COMPETITIVE STRATEGY AND STRUCTURE IN THE UNITED STATES WOOD HOUSEHOLD FURNITURE INDUSTRY

by

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(ABSTRACT)

A multivariate measure of Porter's (1980) dimensions of competitive strategy was used to determine the competitive structure of the U.S. wood household furniture industry. Firms were categorized into strategic groups using hierarchical agglomerative cluster analysis based on factor scores. Cluster analysis resulted in a differentiation, an overall low cost, and a focus group (which appeared as a sub-group of the differentiation group). No differences (based on MANOVA) were found between strategic groups based on performance (ROA or growth), or between firms with a distinct strategic orientation and those that appeared to be "stuck in the middle" (Porter 1980, p.41).

Firms were asked to predict changes in their strategies over the following five years (1993 to 1998). The overall low cost group predicted increased emphasis primarily on the differentiation dimension, the differentiation group predicted increased emphasis on the

focus dimension and the focus group predicted greater emphasis would be placed on the overall low cost and differentiation dimensions .

Three firms chosen based on their close proximity to strategic group centroids were studied through case analyses to determine how these firms operationalize their intended strategy. The firm classified as a differentiation strategist emphasized product style and company image, and was very customer-oriented. The overall low cost firm's strategy involved manufacturing generic products exhibiting mass appeal and offering these products at the lowest cost. The focus firm aggressively targeted a particular market segment to achieve competitive advantage.

The structure of the industry was investigated based of value of shipments during 1993. Over 60% of reported shipments were targeted toward a medium price point. Nearly 85% of shipments were from the largest 25% of responding firms. The majority of furniture shipped by respondents was bedroom furniture, followed by dining room furniture (19%) and occasional tables (11%). Over one third of reported shipments were through local and regional full line furniture stores. Other important channels of distribution were national furniture chains (20% of total shipments) and discount chains, department stores and mass merchants (14%). Of the total reported value, 6.0% were exported, 15.6% were consumer ready-to-assemble (RTA) furniture and 16.9% were new products.

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Preface

This dissertation consists of four major sections. The first section addresses the justification and the objectives of this research and provides a literature review of topics relevant to this study.

The remaining three sections are intended as independent manuscripts written in formats targeting specific academic journals. As a result, redundancies in content and variations in style and format may exist across sections.

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Problem Statement and Justification

The wood household furniture industry is a significant segment of the United States economy. Total shipments of wood household furniture were $8.8 billion in 1992 (USDOC-BOC 1994). The wood household furniture industry employed nearly one quarter of a million employees and used over $3.8 billion in materials to manufacture its products in 1991 (USDOC-BOC 1992a).

The wood furniture industry is also a major and relatively stable market for wood products. The furniture industry is the largest domestic user of high grade hardwood lumber (Haynes 1989; Luppold 1988, 1987; Cardellichio and Binkley 1984; Spelter et al. 1978; Sinclair 1992) and consumes significant amounts of other wood products, including softwood lumber, structural plywood, hardwood plywood, dimension parts, and veneer (Hansen et al. 1993; Forbes et al. 1993a, 1993b, 1992; Meyer et al. 1990).

In recent years many U.S. industries have become very competitive. Companies are facing fierce competition from domestic as well as foreign producers. Increased regulations; rising costs of materials, energy and labor; and diminishing trade barriers, among other factors, have forced companies to make changes to remain competitive.

The wood furniture industry is no exception. Over the past few decades the U.S. has become one of the leading importers of furniture (Smith and West 1990, Florence 1990). From 1972 to 1989, U.S. imports have increased from $137 million to $3.3 billion (Geiger 1990). Even considering the 90% increase from 1977 to 1988, U.S. exports have not kept up

with imports, resulting in a $2.3 billion dollar deficit in household furniture trade in 1989 (Davis 1990).

Furniture companies are also faced with competition domestically. The U.S. furniture industry has historically been characterized by low productivity, low rates of equipment investment, low levels of employee training, and low returns (Geiger et al. 1990). Costs of materials and energy are increasing. Firms must adapt in order to remain competitive in light of such obstacles. The ability of firms to remain competitive in such a hostile business environment will depend on the competitive strategies they employ. The synergy between a firm's strategic tactics, its resources, and its skills will determine the firm's success.

Increasing our knowledge base of structure in the furniture industry and how structure relates to strategy will aid in understanding competition in the industry. Understanding the relationship between strategy and an organization's competitive ability will result in greater knowledge about how firms can best gain competitive advantage domestically and internationally. A forecast of structural and competitive changes will offer policy makers as well as managers information to aid in developing or protecting strong competitive positions.

In spite of the importance of understanding competition and the factors influencing competition to the success of the U.S. wood furniture industry, limited research has been done. No previous research can be found that examines the effect of strategy and industry structure on competition in the wood household furniture industry.

Objectives

The primary goal of this study was to improve the understanding of competition in the U.S. furniture industry. This research also further contributes to the development of a comprehensive theory of industrial competitiveness. The goal was reached through the investigation of structure and competition in the wood furniture industry, and the relationships between structure, strategy, determinants of competition, and firm performance. Data were collected from the wood household furniture industry, because of the importance of this industry, and because of the intense competitive pressures it faces from both domestic and international manufacturers. The specific objectives of this study were to:

(1) Model competitive strategy in the U.S. wood household furniture industry and to predict changes in competitive strategy over the next five years based on predicted changes in the importance of strategic variables which define competitive strategy.

(2) Determine the relationship between competitive strategy and the variables which define competitiveness.

(3) Qualitatively examine differences in the key operating policies used to implement strategy, across strategic groups in the U.S. wood household furniture industry.

(4) Determine the relationship between competitive strategy and financial performance.

Chapter 1 - Review of Literature

The Furniture Industry

Understanding the competitive environment of an industry requires a thorough knowledge of that industry. This section attempts to provide a comprehensive review of the furniture industry, particularly the wood household furniture industry.

