
<td>6.5%</td>
</tr>
<tr>
<td>Competition</td>
<td>5.2%</td>
</tr>
</tbody>
</table>
From the retail side, the respondents replied with similar themes. For instance, a few retailer comments were as follows: "Reduce retailing payrolls"; "To push work back to the vendor and lower our union labor costs;" "Floor ready receipts prepared by the lowest cost point of processing."

Research Question 15: Are firms compensated by their channel partner for taking on more functions?

The manufacturing respondents were also asked whether or not they were compensated monetarily or otherwise for the performance of the additional functions. About 39% of the respondents felt they were compensated in some way for performing the extra functions. The 95% confidence interval for the actual population proportion is (28.0%, 49.5%). Of the retail respondents, 83.3% believed they compensate their customers for performing the extra functions. In addition, the manufacturing respondents replied as to how they might be compensated for their assumption of the additional functional responsibility. The following are the themes commonly mentioned in regard to compensation:

<table>
<thead>
<tr>
<th>Type of Compensation</th>
<th>Percent of Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in Sales</td>
<td>28.1%</td>
</tr>
<tr>
<td>Direct Charge/Upcharge</td>
<td>21.9%</td>
</tr>
<tr>
<td>Increase in Unit Price</td>
<td>15.6%</td>
</tr>
<tr>
<td>Continued Business</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

Retailer comments were that they compensate their vendors in the form of "functional cost included in product cost," "additional orders and a long term relationship with vendor," and "better promotional activity for increased sales."
Research Question 16: Are costs shared between manufacturer and retailer if the manufacturer is not paid extra for the additional functions?

Another important aspect of the cost issue is how the costs of the functional shifts are shared between the retailer and their suppliers. To determine how costs are shared between retailers and manufacturers, a question asked respondents to divide 100% of costs for the shifting of functions among manufacturer and retailer. The manufacturer respondents said that the manufacturer is responsible for 81.3% of the costs involved in the shifts thereby saying that the retailers are responsible for 18.7% of the costs. The 95% confidence interval for the actual manufacturer population proportion is (76.8%, 85.7%). The retail respondents' numbers were a little different in that they believed that they assume 56.7% of the costs with the manufacturer assuming or sharing 43.3%.

Research Question 17: Are financial or business penalties levied on suppliers for the non-performance of additional functions?

A related but opposite view of compensation is whether or not the retailers penalize the manufacturers who do not perform the additional tasks to their satisfaction. Of all manufacturing respondents, 58.8% believed that they are penalized for non-performance of the additional tasks. The 95% confidence interval for the actual population proportion is (47.9%, 69.6%). Of the retail respondents, 83.3% said they penalize suppliers for non-performance. If a respondent said that his/her company was penalized, the following are the main penalties mentioned:
Table 24. Types of Penalties Levied on Manufacturers by Retailers for Not Complying with Requests

<table>
<thead>
<tr>
<th>Penalties Mentioned</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Fines/Non-Performance Fines/Dollar Penalties</td>
<td>40.0%</td>
</tr>
<tr>
<td>Chargebacks/Invoice Deductions</td>
<td>25.0%</td>
</tr>
<tr>
<td>Lost Sales/Discontinued Lines/Less Line Extensions/Lost Orders</td>
<td>21.7%</td>
</tr>
<tr>
<td>Threats Only</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Of the retail respondents, the penalties mentioned were primarily chargebacks, fines, and reduced business levels.

Research Question 18: Do manufacturing firms believe that they benefit from the performance of additional functions?

Another of the key items in this area of functional shiftability is determining who benefits from the shifts. This issue was addressed twice in the data collection, once numerically and once subjectively or qualitatively. From a numeric point of view, respondents were asked to allocate the benefits resulting in an efficiency gain from the functional shifts among manufacturers and retailers. One hundred percent was to be divided among the two channel members. The average manufacturer response for the benefit accrued to the retailer was 74.9% out of the one hundred percent. Therefore, the manufacturer respondents felt the manufacturer received on average 25.1% of the overall benefit of improved efficiency resulting from functional shifts. In addition, three manufacturing respondents commented that the gain depended on the function in question. From the retail side, the numbers showed that the retailer gained 72.5% of an efficiency increase with the remaining 27.5% going to the manufacturer.
This issue of benefit was also treated subjectively with an open-ended question which asked what benefits the manufacturers gain from the shifting of functions. There was a great deal of information supplied in the answers to this question. See Appendix F for the entire group of responses. The responses resulted in ten common themes. These themes along with the number of times each was mentioned are listed below:

<table>
<thead>
<tr>
<th>Themes</th>
<th>Percent of Total Mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnership/Loyalty</td>
<td>33.8%</td>
</tr>
<tr>
<td>More Information Allowing Manufacturer</td>
<td>27.5%</td>
</tr>
<tr>
<td>Better Planning/Smoothing of Demand</td>
<td></td>
</tr>
<tr>
<td>Increased Sales/Less Out of Stock/Faster</td>
<td>26.3%</td>
</tr>
<tr>
<td>Sell Through</td>
<td></td>
</tr>
<tr>
<td>Reduced Cost for Manufacturer/Lower</td>
<td>13.8%</td>
</tr>
<tr>
<td>Manufacturer Inventories</td>
<td></td>
</tr>
<tr>
<td>Continued Business/Customer Satisfaction</td>
<td>12.5%</td>
</tr>
<tr>
<td>Very Little/None</td>
<td>11.3%</td>
</tr>
<tr>
<td>Force Manufacturer Efficiency Resulting in Lower Manufacturer Costs</td>
<td>5.0%</td>
</tr>
<tr>
<td>Flexibility</td>
<td>5.0%</td>
</tr>
<tr>
<td>More SKU's/Lines Sold to Accounts/More Shelf Space</td>
<td>3.8%</td>
</tr>
<tr>
<td>Reduced Cost for Supply Chain/Lower</td>
<td>2.5%</td>
</tr>
<tr>
<td>Chain Inventories</td>
<td></td>
</tr>
</tbody>
</table>

Many of these themes are closely related; however, the author felt that combining them further would mask some of the meaning in the responses. The retailers again voiced similar manufacturer benefit "themes" as manufacturers. These included "additional access to vital information," "reduced inventory,"
"competitive advantage through systems interfaces," and "ensures they keep our business; more orders put through by retailer."

Other Findings

Additional Management Process Analysis

The management process variables, vendor-managed inventory, consignment sales, and category management are all relatively recent in implementation and involve a great deal more of time and money to perform in comparison to the specific logistical tasks. Due to the size of the managerial investment needed in these processes, the manufacturer/supplier respondents were asked for the number of mass merchant accounts for which they are performing these broad functions to get an idea to the extent of their implementation. The following table summarizes these responses:

Table 26. Summary of Use of Vendor-Managed Inventory, Consignment Sales, and Category Management

<table>
<thead>
<tr>
<th>Function</th>
<th>Number of Suppliers Performing</th>
<th>Average Number of Customers per Manufacturer</th>
<th>Minimum Number of Accounts</th>
<th>Maximum Number of Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-Managed Inventory</td>
<td>36</td>
<td>3.25</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Consignment Sales</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Category Management</td>
<td>8</td>
<td>2.375</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

As shown, vendor-managed inventory is the most commonly practiced of the three topics with 42.4% of the manufacturing respondents saying they are practicing vendor-managed inventory with at least one mass merchant customer.
Analysis of Variance Background Information

After the aggregate analysis was completed, the manufacturer data was broken down into different categories or groups to determine if there were major differences across groups. There were four questions on the survey which allowed for data groupings. The first was the figure that the individual reported for their company for the percent of their sales dollars sold through the discount department channel. The next was the title of the individual who filled out the survey. Another response which allowed for grouping was the industry the company represented which was reported in response to "Your Company's Product Lines." The final question which allowed for grouping was annual sales revenue. Groupings and further analysis were performed on all of these questions except for the annual sales revenue question. It was determined that consistency was lacking in the responses for this question by confirming the responses of a particular manufacturer. It seems that some respondents reported the sales for their division and others reported for the whole company. Therefore, additional analysis based on this question might have led to inaccurate conclusions and was not performed.

The percent of sales sold to the mass merchant discount channel responses were broken out into four categories: These categories were small, medium, large, and very large, as a percentage of sales dollars sold to the mass merchants. The range of responses was from 0.5% to 98%. This categorization was important to the author to determine if those companies who did relatively little business with the mass merchants as a function of overall sales had different
opinions than those who did a great deal of business with the mass merchant
discounters. The breakdown was as follows:

Table 27. Respondents Categorized by Percent of Sales to Mass
Merchants

<table>
<thead>
<tr>
<th>Sales Volume</th>
<th>Group</th>
<th>Range of Percent of Sales to Mass Merchants</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>Group 4</td>
<td>0 to 9%</td>
<td>18</td>
</tr>
<tr>
<td>Medium</td>
<td>Group 3</td>
<td>10 to 15%</td>
<td>20</td>
</tr>
<tr>
<td>Large</td>
<td>Group 2</td>
<td>20 to 33%</td>
<td>20</td>
</tr>
<tr>
<td>Very Large</td>
<td>Group 1</td>
<td>33 to 98%</td>
<td>25</td>
</tr>
</tbody>
</table>

These groupings were determined by looking at the distribution of the
responses given. There are two reasons for this particular breakdown. The first
is that based on the author's experience in talking with the manufacturers in the
exploratory research, one-third or more of a company's sales to the mass
merchant discount channel was considered to be a significant portion. This
reasoning explains why the "very large" category range is defined as it is.
Another reason for this particular breakdown is that for ANOVA, similar sample
sizes for each group provide for more accurate analysis.

The industry or product lines sold were broken into eleven categories.
Table 28. Respondent Groupings by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Group</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appliances</td>
<td>Group 1</td>
<td>5</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Group 4</td>
<td>5</td>
</tr>
<tr>
<td>Clothing and Textiles</td>
<td>Group 5</td>
<td>12</td>
</tr>
<tr>
<td>Electronics</td>
<td>Group 9</td>
<td>9</td>
</tr>
<tr>
<td>Food and Beverage</td>
<td>Group 11</td>
<td>27</td>
</tr>
<tr>
<td>Hardware</td>
<td>Group 13</td>
<td>10</td>
</tr>
<tr>
<td>Office Equipment and Supplies</td>
<td>Group 17</td>
<td>3</td>
</tr>
<tr>
<td>Paper and Related Products</td>
<td>Group 18</td>
<td>3</td>
</tr>
<tr>
<td>Health and Beauty Aids</td>
<td>Group 20</td>
<td>3</td>
</tr>
<tr>
<td>Pet Products</td>
<td>Group 25</td>
<td>3</td>
</tr>
<tr>
<td>Entertainment</td>
<td>Group 26</td>
<td>4</td>
</tr>
</tbody>
</table>

The individual's title category was broken into three groups. These were Vice President, Director and Manager. Further delineations were not done because company titles vary so greatly. Additional breakdowns would have divided the sample into groups as small as one so that any analysis would have little or no meaning.

Table 29. Respondent Groupings by Title

<table>
<thead>
<tr>
<th>Title</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice President</td>
<td>18</td>
</tr>
<tr>
<td>Director</td>
<td>28</td>
</tr>
<tr>
<td>Manager</td>
<td>36</td>
</tr>
</tbody>
</table>

These were the subgroups used in the analysis after the overall statistics were generated. For each of the three categorized variables, one-way analysis of variance (ANOVA) was performed with the categorized variable as the independent variable. Each categorized variable was run with each survey
question as the dependent variable. Only those questions where data groupings resulted in significant differences between groups will be reported. If the ANOVA analysis resulted in rejecting the null hypothesis that all the means are equal, then two additional post-hoc tests were conducted to determine which group proportions or means were different. One was Tukey’s honestly significant difference test and the other was Scheffe’s test. Scheffe’s test is conservative for pairwise comparison of means and requires larger differences between means for significance than Tukey’s test (Norusis 1993, p. 278).

ANOVA was performed with each survey question serving as the dependent variable. In all, there were 147 ANOVA’s performed. This total number is accounted for by having 49 variables per questionnaire across the three categorical breakdowns. See Appendix G for all f-significant/p-values resulting from the ANOVA runs.

In addition, logistic regression was used to determine if percent of sales to the mass merchant discount channel had a strong relationship as a predictor or independent variable with any of the questions with binary responses as the dependent variables. Those logistic regressions resulting in significant p-values of less than 0.05 are reported. See Appendix G for all f-significant/p-values resulting from the logistic regression runs.

One Way ANOVA with Percent Mass Merchant Sales Categorized

For the mixed pallets performance in the past question, there were significant differences between the respondents of the small percent sold to mass merchants group and the large percent sold to mass merchants group under the
Tukey method. All of the respondents from the small category felt the retailer performed the function in the past whereas 60% of the respondents from the large category felt that the retailer performed the mixed pallets function in the past. For the carton label preparation/application task performer for “now”, there were significant differences among the category means under the Tukey method. Of the respondents from the small category, 43.8% felt the manufacturer was the performer in the past whereas 83.3% of the respondents from the very large category felt that the manufacturer was the performer in the past.

For the department specific cartons/totes performance in the future question, there were significant differences among the percent of mass merchant sales category group means between the very large percent sold to the mass merchant group and both the medium and small percent group. None of the respondents from the small category and 12.5% of the respondents from the medium category felt the manufacturer will perform department specific cartons/totes in the future whereas 58.8% of the very large respondents felt that manufacturers would perform department specific cartons/totes in the future. These differences between means were detected under both the Tukey and Scheffe tests.

For the performance of consignment sales in the past question, there were significant differences among the percent of mass merchant sales category group means under the Tukey test for the small percent mass merchant sales respondents and the very large percent mass merchant sales respondents. All of the very large respondents felt that the retailer performed the financial risk handling for
inventory in the past whereas 50% of the small respondents felt that the retailer performed this function in the past.

One Way ANOVA with Industry Categorized

For the performance of department specific carton/totes “now,” there were significant differences between the respondents from the appliance industry and respondents from the food and beverage industry with respondents from the clothing and textile industry under the Tukey method. None of the respondents in the appliance industry and 6.3% of respondents in the food and beverage industry said that the manufacturer performed the department specific carton/totes now task whereas 80% of respondents from the clothing and textile industry said that the manufacturer performed the task “now.” The difference between these groups were also significant under Scheffe’s test but Scheffe’s test did not detect the appliance group difference. These results suggest that Scheffe’s test is more conservative than Tukey’s test.

For the performance of department specific carton/totes in the future, there were significant differences between the respondents from the food and beverage industry and respondents from the clothing and textile industry under the Tukey method. Of all the respondents from the food and beverage industry, 6.3% said that the manufacturer will perform the department specific carton/totes task in the future whereas 77.8% of respondents from the clothing and textile industry said that the manufacturer will perform the task in the future. For the performance of case pack changes now, there are significant differences between the respondents from the food and beverage industry and the appliance industry under the Tukey
test. Of all the respondents in the appliance industry, 25% felt that the manufacturer performs case pack changes now and 91.3% of the respondents from the food and beverage industry felt that the manufacturer performs case pack changes now.

Regarding performance of vendor-managed inventory in the past, there were significant differences between respondents in the appliance industry and chemical industry and respondents in the office equipment and supplies industry. None of the respondents from either the appliance or the chemical industry felt the manufacturer performed vendor managed inventory in the past whereas all of the respondents from the office equipment and supplies industry said that the manufacturer performed inventory management in the past.

The ANOVA run for the question asking if manufacturer burden could be reduced by being proactive and innovative with retailers with the industry categorization showed differences among the means at a 5% significance level with Tukey's method between the appliances industry and the clothing and textile industry. All of the respondents from the clothing and textile industry felt that the burdens of retailer demands could be reduced by being innovative and proactive with the retailers whereas 20% of the respondents in the appliance industry felt that the burden could be reduced.

One Way ANOVA with Title Categorized

From the ANOVA runs with title as the categorical variable, there were significant differences among the means for the question who initiated shifts in specific customer packaging and who initiated the shifts in vendor-managed
inventory. For the specific customer packaging initiator, both the Tukey and Scheffe tests detected significant differences among the title categories. The responses from the director category were significantly different from the vice president responses. All of those in the director category said that the retailer was the initiator whereas 40% of those in the vice president category said that the retailer was the initiator. For the initiator in vendor-managed inventory, the responses from the director category were significantly different from those in both the vice president and manager category. Of the responses from the directors, 5.8% said that the manufacturer initiated vendor managed inventory whereas this same number was 58.3% for the vice presidents and 40% for the managers.

There were significant differences among the means under ANOVA for the gains question with title categorized. The manager responses were significantly different under the Tukey test from the director responses. The managers believed that the retailer takes 67.6% of all efficiency gains where the directors believed that the retailer takes 80.1% of all efficiency gains. As is logical, the converse of this question, the percent of manufacturer gain was also significantly different between the same two groups only the numbers are reversed.

Additional ANOVA Analysis

The question of the benefit to manufacturers of functional shifts was put to a further test to determine if the type of response given had any relation to the amount of business done with the mass merchant discount channel. A one way
ANOVA was performed with the three top themes as the independent variable with the percent of a firm's business done with the mass merchandisers as the dependent variable to see if a vendor's percent of company sales to the mass merchant channel is related to its opinion of manufacturer benefit from the functional shifts. The means of the three groups do seem to be slightly different.

Table 30. Mean Percent of Sales to Mass Merchants Categorized by Most Common Responses to Perceived Manufacturer Benefit

<table>
<thead>
<tr>
<th>Most Common Responses</th>
<th>Mean Percent of MM Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnership/Loyalty</td>
<td>25.1%</td>
</tr>
<tr>
<td>More Information Allowing Manufacturer</td>
<td>32.7%</td>
</tr>
<tr>
<td>Better Planning/Smoothing of Demand</td>
<td>33.4%</td>
</tr>
<tr>
<td>Increased Sales/Less Out of Stock/Faster</td>
<td></td>
</tr>
<tr>
<td>Sell Through</td>
<td></td>
</tr>
</tbody>
</table>

However, this observed difference was not proven statistically significant as the computed p-value was .5906.

Logistic Regression Results

Logistic regression was run on all binary Yes/No or 0/1 variables with percent of sales to the mass merchant channel as the independent variable and each of the binary questions as the dependent variable. There were eight questions that resulted in regression relationships with a p-value of 0.05 or lower.
Table 31. *p*-values for Questions with Significant Relationship to Mass Merchant Percent of Sales Under Logistic Regression*

<table>
<thead>
<tr>
<th>Functions</th>
<th>p-value</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Specific Cartons/Totes Past</td>
<td>.0042</td>
<td></td>
</tr>
<tr>
<td>Department Specific Cartons/Totes Now</td>
<td>.0125</td>
<td></td>
</tr>
<tr>
<td>Department Specific Cartons/Totes Future</td>
<td>.0028</td>
<td></td>
</tr>
<tr>
<td>Carton Label Preparation/Application Now</td>
<td>.0383</td>
<td></td>
</tr>
<tr>
<td>Consignment Sales Past</td>
<td>.0067</td>
<td></td>
</tr>
<tr>
<td>Category Management Initiator</td>
<td>.0242</td>
<td></td>
</tr>
<tr>
<td>Are Suppliers Penalized for Non-Compliance?</td>
<td>.0282</td>
<td></td>
</tr>
<tr>
<td>Do You Use Third Parties for the New Functions?</td>
<td>.0194</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the 0.05 level

Due to the small number of questions that were significant at the 95% level under logistic regression, the author did not explore interaction effects. This decision was made because the lack of a strong relationship between the percent of sales to the mass merchants and most of the dependent variables would probably result in less significant *p*-values for any interaction effects. In addition, under logistic regression, *R*-squared's interpretation is not the same as under linear regression and is not reported.

Limitations of the Research

**Overall**

Since the sample was purposive rather than random, the conclusions cannot be applied to all companies or industries. However, the individuals polled and the companies represented are perceived to be on the leading edge of business practice thereby resulting in knowledgeable responses. One difficulty in this type of research is that manufacturers are often reluctant to make negative comments regarding their retail customers for fear of retaliation (Felgner 1989). Even with
anonymity guaranteed, individuals may still be reluctant in responding. With these concerns in mind, a 57.6\% response rate probably provides a good representation for those industries surveyed.

The survey was designed to ask fact-based questions to avoid personal opinions as much as possible. However, personal perceptions can condition even fact-based responses. As a result of this, some of the results should be interpreted with caution so that all the results are not taken as fact. Certain questions might have provoked a defensive response even though the question was not perceived by the author to pose any type of threat.

Survey Design

There are some specific limitations or drawbacks to this research. There were a couple of questions on the survey which could have been worded more clearly. The first is the “Case Pack Changes” question. This phrase probably should have read “Case Pack Size Changes” to provide a question with clearer meaning. In addition, on the retailer questionnaire, one of the questions asked if the retailer knew the profitability of their supplier’s products. This question should have been made more clear by saying the “profitability of your supplier’s products in your system” as a comment was made by a retailer regarding this issue.

Some concerns might be raised as to the type of questions asked in the survey. Dichotomous questions were used in favor of more continuous questions or variables. Dichotomous questions were used simply to increase the ease of survey completion for respondents. Some researchers might say that a great deal
more information could be gained by providing continuous variables; however, a
great deal more information might have been lost if the continuous variables made
the survey more difficult to answer thereby reducing the response rate. It was
difficult enough to convince individuals to participate in this relatively short
questionnaire and asking for any more of their time would have been
inappropriate. The dichotomous variables used in this research allowed the
research questions to be answered, thereby accomplishing the survey's goal.

Survey Sample Bias

One bias in the survey results might be due to 32% of all the respondents
being from the food and beverage industry. Obviously, the demands of the
retailers may depend on the type of product they are buying. For instance, the
appliance industry is less applicable to the use of department specific cartons/totes
than the clothing and textile or food and beverage industry.

Another possible bias is that those individuals with specific complaints
about functional shiftability might be more likely to respond to the survey. This
idea is consistent with expressions of dissatisfaction as individuals might be more
likely to express dissatisfaction rather than satisfaction. The results of the survey
do not show this bias. In fact, the author was surprised with the degree of
objectivity given in the responses, particularly the open-ended questions. The
answers were not complaints but rather honest statements void of emotion.

Bias might also have resulted from the fact that almost 80% of the
respondents included their business card to request a copy of the summary of the
research. In this case, it could be suspected that because their answers were not
anonymous they would give less controversial responses. Over a quarter of the respondents do at least one-third of their business with the mass merchants possibly resulting in a bias of the opinions of those with a lot of experience with the mass merchants which may have masked the problems for the smaller manufacturers.

A final area of bias may have resulted from contacting primarily distribution and logistics people. For instance, opinions of salespeople or others within a company might reveal different perspectives. However, with the focus on the burden of performing additional functions, logistics people were deemed to be the correct focus group.

Overall, the results of the research suggest that these biases were not present in a strong manner, if at all. The relative homogeneity of the responses and opinions support little bias. This chapter reported the results from the survey data collection. In the next chapter, conclusions from these results will be drawn as well as recommendations regarding the research topic in the future.
Chapter VI: Conclusions and Recommendations

This chapter summarizes the research process, elaborates on the results of the data collection to provide useful conclusions of the research, suggests implications of the research results and offers suggestions as to research which would serve as logical continuations of this effort.

Research Summary

The impetus for this research was an outgrowth of the very visible changes and dynamics occurring in the retail industry. In the discount department store industry in particular, there has been a change from powerful manufacturers dictating channel operations to large, commanding retailers. The result has caused many important operating changes for the channel. One of these is that now functions traditionally performed by the retailer are increasingly being performed by the manufacturer. This process of function transfer is known as functional shiftability.

Functional shiftability relates to an important historical literary issue regarding the shifting of functions. The original theories for shifting or spinning-off functions between channel members came from economists like Coase. Their theories were that the most efficient performer took responsibility for a particular channel function. However, the current dynamics of the discount retail channel
including retailers such as Wal-Mart, Kmart and Target, may imply that functions are shifting for reasons other than lowest cost. This research is intended to shed light on the functional shifts and their consequences within the current discount department store channel.

An initial exploration of the current discount channel was used to frame the more specific and detailed channel issues addressed in the final section of this research. The intent of the exploratory research was to identify the most timely and important issues in the mass merchandising discount channel that would be candidates for further research. Following initial literary and industry research, broad research questions were developed for the exploratory research. See Appendices B and C for these questions asked of the manufacturers and retailers respectively. These questions were asked of thirteen manufacturers, five retailers, and six third party logistics providers in detailed case studies. The answers to these questions identified the areas on which the final data collection was focused.

The exploratory research determined that functional shifts were indeed occurring and gaining increased visibility in the mass merchandising discount channel. In addition, the specific kinds of shifts currently occurring were identified. See Chapter 4 for details on the identified tasks and processes. The exploratory research also allowed the author to become familiar with the dynamics of the channel before additional research was planned and performed. Therefore, this initial research allowed more timely and focused issues to be addressed in the final data collection. Following the exploratory research, the author then determined the key research questions that should be answered by the mail survey. These research questions addressed why the functional shifts were
occurring and also the consequences of the shifts. The following are the research questions developed and used to launch the data collection effort.

**Causes and Consequences of Functional Shifts**

Q1: Are functions being shifted between manufacturers and retailers?

Q2: Are the retailers the initiators of the functional shifts?

Q3: Do larger retail firms (those over $5 billion per year in sales) push more functions to manufacturers than smaller retail firms?

Q4: Is compliance to meet new functional requirements required of suppliers?

Q5: Are larger manufacturing firms more likely to reduce the functional responsibilities placed on them by the retailers than smaller manufacturing firms?

Q6: If manufacturers are innovative and try to anticipate retailer demands, can they reduce the burden of having to perform extra functions?

Q7: Is the pushing back of functions to manufacturers by retailers causing manufacturers to push functions back onto their suppliers?

**Knowledge of Costs of Performing Transferred Functions**

Q8: Do firms (manufacturers) know the costs of performing additional functions?

Q9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?

Q10: Do manufacturers know the profitability of each of their customers on a detailed basis?

**Third Party Use for Performing Transferred Functions**

Q11: Are companies using third parties to perform the new functions?

Q12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?

Q13: Are third parties used more for specific packaging tasks than more comprehensive functions like inventory management?
Equity of Channel Costs and Benefits

Q14: Do the functional shifts occur to lower the costs of the total supply chain?

Q15: Are firms compensated by their channel partner for taking on more functions?

Q16: Are costs of the shifted functions shared between manufacturer and retailer if the manufacturer?

Q17: Are financial or business penalties levied on suppliers for the non-performance of additional functions?

Q18: Do manufacturing firms believe that they benefit from the performance of additional functions?

These questions were addressed through two surveys, one for manufacturing firms and another for retailing firms with the manufacturing survey having twenty-one questions and the retailer survey having twenty (See Appendix D for copies of the surveys). The respondents to the survey were manufacturers who supply products to the mass merchandising discount channel and also the retailers in the mass merchandising discount or discount department store channel. A response rate of 57.6% was realized for manufacturers and 46% for retailers. This translates to 85 manufacturing companies and 6 retailing firms comprising the sample.

The exploratory research and the mail survey complemented one another. The exploratory research identified the key channel issues regarding functional shiftability in the current channel that needed to be addressed. The exploratory research also allowed the mail survey to be much shorter and more focused as the preliminary channel questions were already answered. The author believes this reduction in survey length greatly improved the response rate. The mail survey then attempted to verify the conclusions of the exploratory research.
Conclusions

The research questions are grouped into the following four major topic areas researched in this effort: causes and consequences of functional shifts; knowledge of costs of performing transferred functions; third party use for performing additional functions; equity of channel costs and benefits. Each of these areas are addressed in connection with the results of the data collection. On another note, only six out of thirteen retailers responded. Due to this small amount of retailer data, only selected responses from this group are reported.

The following table summarizes the results of the research questions.
<table>
<thead>
<tr>
<th>Research Question</th>
<th>Answer</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: Are functions being shifted between manufacturers and retailers?</td>
<td>Yes</td>
<td>Overwhelmingly</td>
</tr>
<tr>
<td>Q2: Are the retailers the initiators of the functional shifts?</td>
<td>Yes</td>
<td>Overwhelmingly</td>
</tr>
<tr>
<td>Q3: Do larger retail firms (&gt; $5 billion per year in sales) push more functions to manufacturers than smaller retail firms (&lt; $5 billion per year in sales)?</td>
<td>Yes</td>
<td>Not a great majority</td>
</tr>
<tr>
<td>Q4: Is compliance to meet new functional requirements required of suppliers?</td>
<td>Yes</td>
<td>But not absolutely</td>
</tr>
<tr>
<td>Q5: Are larger manufacturing firms more likely to reduce the functional responsibilities placed on them by the retailers than smaller manufacturing firms?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Q6: If manufacturers are innovative and try to anticipate retailer demands, can they reduce the burden of having to perform extra functions?</td>
<td>Yes</td>
<td>Retailers expect this</td>
</tr>
<tr>
<td>Q7: Is the pushing back of functions to manufacturers by retailers causing manufacturers to push functions back onto their suppliers?</td>
<td>Yes</td>
<td>Mostly inventory management</td>
</tr>
<tr>
<td>Q8: Do firms (manufacturers) know the costs of performing additional functions?</td>
<td>Yes</td>
<td>63% know the costs</td>
</tr>
<tr>
<td>Q9: If companies do know the costs of performing additional functions, is it due to one time audits rather than a systematized, ongoing process?</td>
<td>No</td>
<td>Mostly activity-based costing</td>
</tr>
<tr>
<td>Q10: Do manufacturers know the profitability of each of their customers on a detailed basis?</td>
<td>No</td>
<td>Less than 40% know detailed retail account profitability</td>
</tr>
<tr>
<td>Q11: Are companies using third parties to perform the new functions?</td>
<td>No</td>
<td>Less than 40%</td>
</tr>
<tr>
<td>Q12: Are smaller manufacturing firms more likely to outsource the new additional functions to third parties than larger manufacturing firms?</td>
<td>No</td>
<td>Large and small are about equal</td>
</tr>
<tr>
<td>Q13: Are third parties used more for specific packaging tasks than more comprehensive functions like inventory management?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Q14: Do the functional shifts occur to lower the costs of the total supply chain?</td>
<td>No</td>
<td>Mostly for retailer benefit</td>
</tr>
<tr>
<td>Q15: Are firms compensated by their channel partner for taking on more functions?</td>
<td>No</td>
<td>Only 39% of suppliers believe this</td>
</tr>
<tr>
<td>Q16: Are costs shared between manufacturer and retailer if the manufacturer is not paid extra for the additional functions?</td>
<td>No</td>
<td>Manufacturer--81% \ Retailer--19%</td>
</tr>
<tr>
<td>Q17: Are financial or business penalties levied on suppliers for the non-performance of additional functions?</td>
<td>Yes</td>
<td>But types of penalties vary</td>
</tr>
<tr>
<td>Q18: Do manufacturing firms believe that they benefit from the performance of additional functions?</td>
<td>No</td>
<td>Not overall</td>
</tr>
</tbody>
</table>
Causes and Consequences of Functional Shifts

As background information, a brief description of logistical task, function, and management process will be given. A logistical task is the most specific and narrowly focused of the three and represents a discrete activity. A function is made up of two or more logistical tasks. A management process consists of more than one function. Within these conclusions, the separate terms are generally used; however, the term functional shiftability applies to all of these concepts.

There were seven questions in this section addressing the causes and consequences of functional shifts. The first determined the opinions of manufacturers and retailers regarding who performed specified functions in the past, currently, and who was expected to perform these functions in the future. The functions or tasks that were addressed were store specific mixed pallets, store delivery or DSD, department specific cartons/totes, customer specific product packaging, carton label preparation/application, and case pack changes.

These functions were identified as being shifted in the mass merchandising discount channel during the exploratory research and this shifting was confirmed in the mail survey analysis. There are some interesting trends shown in the results of the survey questions regarding these functions. On every one of these functions or tasks except case pack changes, the percentage of respondents who felt the manufacturer was responsible for a function or would be in the future became larger through time. In other words, from the past to now to the future, the percentage of manufacturing respondents who felt that the manufacturer was responsible for performance increased so that in the future the
manufacturer is likely to be performing all of these functions. This result is a key finding which shows that manufacturers must prepare themselves for performance of additional functions in the future. The one exception, case pack sizes, had manufacturer responsibility increase from the past to now but dropped somewhat for the future. A possible explanation for this is that the manufacturers have already reduced their case pack sizes enough that they feel if any further changes are to be made, that the retailer will handle them.

Overall, there was a great deal of homogeneity across the responses. However, there were some differences among categorized groups of manufacturing respondents in regard to functional performance. Only the significant differences resulting from the statistical analysis are reported. One group breakdown categorized respondents into how much business they did with the mass merchandising discount channel. There were four groups: small percentage, medium percentage, large percentage and very large percentage. For the responsibility for mixed pallet performance in the past, respondents who sell a large percentage of their sales to mass merchants had a different opinion than those from the small percentage group. Of the large percentage group, 40% felt that the manufacturer had performed mixed pallets in the past whereas all of the small group believed that the manufacturer did not perform any mixed pallets. This discrepancy also showed in the current or “now” performance of the carton label preparation/application function. Here the small percentage sold to mass merchant respondents and the very large percentage had differing opinions. Of the small percentage group, 43.8% felt that the manufacturer was responsible for carton label preparation/application whereas almost twice this percentage, 83.3%
of the very large percentage group felt that the manufacturer currently performs the function. An explanation for these differences might be that the larger firms feel a greater burden of performing the functions. This discrepancy is probably a result of the retail customers expecting more performance out of the larger suppliers and pursuing this by asking these larger volume suppliers to perform more functions.

To emphasize this point, the responses for the department specific cartons/totes performance in the future question showed significant differences between the small and medium percentage of sales group and the very large group. None of the respondents from the small category and 12.5% from the medium group felt that the manufacturer would be responsible for department specific cartons/totes in the future. In contrast, 58.5% of the very large group felt that the manufacturer would perform this function in the future.

When opinions regarding consignment sales performed in the past were voiced, the opposite result showed. None of the respondents from the very large category felt that the manufacturer had responsibility for financial risk of inventory whereas 50% of the small respondents felt that the manufacturer had this responsibility. An explanation for this might be that to entice a mass merchant to carry a product from a new or unknown supplier, a criterion for carrying the new product might be consignment sales.

A few interesting group differences in regard to function performance arose when the respondents were grouped by industry. There were eleven total industry groupings. See page 105 for these industry groups. For the responsibility for department specific cartons/totes current performance, there
were significant differences between respondents in the appliance and food and beverage industries from those in the clothing and textile industry. None of the respondents in the appliance industry and 6.3% of the respondents in the food and beverage industry said that the manufacturer performs the department specific cartons/totes task now whereas this figure was 80% for the respondents from the clothing and textile industry. This result is probably due to the amount of retail labor needed to stock apparel in stores. Apparel requires more product preparation in the form of preticketing, hanging, and bagging so the retailer would like as much of their required labor as possible to be eliminated or pushed to the supplier. Shelf stocking for food and beverage items usually only entails opening a box and putting the items on the shelf. In addition, for appliances and foods and beverages, usually full cases or single appliances are stocked at a time compared to apparel which might be stocked in ones or twos. This difference implies that retailers would like apparel vendors to supply cartons of floor ready product that go right to a particular part of the store.