Importance of the U.S. Furniture Manufacturing Industry

The furniture industry is a significant segment of the wood products industries. Wood household furniture shipments were valued at $8.8 billion in 1992 (USDOC 1994). The wood furniture industry is a major consumer of many industrial products and services. In 1992, the cost of all materials and services used by the wood household furniture industry totaled 4.1 billion dollars (USDOC 1994). The materials used by the industry include a tremendous amount of wood products. The furniture industry is the United States' largest user of high grade hardwood lumber (Haynes 1989, Luppold 1988, 1987; Cardellichio and Binkley 1984, Spelter et al. 1978, Sinclair 1992) and consumes significant amounts of other wood products including softwood lumber, structural plywood, hardwood plywood, dimension parts, and veneer (Hansen et al. 1993; Forbes et al. 1993; Meyer et al. 1992). Table 1-1 gives estimates of materials used in 1992 by manufacturers of wood household and office furniture, upholstered furniture and public building (and related) furniture. Furniture manufacturers

predicted an increase in the use of almost all of the products shown in Table 1-1 by 1994 (Hansen et al. 1993).

The wood furniture industry is very labor intensive (Gieger et al. 1990). In 1991, employment in the wood and upholstered household furnishings industry was 201,000 with each employee earning on average $8.26/hour (USDOC-BOC 1992a). The furniture industry also makes possible the employment of many who work in service oriented firms which rely on the furniture trade, such as retailers and shippers (Bullard 1989).

Table 1-1. Materials used by manufacturers of wood household and office furniture, upholstered furniture and public building (and related) furniture in 1992 (Hansen et al. 1993).

Material (units)	Volume Used
Hardwood Lumber (MMBF)	1,578
Hardwood Dimension (MMBF)	180
Softwood Lumber (MMBF)	478
Southern Pine Dimension (MMBF)	29
Other Softwood Dimension (MMBF)	25
Particleboard (MMSF)	1,194
Medium Density Fiberboard (MMSF)	319
Hardboard (MMSF)	176
Oriented Strandboard (MMSF)	12
Softwood Plywood (MMSF)	102
Hardwood Plywood (MMSF)	329
Veneer (MMSF)	1,361
Upholstered Furniture Frames (1000 Frames)	5,782

Historical Overview of the U.S. Furniture Industry

Driven by population growth and the depletions of the forests vital for furniture production, the U.S. furniture industry developed geographically (Sinclair 1992, Epperson 1993a). Furniture manufacturing in this country began in the Boston, Massachusetts area

where local craftsmen supplied the colonists with furniture. Because of the limited skill and lack of tools in the U.S., the industry faced strong competition from European imports. The War of 1812 interrupted European trade and increased the cost of exporting to the U.S. through higher tariffs, giving American manufacturers a competitive advantage in the domestic market (Sinclair 1992).

As the nation's population grew the furniture industry moved slowly to the New York area. By the early 1800s, Jamestown, New York became the nation's center of quality furniture (Sinclair 1993). However, the depletion of hardwood lumber from local forests in the mid-1800s drove the furniture industry to the Grand Rapids, Michigan area. The manufacturers in Grand Rapids led the nation in the utilization of the technological advances of the time and prospered as the nation's foremost furniture supplying region for many years. The first furniture market took place in Grand Rapids in 1878 (Sinclair 1993). In the late 1800s, the stronghold of the industry moved to western North Carolina and southwestern Virginia, once again following the raw material source and low labor costs.

Today's industry has remained located close to raw material and inexpensive labor sources. The industry is concentrated around the central Appalachian region, but is also significant in California, Texas, Mississippi, and Florida. The major furniture markets are held in Atlanta, Dallas, Chicago, San Francisco and High Point, NC, with smaller regional markets held in Tupelo, MS, Jamestown, NY, Seattle and Los Angeles (Sinclair 1993, Bennington 1985).

Profile of the Industry

The furniture industry has historically been characterized by a low level of technology implementation, low levels of equipment investment, poor profitability (an average of 4.7% total sales in 1989), low return on net worth, and low labor productivity (Geiger et al. 1990). The industry is labor intensive, with the labor force consisting of generally uneducated, unskilled workers (USDC-ITA 1985).

Many U.S. furniture manufacturing facilities are not designed to support efficient and productive furniture production (Geiger et al. 1990). Even the newer facilities house inefficient processes and are often poorly laid out. Manufacturing equipment throughout the industry is mostly outdated, processes are labor intensive, and improper consideration is often given to the purchase of new machinery. Inventory turns are, on average, 10 per year (much lower than foreign competitors). There is often little, if any, training of employees (Gieger et al. 1990).

The furniture industry is marginally fragmented. Although no one company controls a significant share of the market, the top twenty-five manufacturers of furniture in 1991 controlled 42% of the market (Howard 1992). Trends are toward increased consolidation and mergers.

The wood furniture industry is segmented by several distinguishing characteristics. Common ways to classify furniture manufacturers are by product segment, target price (quality) of product, by product style, by product distribution method, and materials used in

manufacturing (Standard and Poor's 1992, 1991; Epperson 1993a). Each of these methods of classification will be discussed below.

Classification by Product Segment

Household or residential furniture can be classified by product segment based on the products intended use. Classifications generally used for residential furniture are based on standard industrial classification codes. These are wood household (SIC 2511), upholstered (SIC 2512), metal household furniture (SIC 2514), mattresses and bedsprings (SIC 2515), wood television and radio cabinets (SIC 2517), and household furniture not elsewhere classified (SIC 2519). Wood household furniture and upholstered furniture are financially the most important segments and will be discussed further.

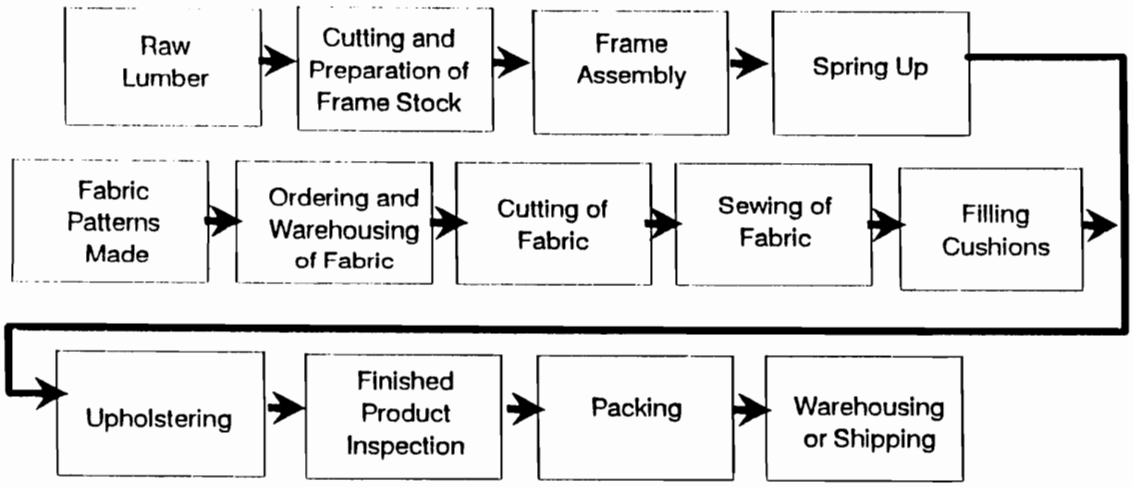
Wood household furniture (SIC 2511) products, are commonly referred to as casegoods. The origin of the term "casegood" is disputed. Some claim the term is derived from the practice of manufacturers shipping their products in cased crates (Standard and Poor's 1991). Others believe the term came from the box like shape of this style of furniture (Bennington 1985). Regardless of the origin, "casegoods" usually refers to wood bedroom furniture, infants' and children's furniture, living room, library, family room, den furniture, and dining room furniture. Occasional tables and wall systems are also often categorized as casegoods (Bennington 1985). Although outdoor furniture is often classified as wood household furniture, it is generally not considered a casegood product.

Under each of the above classifications are sub-categories of furniture. Wood bedroom furniture includes beds and headboards for beds, dressers, vanities, dresser tables, wardrobes, armoires, chests of drawers, cedar chests, night tables, night stands, non-upholstered bedroom seating and other wood bedroom furniture. Infants' and children's wood furniture includes cribs, children's chairs, tables, etc. Wood living room, library, family room and den furniture includes chairs, rockers, tables, desks, credenzas, book cases, bookshelves, wall units, and other wood living room, den, family room or library furniture. Wood dining room furniture is comprised of dining room and kitchen tables, chairs, buffets, china cabinets, corner cabinets, and other dining room or kitchen wood furniture. The wood dining room segment is often divided into formal dining and casual dining, with casual dining comprised of dinettes and reduced scale formal dining room suites. Small end tables, coffee or cocktail tables, sofa tables, night stands and other tables or stands designed to permit various uses in a room (regardless of which room) are grouped together in a category termed occasional tables. Likewise, chests, curios, collector's cabinets, desks, entertainment centers and other similar furniture, regardless of which room it will be used in, is often included in a catch-all group termed occasional storage.

Upholstered household furniture (SIC 2512) refers to stationary sofas, davenports, loveseats, upholstered chairs, and motion furniture. Motion furniture refers to recliners, tilt-back chairs and sofas that are designed to allow for movement which enhances the comfort of the chair or sofa.

There are several differences between the wood household and upholstered furniture industries. Upholstered furniture manufacturing is characterized as having a low cost of entry, relatively high labor intensity and low utilization of technology (Epperson 1993a). The manufacturing process is quite different than that of wood furniture. Figure1- 1 is a flow chart of a typical upholstered furniture manufacturing line.

Upholstered furniture is bulky and expensive to ship. The high cost of shipping relative to the cost of the product contribute to the geographic diversity of upholstered furniture manufacturers. Upholstered manufactures tend to locate close to the market and in areas of low labor costs. Upholstered manufacturing firms are generally smaller than wood furniture manufacturers (Epperson et al. 1993a).



Source: Bennington, R.R., 1985. Furniture Marketing. Fairchild Publushing. New York.

Figure 1-1. Flow chart of the upholstered furniture manufacturing process.

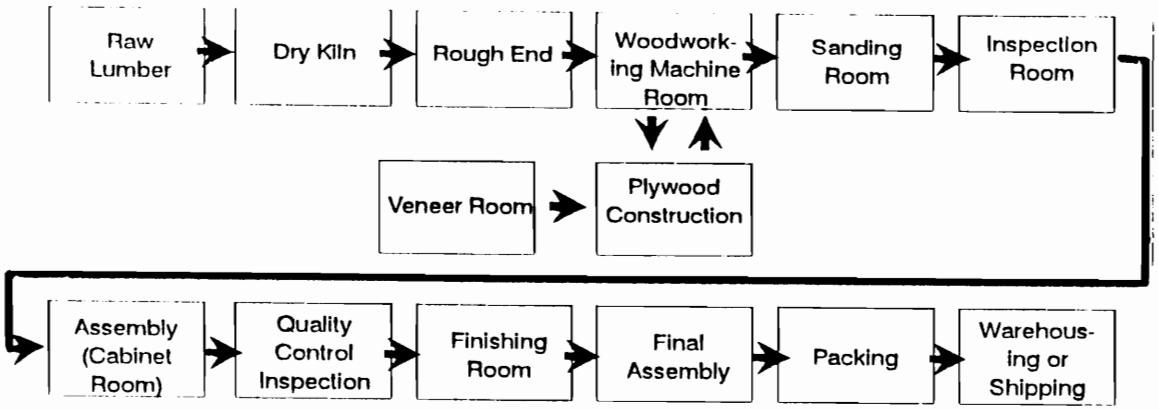
Upholstered furniture is very fashion driven, paralleling the clothing industry in terms of color, style and fabric texture trends (Epperson 1993a). Much of the upholstered furniture is custom made to match the customers' tastes in terms of fabric, color style, and quality of cushions. Thus, manufacturing in the upholstered furniture industry is generally scheduled by customer order and little finished inventory is maintained (Bennington 1985). Not only because of the wear and tear of the fabric, but also because of changing fashion, the life-span of a piece of upholstered furniture is generally less than that of a similar quality piece of wood furniture. Comfort and fashion strongly influence the purchase decision of upholstered furniture. Quality of upholstered furniture is determined by the fabric, frame, springs, filling, cushions, and craftsmanship of the piece.

The upholstered furniture industry enjoys greater protection from import pressures than does the wood furniture industry (Geiger et al. 1990). The high ratio of volume to weight of upholstered furniture makes overseas transportation costly. Also, the high chance of fabric damage increases losses in overseas shipment, further increasing shipping costs. Consumer demand for many fabric styles and combinations also inhibits foreign competition. Only North American exporters (Canada and Mexico) have been able to successfully compete against U.S. upholstered furniture manufacturers (Geiger et al. 1990).