This difference regarding cartons/totes was shown again between food and beverage respondents and those in the clothing and textile industry in the responses for department specific cartons/totes in the future function. Of all the respondents from the food and beverage industry, 6.3% said that the manufacturer will perform the department specific carton/totes task in the future whereas 77.8% of respondents from the clothing and textile industry said that the manufacturer will perform the task in the future.
For the current case pack changes question, there were differences between the respondents from the food and beverage industry and those from the appliance industry. Of all the respondents in the appliance industry, 25% felt that the manufacturer performs case pack changes now whereas this figure was 91.3% for the food and beverage industry respondents. This difference is probably due to the sizes of the SKUs sold in the two industries. In the appliance industry, the goods are generally larger in size and cannot be broken down further as far as case packs or inner packs. Food and beverage products, on the other hand are easily manipulated to be sold in different sizes and different inner packs. Retailers might be asking more of those in the food and beverage industry by requesting case size changes to reduce handling in the stores as smaller case packs can fit entirely on a shelf. On the other hand, larger cases might require overflow storage in the store backroom.

In addition to these specific tasks or functions, the management of certain processes was also researched. Again, the processes are a group of functions. These processes included vendor-managed inventory, consignment sales, and category management. For all three of these processes, the manufacturer responsibility increased from the past to the future. This shifting of these processes was proven statistically significant in the analysis. Overall, these results show that the manufacturers are aware of and in fact expect that functional shifts that are occurring or will occur will cause their responsibilities to increase.

For each of the tasks or processes addressed in the questionnaire, the respondents were asked to specify who initiated the functional changes. For all of the functions, an overwhelming majority of respondents felt that the retailer was
responsible for initiating functional change. This result was also evident for the processes, vendor-managed inventory and consignment sales. On the other hand, the highest proportion of any task or process showing that the manufacturer was the initiator was for the process of category management. This result makes sense as category management is the task or process most likely to provide manufacturer benefit in addition to increasing manufacturer cost. The exploratory research showed the reasons that a manufacturer would want to control a retailer’s entire category. Category management allows a great deal of exposure for the manufacturer and its products and planning of competitive product space allocation as well. On the whole, the other functions addressed seem to add more cost to the manufacturers than benefit. See Chapter 4 for a discussion of category management.

In order to determine the attitude of the respondents regarding functional shifts, a survey question asked whether the functional shifts were voluntary or required. The manufacturers responded on average with a 5.2 on a seven point scale. The retailer mean was similar at 5.5. This result shows that both sides of the selling dyad understand that the functional compliance is required in general but not absolutely. Based on the exploratory research, the author expected this number to be much higher and closer to required. Some of the manufacturer comments implied that functional compliance is moving toward required for the future so the results of this question might have been closer to required had the question been asked at a later time.
Specific issues regarding channel dynamics were addressed in the survey. Two issues related to firm size. The first was whether larger retail firms (>\$5 billion in sales) push more functions back to vendors than the smaller retailers (<\$5 billion in sales). Here, 85.4% of the respondents believed that larger retailers do indeed push more functions onto their suppliers than smaller retailers. This figure for retailers was almost the same at 83.3% showing that both sides of the selling dyad acknowledge the efforts by the larger retailers of pushing functions back up the channel.

Another issue relating to firm size was whether larger manufacturers are more likely to be able to reduce the number of additional functions they have to perform for retailers than smaller manufacturers. Fifty percent of the manufacturing respondents agreed that larger manufacturers are able to reduce the number of functions performed than smaller manufacturers. This figure was 66.7% for the retailers. This issue has two main points of view. The first is that a larger manufacturer has the leverage to reduce its functional responsibilities; however, the retailers may feel that the larger suppliers have more capabilities and resources and therefore demand more out of them than they do of smaller suppliers. During the exploratory research, it was determined that after a supplier adapts its process to handle a function for a customer, that supplier would like to increase the number of customers for which it is performing the function in order to gain critical mass and realize efficiencies through economies of scale.
Another channel issue was whether or not manufacturers could reduce the retailer demand of performing extra functions by being innovative and proactive with the retailers rather than reacting to demands. Of all the manufacturing respondents, 79.5% believed they could reduce retailer demands by being proactive and innovative. All of the retailers believed that the innovative suppliers could reduce additional function performance. In fact, the retail comments to this question were “absolutely” and “we expect this.” These results show the retailers do want input from the manufacturers; however, many of the manufacturers are having a tough time getting caught up with current customer requirements and just have not been able to think proactively. In addition, some of the comments from manufacturers suggested that they try be innovative in order to reduce the burden of performance but the retailers have the power and are still making demands. In fact, one manufacturer stated that one of the largest retailers did not like manufacturer’s comments. Expected proactive action by manufacturers is an issue which needs more dialogue and discussion in the channel. Based on the survey question responses, it appears that the retailers and manufacturers have similar opinions but are not communicating these opinions to their retail partners. Some of the comments show a disparity of opinion that should be researched further.

A final issue in the survey addressed whether or not the manufacturers are pushing back functions onto their suppliers. Of all manufacturing respondents, 52.4% said that they were shifting functions back to their suppliers. This number was 50% for the retailers who believed that their suppliers were pushing the
functions back up the supply chain. As a result, the raw material suppliers to the manufacturers in this channel should prepare for handling more functions.

**Knowledge of Costs of Performing Transferred Functions**

The main issues addressed regarding cost were whether respondents knew the costs of performing additional functions and if respondents knew retail customer profitability on a detailed basis. It seems that just over 60% of the manufacturing respondents believe that they know the costs of performing additional functions. Of those who do know, over half said they use activity based costing to determine these costs. Of the retail respondents, 66.7% said they know the costs of performing additional functions. The reader should be careful in interpreting the proportion of respondents that believe they know the costs of the additional functions. Respondents might be predisposed to answer this question positively to avoid any negative connotation.

On the other hand, less than 40% of manufacturers felt they knew the profitability of their retail customers on a detailed basis. Even for those manufacturers who did believe they knew their customer account profitability, some of them knew this on a standard margin basis rather than a detailed cost basis. A problem arises since traditional costing methods do not require enough detail to get at the total cost of serving a customer. This lack of specific costing data is addressed by methods like activity-based costing. In fact, the most profitable accounts on a margin basis may be the least profitable on an activity-based or detailed cost basis when the costs of the additional functions are included.
Third Party Use in Performing Transferred Functions

In the exploratory research, one of the third party logistics providers stated that although retailers are not extensive users of third party services, their suppliers are continually growing their use of outsourcing. Less than 40% of manufacturing respondents said they used third party logistics providers. On the surface this might not seem like a large percentage but with opinions like that mentioned above, this 40% may be on its way up. Of the retail respondents, two-thirds said they use third parties to perform tasks for them. Those companies that did use third parties used them primarily for tasks such as special packaging, repacks or case pack changes, mixed pallets, and labeling. This result is consistent with the survey sample’s overwhelming opinion that they would more likely use third parties for more specific functions like packaging than broader functions like vendor-managed inventory.

Another issue addressed was if those manufacturers selling a small percentage of their goods to the mass merchant discount used more third party services than those manufacturers selling a larger percentage to this channel. The results regarding percent of business with the mass merchants and third party use were surprising to the author. It seems that the firms selling a larger percentage of their goods to the mass merchants are just as likely to outsource functions as companies selling a smaller percentage of their goods to the mass merchants. From a theoretical point of view, it would seem that smaller volume firms would not have the expertise to perform certain tasks and would therefore be more likely than larger companies to outsource. One idea that supports the use of third parties
by larger volume firms is that often certain tasks are disruptive to normal supplier operations and are therefore more efficiently handled by third parties. In other words, since some of the functions being shifted have not yet been integrated into the manufacturer's operations, they have to be performed off-line. In this case, the use of outsourcing for the performance of these "off-line" functions for larger suppliers makes sense.

**Equity of Channel Costs and Benefits**

One aspect of channel cost important to the theoretical basis for functional shiftability is whether or not the functions are being shifted to lower total channel cost. Traditional theory suggests that the lowest cost performer of a channel function will take over performance for that function. This scenario implies that the channel members actually try to determine who the lowest cost provider might be. This research found that there is no logical analysis seeking the lowest cost performer of certain functions because the functions are shifted to increase retailer profits and efficiency. Therefore, the lowest cost performer is not the objective of shifting functions within this channel. Over half of the manufacturing respondents felt that the functions were shifted as a result of a retail initiative to increase retailer profits by using their power to delegate functions to their suppliers. Not only was this not contradicted by the retailer responses, it was in fact supported by them. Only about 8% of manufacturing respondents supported traditional theory by saying that the shifts were a result of a push for system wide or supply chain efficiency.
One retailer comment did portray the thought behind the traditional theory of the most efficient channel. The comment was that functions are being shifted to provide "floor ready receipts prepared by the lowest cost point of processing." This statement was one of the most objective comments made by any of the survey respondents. If all parties thought in this manner, the good of the channel might come before the good of an individual firm. In time, manufacturers may become the low cost performers of these functions thus supporting traditional theory. In fact, one of the manufacturers in the exploratory research said that the retail demands are costing them money now and are difficult to implement but these demands will force the manufacturer to become more efficient in the long run. Another manufacturer commented in the mail survey that the changes increase manufacturer costs now but will increase both efficiency and flexibility later.

These ideas regarding the reasons for functional shifts are supported by two other pieces of information collected in the survey regarding channel costs and benefits. Manufacturing respondents felt that the retailers take most of the benefit of efficiencies gained by shifting functions while assuming less than half of the costs of the shifts. The manufacturing respondents feel that the retailer gains 75% of any benefit of functional shifts. The retailers felt that they gained over 70% of the benefit so the two groups were not far apart on this issue. From a cost standpoint, the suppliers felt that they assume over 80% of the costs of the shifted functions with the retailer assuming the remaining 20%. The retailers think they are sharing more of the costs than the suppliers think they are. The retailers believe they assume almost 60% of the costs incurred in shifting a
function. This difference shows a key issue of disagreement that could be investigated in future research.

During the exploratory research, one of the retailers suggested that both sides sit down and "open their books" with their channel partner to try to increase knowledge and to come to some sort of equilibrium regarding cost of and responsibility for channel activities. However, this idea was met with reluctance by the suppliers. The reason for this reaction may be that the manufacturer margins are traditionally higher than retailers and the suppliers do not want to disclose their books. How can a supplier complain about the costs of performing the additional functions if their profit margins are two and three times those of the retailers?

From an equity standpoint, about 40% of manufacturing respondents said they were compensated for performing additional functions. In contrast, over 80% of the retailers believed they rewarded suppliers and most of these rewards involved increased sales. Retailers might feel that increased sales is stronger compensation than payment for specific function performance. Almost 30% of manufacturers believed that their reward was increased sales. Just over 20% of manufacturers believed that there was a direct charge or upcharge involved as compensation.

On the other hand, almost 60% of the manufacturing respondents believed that they were penalized for non-performance. This figure was over 80% for the retail respondents. The issues of rewards and penalties need to be discussed between channel partners to identify the differences of opinion and try to reconcile these differences.
Conclusion Summary

This research achieved the goals it set out to meet. The following five questions which defined the research were answered.

1) Are functions being shifted in the mass merchandising discount channel?
2) If yes, which functions are being shifted and why are they shifting?
3) How are the burdens and benefits of the functional shifts being shared in the channel?
4) Do firms (manufacturers) know the costs of performing individual functions?
5) To what extent are third party logistics providers used to perform the functions being shifted?

One of the major reasons this research was embarked upon was to determine if traditional theories regarding functional shiftability still hold in today’s discount department store channel. Traditional theory stated that the most efficient or low cost performer of a function would take over that function. The exploratory research uncovered some issues which suggested that lowest channel cost might not be the impetus for functional shiftability. The mail survey results collected additional information on this issue and found that functional shifts do not occur to increase channel efficiency but in fact occur primarily because of retail power and retailer pursuit of their own higher profits and lower costs. Therefore, the lowest cost channel provider is not sought by channel members. This conclusion is not a result of examining the actual channel costs. It is based
on the idea that since cost analysis is not even performed to determine the lowest cost performer, the lowest cost channel is not sought.

The question regarding the sharing of burdens and benefits was also evaluated. It seems that there is not a great deal of sharing of the burdens and benefits of the functional shifts. The retailer is the beneficiary of the shifts with the supplier having to take on the majority of the cost burden. A third party provider in the exploratory research stated that the “retailers are getting out of the labor business.” This comment helps explain the retailer impetus for pushing back functions. The suppliers, however, feel that in order to continue doing business with these large accounts, they have to comply with the demands. It seems that those manufacturers who can comply the fastest will be rewarded with increased sales from their retail customers.

With respect to cost knowledge, over sixty percent of the manufacturers said they did know the cost of performing the extra functions. This seems low considering how much expense the extra functions could be costing a company. However, less than forty percent of the manufacturing respondents felt that they knew the profitability of their customers on a detailed basis. Unfortunately, knowing one of these two crucial factors is not enough. Before suppliers are to be believed in saying that the retailers are demanding too much, they will have to be very knowledgeable of their operating costs. Only then can they show their customers documentation on how much particular functions cost to perform.

Regarding third party use for the shifting functions, manufacturers and suppliers are not using third parties to a large extent. Usually, only the specific discrete tasks or functions are outsourced. More broad functions like vendor-
managed inventory are handled in-house. It also seems that size of firm based on percentage of goods sold to the mass merchants is not a good predictor of third party use. Firms which sell large percentages of their goods to the mass merchants and firms which small percentages of their goods to the mass merchants seem equally likely to outsource the performance of the new functions.

The issue of cost is also addressed in relation to third parties. Traditional theory states that the most efficient or low cost performer will be responsible for a function. For those respondents using third parties to handle new functions, almost 60% of them outsourced for reasons of lower cost or some other cost reasoning. This result would appear to support traditional theory with the third parties being lower cost than the manufacturers; however, had the retailers continued to perform the functions in question, they would be more efficient and lower cost than the third party with less experience in performing the new functions.

A general comment on the results is that there was a great deal of homogeneity among the responses to the survey. This homogeneity shows that the demands of the retailers regarding functional shiftability are both well known and well understood by all channel members. There were few significant differences of opinion across firms with different levels of sales to the mass merchants or across different industries.

Manufacturers can have a short run or long run opinion of performing these new functions. The short run opinion is to keep current costs down. In this case, meeting the new functions just to keep retail business might make operations more inefficient and costly. The long run opinion is that a manufacturer can focus
on holding and gaining market share in the future. In this scenario, the manufacturer would endure inefficient operations in the short run to meet retail needs but invest in improving operations and facilities to increase efficiency and lower costs for the long run.

**Contributions of the Research**

**Theory**

This research set out to add to both theory and practice in the area of functional shiftability. From a theoretical perspective, this study

1) Verified which functions are shifting in the mass merchandising discount channel.

2) Identified that functions are shifted based on impetus from the retail accounts with expected compliance from the suppliers to these accounts.

3) Showed that prevailing theory regarding functional shiftability is not applicable to the mass merchandising discount channel. In this channel, functions are not shifted to provide for the lowest cost channel but rather to increase the profits and efficiency of the retailers by forcing the manufacturers to absorb higher costs of serving these retail accounts at least in the short run. In the long run, the suppliers may become efficient at performing these functions, thereby increasing channel efficiency. The economic power of the mass merchants affords them the ability to demand performance of their suppliers.

From this research, traditional theory should be amended so that it applies to channels of distribution where the retailer has a great deal of economic power. When the retailer does have great deal of economic power, the idea that the lowest
cost provider of a function is sought might not apply. In this scenario, there is no analysis to even determine who would be the lowest cost provider. The retailer simply flexes its muscle to have its demands satisfied by its vendors.

Mallen addressed the heart of this issue in the following comments regarding the “basic message of all channel functionalists” (Mallen 1973, p.19):

- Marketing functions can be allocated in different mixes to different channel members.
- The functional mixes will be patterned in a way which provides the greatest profit either to the consumer (in the form of lower prices and/or more convenience) or the channel members with the most power (which depends on market structure).
- Should one or more channel members (or potential members) see an opportunity to change the functional mix of the channel in order to increase his profits, he will attempt to do so.
- Should the attempt be successful, and if the functional mix change is big enough, it will (by definition) change the institutional arrangement of the channel, i.e., the channel structure. (Mallen 1973; p. 19)

However, Mallen changed his focus in this work to efficiency rather than power and did not follow up on these ideas. Based on the results of this current study on the mass merchandising discount channel, the influence of economic power on functional shiftability should have more visibility in the marketing literature.

4) Determined that the effects of the shifts are that the manufacturers often have to quickly retool their operations to comply with retail requests. However, some manufacturers believe these “forced compliances” will make them become more efficient internally in the long run.
Practice

From a managerial or practical perspective, the research provides potentially valuable information to manufacturers and retailers in the mass merchandising discount channel. The following are the important results for practitioners in the mass merchandising discount channel.

1) The most straightforward and persuasive conclusion of this research is that all manufacturers who currently supply or wish to supply the mass merchants must adapt to retailer requirements without expecting short term compensation for their efforts. This research identifies the types of functions that have shifted or will shift in the future. This knowledge, if handled in a timely manner, will allow firms to at least explore in advance the resources and operating practices currently required to handle additional functions and anticipate function shifts that will be required to meet these needs in the future.