In contrast, the wood furniture industry has a very high cost of entry. The manufacturing of wood household furniture requires highly mechanized equipment in the rough end, sanding room and finishing rooms, and often includes highly technical mechanized

processes throughout the manufacturing facility relative to the upholstered furniture industry (Epperson 1993a).

The wood furniture manufacturing process is less labor intensive than upholstered furniture manufacturing and more complex. Figure 1-2 shows a schematic of the manufacturing process of wood furniture. The manufacturing processes are generally longer than they are for upholstered furniture since many household furniture began the manufacturing process by drying the lumber (Epperson 1993a, Bennington 1985). Wood household furniture is generally manufactured on an assembly line and finished product inventories are maintained.



Source: Bennington, R.R.. 1985. Furniture Marketing. Fairchild Publushing. New York.

Figure 1-2. Flow chart of the wood furniture manufacturing process.

The life-span of a piece of wood household furniture is generally long compared to that of upholstered furniture. A dining room suite may last many decades while the average life of a bedroom suite is 15 years (Epperson 1993a). Quality in wood household furniture is determined by materials used in manufacture, external surface construction, types of construction joints and overall construction details (Bennington 1985). The purchase decision is based on quality, style, appearance, and relative value.

Table 1-2 provides a breakdown of wood, upholstered, and other household furniture shipments by product segment. As shown, wood household furniture represents the greatest single portion of total household furniture shipments.

Table 1-2. Household furniture shipments by product segment (Epperson 1993a).

Product Segment	**1990** Mil. $	%total	**1991** Mil. $	%total	**1992** Mil. $	%total
Wood (total)	6,600	50.32	6,200	49.80	6,645	49.96
Occasional	2,350	17.92	2,240	17.99	2,350	17.67
Bedroom	2,510	19.14	2,350	18.88	2,555	19.21
Dining Room	1,740	13.27	1,610	12.93	1,740	13.08
Upholstered (total)	5,045	38.47	4,900	39.36	5,230	39.32
Motion Chairs	1,125	8.58	1,140	9.16	1,165	8.76
Other Upholstered	3,920	29.89	3,760	30.20	4,065	30.56
Metal and Other	1,470	11.21	1,350	10.84	1,425	10.71
Total Household Furniture	13,115	100%	12,450	100%	13,300	100%

Classification by Style

Furniture may be classified by style, although categorizing manufacturers in this manner is of limited benefit since most larger firms manufacture several different styles within their product mix. Also, classification by style can be confusing. Many furniture designs are hybrid in style, consisting of attributes from several common styles. Such designs may not be easily or clearly definable (Epperson 1993a). Even the descriptions and names of common furniture styles may vary from source to source, not to mention the classification of unique styles. However, style is an important component to the consumer's purchase decision. Fashion, a crucial topic of furniture marketing, can be defined as popular style. Thus, a short investigation of style is warranted.

To describe basic styles is not an easy task. As mentioned before, descriptions and names of the basic furniture styles varies depending on the source. Bennington (1985) describes three basic styles; 1) Traditional, 2) Country or Provincial and 3) Contemporary/Modern. Traditional furniture refers to reproductions of formal elegant furniture by master designers of the 17th, 18th and 19th centuries. Country or provincial furniture is less formal and more functional and rugged than traditional furniture. Specific examples of country/provincial furniture includes French provincial, Italian provincial and Early American. Contemporary/modern styled furniture is defined as designs created after the 19th century. Contemporary/modern styles are driven by technological advances in manufacturing processes and materials.

Epperson (1993a) lists the basic furniture styles as American, Contemporary and European/Oriental. American furniture includes American country, American nostalgia, American traditional, American 18th century, Shaker, mission/arts and crafts, and Southwest designs. This group contains all American designs except contemporary/modern designs, regardless of the elegance of the piece. Epperson's contemporary style describes the same category as Bennington's "contemporary/modern" group. Contemporary includes architectural contemporary, art deco, casual contemporary, European modern, lifestyle, Scandinavian and traditional contemporary. European/Oriental describes all European and Asian designs except contemporary designs.

Certain furniture styles are predominant in certain furniture product segments. Table 1-3 shows the distribution of styles by product segment. An interesting observation is the inconsistency in style across coordinating product segments (i.e., sofas vs. chairs)(Epperson 1993a).

Classification by Price Point

Firms can be categorized by the price point categories they choose to target and the pricing strategy used within these categories. The price point in which a manufacturer wishes to produce determines the niche where that firm will compete relative to other manufacturers (Bennington 1985). The pricing strategy is based on the fiscal and marketing objectives of the firm and determines the positioning of a manufacturer within the price point. The price point

a firm chooses to compete in, and the pricing strategy they implement, imply much about the firm's overall competitive strategy.

Table 1-3. The distribution of furniture styles by product segment (Epperson 1993a).

Style	Percent of total wood household furniture shipments							
	Bedroom	Dining	Tables	Storage	Sofas	Chairs	Motion	Leather
American 18'th Century	17	17	28	24	25		5	7
American Country	7	16	9	14	14	7	9	
Architectural Contemporary	4		3	4				
Art Deco			3					
Casual Contemporary	15	22	14	27	22	14	62	26
Early American	16	9	3	3	7	3		
Eastern Modern						35	3	35
English 18'th Century	3	7	7	4	4	5		
European Modern	6			6				
European Traditional			3					
Formal French		3						
French Country				3				
Lifestyle		3						
Southwest			3					
Traditional Contemporary	10	7	12	8	17	20	15	26
Victorian	5							
Other	14	19	15	8	8	6	6	6
Total	100%	100%	100%	100%	100%	100%	100%	100%

Pricing within the household furniture industry is generally based on product price point categories established by furniture retailers (Sinclair 1992). The industry recognizes three to five price point categories, the number varying by source (Sinclair 1993, Epperson 1993). The targeted price point determines the general quality of a piece of furniture. Firms competing within a given price category differentiate their products based on style, product segment and to some degree, quality and price. Approximate price ranges of furniture at different price point categories are shown in Table 1-4, as well as the annual family income of the targeted customer groups for each price point category.

Table 1-4. Approximate targeted annual family income and cost of furniture by price point (Epperson 1993a).

Price Point	Furniture Type							
	Master Bedroom		Youth Bedroom		Dining Room		Occasional Tables	
	Targeted Consumer Household Income	Suggested Retail	Targeted Consumer Household Income	Suggested Retail	Targeted Consumer Household Income	Suggested Retail	Targeted Consumer Household Income	Suggested Retail
Premium	Over $50,000	Over $1,999	$35,000 and Over	$200 and Over	$35,000 and Over	$1,499 and Over	Over $50,000	Over $500
Best								
Better	$25,000 to $50,000	$1,000 to $1,999					$25,000 to $50,000	$200 to $500
Good			Less Than $35,000	Less Than $200	Less Than $35,000	Less Than $1,400		
Promotional	Less Than $25,000	Less Than $1,000					Less Than $25,000	Less Than $200
RTA								

Pricing Strategies Within the Furniture Industries

Variance in price within a price point category can be attributed to the pricing objectives of the firms (which include fiscal and marketing objectives) (Bennington 1985). One of several possible pricing strategies may be employed by furniture manufacturers to achieve these objectives. The predominant pricing strategies used in the industry include target return pricing, follow-the-leader pricing, lowest price strategy, and prestige pricing (Bennington 1985). Target return pricing attempts to achieve a certain after-tax profit goal. Based on costs projections, a price is derived to cover costs while providing a pre-determined profit (Bennington 1985).

In follow-the-leader pricing, the pricing decision is based on the position of similar furniture prices of competing manufacturers. Firms using this strategy avoid price wars and differentiate based on non-price factors (Bennington 1985). Firms may price their product higher or lower than competitors depending on how they believe the consumer will perceive their product, compared to competing products.

Lowest price strategy is when the firm competes by offering a certain quality product at a price lower than competing products of equivalent quality. This strategy is generally used by high volume manufacturers who have production costs advantages through economies of scale, or by firms wishing to penetrate a market at the cost of reduced profits.

Prestige pricing takes advantage of the price-quality relationship perceived by many consumers. Firms price their product higher than competitors to imply superior quality and

prestige. Such tactics perform best if the manufacturer develops a recognizable brand name emphasizing style, superior design, quality and service (e.g., Ladd Furniture's Pennsylvania House line and Ethan Allen).

Classification by Channel of Distribution

Furniture manufacturers also differ in the methods of distribution employed to get their products to the consumer. There are numerous channels through which a manufacturer may move his product to the consumer. Table 1-5 offers a list of distribution channels used by the furniture industry. Table 1-6 shows shipments by distribution channel (based on 1990 shipments). As shown, local and regional furniture stores were the predominant channels in 1992, representing 38.9% of total shipments. Other important distribution channels include specialty stores (8.2%), department stores (6.3%), non-store retailing (6.1%), decorators/designers (5.7%), export sales (5.7%), Sears, Penny's and Wards (5.5%), mass merchants (5.5%) and manufacturer dedicated stores (5.5%). Figure 1-3 shows the degree that different channels of distribution were employed by the residential furniture industry.

Table 1-5. Channels of Distribution for Furniture in the U.S. (Epperson 1993a).

1.	Full Service Independent Furniture Stores	23.	Cable Home Shopping
2.	Department Stores	24.	Tele-marketing
3.	Wholesale Distributors	25.	Buying Groups
4.	Manufacture Franchised Store	26.	G.O.B. Outlets
5.	Gallery Dealers	27.	Closeout Vendors
6.	Specialty Stores	28.	Manufactured Housing
7.	Catalogue Showrooms	29.	Electronics Stores
8.	Decorator Showroom/Design Centers	30.	Juvenile Furniture Stores
9.	Interior Decorators	31.	Tourist Shops
10.	Warehouse Showrooms	32.	Chain Drug Stores/Grocery Stores
11.	RTA/Lifestyle Stores	33.	Unpainted Furniture Stores
12.	Warehouse Clubs	34.	Lighting Showrooms
13.	Discount Chain Stores	35.	Contract Furniture
14.	Home Improvement Centers/DIY	36.	Office Superstores
15.	Mass Merchants	37.	Gift shops
16.	Mail Order Catalogues	38.	Export Sales
17.	Trans Shippers/ 800 Numbers	39.	Hardware Stores
18.	Mobile "Curbside" Retailers	40.	Employee Incentive Programs
19.	Rent-to-Own Centers	41.	Lawn and Garden Shops
20.	Factory Outlet Stores	42.	Computer Specialty Stores
21.	Furniture Consignment	43.	College Book Stores
22.	Government (PX's, Military Post)	44.	Museums/Historic Shops

Table 1-6. Value of U.S. household furniture shipments by channel of distribution (Epperson 1993a).

Distribution Channel	Shipments 1990 (Billion $)	% of Total Shipments
Factory Outlets and Consumer Direct Manufacturers	425	3.2
Non-Store Retailing	800	6.1
800 Number Retailers and N.C. Trans-shippers (400)		
Catalogs (325)		
Roadside Transient (75)		
Designer/Decorator Showrooms	750	5.7
Department Stores	825	6.3
Sears, Penny's, Wards	725	5.5
National Furniture Chains	550	4.2
Mass Merchants, Discount Chains, Home Centers, Electronic Stores, Wholesale Clubs, Superstores	725	5.5
Manufacturer Dedicated Freestanding Stores	750	5.7
Local and Small Regional Full Line Furniture Stores*	5,220	39.8
Specialty Stores	1,075	8.2
Rental Furniture	470	3.6
Mobile Homes	60	0.5
Export Sales	740	5.7
Total 1990 Shipments	13,115	100.0

* In the local and regional retailer category, large multi-line furniture store chains are included but manufacture dedicated, specialty, national, rental and factory direct stores are excluded.

Classification by channel of distribution may be one of the best criterion available to evaluate furniture manufacturers. Jerry Epperson (1993b, p.14), in a recent issue of Furnishings Digest, states:

"Over our twenty years in the furniture industry we have learned that distribution is perhaps the greatest factor in the success of any furniture manufacturer."