2) There is good news in that both the manufacturers and retailers polled believed that those manufacturers who try to stay ahead of customer demands rather than reacting will benefit by this increased preparation. If a manufacturer realizes that particular functions will be required in the future, this firm can be proactive and prepare before the demand comes down from the retailer. In addition, by being knowledgeable and forward thinking, a manufacturer may allow itself the opportunity to steer its retail accounts to more desirable operating practices for both channel members rather than the prevailing attitude which emphasizes retailer benefit.
3) An initial goal of the research was to determine which functional shifts result in a lower cost channel. It is too early to make this determination. Until manufacturers have more time to integrate the new operating practices into their current system, shifting functions will only increase costs for the manufacturer. If upcharges for the shifted functions are paid for by the retailer to the supplier, the entire channel becomes more costly if the manufacturer is not the most efficient at performing these functions. When these functions have stabilized for a period of time, the benefits to the manufacturer and the channel as a whole will be more transparent.

4) This research shows that the manufacturers and retailers have similar opinions regarding functional shiftability, its benefits, and its consequences. However, these opinions are often not communicated to one another. There should be more cooperation between the channel members than currently occurs. In fact, if retailers let their suppliers know in advance the requirements they might be asking for, manufacturer input could allow a smoother implementation than the current demand-react mode. This advance notice could allow manufacturers to more fully integrate the new requirements into their operations so that in the longer term, the manufacturer becomes efficient at performing this function. This cooperation should start from the top of both companies. Individual salespeople for the manufacturers and buyers for the retailer often have different attitudes regarding cooperation than the corporation so more top-down cooperative manufacturer-retailer effort will force transfer across each corporation. An example of this type of cooperation is the meeting between a vice president of sales from Procter and Gamble, Lou Pritchett with Sam Walton that began a
strong corporate partnership. The positive result of this relationship caused many other companies to “view the supplier as an important partner.” (Walton 1992, p. 187)

Retailers must understand that by forewarning their customers of planned changes, they may actually save themselves time and money when a demand or request is actually made. More cooperation and partnering are needed in this channel. Based on the case study interviews, there is a prevailing “cooperate or else” attitude that the retailers possess. Yes, retailers do have the power and the checkbook and can therefore force compliance; however, a greater use of cooperative integration in future planning will greatly benefit both parties. Some retailers say they are partners with their vendors and then undermine their credibility by proceeding to introduce additional demands that must be complied with in a short period of time. The lack of cooperative involvement results in a reactive and less efficient supplier and a less efficient channel than might be realized if cooperation was increased.

5) This research provides members of the channel a current benchmark to which they can compare their opinions and operating practices with others to see where they stand in thought as well as practice.

Implications of the Research

If the conclusions from this work are extended into a broader realm, some important implications for business in the mass merchandising discount channel as well as other channels are revealed. Possibly the most immediate area of concern is the legal implications of the shifting of functions in the mass
merchandising discount channel. This research supported the idea that retailers may not treat all vendors equally. For instance, the demands for functional shiftability may not be employed equally on large and small vendors? If there are different standards, how does the legality of any discrepancy come into play?

Similar legal issues also apply to the concepts of category management and vendor-managed inventories. What are the legal ramifications of giving one vendor responsibility for an entire product category? This issue already surfaced in the diaper industry involving Wal-Mart and two of its diaper vendors, Procter & Gamble and Kimberly-Clark. With the recent growth of this practice of category management, the potential for additional legal problems develops.

Regarding vendor-managed inventory, all vendors are not allowed to handle this function for the retailers. Only select vendors are given this responsibility. In addition, retailers have exercised their discretion in discontinuing the vendor-managed inventory relationship with some suppliers while continuing the relationship with others. With these thoughts in mind, channel members might want to pay greater attention to the possible legal ramifications of their actions within the channel. This greater attention might very well save a firm both money and goodwill if potential anti-trust or other legal problems are avoided.

Another area on which this research sheds light is the potential for a monopoly in the mass merchandising discount channel. Wal-Mart is one of the United States’ largest corporations. As shown in this work, its share in the mass merchandising discount channel alone is 43% with $44.9 billion. This figure does not include its other retail divisions like Sam’s Club or its recent venture into
the grocery industry. Until now, consumers have benefited from lower prices resulting from competition in the mass merchandising discount channel so the exertion of retailer power may have been beneficial to this point. In ten years, what will the retail base and consumer price structure in this channel look like? Will consumers continue to realize the benefit of lower prices if say Wal-Mart is the only mass merchant discounter in business? Monopoly theory cautions of the end result of higher prices for captive consumers once monopoly is achieved.

Unless manufacturers can increase brand loyalty to a point that a retailer must carry its products and even the balance of power, manufacturers must prepare for additional exercise of retail power in the form of even more functional responsibility in the future. With the strength and concentration of the current retail base, this trend of shifting functions to manufacturers will continue. As a result, the focus of functional shifts will continue to be a dominant factor in the channel causing changes in channel member behavior.

This research identified opportunities for increased communication which will benefit the entire channel. Though the word "partnership" is often used among members of the mass merchandising discount channel, the actual feelings and actions of channel members do not back this idea of partnership. More aggressive and open communication will identify areas for further cooperation which, if ignored, will cause the channel to forego opportunities in efficiency.

In addition, this research presents a wide variety of responses across companies and industries. There is a great deal of potential gain from non-competing manufacturers to share additional information on their experiences in complying with retail demands with one another. Those companies more
advanced on compliance with specific issues can share their successful practices with fellow suppliers and help increase channel efficiency. This research portrays the potential for joint adoption of new technology, protocol, and other standards by members of the mass merchandising discount channel. This adoption would allow more standardization across the channel and reduce the costs of performing unique functions for specific channel members by disseminating best practices.

Hopefully, this research will help remove some of the apprehension of channel members in discussing issues like functional shiftability with their channel partners. Open dialogue of addressing the equity of channel costs and benefits will benefit the channel as a whole. The opinions expressed by practitioners in this study show that there is less secrecy and sensitivity regarding these issues than previously thought.

**Suggestions for Future Research**

This study serves as a base for additional research as the concepts laid out in this effort provide a framework for investigation in five areas. These are longitudinal studies, extensions into other industries or channels, interactive studies, channel costs, and legal issues. It would be interesting to see how the responses to these same survey questions would appear in a longitudinal study. Over time, channel partners will become much more experienced in the functional shifting issues and might very well have different views of the reasons for the functional shifts and their consequences at a later time. Though requiring a larger budget than was available for this study, a longitudinal study could track not only the functions shifting but also the opinions of both manufacturers
and retailers. If used properly, this type of study could continuously provide channel members information to improve channel relations and efficiency.

Many of the functions identified and researched in this work easily transfer to other retail channels as well as industrial channels. Similar research into other channels will provide members of those channels with a better idea of where they stand in relation to their competitors and customers and show ways to prepare for the future. In addition, functions shifting in other channels may find their way into the mass merchant channel. The results of this work also show that parties further away from the customer will be asked in the future to perform more functions in addition to retail suppliers. Therefore, research into the involvement of those channel members further away from the end consumer like raw material suppliers would be worthwhile. This additional research would be especially relevant as point-of-sale data is shared further back up the supply chain.

The author firmly believes that the dynamics of the mass merchandising discount channel will pervade other retail channels in the future. The specialty or niche retailers like the home do-it-yourself retailers and office supply retailers will be the next retailers to employ the tactics of their counterparts in the mass merchandising discount channel. For these retailers, many of their suppliers already sell to the mass merchant discount channel and could easily be brought on board with new requirements. In fact, the suppliers might benefit from this study by increasing their critical mass of customers and allowing them to gain economies of scale in performing these functions.
The author believes that these concepts of functional shiftability will also transfer into industrial channels of distribution that may differ in operating practices from the mass merchant discount channel. For example, the idea of vendor-managed inventories could be applied to the wholesale paper trade. In this scenario, the manufacturer will manage the inventories of their products in the facilities of their customers, the paper distributors. This action would probably accompany a reduction in the current "creative" pricing by producers to get to a more direct and efficient channel like the move to everyday low pricing provided in the mass merchant discount channel.

There are also extensions to this research in the area of interactive studies of channel members. Advances in information technology are providing data that is mutually beneficial to both suppliers and retailers. One particular area of further research which would be interesting is a deeper probing and understanding of the benefits of transmitted point-of-sale data throughout the supply chain. An important focus would be on the benefits suppliers gain from this additional information. A more detailed investigation to the results of this sharing of information could show less technologically-advanced suppliers the payback of investments in information technology. Point-of-sale data supplied by retailers and used by suppliers in planning was cited as a key benefit for manufacturers from functional shifts like vendor-managed inventory in this research.

Another area of potential interactive research would be to investigate the operating practices of companies who do in fact try to stay ahead of retailer demands. Investigation of corporate thinking in regard to progressive efforts with retail customers would be beneficial to the industry. Those suppliers who do lead in retailer partnering might provide some valuable lessons to those suppliers less involved with their retail customers.
Dyadic research with customers and their suppliers specifically focusing on each individual relationship might follow logically after this current research which sought more aggregate supplier-customer relations. This dyadic research would be especially interesting with suppliers who are purposely increasing their percentage of sales to the mass merchandising discount channel. For instance, how do manufacturer opinions regarding functional shiftability vary as their sales to mass merchants increases.

Extensions of this research relating to possible manufacturer strategies to slow or stop functional shiftability by evening the balance of power in the channel would be beneficial. A traditional strategy for gaining manufacturer influence is increasing brand loyalty. Therefore, a comparison of the retail demands on companies with highly visible or strongly-branded products to companies with lesser-known brands would be beneficial. On a similar note, some suppliers have been successful in steering the demands of their retail customers to more mutually beneficial operations for both parties through in-depth knowledge of channel operating practices and educating retailers on these practices.

Regarding channel costs, a natural extension of this research would be to determine what the recent functional shifts have done to the cost base in the mass merchandising discount channel. If consumers are receiving low prices from the retailers while suppliers have to comply with additional functions, is the supplier's profit margin suffering? Examination of the profitability of those companies supplying the mass merchants might shed light on where the costs for additional function performance are being absorbed. This idea could be examined by looking at public financial information regarding the suppliers in this channel. Broader examination of costs of all members of the mass merchandising discount channel would allow a more exact determination of the
effects of functional shifts on total channel costs. If upcharges for the shifted functions are paid for by the retailer to the supplier, the entire channel becomes more costly. Case studies examining the detailed costing effects of shifting functions to specific suppliers to the mass merchants would also shed light on this issue; however, the investigation of detailed cost data is of course a highly sensitive subject and may not be possible.

This concept could be extended to the analysis of specific cost curves of firms regarding the functions in question. Authors like Coase, Stigler, and Mallen use cost curves extensively to justify the shifting of a function. Investigation of individual firm cost curves would help determine if the lowest cost party is indeed performing a function. An interesting comparison would involve the cost curves for the same function within the supplier, retailer, and third party operations. The current research shows that retailers, by forcing functions onto their suppliers, can change the cost curves of both themselves and their suppliers.

As discussed in the implications, an issue intimately involved with the concepts covered in this research but not covered is legality. For example, what are the legal issues and possible consequences relating to category management, vendor-managed inventory, and consignment sales. Research into this area would not only enlighten the industry but might in fact, lessen the possibility of anti-trust litigation from those firms not included in these programs. However, as delicate as it was to collect information regarding the major mass merchant customers from their suppliers, opinions on these legal issues will be even more difficult to collect.
Appendix A: Definition of Variables and Terms

Category Management—when a vendor/supplier manages the entire category of a specific product line for a retailer. This includes shelf space planning for the managing firm's products as well as the competition, store shelf design, and might include inventory management encompassing store reorders for the category. The cornerstone of the category management process is the management of categories as strategic business units (Harris and McPartland 1993).

Channel Level—The institutions that perform similar channel functions horizontally, and, together with other sets of competitors make up the channel structure. The following would each be considered a level: raw material supplier, manufacturer, retailer, consumer.

Function or Marketing Function—function— a closely related group of activities necessary to allow a product to progress from raw material through sale to final consumer. A function may consist of several tasks.

OR

a job task which a channel member undertakes (Mallen 1973)

OR

a distinct type of task found in the product and/or title flow and whose component activities are so interrelated that they generally performed, or closely controlled, by a single institution (Bucklin 1966, p. 108). In another view, a function may be a group of specific channel tasks or activities. For instance, inventory management entails physical or electronic inventory calculation, reordering of products, and product/material handling in both the distribution centers and the stores.

OR

a major and distinctive economic activity which is inherent in the marketing process, pervades it throughout, and which, through the principle of functionalization and a continuous division of labor, tends to become specialized. (Beckman and Davidson 1967, p. 422)

Examples of channel functions are product manufacture, inventory management/control, and merchandise preparation.

Functional Mix—the combination of functions that a particular member of the channel has responsibility for performing.

Functional Shiftability—the presence of the particular circumstances in the channel which identify the opportunity to shift a channel function from one channel member to another.

Functional Spin-off—the process of transferring responsibility for performing a channel function from one channel member to another.
functional substitutability—the capability of acts of different marketing functions to replace one another in the provision of channel outputs (Bucklin 1966, p. 107)

distributability—the capability of acts of different marketing functions to replace one another in the provision of channel outputs (Bucklin 1966, p. 107)

distributability—the capability of acts of different marketing functions to replace one another in the provision of channel outputs (Bucklin 1966, p. 107)

geographic coverage—the size of selling territory of retail firms defined by number of states in which the retailer sells. This is also a function of the density of store coverage in an area.

management process—two or more functions necessary to allow a product to progress from raw material through sale to final consumer.

manufacturer—unless otherwise stated, a supplier/vendor to the retailer in the channel. This category only includes those firms who produce goods and not merely redistribute them as in the case of a wholesaler/distributor.

marketing channel—a set of interdependent organizations involved in the process of making a product or service available for use or consumption. (Stern and El-Ansary 1992, p. 1)

mass merchandising discount channel—includes multi-category retailers with more than 50 stores specializing in attracting customers on the basis of low price. These retailers might also be referred to as discount department stores or full-line discounters. This category is described by the following table of retailers with sales of more than $1 billion. The fourth column in the table states whether the merchant sells nationally or regionally. If the merchant is regional, the selling area is given.

<table>
<thead>
<tr>
<th>Company</th>
<th>1992 Sales</th>
<th>Stores</th>
<th>Coverage</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wal-Mart</td>
<td>$44.9 Billion</td>
<td>1953</td>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Kmart</td>
<td>$26.449 Billion</td>
<td>2323</td>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Target</td>
<td>$111.743 Billion</td>
<td>554</td>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Caldor</td>
<td>$2.414 Billion</td>
<td>150</td>
<td>Regional</td>
<td>Northeast</td>
</tr>
<tr>
<td>Ames</td>
<td>$2.228 Billion</td>
<td>308</td>
<td>Regional</td>
<td>Northeast</td>
</tr>
<tr>
<td>Bradlees</td>
<td>$1.880 Billion</td>
<td>126</td>
<td>Regional</td>
<td>Northeast</td>
</tr>
<tr>
<td>Venture</td>
<td>$1.863 Billion</td>
<td>104</td>
<td>Regional</td>
<td>Midwest/Southwest</td>
</tr>
<tr>
<td>Hills</td>
<td>$1.766 Billion</td>
<td>151</td>
<td>Regional</td>
<td>Northeast/Midwest</td>
</tr>
<tr>
<td>Shopko</td>
<td>$1.739 Billion</td>
<td>117</td>
<td>Regional</td>
<td>Midwest/Northwest</td>
</tr>
<tr>
<td>Family Dollar</td>
<td>$1.297 Billion</td>
<td>2105</td>
<td>Regional</td>
<td>Southeast</td>
</tr>
<tr>
<td>Rose’s</td>
<td>$1.246 Billion</td>
<td>172</td>
<td>Regional</td>
<td>Southeast</td>
</tr>
</tbody>
</table>

(Discount Store News 1994, p.32)

Retailer—a merchandiser who sells to the general public

Sales Volume—amount of sales in dollars for a fiscal year.

task or marketing task—a discrete, single activity necessary to allow a product to progress from raw material through sale to final consumer. Examples of tasks are product assembly, product packaging, price ticketing, transportation, and store shelf-stocking.
Transaction—occurs when a good or service is transferred across a technologically separable interface. One stage of activity terminates and another begins (Williamson 1981, p. 552)

Vendor-Managed Inventory—when a vendor/supplier is responsible for determining their customer inventory levels and product reordering at the retailer. This can be done at the distribution center level as well as at stores; however, distribution center vendor-managed inventory is more prevalent.

or

when a manufacturer monitors inventory levels at its customer's warehouse(s) and assumes responsibility for replenishing that inventory to achieve specified inventory-turn targets and customer-service levels. The manufacturer thus makes the replenishment decision, rather than waiting for the customer to reorder the product. The customer continues to own the inventory, but those inventories often are dramatically reduced in a continuous-replenishment arrangement (Copacino, 1993, p. 23)."
Appendix B: Questions for Manufacturer Interviews

Logistics Management

How is your logistics function organized? Does it include transportation, inventory management of retail accounts, production planning, and scheduling, etc.?

Describe the structure of your distribution channels and how they are changing?

What partners have you formed links with to allow for QR (Quick Response), efficient consumer response, or continuous replenishment implementation (e.g. vendors, transportation companies, vendors' suppliers)? What percentage of these partnerships were initiated by your company?

Are your retail accounts emphasizing shipping of "shelf-ready" merchandise to stores? On what criteria are these decisions based (e.g. cost and availability of labor, employee turnover, training, productivity, quality)?