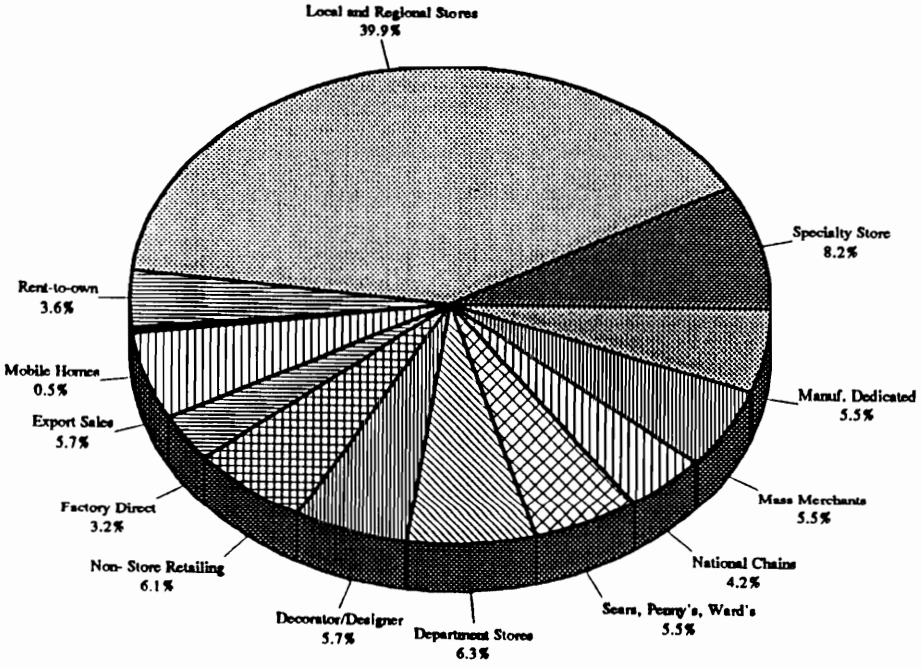


Figure 1- 3. Channels of distribution employed by the residential furniture industry in 1992 (based on sales volume)(Epperson 1993a).

From an "informal survey" of furniture manufacturers, Epperson (1993b) concluded a correlation exists between the channel of distribution a manufacturer uses and the relative price point in which a piece of furniture is targeted. Figure 1-4 shows the relationships discovered. As shown, the highest priced furniture is distributed through decorator/designer channels, and manufacturer dedicated stores, while the lowest priced (i.e. promotional priced) are generally sold by mass merchants or as mobile home furnishings. From his "informal survey", Epperson (1993a) concluded that price points determine the channel of distribution (or visa-versa) and that channels of distribution are most limited at the extremes of the price point scale.

Indicators of Furniture Demand

Several indicators can be used to aid in predicting furniture demand. An investigation of these indicators may aid in the understanding of how firms react to certain uncontrollable environmental forces. This section will examine several of the indicators and trends that are commonly utilized to explain or predict furniture demand.

The single most important stimulant for buying new furniture is moving to a new home. The average consumer spends more on furniture during the first two months after moving than any other time of his/her life (Standard and Poor's 1992, Epperson 1993a). Thus, the housing market (new and existing sales) is one of the best indicators for explaining furniture sales.

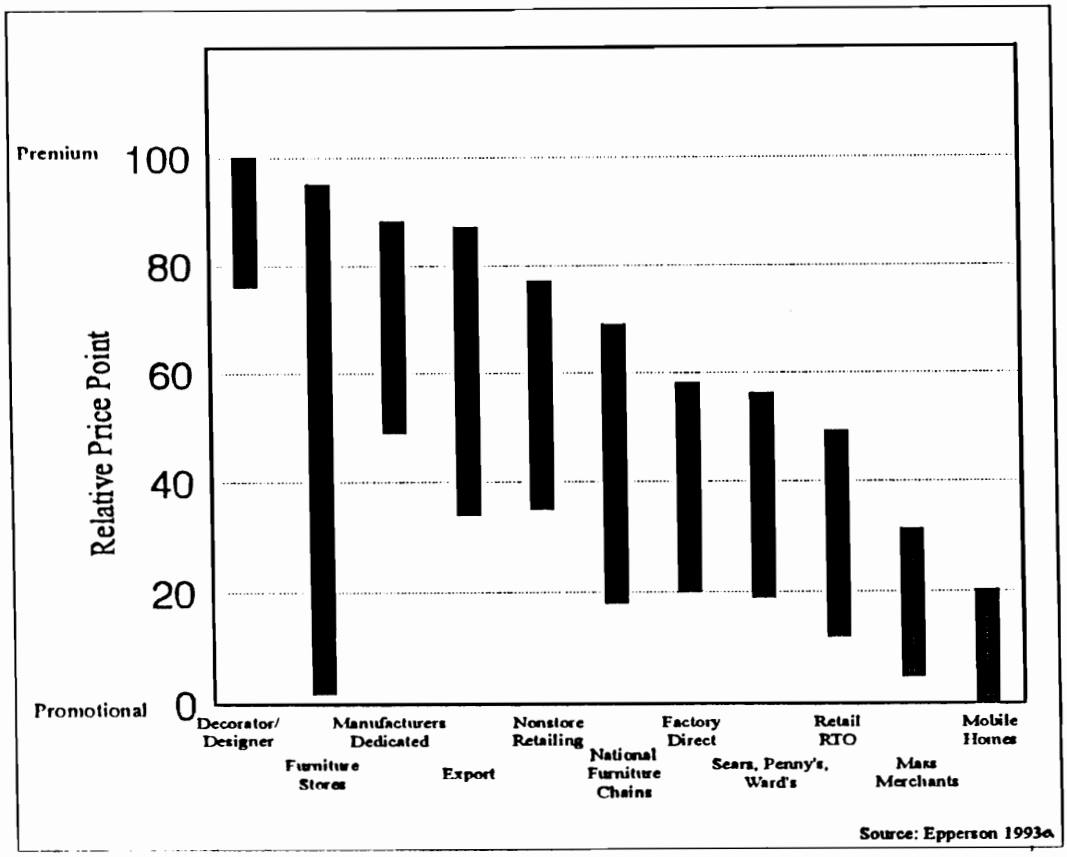


Figure 1-4. Channels of distribution used by price point category for U.S. residential furniture manufacturers. (Bars indicate primary channels utilized).