Will cost requirements prevent your company from implementing these initiatives? Do you feel that your retailers consider this?

How often do your retail accounts typically place orders? What is the trend (how has this changed--past, present, future)? What is the mass merchant service specification (ship every account every day)? that your DC has to meet? Has the service specification been defined? If so, was it dictated by the retailer or was it a mutual decision?

How is your DC organized to meet mass merchants' needs? What other types of customers do you serve and how do their requirements differ from mass merchandisers' requirements?

What are the trends (past, present, future) in cost allocations, such as cost per unit and cost per carton as a result of mass merchant requirements such as QR?

Do you use wholesalers/distributors to get your product to retailers? What value-added services/functions do they perform that justify their role?

What value-added services do you currently provide for mass merchandisers? Who initiated this? What further capabilities are you developing to meet these changing requirements? Do mass merchants communicate their requirements to you in an effective manner?
Do you view third-party providers as more advanced than your own distribution centers in providing these value-added services? What role do you project that third-parties will have in the future? Do you subcontract certain functions within the warehouse or do you outsource the complete warehousing function? How are decisions made about whether or not to use third-parties?

Are the retailers' forecasts communicated to you in a timely manner to enable you to react appropriately? Are these forecasts reported to you in a format that is acceptable (i.e., a format that can be translated into your system)?

How, if at all, are the carriers linked into the QR system? Does it depend on inbound vs. outbound? Do you share shipping and/or sales information with your carriers?

How much information is shared regarding costs between retailer and vendor? Is this information used to decide what additional functions vendors or distributors could more efficiently perform (labeling, assembly, ticketing, etc.)? Are separate invoices used if the vendor performs any special handling services for the retailer (e.g. if the vendor pretickets the product, do they invoice the retailer's logistics department to prevent erosion of the buyer's gross margin)?

Are vendors penalized if they don't use EDI, or miss an appointment window, or don't perform a service requirement, etc.? What types of penalties do you use?

**Service Requirements**

What are the specific service requirements and who provides what services? How is it decided who performs which services? What is the trend and how fast are you moving toward changes in who provides what services? This would include: (1) product requirements, such as floor ready, vendor-managed inventory, etc., (2) logistics requirements, such as packaging, lead time, labeling, (3) systems requirements, and other requirements.

Are you working with your vendors to integrate them into the QR process? How is this started? Are there any rewards or penalties involved? Have any of your suppliers been initiators of this type of relationship? Have any of your customers suggested that you involve your suppliers? Are your suppliers way behind the QR learning curve? Any thoughts of involving your suppliers' suppliers?

Has your company had difficulty complying with your service requirements? Are mass merchants more demanding than other retailers? Have you walked away from any retailers who are too demanding? Has difficulty in complying impacted your business relationship with them? Has your company attempted to negotiate with any retailers to slow down more stringent service requirements? Do you feel that there is a power difference that would prevent this from ever happening?

Are you asking your suppliers to take a greater role in managing your inventories?
Which of your service requirements do your vendors seem to have the most trouble meeting (delivery lead times, order error rates, inventory goals, fill rates, etc.)?

Are you aware of the service requirements demanded by the most demanding mass merchandisers? How far up the supply chain will these requirements be transferred? Do you envision that these requirements will become industry standards or will each retailer have a unique, customized set of requirements?

Are third-party providers better equipped to meet retailer service requirements, especially if these requirements vary by retailer—if so, who (retailer or manufacturer) would their customer be?

Have you seen a more pronounced use of third parties by companies who are only beginning to implement QR? Are the smaller participants in the QR process more likely to contract out to third parties to meet new requirements?

Technology

Do you share POS (Point-Of-Sale) and/or forecast information with your vendors? If yes, at what level of detail is this information shared and how is it shared (by EDI, fax, mail, meetings)? Do your customers offer more information than you can accept (volume of sales data, for example)? How far back up the supply chain is this information shared? Do you share any of this information with your vendors? Do you have to be a "preferred" vendor to have access to this information? What do you do with this information? What drawbacks, if any, have you experienced?

What are the costs (initial investment and ongoing) related to these systems (people-related and technical)? Why did you implement these systems? Were they implemented as a result of a cost/benefit analysis or some other reason?

Will cost requirements prevent your company from implementing these initiatives—is this a consideration?

Sales Management

Do you have partnerships with selected retailers? What percentage of partnerships were initiated by your company? How do you define "partnership"? How many partners do you have? How do you decide who to partner with? What types of partnerships are they (continuous replenishment, joint transportation management, etc.)? Do you have a formal set of partnership requirements that I could see?

Are the partnerships cooperative or required? Are you rewarded for partnering or are you penalized for not partnering?

Does your company manage your own inventories in any retail stores and/or distribution centers? Do you see a trend towards more vendor-managed inventories? Do orders require approval by the retailer, if not, what guidelines are set up?
Is your company penalized if you don't use EDI, or miss an appointment window, etc.? What types of penalties do you been issued?

What are specific benefits to your company? What incentive or penalties do retailers your company to invest in new technology, etc.? Do any of your retail accounts help your company come on line with the new technology (e.g., personnel training or financial incentives, which could involve sharing costs of getting on line or specific rewards for your company coming on line)?

Can you make available any internal studies which confirm that these retail relationship changes have reduced or increased costs, increased turns, reduced lead times, or otherwise improved operations?

What changes are being made in the amount of retailers' backroom space planned in new or remodeled stores (increasing or decreasing)? If it is being reduced, how does this affect DC storage (yours and the retailer's) and/or value-added services and where they are being performed? Do you envision more store functions being performed at distribution centers (yours or the retailer's)?

Are your retail accounts emphasizing shipping of "shelf-ready" merchandise to stores? On what criteria are these decisions based (e.g., cost and availability of labor, employee turnover, training, productivity, quality)?

**Internal Performance Measures**

Are current costing systems appropriate—for example, are profitability and costs well defined at the brand or product level? Do you measure customer profitability?
Appendix C: Questions for Retailer Interviews

Distribution Management

Describe the structure of your distribution channels and how they are changing?

What are the trends (past, present, future) in cost measurements, such as cost per unit and cost per carton as a result of QR (Quick Response) initiatives?

Have you seen a more pronounced use of third-parties by companies who are only beginning to implement QR? Are the smaller participants in the QR process more likely to contract out to third parties to meet the new requirements?

Do you share shipping or sales information with your carriers? How do your carriers get involved?

How much information is shared regarding costs between retailer and vendor? Is this information used to decide what additional functions vendors or distributors could more efficiently perform (labeling, assembly, ticketing, etc.)? Are separate invoices used if the vendor performs any special handling services for the retailer (e.g., if the vendor pretickets the product, do they invoice the retailer’s logistics department to prevent erosion of the buyer’s gross margin?)?

Are vendors penalized if they don’t use EDI, or miss an appointment window, or don’t perform a service requirement, etc.? What types of penalties do you use?

Service Requirements

What are the specific service requirements and who provides what services? How is it decided who performs which services? What is the trend and how fast are you moving toward changes in who provides what services? This would include: (1) product requirements, such as floor ready, vendor-managed inventory, etc., (2) logistics requirements, such as packaging, lead time, labeling, (3) systems requirements, and other requirements.

Have any of your vendors had difficulty complying with your service requirements (example—manufacturers who have walked away from retailers who are too demanding)? Has difficulty in complying impacted your business relationship with them? Could powerful manufacturers successfully negotiate with retailers to slow down more stringent service requirements?

Which of your service requirements do your vendors seem to have the most trouble meeting (delivery lead times, order error rates, inventory goals, fill rates, etc.)?
Are you aware of the service requirements demanded by the most demanding mass merchandisers? How far up the supply chain will these requirements be transferred? Do you envision that these requirements will become industry standards or do you have a different set of requirements? Do you feel that you can have a competitive advantage by being less stringent?

Are third-party providers better equipped to meet retailer service requirements, especially if these requirements vary by retailer—if so, who (retailer or manufacturer) would their customer be?

Technology

Do you share POS (Point-Of-Sale) and/or forecast information with your vendors? If yes, at what level of detail is this information shared and how is it shared (by EDI, fax, mail, meetings)? Do you offer more information than your vendors can use? How far back up the supply chain is this information shared? Do you share this information with all vendors or only "preferred vendors?" What do your vendors do with this information? What drawbacks, if any, have you experienced?

What are the costs (initial investment and ongoing) related to these systems (people-related and technical)? Why did you implement these systems? Were they implemented as a result of a cost/benefit analysis or some other reason?

Will cost requirements prevent some vendors from implementing these initiatives—is this a consideration?

Do you have partnerships with selected vendors? Do you have other business partners in addition to vendors? How do you define "partnership?" How many partners do you have? How do you decide who to partner with? What percentage of partnerships are initiated by your company? Are these partnerships cooperative or required? Are there rewards for partnering or penalties for not partnering?

Do you directly attempt to involve in your processes supply chain members other than your direct vendors? If so, why is this important to your company? How do you encourage this participation (incentives)? If your don't directly involve others, do you encourage your suppliers to involve others? If so, why is this important to your company? Are the resources required different at other points in the supply chain? Are companies prior to manufacturers in the supply chain way behind on the learning curve? If so, which ones?

Do any of your vendors manage their own inventories in your stores and/or distribution centers? Who initiates this? Do you see a trend towards more vendor-managed inventories? Do they require PO approval or, if not, what guidelines are set up?

Are your vendors penalized if they don't use EDI, or miss an appointment window, etc.? What types of penalties do you use?
What are specific benefits for vendors? What incentive do retailers give suppliers to invest in new technology, etc.? How do you help your vendors come online with the new technology (e.g. personnel training or financial incentives, which could involve sharing costs of getting online or specific rewards for vendors for coming online)?

**Merchandising Issues**

Do you expect your suppliers to help you merchandise?

**Store Operations**

Are you emphasizing shipping of "shelf-ready" merchandise to stores or are the stores preparing merchandise for sale? On what criteria are these decisions based (e.g. cost and availability of labor, employee turnover, training, productivity, quality)?

**Internal Performance Measures**

Are current costing systems appropriate—for example, are profitability and costs well defined at the brand or product level?
Appendix D: Survey Letters and Mail Surveys for Manufacturer and Retailer

Initial Letter Covering Survey and Research Purposes

«SAL» «FNAME» «LNAME»
«TITLE»
«COMPANY»
«ADDRESS»
«CITY», «ST» «ZIP»

Dear «SAL» «LNAME»:

I am in the process of doing research in the mass merchandising discount retail channel to determine the status of the shifting of specific channel tasks (i.e. carton labeling, vendor-managed inventories) between members of the channel. This research is a part of my doctoral dissertation under the guidance of Dr. Bernard J. La Londe at The Ohio State University. Specifically, I am trying to determine what functions or tasks your company now performs that you may not have performed in the past. In addition, I would like to get to the reasons why these changes in function or task performance have occurred.

I have not found any other way of getting this information. Therefore, I really need your help to accomplish the research objectives as the success of this survey and that of my dissertation depend upon your participation. I have purposely tried to keep the questionnaire brief to minimize your time needed to respond. You are a part of a small, select sample chosen who can provide valuable insight into the questions posed. Any information you provide will be held strictly confidential. In addition, to show my appreciation for your help, I will provide you with a summary of the survey results.

You can reply by mail in the envelope provided. If it would be more convenient for you, you may fax your responses to me at (614) 292-0440.

Thank you very much for your time and attention.

Sincerely,

Chris Norek
Ph. D. Candidate

Bernard J. La Londe
Mason Professor of
Transportation and Logistics
Appendix D: Survey Letters and Mail Surveys for Manufacturer and Retailer

Messages Left on Phone Mail of Targeted Survey Participants

Message 1

Hi, my name is Chris Norek. I am working on my doctoral dissertation in logistics at The Ohio State University. I am looking at the functions which are shifting among retailers and manufacturers in the mass merchandising discount channel such as carton labeling and special packaging and broader issues like vendor-managed inventories and category management. I would like to speak with you briefly and I will try to reach you at a later time. Thank you.

Message 2

Hi, this Chris Norek from Ohio State University following up on a previous message I left. Again, I would like to speak with you regarding my research in the mass merchandising discount channel. I will try to reach you tomorrow.

Message 3

Mr. or Mrs., this is Chris Norek from Ohio State trying to reach you again. I will try to contact you again tomorrow.
Message 4

Mr. or Mrs., this is Chris Norek. To follow up on previous messages, I am working on my doctoral dissertation in logistics at Ohio State. Specifically, I am trying to determine the functions being shifted among retailers and manufacturers in the mass merchandising discount channel including retailers like Wal-Mart, Kmart, and Target. I have a two-page survey to collect the information I need to finish the dissertation. I have tried to reach you a few times and rather than take up any of your valuable time, I will send you a copy of the survey and hope that you can help me and fill it out. If you can’t help me, please call me at (614) 292-0660. Otherwise, I hope you can help me with the survey. Thank you.
Appendix D: Survey Letters and Mail Surveys for Manufacturer and Retailer

First Survey Mailing Cover Letter

August 24, 1994

«SAL» «FNAME» «LNAME»
«TITLE»
«COMPANY»
«ADDRESS»
«CITY», «ST» «ZIP»

Dear «SAL» «LNAME»:

As a follow-up to our recent phone conversation, I have enclosed a copy of my survey on the mass merchandising discount channel. I am trying to determine what functions are being shifted between manufacturers and retailers and the reasons for these changes (these functions include carton labeling and vendor-managed inventories).

I have purposely tried to keep the questionnaire brief to minimize your time needed to respond. I have not found any other way of getting this information. You are a part of a small, select sample who can provide valuable insight into the questions asked. Therefore, I really need your help to complete my dissertation.

Any information you provide will be held strictly confidential. In addition, to show my appreciation for your help, I will provide you with a summary of the survey results.

Thank you very much for your time and attention.

Sincerely,

Chris Norek
Ph. D. Candidate
Logistics and Transportation

Bernard J. La Londe
Mason Professor of
Transportation and Logistics

Enclosure
Appendix D: Survey Letters and Mail Surveys for Manufacturer and Retailer

Survey for Manufacturing Firms

Functional Shifts in the Mass Merchandising Discount Retail Channel
Confidential Survey

Please keep your responses in reference to the discount department store channel including Wal-Mart, Kmart, Target, Ames, Caldor, Bradleys, Hills, Venture, Shopko, Rose's, Family Dollar, etc. In addition, please respond to the questions with your personal experience in the field as a foundation for your answers.

1. What percent of your company's sales dollars are sold to discount department stores? ______ %

2. The following are some tasks or functions which may be shifting or have already shifted from the retailers to manufacturers. Please circle the firm responsible for the function in your business dealings in the past, presently, and what you anticipate in the future. In addition, please circle the firm who initiated the functional change. If your company uses a third party to perform any of the additional functions please check the far right column corresponding to the specific function. For the last three functions, please fill in the number of accounts you have on these programs.
   Note: "M" represents "Manufacturer" and "R" represents "Retailer."

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
<th>Initiator</th>
<th>3rd Party</th>
<th># of Accounts</th>
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</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallets</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
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<td></td>
</tr>
<tr>
<td>Store Delivery</td>
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<td>M R</td>
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<td>M R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Specific Cartons/Boxes</td>
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<td>M R</td>
<td>M R</td>
<td>M R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Specific Product Packaging</td>
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<td>M R</td>
<td>M R</td>
<td>M R</td>
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<td></td>
</tr>
<tr>
<td>Case Pack Changes</td>
<td>M R</td>
<td>M R</td>
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<tr>
<td>Vendor-managed inventory</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
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</tr>
<tr>
<td>Category Management</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Risk for Inventory in DC (Consignment Sales)</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td></td>
<td></td>
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<tr>
<td>Other tasks</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
<td>M R</td>
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</tbody>
</table>

3. What are the reason(s) for the shifts in task responsibility?

________________________________________________________________________

4. What benefits do manufacturers gain from these new responsibilities?

________________________________________________________________________

5. The shifts in task responsibility are: Voluntary Required

\[1\ 2\ 3\ 4\ 5\ 6\ 7\]

6. If a gain in efficiency is achieved through the shift of a task or function, what percent of the benefit accrues to the Manufacturer Retailer Total 100%
7. Do larger retail firms (> $5 billion in sales) push more functions back to vendors than the smaller retailers (< $5 billion in sales)? YES NO

8. Can you reduce the burden of extra functions by being innovative and proactive with your retail customers rather than reacting to demands? YES NO

9. Are larger manufacturers more likely to be able to reduce the number of additional functions performed for retailers than smaller manufacturers? YES NO

10. How are the costs of the shifts of tasks or functions shared among the
Manufacturer
Retailer
Total 100%

11. Do you know the cost of performing the additional functions? YES NO
If yes, how do you determine the additional costs of performing these new functions?

1) Direct Product Profitability (DPP)
2) Activity-based Costing
3) One-time Audit
4) Other

12. Do you know the profitability of each of your customers on a detailed cost basis? YES NO If yes, how?

13. Are you compensated either monetarily or otherwise for the performance of the additional functions? YES NO
If yes, how?

14. Have there been any penalties/sanctions for non-performance? YES NO If yes, what types of penalties were they?

15. Is your company shifting functions further back up the channel (i.e. from your company to your suppliers)?
YES NO If yes, which functions?

16. Do you use third parties to perform these new tasks for you? YES NO If yes, which tasks do they perform?

17. Are you more likely to outsource the performance of more specific functions like packaging than more comprehensive functions like vendor-managed inventory? YES NO

18. What is your rationale for using third parties to perform these extra functions?

19. Your Title______________________________________
20. Your Company's Product Lines
21. Your Company's Annual Sales Revenue

If you need additional space, feel free to enclose your own paper. Also, I would appreciate any information you could release regarding the shifting of functions in addition to that gathered in this survey. If you could provide any brochures or data on your relations with customers regarding such programs as vendor-managed inventory, I would greatly appreciate the additional information. Again, any and all information will be kept in the strictest confidence.

Thank you very much for your time and attention. Please attach your business card here if you would like a summary of the results or if you prefer to remain totally anonymous, you may send your card separately. Please send your survey to the following address or fax it to (614) 292-0440.

Chris Norek
Department of Marketing
221 Hagerty Hall
1775 College Road
Columbus, OH 43210
Appendix D: Survey Letters and Mail Surveys for Manufacturer and Retailer

Survey for Retailing Firms

Please respond to the questions with your personal experience as a foundation for your answers. Feel free to add any comments or additional paper as necessary.

1. The following are some tasks or functions which may be shifting or have already shifted between retailers and manufacturers. Please circle the firm responsible for the function as your business dealings in the past, presently, and what you anticipate in the future. In addition, please circle the firm who initiated the functional change. If your company uses a third party to perform any of the additional functions please check the far right column corresponding to the specific function. Note: "M" represents "Manufacturer" and "R" represents "Retailer."

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Past</th>
<th>Now</th>
<th>Future</th>
<th>Initiator</th>
<th>3rd Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Specific Mixed Pallets</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Store Delivery (DSD)</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td></td>
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<tr>
<td>Department Specific Catalogs/Texts</td>
<td>M</td>
<td>R</td>
<td>M</td>
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</tr>
<tr>
<td>Customer Specific Product Packaging</td>
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<td>R</td>
<td>M</td>
<td>M</td>
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</tr>
<tr>
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<td>R</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Case Pack Changes</td>
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<td>R</td>
<td>M</td>
<td>M</td>
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<tr>
<td>Vendor-managed Inventory</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
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<tr>
<td>Financial Risk for Inventory in DC</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>(Consignment Sales)</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Category Management</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>(Category management for this study is when the manufacturer handles store category design and assigns shelf space to all products in the category.)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Other tasks</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
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</tr>
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</table>

2. What are the reason(s) for the shifts in task responsibility?

________________________________________________________________________

3. What benefits do manufacturers gain from these new responsibilities?

________________________________________________________________________

4. The shifts in task responsibility are:

<table>
<thead>
<tr>
<th>Voluntary</th>
<th>Required</th>
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<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
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</tbody>
</table>

5. If a gain in efficiency is achieved through the shift of a task or function, what percent of the benefit accrues to the Manufacturer, Retailer, and Total?

   Manufacturer: __________%
   Retailer: __________%
   Total: __________%

6. Do larger retail firms (> $5 billion in sales) push more functions back to vendors than the smaller retailers (<$5 billion in sales)?

   YES NO

7. Can manufacturers reduce your demands of performing extra functions by being innovative and proactive with you rather than reacting to demands?

   YES NO
8. Are larger manufacturers more likely to be able to reduce the number of additional functions performed for retailers than smaller manufacturers? **YES** **NO**

9. How are the costs of the shifts of tasks or functions shared among the-Manufacturer
Retailer
Total

10. Do you know the cost of performing the additional functions? **YES** **NO**

   If yes, how do you determine the additional costs of performing these new functions?
   1) Direct Product Profitability (DPP)
   2) Activity-based Costing
   3) One-time Audit
   4) Other

11. Do you know the profitability of each of your supplier's products on a detailed cost basis? **YES** **NO** If yes, how?

12. Do you compensate your suppliers either monetarily or otherwise for the performance of the additional functions? **YES** **NO** If yes, how?

13. Are there any penalties/sanctions for supplier non-performance? **YES** **NO** If yes, what types of penalties are they?

14. Are functions being shifted further back up the channel (i.e. from your suppliers to their suppliers)? **YES** **NO** If yes, which functions?

15. Do you use third parties to perform tasks for you? **YES** **NO** If yes, which tasks do they perform?

16. Are you more likely to outsource the performance of more specific functions like packaging than more comprehensive functions like vendor-managed inventory? **YES** **NO**

17. What is your rationale for using third parties to perform these extra functions?

18. Your Title ________________________________

19. Your Company's Sales Region ________________________________

20. Your Company's Annual Sales Revenue ________________________________

21. I would appreciate any information you could release regarding the shifting of functions in addition to that gathered in this survey. If you could provide any brochures or data on your relations with suppliers regarding such programs as vendor-managed inventory, I would greatly appreciate the additional information. Again, any and all information will be kept in the strictest confidence.

Thank you very much for your time and attention. Please attach your business card here if you would like a summary of the results. Please send your survey in the postage-paid return envelope or fax it to (614) 292-0440. If you prefer to remain totally anonymous in regard to your responses, you may send your card separately to me at the address below.

Chris Norek
Department of Marketing
221 Hagerty Hall
1775 College Road
Columbus, OH 43210
Appendix D: Survey Letters and Mail Surveys for Manufacturer and Retailer

Second Survey Mailing Cover Letter

October 3, 1994

«SAL» «FNAME» «LNAME»
«TITLE»
«COMPANY»
«ADDRESS»
«CITY», «ST» «ZIP»

Dear «SAL» «LNAME»:

A few weeks ago, we spoke regarding my doctoral dissertation research involving the shifting of functions in the mass merchandising discount channel. Since then, I have found that some of the surveys I sent out did not get to the intended parties. Therefore, I am enclosing another copy of the two-page survey for you. If you have already sent the first survey back to me, please disregard this mailing and thank you for your participation.

Again, any information you provide will be held strictly confidential. In addition, to show my appreciation for your help, if you attach a business card to the survey I will provide you with a summary of the survey results.

If at all possible, please respond by October 14.

Thank you very much for your time and attention.

Sincerely,

Chris Norek
Ph. D. Candidate
Logistics and Transportation

Bernard J. La Londe
Mason Professor of Transportation and Logistics

Enclosure
Appendix E: Manufacturer Answers/Comments to Survey Questions

Question 3: What are the reason(s) for the shifts in task responsibility?

1. Increased profitability for customers
2. Meet customer requirements
3. Typically related to quick response (ECR) initiatives taken primarily by customer but enjoined by manufacturer to gain competitive advantage or avoid competitive disadvantage
4. Retail industry through quick response programs and grocery through "ECR" are transferring responsibilities and costs to vendors in order to enhance their margins (profits)
5. Partnering/information sharing and cost sharing
6. Retailers becoming more demanding
7. Shortened supply chain, manufacturing takes risk. Retailer looks for cash anywhere possible
8. Lower costs to retailers
9. Generally the retailers are attempting to drive costs out of their operations pushing costs back at manufacturer
10. Mass merchant controls costs better; partnerships; increase in niche marketing
11. Shifting inventory responsibility back onto the manufacturer
12. Concentration of customer base--MM aren't just store keepers but marketers
13. Retailers want to reduce their costs to increase (their) profitability. Also, QR has necessitated some of these changes
14. Customers want unique products so that they can advertise the lowest price
15. Retailer shift in power. Now demand pull versus production push
16. Control for Retailers--power and using it. Manufacturer does it as number three player to get more business over top two.
17. Reduction in trade inventory levels; increased account specific marketing
18. Faster distribution--reduce retailer costs
19. Cost cutting for retailers, utilizing manufacturers expertise to their benefit; create partnerships
20. Wal-Mart's success--ECR/Downsizing and need to get clearer consumer signal of actual sales
21. Inventory turns/cost
22. 1) Shift costs and accountability 2) Manufacturing might be able to do some things better 3) Partnering
25. Vendor-managed inventory shifted back to the retailer at his request. This was due to financial costs of carrying the correct inventory levels which increased the order fill rates.

26. Have quicker floor-ready merchandise

27. Customer typically asks us to accept this responsibility

28. Partnership

29. Demanded by customer, more efficient supply chain

30. Cash flow management by retailer

31. Manufacturers know their product the best and when they have a role in VMI and category management only good things happen

32. I see no shifts--responsibility has always been on the manufacturer--cost of doing business

33. Reduced retailer cost and improved margins and cash flow

34. As with everything, control and cost

35. Stores want value added services increase inventory turns, improve profits with minimal cost to their operations

36. Central warehousing costs on the part of the retailer. Also, cost of inventory

37. Growth of club stores and supercenters. Customer required

38. Reduced costs and lead times for retailers

39. Emphasis on ECR, Efficient Consumer Response. Retailer wants to drive excess inventory out of system

40. Customer demand

41. Customer's desire to carry less inventory but still be able to satisfy consumer demand

42. 1) Retailer pushing cost to manufacturer 2) Quicker process time through retailer DC's

43. Quicker flow at retail; cost reduction at retail

44. Save time--save money

45. To transfer cost and provide uniform inbound receipt program and inventory

46. 1) Customer needs data for his planning system(s) 2) customer needs to feed his system(s) with anticipated delivery quantities, etc. to create reorders; backorders

47. Retailers are trying to drive out costs in their operations--pushing responsibilities back in the supply chain. They are seeking risk-free retailing.

48. To simplify logistics on customer's end, however, every customer has different requirements

49. More efficient flow through pipeline; customer service

50. Increase efficiency and reduce costs of retailer

51. 1) Faster delivery cycle and lower inventory--benefits retailer 2) More accurate and predictable ordering patterns--benefits vendor

52. Push costs to suppliers

53. Reduce costs through the supply channels, lower shelf price to consumer

54. Drive costs out of retailer's system and force manufacturers to deal with their costs through new methods

55. Power shift in the channel towards mass merchandisers
Competitive. Different products per retailer
58. Pushing responsibility to those with less power in chain
59. Lower retailer's cost; the manufacturer knows it's product better than the retailer
60. Competition
61. Eliminate waste—improve communication. Competition—margin squeeze at retail
62. Reduced costs (inventory and handling) for retailer
63. Shifting burden of store delivery and VMI to manufacturers reduces retail costs of handling responsibility internally
64. Shifting burden of store delivery and VMI to manufacturer reduces retail costs of handling responsibility internally
65. Helped us to gain floor space and insure better presentation of our product
66. Push costs to manufacturer; generate efficiencies
67. Retailers push to gain control of category
68. Push work back to manufacturers; in theory, manufacturer is more knowledgeable about category
69. The mass merchandisers are "focused" on logistics; they also have dealt with more general merchandisers who are ahead of the grocery industry in some of these key areas
71. With direct-to-store replenishment, we in effect warehouse, work with retailers on model stock levels, insure rapid replenishment
74. Technology and learning. Kmart started in VMI and discontinued the practice with many vendors. Wal-Mart is operating differently now than three years ago.
75. NA
76. Quick response; bar code scanning; 128 ship labels; advanced ship notices
77. Push warehousing and administrative cost back to supplier viewed as synergies between customer and supplier
78. From an efficiency/cost standpoint, we encourage the retailer to order in single pallet quantities
79. Requests from customer
80. We believe that most of the shifts are the result of the retailer shifting costs to the manufacturers to improve profitability
81. Productivity and costs reductions
82. Reduce costs, improve efficiencies, technology advances, competition
83. Shift of cost from retailer to manufacturer; shift of workload from buyer to sales manager
84. Efficiency; placing responsibilities in the hands of those most capable; retailer cost reduction
Question 4. What benefits do manufacturers gain from these new responsibilities?

1. Stronger relationship and loyalty with the customer
2. Customer satisfaction. Increased sales—hopefully
3. More SKUs in distribution; better promotions, greater volume
4. Vendor-managed inventory can benefit vendor if out of stocks on retail
    shelves can be avoided and therefore product sales increased. Category
    management may benefit vendor if the vendor is fortunate enough to be
    selected to manage the category.
5. More in-depth knowledge of store movement; ability to distinguish
    themselves as superior service vendor
6. Very little. Costs increase significantly. Manufacturers must be firm in
    passing these "customized" costs on to the retailer.
7. Harder for retailer to change supply source
8. Larger size shipments—lower costs for transportation
9. ECR (Efficient Consumer Response) today manufacturers feel we are
    absorbing retail costs—we need to develop partnerships which benefit both
    parties in driving costs down
10. Better sales forecasting results in huge operating savings once a threshold
    is reached
12. Volume gains. Reduction in costs (inventory/logistics)
13. We are able to continue to do business with these customers and realize
    most of the technological and QR benefits associated with these changes
14. Possible volume increases
15. More retailer loyalty and simplification (cost reduction) of supply chain
16. Retailers have been assuming influence on pipeline management
17. Long run—tremendous amount of smoothing—didn't know how great this
    would be. VMI helps smoothing demand. A lot of business. Forces you
    to be better
18. Short term our costs go up. Longer term I hope it will force us to drive
    costs out of our process and increase flexibility and profitability
19. Increase in sales turn on product in stores, lower inventories in warehouse
20. Allows us greater flexibility and influence to better their retail operations,
    improve their margins, give us more business.
21. Stock allocation is delayed to last moment; lower inventory within supply
    channel
22. Lower inventory cost
23. 1) Competitive edge 2) market information
24. More sales
25. Better relationship with customer
26. Point of sale difference which lets us control our category
27. Reduced costs if great enough volume. Keeps a customer
28. Very little, except compliance to retailers demands continues sales pattern
    Better sales and the power you gain from the point of sale data
30. EDI—improved accuracy and administration. Hopefully, continued sales
33. Better product flow. More shelf space, joint advertising, end-caps, free-standing islands
34. Very little! Manufacturers are being forced to provide more for less
35. Sell more product through the channel. Builds partnerships
36. Shorter lead times and lower inventory levels. Lower return rate?
37. Generally, hope to increase sales. Little/no cost benefit--actually increases in most cases
38. Some benefit in "cementing" relationships with retailers. If requests were more standardized, additional benefits would accrue to manufacturer
39. CRP--Strategic alliances with key accounts, staying in the game, increase knowledge of demand and sales for improved forecasting
40. Information sharing, partnership, continued trade
41. Maintain customer base and pick up additional business from manufacturers unable/unwilling to change
42. Better turns at market
43. Better control (quality); enhanced sell through (mixed pallets)
44. 1) Garments get to the stores' floor faster 2) Partnership established/enhanced
45. Very little, in fact it makes the operation more complex because of the different requirements per vendor
46. The more we can help purchasing managers do a good job--the more likely we'll get that business. We want to be perceived as a leading edge manufacturer
47. The increased costs are hopefully offset by more business recognition as a "preferred vendor."
48. Little, no standard method to how customer A is shipped versus customer B's preferred method
49. Continued relationships with customers--the more we can reach into their systems, the more the relationship develops
50. Very little to date--emphasis has been on transferring retailer costs to manufacturer
51. More accurate and predictable ordering patterns
52. Little if any
53. Increased sales, more loyal customers
54. Brand loyalty. Forces manufacturer to reengineer order cycle, become more flexible in manufacturing and reduce inventories
55. Potential for strategic alliances with opportunities for growth; also some scale economies if new customer services reach critical mass for the manufacturer
56. Improved sales results
57. Better customer knowledge and relationship
58. Level out month
59. The manufacturer has more security in knowing that they cannot be easily replaced
60. Lower inventory; more customer satisfaction
61. May change how they do business. Greater understanding of needs throughout the supply chain. Increased knowledge
62. None at this time; this "partnership" should have allowed shared costs and savings. As usual, the larger retailers force their programs on manufacturers.

63. Increased sales--99% instock at store level; reduced inventory at distribution center; increased cash flow; satisfied consumers; improved merchandising flexibility; improved production schedules; reduced costs by less warehouse space, handling costs, interest expense, obsolete merchandise.

64. Manufacturers get better visibility in vendor sales and inventory levels.

65. Valuable space for their branded merchandise plus the retailer has a higher dependency upon the manufacturer.

66. Better understanding of customer’s business; closer working relationships.

68. Improves demand forecasting.

69. Benefits would come from “partnering” with customer for benefit of overall relationship; eventually manufacturer may be able to streamline or redesign overall process.

70. Better able to plan manufacturing.

71. 1) Insures our product is constantly available to customer in all sizes--no missed sales 2) Allows us to more accurately forecast demand.

73. Even demand; increased in-stock at retail.

74. Closer working relationship for number 1 and 2 brands; smaller volume brands are at risk.

75. NA...Brand presence...in store promotion.

76. Tighter inventory control; more leverage with customer on demanding better forecasting.

77. Initiative to get better and more efficient; internal use of innovations.

78. Customer satisfaction.

79. Able to move product through faster.

80. Presently, the benefits are the maintaining of placement of our products, maintaining shelf space allocation and maintaining a working relationship.