Related to the number of new homes sold is the size of the homes. The size of the home will influence the amount of furniture needed to furnish the home. Intuitively, the larger the home, the more rooms must be furnished. Good news for furniture manufacturers is the trend toward larger homes. Figure 1-5 shows the recent trends in the average size of new single family detached homes. Additional supporting evidence for the trend toward larger homes is apparent from the following statistic: 31.9% of the new homes in 1990 had at least four bedrooms, compared to 22.7% in 1984 (Epperson 1993a).

Remodeling and refurbishing trends also influence furniture sales. The majority of people when doing major remodeling or refurbishing, include the purchase of new furniture in their plans (Standard and Poor's 1991). The recent increase in warehouse home improvement centers as well as a flood of do-it-yourself literature and videos reflect businesses' expectations of consumer trends to remodel. Statistics support these expectations. It is estimated that $120 billion dollars were spent on remodeling in 1990, compared to $96 billion in 1988 (Standard and Poor's 1991). With today's population staying at home more (Burke 1991, Sinclair 1992), increased expenditures for products that improve the home and the living environment are expected.

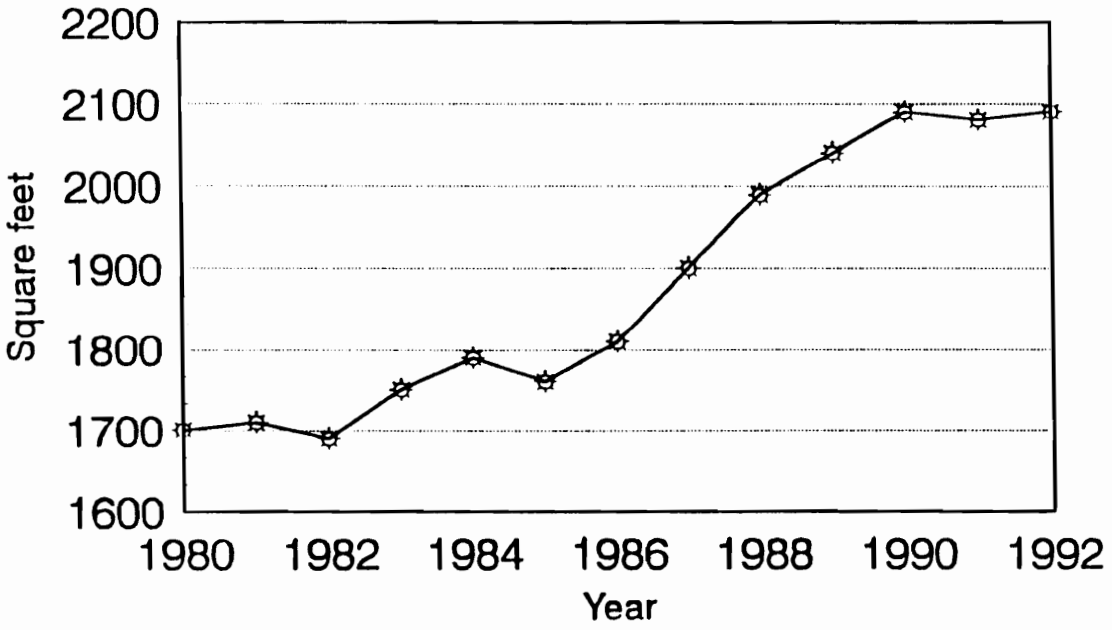


Figure 1- 5. Average square footage of new single family detached homes in the U.S.: 1980 to 1992 (Epperson 1993).

Disposable income and consumer confidence also strongly influence the sale of furniture, since furniture is generally a purchase that can be postponed if necessary. Furniture is also an expensive purchase. Thus, consumers must have enough disposable income as well as confidence in the economy in order to make a furniture purchase (Bennington 1985, Epperson 1993a, Sinclair 1993).

Demographics play an important role in the demand for furniture. The size and number of households, the size and age of the population and the wealth of the population affect furniture purchases. Fortunately for furniture manufacturers, most demographic trends support an increase in furniture demand.

Although household sizes (number of family members per household) have decreased, there has been over the last several years an increase in the number of households (Sinclair 1993). Also, the age group which spends the most on furniture (35-54 year olds) is increasing (Sinclair 1993, Standard and Poor's 1992). The portion of disposable income spent on furniture rises as a person ages, a reason Masco Corporation claims influenced their decision to invest in furniture manufacturing (Koselka 1992). Households with incomes of $50,000 or more represent 40% of all furniture purchases. This income segment is expected to increase from 19% of all households to 60% by the end of the decade (Standard and Poor's 1992).

The consumer market for furniture cannot be viewed as one large group. There are many segments of the population which differ by age group, family size, income, marital status, education level, lifestyle, and taste. Manufacturers must identify which groups they wish to target and orient themselves to cater to those groups. The ability to become more

customer oriented will be a critical component of future success for furniture manufacturers (Taylor 1992, Burke 1991, Hanan 1991, Doescher 1991). Consumers in different segments have different needs, which offers furniture manufacturers an excellent opportunity to find a niche.

Firms must also realize that consumer demand is constantly changing. The ability to adapt to changing market demands is already becoming a declared strategic component for some furniture manufacturers, including Ethan Allen, Inc. (Sandler 1992).

Trends Effecting Competition in the Industry

Several recent trends are changing the competitive environment of the furniture industry. Major trends include the increase in mergers and consolidations, the diversification of distribution channels, the increase in imports and exports, environmental and safety concerns, and technological advances. These trends will be discussed below.

Mergers and Consolidations

In the 1980's, a phenomenal trend toward mergers and consolidations took place, resulting in a fifty percent decrease over eleven years in the number of firms manufacturing furniture (Standard and Poor's 1991, Bullard 1989, Sinclair 1993). This consolidation resulted in a more concentrated industry. The top 10 furniture manufacturers accounted for only 21%

of total furniture shipments in 1980, but captured a 35% share in 1990 (Standard and Poor's 1991). The largest furniture manufacturer in 1991 controlled 8% of the U.S. furniture market (Koselka 1992).