81. Tighter partnerships; faster turns; control of category sales.

82. Better relationships with account; better understanding of accounts business; lower inventories; lower costs.

83. Increased sales volume; less focus on low price--more on value added.

84. Increased product throughput at retail; capability to manage own destiny.
Question 2: OTHER TASKS

12. Types of pallets 1 1 0 0
13. EDI/ASN 1 1 1 0.5
16. Special Consumer Orders 0 0 1 1
20. Replenishments 0 0.5 0 0
32. EDI 1 1 1 0
   Advance Shipment Notification 1 1 1 0
35. Slip sheeting 0 1 1 0
   Sensormatic loss prevention labeling 0 1 1 0
36. Drop ship to individual store locations 0 0 1 0
43. Price tickets 0 1 1 0 X
44. Floor ready 1 1 1 0
46. Advance ship notice 1 1 1 0
   Order status transaction 1 1 0
47. Quick Response programs 1 1 1 1 0
   Backhaul programs 1 1 1 0 3
48. Bar coded ship labels 1 0 0
51. Vendor inventory lookup by retailer 0 0
65. Fixture and fixture design 1 1 1 1
74. Product rationalization 0 1 0.5
   Profit for category 0 0 0.5
75. Brand merchandising 0 1 1 1
   Space allocated per UPC 0 1 1
77. Palletizing 0 1 1 0
   ASN 0 1 1 0
78. Tray packing 0 1 1
   Set carrier appointments 0 1 1

Comments Question 5: The shifts in task responsibility are voluntary/required.
3. 4, some of each
4. 5, Shift is moving toward required side
13. 6, almost mandatory
17. 7, required to do business-big guys
27. Most are required--some are voluntary
29. Both
43. 4, both
82. 5, task specific

Comments Question 6: If a gain in efficiency is achieved through the shift of a task or function, what percent of the benefit accrues to the manufacturer/retailer?
9. 50/50 is where we need to be--today at 100/0
10. depends on the task or function--goes both ways
17. Forced to become more efficient. Retailer is not getting much out of it.
   Retailers should get rid of warehouses
28. Depends on function
39. Right now, I'd say most of benefit is for retailer. We don't have systems in place to benefit like we should
66. No formula, case by case basis
78. 0/100 If shift is retailer to manufacturer

Comments Question 7: Do larger retailer firms (> $5 billion in sales) push more functions back to vendors than the smaller retailers (< $5 billion in sales)?

2. No, except for very small retailer <$5 billion
4. Yes, large retailers have more leverage so they are more successful but all retailers are trying
5. No, used to be yes
17. Yes, doesn't matter--not real problem
21. Yes, if vendor believes it is better managed by manufacturer
28. Yes, more advantage taken of new processes. (also crossed "push" and "back" out of question)
29. I don't think size matters yet, it depends on the person in the function
31. No, we are proactive and do not see this as a push
32. Let's say they try!
33. Yes, They are more successful with implementation
46. Yes, they have systems sophisticated enough to use this data
74. It all depends on the retailer
78. Yes, it is an ultimatum with many customers
83. No, smaller firms more demanding

Comments Question 8: Can you reduce the burden of extra functions by being proactive and innovative with your retail customers rather than reacting to demands?

4. No, we are attempting to be both innovative and proactive but our customers are demanding
5. Yes, match needs with processes
6. Yes, we must do so more often
11. No, they'd still make demands
13. Yes, and we have
16. Yes, Absolutely! Dad always told me that if I was going to play a game, to be sure to get on the committee that makes the rules!
18. Yes, although limited. Mass merchants have the "power base"
20. That will depend on the retailer's demands
21. Yes, no one wants failure or poor performance
28. Yes, partnership (also crossed out "demands")
30. No, Wal-Mart does not like manufacturer's comments
32. Again we try--however they have all the leverage
33. Yes, ASN/UCC 128 reduces styling by P.O. or store
35. No, due to size they push uniform programs to the vendors
36. Yes, In some cases, account pays for service
Comments Question 9: Are larger manufacturers more likely to be able to reduce the number of additional functions performed for retailers than smaller manufacturers?

4. Larger manufacturers may put their smaller competitors out of business through category management
9. No, I believe opportunities are greater...
10. No, it becomes a competitive advantage
11. Yes, only if there is a good fit
13. No, only to the degree that a large manufacturer may already be performing these functions for (many) other accounts (customers)
16. No, the small ones are those with the problem
17. Yes, real small have trouble and the large don't
20. Not necessarily--smaller companies often have greater flexibility and adaptability
21. Yes, can delay actions and better reason with the account
31. No, again we view these shifts as a positive and are trying to swing them over to us
32. I doubt it
33. Yes, better systems/information flow and resources
38. I don't know
44. Yes--financially and No--flexibility--must be standardized
46. No, quite the reverse. The more your resources, the more you as a manufacturer should be doing these tasks
47. No, expectations are higher of larger manufacturers
50. Yes, depends on strength in market
54. Yes, they have the resources
55. Industry trends are overwhelming and by and large pretty good ways to do business
61. Yes, but more and more less influence
62. Depends on retailer and their need for the manufacturer’s products
66. Yes, if you see them as non value added—if value added you may not want to reduce
69. No, the retailers “want what they want”—I have not seen a tiered approach—they state their requirements and there is minimal room for negotiating
72. No, larger manufacturers are expected to perform all functions without increasing costs to customer
74. It’s the size of the product line that will dictate and the type of product
80. No, better able to diffuse the cost

Comments on Question 10: How are the costs of the shifts of tasks or functions shared among the manufacturer/retailer?

28. Partnership, wherever makes less expensive supply chain??
31. To date, we have not seen a sharing of the cost only the functions
39. Most costs incurred by manufacturer
46. 50/50, If you add EDI, vendor supplied labels, etc. 50/50 is about right
57. 75M/25R, overall but varies by customer
62. 100M/0R for our company so far
66. Case by case—generally manufacturer is expected to pick up the costs
71. 80/20, varies—sometimes costs shared, usually manufacturer bears all expense

Comments on Question 11: Do you know the cost of performing additional functions?

3. No, difficult to determine
11. No, part of business
13. Yes, in most cases
17. Yes, not very well yet
23. No, soon
27. Sometimes
29. Sometimes
31. OTHER—Personnel required
32. Not directly by account
39. 3, CRP costs are being audited by customer service currently
44. No, estimate only—No choice—must do!
49. No, we’re working on this
63. Hard to track based on ?? sales increased, transportation cost, warehouse space, etc.
66. Yes, for most
73. We think so
If yes, how do you determine the additional costs of performing these functions?

Other

31. Personnel required

Comments on Question 12: Do you know the profitability of each of your customers on a detailed basis? If yes, how?

3. Yes, we have individual customer P&L's for top 80 customers
10. Yes, we have profitability by customer system
12. Yes, we have an internal information system model
13. Yes, DPP analysis for each account
14. Yes, analyze top volume customers
16. No, I think we should
17. Yes, pretty well--freight, etc.
21. No, however, activity-based costing is growing
23. No, soon
27. Generally yes; although not every cost is allocated to each customer
31. Yes, we have customer specific contribution reports
33. Yes, only the physical distribution/logistics costs
34. Yes, just beginning
35. Yes, by knowing the total cost roll-up of producing the product and comparing it to the unit sales price
36. Yes, most differences involve advertising money
42. Yes, by detailed account profitability profile
43. Yes, activity based costing
48. No (answered yes), standard margin basis only
49. No, we're working on this
50. Yes, periodic P&L
51. Yes, through multiple computer systems (logistics, billing, etc.)
55. No, major problem for us!
58. Yes, we basically know their margins
62. Yes, our information systems track all costs and customer ship to location including performance/promo funds and expenses
64. No, we are currently working to develop an ABC system to track this information
65. Yes, Net gross margin of product shipped--credits--marketing support
66. Maybe--part way there on some big hitting items--using a standard cost/actual cost basis
67. Yes, account level P&L's
74. Yes, a sophisticated database
75. No, somewhat--trade journals; category calculations; Turns; ROII--investment, etc.
76. Yes, sales margin report updates
78. Yes, each customer is measured for profitability based on sales, product returns, number of employees necessary to handle the customer's accounts
82. Yes, key customers only; internal tracking
84. Yes, detailed data is maintained
Comments on Question 13: Are you compensated either monetarily or otherwise for the performance of the additional functions? If yes, how?

1. Yes, increased product price
2. Yes, seen #4
3. No, usually not but sometimes yes
4. Yes, but seldom
5. Yes, the privilege of doing business
6. Yes, only to some degree--often in competitive situation
7. Yes, increased order volume and sales
8. Yes, we would expect that retailers would increase merchandising support to help us achieve our consumption objectives
9. Yes, business increases
10. Yes, only very rarely are we able to back charge
11. Yes, through negotiated wholesale price increases over and above the normal increase
12. Yes, sometimes through price
13. Yes, monetarily for some functions, i.e. LTL, DSD, etc.
14. I would use rewarded, as in additional business, rather than compensated
15. Yes, if successful, greater sales, if unsuccessful still recognized as an innovator
16. Yes, sales
17. Yes, category management leader; sales volume increase--easier to do business with
18. Some functions are compensation through direct charges
19. If they are included in performance goals and met; then a financial reward is possible
20. Should result in increase sales--e.g. only canned food supplier for Sam's
21. Sometimes--extra (more) performance, display etc.
22. Better in stock conditions. Better service levels. Better item listings. Better sales and the power you gain from the point of sale data
23. Yes, In some cases we charge for additional services
24. Yes, some accounts reimburse partial costs of ticketing, hanger changes
25. Yes, we are allowed to continue supplying products. If we perform well with CRP, we can potentially get more promos, etc.
26. Yes, upcharge for price ticketing, casing allowance for full case
27. Yes, in some cases depending on the amount of work and it's usually in the unit price
28. No, required to continue doing business
29. No, will not pick store orders or label shipping cases without compensation
30. Yes, additional categories, additional sales
31. Sometimes--higher price or surcharge
32. Yes, increase in sales
33. Yes, closer ties--opportunities to grow business identified and acted on
34. When we are additionally compensated, it is monetarily
35. Yes, Increased selling price or reduced sales allowances
78. Yes, through reduced discounting on specific tasks. Charges may be applicable in 1995 for some tasks
80. Yes, by maintaining or increasing distribution with customer, shelf space
84. Increased sales

Comments on Question 14: Have there been any penalties/sanctions for non-performance? If yes, what types of penalties were they?

1. Yes, monetary
2. Yes, chargebacks and markdown of merchandise
3. No, because we meet customer requirements. Most significant penalty would be to discontinue line
4. Yes, chargebacks--of invoice deductions
5. Yes, bar code error fines/shipping error fines
6. Yes, deductions from invoice
7. Yes, late delivery, damage, non movement, profit guarantees
8. Yes, chargebacks of $75-200/shipment
9. No, not aware of any yet, however, retailers have threatened to discontinue product lines if we do not comply
11. Yes, per shipment charge for non-conformance
13. Yes, the accounts impose "chargebacks" which results in a deduction in our invoice amount
14. Yes, monetary
17. No, threats though
18. Yes, less likely to take new products/line extensions; short pay bills (deductions)
19. Yes, fines for non-compliance
20. Yes, chargebacks, reduced business, hard feelings
21. Yes, lost opportunities for sales
25. Yes, major retailers have a list of penalties associated with failures
26. Yes, financial
27. Yes, fees for being out of stock on special display pallets
28. We have been very willing to participate
29. Sometimes, less performance
30. Yes, loss of current/future sales
31. N/A
32. Yes, refused orders
33. Yes, chargebacks
34. Yes, deleted items and dollar penalties
35. Yes, some contracts call for deductions if fill-rate goes below a targeted level
37. Yes, Product discontinuation or non-introduction
38. Yes, chargebacks for non-compliance or errors
39. No, penalties have been threatened for not receiving POS or sending
40. Yes, chargebacks
41. No, believe that in the future there may be penalties assessed
42. Yes, labeling and master pack penalties
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<thead>
<tr>
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<th>Comment</th>
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<tr>
<td>44.</td>
<td>Yes, bar code readability, packing errors, missing carton labels, not ticketed properly</td>
</tr>
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<td>45.</td>
<td>Yes, chargebacks</td>
</tr>
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<td>46.</td>
<td>Yes, loss of volume; becoming the second source</td>
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<td>47.</td>
<td>Yes, deductions for product not labeled correctly</td>
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<td>50.</td>
<td>Yes, monetary—retailer deducts</td>
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<td>52.</td>
<td>No, threats—but no collections—Yet</td>
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<td>54.</td>
<td>Yes, Fines through invoice deductions for not labeling, missing appointments, backorders, etc. (B/O's)</td>
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<td>55.</td>
<td>No, not for us; would imagine the primary penalty will be loss of sales and control</td>
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<td>56.</td>
<td>Yes, deductions from invoices, loss of programs, ads</td>
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<td>58.</td>
<td>Yes, lost orders</td>
</tr>
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<td>61.</td>
<td>No, no choice</td>
</tr>
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<td>62.</td>
<td>Yes, per order changes and risk of loss of business</td>
</tr>
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<td>63.</td>
<td>Yes, warehouse stocking charge for over inventory—% charge on carriers that miss appointment</td>
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<td>65.</td>
<td>Yes, not complying with UPC’s not on file—a fine</td>
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<td>66.</td>
<td>Yes, mostly dollar penalties—but only in repeated severe cases—will not pay for crazy penalties on an unfair basis</td>
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<td>68.</td>
<td>Yes, financial penalties, up to 7.5% off invoice</td>
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<td>69.</td>
<td>Yes, either financial penalties or loss of order</td>
</tr>
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<td>70.</td>
<td>No, we have had threats of penalties</td>
</tr>
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<td>71.</td>
<td>Yes, in particular, fines for non-scannable bar codes</td>
</tr>
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<td>72.</td>
<td>Yes, generally as fixed charges from a vendor compliance schedule</td>
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<td>74.</td>
<td>Yes, the page isn’t long enough—primarily discontinuation of products</td>
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<td>76.</td>
<td>Yes, scannable label placement on carton not perfectly placed</td>
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<td>77.</td>
<td>Yes, drop SKU from reorder and deductions from invoice</td>
</tr>
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<td>78.</td>
<td>Yes, special handling charges against the manufacturer for non-compliance</td>
</tr>
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<td>79.</td>
<td>Yes, administrative fees, manual processing fees, loss of business</td>
</tr>
<tr>
<td>82.</td>
<td>No, however, there have been threats</td>
</tr>
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Comments on Question 15: Is your company shifting functions further back up the channel (i.e. from your company to your suppliers)? If yes, which functions?

1. Yes, case pack quantities and size mixes
2. Yes, see #2?
3. No, only in limited instances
4. Yes, consignment inventory of raw material
5. Yes, EDI, ECR type activities, shortened supply chain
6. Yes, inbound scheduling programs, standard pallet specifications
7. No, what we are pushing for is shorter lead time on vendor supplied materials
8. No, but we will in the future
9. No, most are internal
10. Yes, but not at the same speed—i.e. VMI procurement of components
13. No, our company represents the entire supply chain; we do however, ask our material vendors to provide ASN and SCM carton labels and bar-coded SKU labels.

14. Yes, higher volume unique packaging.

15. Yes, procurement of transportation (outsourcing).

19. No, we are a wholly owned subsidiary—supplied by HQ.

20. Yes, we are not driving the shift as much as we are reacting and forcing our suppliers to react.

21. Strategy is to try to learn with our vendors.

25. Yes, bar codes and special codings for customer specific products.

29. Yes, purchasing, logistics.

30. Yes, packaging, labeling.

31. Yes, just starting with EDI.

32. Yes, pushing suppliers to hold more inventory.

33. Yes, packaging, bar codes.

34. Yes, inventory, timing.

35. Yes, bar code labeling, quality certification, unit packaging.

37. Yes, some copackers do customization of pallets.

38. Yes, price ticketing, hangers, pre-packing.

39. No, not at this point.

41. Yes, some functions that provide more product flexibility with faster response.

44. Yes, ticketing, packing requirements, hangers.

45. Yes, inventory, packaging, delivery, etc.

46. Yes, 852 point-of-sale data; EDI invoices.

47. Yes, procurement—supplier agreements.

48. Yes, vendor managed inventories to support JIT.

50. No, difficult to do in make to stock scenario.

51. Yes, labeling such as 12 of 5.

52. Yes, pushing some inventory management functions to selected suppliers when it results in a win/win.

53. Yes, inventory management of raw material and packaging.

55. Yes, driving towards make to order for mass merchandisers.

58. Yes, inventory control.

60. Yes, raw materials procurement.

61. Yes, vendor certification.

62. No, does not yet apply to our business.

63. Yes, VMI.

66. Yes, suppliers are self-certifying quality etc.

68. Yes, limited use of full service outside contract packaging.

69. Yes, managing label inventory.

72. Yes, some effort in bar codes.

73. Yes, vendor managed inventory; consignment inventory.

75. Yes, distributors (3rd party) now picking up stales versus manufacturing rep.

76. Yes, barcoding materials so we can scan receipts.

78. No, not enough at this time.

80. No, not at this time but we will consider this option when applicable.

81. Yes, EDI; more frequent delivery; shorter cycle time.
82. Yes, beginning stages

Comments on Question 16: Do you use third parties to perform these new tasks for you? If yes, which tasks do they perform?

1. Yes, case pack quantities and size mixes
3. Yes, consolidated store delivery, where required
7. Yes, to a minor degree i.e. mixed?
11. Yes, repackaging, relabeling—special packaging
12. Yes, special consumer packs, mixed pallet loads
14. Yes, unique packs
15. Yes, transportation management, import and export management, 3rd party repacking
16. No, not yet, under investigation
18. Yes, limited: build special variety packs at copackers or in the warehouse
19. No, most in-house—packaging for blisterpack sent out
20. No, we use printing companies for tickets, labels, etc. but this is not a new change
21. No, not yet, still learning ourselves
24. Yes, special handling/packaging
27. Yes, repacking/new packs
29. Sometimes—special pallets
30. Yes, repackaging
31. Yes, case marking, store door delivery, advance shipment notification
37. Yes, repacking, load consolidation
39. No, not at this time
43. Yes, pallet displays—limited basis due to capacity issues
46. Yes, My V.A.N. translates EDI transactions for me
47. Yes, small order handling—pick and pack—pre-ticketing
50. Yes, special packs
53. Yes, special packs, display ready units, cross dock modules
54. Yes, consolidation
55. Only a little—we use third parties for in-store merchandising
57. Yes, repack tailor
59. Yes, packaging
60. Yes, customer specific packaging
62. Yes, we use 80% third party warehousing, they assemble pallets and apply labels, control paperwork for DSD
64. Yes, warehousing and LTL shipping at our west coast RDC. First of year, third party will manage main RDC in Ft. Worth TX
69. Yes, Labeling, mixed pallets, breaking down loads for DSD
72. Yes, some repacking done by handicapped programs
74. Transportation and third party warehousing and bonding
75. Delivery of cigarettes, picking up returns (stales), some inventory control
79. Yes, repacking, pallet modules
80. No, we are considering this option
81. Yes, store mixed pallets and special packs
Comments on Question 17: Are you more likely to outsource the performance of more specific functions like packaging than more comprehensive functions like vendor-managed inventory?

21. Yes, if not strategic
35. No, company is still vertically aligned
37. Yes, packaging means re-combining not doing primary packaging
72. Yes, packaging
78. No, we outsource nothing at this time
80. Yes, may do so in the future
Question 18: What is your rationale for using third parties to perform these extra functions?

1. Space and time and cost
2. Economics
3. Overall cost/benefit
4. Capacity, cost, location, reduced inventory
5. Reduced personnel
6. Cost, time and skill level
7. Less costly, company workforce is trained for logistics functions that need to be continued uninterrupted
8. Cheaper labor, flexibility
9. Expertise, workload
10. Lower cost than in-house, or avoid investing capital in information systems
11. We are not designed for some of these functions. They don't fit our facilities.
12. Cheaper to perform "off-line"—currently very labor intensive; if critical mass is achieved, will invest to automate where possible
13. Lack of space, time
14. Only if it's cost effective or outside our realm of expertise
15. Lower costs, good performance, reduced overhead, flexibility
16. Cost
17. Handle surges, costs
18. They are more cost effective
19. Too costly, space consuming
20. Cost, quality of final product
21. Least cost method
22. Dollars when it comes to packaging
23. Costs and fixed assets
24. Cost is main reason. Also, space and time requirements can be a factor
25. Avoids complication in plants. In some cases it is required
26. Cost savings and lack of capital
27. Interferes with normal productivity
28. Capacity; prefer to handle in-house for better control
29. Costs
30. Cost effective and social—use rehabilitation centers
31. Reduced start up costs and more distributed risk
32. Cost and manpower
33. Cost
34. Lower total cost, not part of normal process
35. Lower cost, greater flexibility
36. Cost
37. Get started; expertise
38. Our inventory and orders are already processed by the third party warehouse
39. They are better at it. They can better handle peaks and valleys
40. When and if used non-proprietary type work
41. Flexibility, cost effectiveness, available packaging equipment
69. Cost
70. Flexibility with labor
72. Cost savings on wages
74. We need to use third party consolidation to deliver small orders to our customers
76. Don’t want to carry additional SKUs
79. Bakeries not set up for job shop type activities--too automated, no excess labor
80. Variable cost versus the fixed cost of personnel, equipment, time management, etc.
81. Lower cost
82. Lack of economies of scale--->lower costs
83. Capital expenditure
84. Expertise, labor
21. Your Title
1. Distribution Facility Manager
2. 
3. Vice President, Logistics and Distribution
4. Distribution Manager
5. Director of Logistics
6. Distribution Manager
7. Vice President Logistics
8. Regional Distribution Manager
9. Division Logistics Manager
10. Vice President Customer Service
11. Logistics Manager
12. Vice President--Customer Service and Logistics Management
13. Director of Service Logistics
14. Director, Materials Management
15. Director of Logistics Technology
16. Project Manager, Logistics Systems
17. Vice President Distribution and Manufacturing Support
18. Operations Planning Manager
19. Manager, National Distribution
20. Director of Operations
21. Manager, Delivery Services
22. Director Logistics
23. Corporate Manager--Quick Response, EDI
24. Director--Customer Service
25. Director of Transportation
26. Director of Distribution
27. Director of Logistics
28. Vice President, Logistics
29. Vice President, Strategic Alliances
30. Logistics Manager
31. Vice President, Customer Services
32. Vice President of Distribution
33. Director, Logistics Planning and Control
34. 
35. Vice President Customer Services Processes
36. Vice President Distribution
37. Vice President Logistics
38. Vice President Corporate Distribution
39. Production Planning/Inventory Control Manager
40. Manager, Customer Service and Distribution West
41. Logistics Manager
42. Director of Distribution
43. Manager of Retail Distribution
44. Vice President Sales/Distribution
45. Manager Distribution Operations
46. Manager, Materials and Logistics
47. Logistics Manager
48. Director of Physical Distribution
49. Director of Logistics Management
50. Manager, Distribution Systems
51. Vice President, Logistics
52. Director Customer Services
53. Operations Manager
54. Manager, Marketing Support
55. Director, Logistics
56. Vice President Distribution
57. Director Finished Goods and Services Purchasing
58. Director of Logistics
59. Vice President--Customer Support
60. General Manager--Manufacturing
61. Distribution Operations Manager
62. Manager of Quick Response
63. Director of Distribution Sales Plans
64. Operations Manager
65. Director of Customer Service
66. Director, Distribution Operations
67. Director, Distribution and Logistics
68. Manager, Drug Mass Merchandising/Military
69. Distribution Manager
70. North Area Engineering Manager
71. Customer Service Operations Manager
72. Director of Logistics
73. Vice President, Integrated Logistics
74. Director, Trade Programs
75. Director of Manufacturing
76. Director of Distribution
77. Manager
78. Director, Planning and Control
79. Customer Service Manager
80. National Sales Manager
81. Manager, Distribution Services
82. Director, Special Market Sales
83. Distribution Planning Manager
84. Distribution Manager
Appendix F: Retailer Answers/Comments to Retailer Questions

Question 2: What are the reason(s) for the shifts in task responsibility?

1. 2 things—the rapid advancements in technology that allow a shift (communication, etc.) and our company's growth—we want/need the extra help
2. Improve "in-stock" while optimizing inventory investment
3. Technology (ASN); Inventory control capabilities of vendors, floor ready receipts prepared by lowest cost point of processing
4. 1) To push work back to the vendor and lower our union labor costs 2) To speed up this portion of the work
5. Reduce retailing payrolls
6. Some retailers are more willing than others to have vendors control business functions—we are not

Question 3: What benefits do manufacturers gain from these new responsibilities?

1. Additional access to vital information (via EDI) and more control over inventory flow strategies
2. Reduced inventory
3. More awareness of retailer sales/production planning; total logistics cost; competitive advantage through systems interfaces
4. Ensures they keep our business; more orders put through by retailer
5. Better customer service
6. More control and market share with those retailers willing to give up ownership

Question 1: OTHER TASKS

2. Advance Ship Notice 0 0 0 0
3. Apparel Processing 0 0 1 0
6. Preticketing 0 0 0 0 X

Comments Question 4: The shifts in task responsibility are voluntary/required.

Comments Question 5: If a gain in efficiency is achieved through the shift of a task or function, what percent of the benefit accrues to the manufacturer/retailer?

1. Time--25M/75R   Money--40M/60R

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Comments Question 6: Do larger retailer firms (> $5 billion in sales) push more functions back to vendors than the smaller retailers (< $5 billion in sales)?

1. Yes, because larger firms are already doing more of the functions
4. Always!

Comments Question 7: Can manufacturers reduce your demands of performing extra functions by being innovative and proactive with you rather than reacting to demands?

1. Yes, absolutely
4. Yes, we expect this

Comments Question 8: Are larger manufacturers more likely to be able to reduce the number of additional functions performed for retailers than smaller manufacturers?

1. Yes, most small manufacturers do not have the adequate operations staff or the equipment/resources
2. Yes, more resources

Comments on Question 9: How are the costs of the shifts of tasks or functions shared among the manufacturer/retailer?

Comments on Question 10: Do you know the cost of performing additional functions?

1. Yes, approximately

If yes, how do you determine the additional costs of performing these functions? Other
1. Equipment estimates
11. Total Logistics Cost Model (TLC)

Comments on Question 11: Do you know the profitability of each of your supplier's products on a detailed basis? If yes, how?

1. Yes, DPP system
11. Yes, Total Logistics Cost Model

Comments on Question 12: Are you compensated either monetarily or otherwise for the performance of the additional functions? If yes, how?
1. Yes, as an operations group—we recognize/certify them based on their performance versus our process measurements.
2. Yes, COGS until we analyze alternative logistics strategies to reduce costs.
3. Yes, Functional cost included in product cost.
4. Yes, additional orders and a long term relationship with vendor.
5. Yes, better promotional activity for increased sales.

Comments on Question 14: Have there been any penalties/sanctions for supplier non-performance? If yes, what types of penalties were they?

1. No, not yet on a formal basis—probably will happen as an automated chargeout process for compliance.
2. Yes, vendor handling charges for violations.
3. Yes, financial, chargebacks.
4. Yes, reduced business levels and chargebacks to vendor.
5. Yes, vendor fines.
6. Yes, vendors are assessed a fee for inaccurate UPC.

Comments on Question 15: Are functions being shifted further back up the channel (i.e. from your suppliers to their suppliers)?

1. Probably—quality testing, some packaging.
2. Yes, VMI.
6. Yes, EDI and better service levels.

Comments on Question 16: Do you use third parties to perform these new tasks for you? If yes, which tasks do they perform?

1. Yes, repacking product; inventory auditing.
2. Yes, store delivery—100%; breakpack—mixed SKUs in carton.
3. Yes, pricing; import transload; consolidation.
6. Yes, EDI networks; preticketing; imports.

Comments on Question 17: Are you more likely to outsource the performance of more specific functions like packaging than more comprehensive functions like vendor-managed inventory?

Question 18: What is your rationale for using third parties to perform these extra functions?

1. Space limitations; cost-benefit analysis.
2. Improve DPP; reduce inventory; reduce lead time; improve in-stock.
3. Less cost; lack of retailer capacity.
6. Better equipped to provide service at reasonable cost.

21. Your Title
1. Senior Project Administrator
2. Vice President Distribution.
3. Manager of DC Systems, Administration, and Control
4. Traffic Manager
5. General Manager of Distribution
6. Director of Inventory Control
Appendix G: p-values/F Significant Values from Analysis

Table 33. p-values/f-significant values for ANOVA and Logistic Regression

<table>
<thead>
<tr>
<th>Question</th>
<th>ANOVA by Quanlile</th>
<th>ANOVA by Title</th>
<th>ANOVA by Industry</th>
<th>Logistic Regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Pallets Past</td>
<td>0.0641</td>
<td>0.2655</td>
<td>0.3727</td>
<td>0.1209</td>
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<tr>
<td>Mixed Pallets Now</td>
<td>0.6104</td>
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<td>0.6450</td>
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<td>Mixed Pallets Initiator</td>
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<tr>
<td>Mixed Pallets 3rd Party</td>
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<td>X</td>
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<tr>
<td>DSD Past</td>
<td>0.9042</td>
<td>0.2338</td>
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<td>0.7840</td>
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<td>0.8015</td>
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<td>0.1986</td>
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<td>DSD 3rd Party</td>
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<td>Department Specific 3rd Party</td>
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<td>X</td>
<td>X</td>
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<td>Specific Packaging Past</td>
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<td>Specific Packaging 3rd Party</td>
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<td>Carton Label Past</td>
<td>0.9292</td>
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<td>Carton Label Now</td>
<td>0.0540</td>
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<td>Carton Label 3rd Party</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Case Pack Changes Past</td>
<td>0.4066</td>
<td>0.1504</td>
<td>0.2835</td>
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<td>Case Pack Changes Now</td>
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<td>Case Pack Changes 3rd Party</td>
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<td>X</td>
<td>X</td>
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<td>VMI Past</td>
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<td># of Mass Merchants on VMI</td>
<td>X</td>
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Table 33. (continued)

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<th>Question</th>
<th>ANOVA by Quartile</th>
<th>ANOVA by Title</th>
<th>ANOVA by Industry</th>
<th>Logistic Regression</th>
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<tr>
<td>Consignment Sales Past</td>
<td>0.0509</td>
<td>0.9521</td>
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<td>X</td>
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<td># of Mass Merchants on Consignment</td>
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<td>Category Management Past</td>
<td>0.6187</td>
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<td>Category Management Now</td>
<td>0.9221</td>
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<td># of Mass Merchants on Category Mgmt.</td>
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<td>X</td>
<td>X</td>
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<td>Shifts are Voluntary/Required</td>
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<td>0.4615</td>
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<td>Gain in Efficiency--Mfr.</td>
<td>0.4364</td>
<td>0.0318</td>
<td>0.3193</td>
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<tr>
<td>Gain in Efficiency--Rel.</td>
<td>0.4364</td>
<td>0.0318</td>
<td>0.3193</td>
<td>X</td>
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<tr>
<td>Larger Retail Firms Push More</td>
<td>0.6534</td>
<td>0.1097</td>
<td>0.1235</td>
<td>0.9921</td>
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<tr>
<td>Proactive Reduce Burden</td>
<td>0.4318</td>
<td>0.2494</td>
<td>0.0406</td>
<td>0.6685</td>
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<tr>
<td>Larger Mfrs. Push Back</td>
<td>0.3304</td>
<td>0.7425</td>
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<td>Cost Allocated--Mfr.</td>
<td>0.3484</td>
<td>0.3062</td>
<td>0.5745</td>
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<td>Cost Allocated--Rel.</td>
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<td>0.3062</td>
<td>0.5745</td>
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<td>Know Costs of Functions</td>
<td>0.2089</td>
<td>0.6772</td>
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<td>Costing Method</td>
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<tr>
<td>Know Customer Profitability</td>
<td>0.6019</td>
<td>0.2564</td>
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<td>Are Suppliers Compensated</td>
<td>0.4932</td>
<td>0.8859</td>
<td>0.1927</td>
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<td>Are Suppliers Penalized</td>
<td>0.1304</td>
<td>0.5974</td>
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<td>Push Back Up Supply Chain</td>
<td>0.9860</td>
<td>0.2033</td>
<td>0.8907</td>
<td>0.8620</td>
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<td>Do You Use Third Parties</td>
<td>0.0819</td>
<td>0.8240</td>
<td>0.0840</td>
<td>-0.1561</td>
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<tr>
<td>3rd Parties for Specific or Broad</td>
<td>0.8332</td>
<td>0.2767</td>
<td>0.4301</td>
<td>0.1123</td>
</tr>
</tbody>
</table>
Appendix H: Summary Statistics

Table 34. Summary Statistics for All Survey Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Sum*</th>
<th>Count</th>
<th>95% C.I.</th>
<th>Bottom C. I.</th>
<th>Top C. I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Sales to MM</td>
<td>28.036%</td>
<td>83</td>
<td></td>
<td>5.3949</td>
<td>22.6412</td>
<td>33.4310</td>
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<tr>
<td>Mixed Pallets Past</td>
<td>0.2206</td>
<td>15.0</td>
<td>68</td>
<td>0.0993</td>
<td>0.1213</td>
<td>0.3199</td>
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<tr>
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Without 0.5s*

| % Sales to MM                  |       |      |      |          |            |          |
| Mixed Pallets Past             |       |      |      |          |            |          |
| Mixed Pallets Now              | 0.4603| 29.0 | 63    | 0.1241   | 0.3362      | 0.5844   |
| Mixed Pallets Future           | 0.6923| 45.0 | 65    | 0.1131   | 0.5792      | 0.8054   |
| Mixed Pallets Initiator        | 0.1897| 11.0 | 58    | 0.1018   | 0.0879      | 0.2915   |
| DSD Past                       | 0.3026| 23.0 | 76    | 0.1040   | 0.1986      | 0.4066   |
| DSD Now                        | 0.4658| 34.0 | 73    | 0.1152   | 0.3506      | 0.5810   |
| DSD Future                     | 0.6056| 43.0 | 71    | 0.1145   | 0.4911      | 0.7201   |
| DSD Initiator                  |       |      |      |          |            |          |
Table 34. (continued)

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<td>0.2667</td>
</tr>
<tr>
<td>Specific Packaging Initiator</td>
<td>0.0645</td>
<td>2.0</td>
<td>31</td>
<td>0.0916</td>
<td>-0.0271</td>
<td>0.1561</td>
</tr>
<tr>
<td>Carton Label Initiator</td>
<td>0.0294</td>
<td>1.0</td>
<td>34</td>
<td>0.0599</td>
<td>-0.0304</td>
<td>0.0893</td>
</tr>
<tr>
<td>Case Pack Changes Initiator</td>
<td>0.0769</td>
<td>2.0</td>
<td>26</td>
<td>0.1098</td>
<td>-0.0328</td>
<td>0.1867</td>
</tr>
<tr>
<td>VMI Initiator</td>
<td>0.2895</td>
<td>11.0</td>
<td>43</td>
<td>0.1510</td>
<td>0.1384</td>
<td>0.4405</td>
</tr>
<tr>
<td>Consignment Sales Initiator</td>
<td>0.1429</td>
<td>2.0</td>
<td>14</td>
<td>0.2096</td>
<td>-0.0668</td>
<td>0.3525</td>
</tr>
<tr>
<td>Category Management Initiator</td>
<td>0.5455</td>
<td>12.0</td>
<td>43</td>
<td>0.2259</td>
<td>0.3195</td>
<td>0.7714</td>
</tr>
</tbody>
</table>

*Note: The values for the “sum” that account for non-integer values include initial entry of jointly chosen answers (both manufacturer and retailer) as 0.5. At the end of this table, the sums and corresponding statistics are shown without the 0.5 inclusions. Those blank cells are for questions without any jointly chosen answers.

**Note:** The data were adjusted to remove responses where the respondent chose the same party as being responsible for a function in all three (past, now, future) time periods. Therefore, if a respondent did not indicate a change between channel members over time, the response to the particular initiator question was not used for analysis.