The trend in the past decade toward consolidations was driven by pressures on earnings of many manufacturers due to low sales, a decreasing amount of disposable income expended for furniture, and the high interest rates of the eighties. Low sales induced increased competition and consumer orientation at the retail level, which motivated a drive toward better marketing and promotional efforts (Epperson 1993a, Standard and Poor's 1991). Manufacturers offering promotional support, reliable service, timely delivery and a diversified product line were favored by retailers (Standard and Poor's 1992). Larger firms, with deeper financial resources and superior production, warehousing, and distribution economies of scale, could better serve the retailers. These advantages encouraged the trend toward consolidation of furniture manufacturers (Standard and Poor's 1991). Mergers and acquisitions were also attractive to manufacturers who wished to diversify, or enter market segments that may offer them superior financial or strategic benefits.

Another trend that has effected furniture manufacturers has been the consolidation of retailers. The number of independent furniture retailers declined 30% from 1979 to 1991 (Standard and Poor's 1991). Furniture sales attributed to the top 100 retailers increased over this period (Standard and Poor's 1991). From a manufacturer's viewpoint, the consolidation of furniture retailers reduces the number of potential customers, creating a more competitive environment.

Diversification of Distribution Channels

While the larger independent retailers are increasing the competitive pressures felt by manufacturers, other segments of furniture retailing are becoming more diversified and complex. As stated by Epperson (1993a, p. 43):

> "... never, in our experience, have the routes from factory to consumer been more complex or changing than they are today."

Specialty retailers, warehouse stores, discounters, mail order catalogues, home electronic shopping networks, and 800-number discounters have become important distributors of furniture. The independent furniture retailer and department stores have lost sales to these other furniture distributors (Standard and Poor's 1992).

Another important change in furniture distribution has been the increasing growth of furniture galleries. Some manufacturers have developed synergistic relationships with retailers (known as the gallery concept), where the retailer commits an area of floor space (sometimes an entire free standing floor) for the manufacturer's product, and in return, the manufacturer gives the retailer proprietary product lines, sales force training, promotional displays and other marketing assistance (Standard and Poor's 1992). Such a tactic differentiates the manufacturers product and provides the retailer with exclusive lines.

Increases in Furniture Imports

The industry has also been effected by an increase in furniture imports. In 1990, furniture imports totaled $3.3 billion dollars, representing 17% of the market, up from 5.8% market share in 1977 (Standard and Poor's 1991, Anonymous 1991). Imports in 1972 were only $137.3 million (Geiger et al. 1990). Between 1983 and 1987, the increase in furniture imports to the U.S. was 147%, higher than any other nation (ITC 1990). In the first half of 1992, imports were up 7% from the same period in 1991. Imports of wood furniture parts totaled 165.1 million in 1990 (Anonymous 1991). Major exporters of furniture to the U.S. during 1993 are shown in Table 1-7.

The reason for the increase of imports is disputed. Some claim the increase is a factor of wage differences, reduced shipping costs, the development and popularity of RTA furniture, improvements in foreign design and quality, increased promotion, changing currency rates, differing government regulations and tariff levels, among other things (Bullard 1989, Florence 1990, USDC International Trade Administration 1985, USDC International Trade Administration 1990). Others, who cite examples of competitively superior nations with disadvantages in labor wages, currency rates, etc., blame the low productivity of U.S. firms relative to manufacturers in other nations for the increase in foreign competition (Porter 1990). The reality is probably a combination of the previously mentioned factors.

Table 1-7. Major furniture exporters to the U.S. and value of shipments for 1993. (Furniture Today 1994).

Exporting Nation	Value of Shipments January - June 1992 (Million $)
Taiwan	848
Canada	469
Italy	299
Mexico	232
China	225
Malaysia	130
Thailand	125
Indonesia	97
Philippines	80
West Germany	72
Total Imports	3,025

Regardless of the cause, the pressures from increased import competition have forced U.S. manufacturers to keep prices low. The threat of importers to U.S. manufacturers is very real. Faced with the U.S.'s raw material costs, shipping, freight, and currency advantages, foreign manufacturers have remained competitive in the U.S. market (Bullard 1989, Geiger et al. 1990). The impact of foreign imports has been felt primarily in the wood household furniture market.

Increase in Furniture Exports

Although they do not offset the increase in imports of furniture, U.S. exports of furniture are also increasing. One of America's fastest growing exports over the past few years has been furniture (Sovona 1992). Export activity has been stimulated by increases in the world's personal income levels and increases in the world's population of 22-44 year olds (Florence 1990). New designs and aggressive export strategies have also driven increased world export activity.

United States exports of household furniture have risen from $246.6 million in 1984 to 467.1 million in 1989. As shown in Table 1-8, the primary markets for U.S. furniture exports are Canada, Mexico, Japan, the U.K., and West Germany. Unfortunately, most of the world's total export activity is from countries other than the United States (including Italy, West Germany, Taiwan among other European and Asian countries) (Florence 1990). In spite of the increase in exports, the U.S. furniture industry realized a furniture trade deficit of $2.3 billion in 1989 (Davis 1990).

Table 1-8. Major Markets for U.S. Exports of Household Furniture (U.S. Dept. of Commerce, extracted from Florence (1990)).

Market	Value of Shipments (Million $)					
	1984	1985	1986	1987	1988	1989
Canada	50.4	36.1	44.0	58.7	76.2	129.5
Mexico	34.6	26.6	8.3	9.9	29.2	61.3
Japan	4.3	6.1	10.6	14.8	27.3	40.4
U.K.	6.6	6.8	7.2	8.6	16.2	36.5
West Germany	3.7	3.9	5.2	6.7	12.0	13.6
Other	143	117.7	112.7	127.3	151.6	185.8
Total Exports	246.6	197.2	188.0	226.0	312.5	467.1

Environmental Pressures

Increasing environmental concerns and regulations will effect competitiveness and possible geographic locations of manufacturing facilities (Bullard 1989). Furniture manufacturers will continue to experience increased regulations designed to protect workers and the environment (Mayfield 1993, Nemetz 1992, McMorrow 1992, Martin et al. 1992). Regulations protecting raw material sources may promote the use of wood substitutes and

increase the implementation of waste reducing technologies. Manufacturers will face increased material and energy costs driven by the regulations in materials and energy supplying industries. Increasing costs of disposal will effect the industry, stimulating the implementation of new technologies.

Many furniture manufacturers are already reacting to environmental pressures. The "green movement" is apparent even in the marketing strategies of some manufacturers (Poirier 1992, McMorrow 1992). Some companies are contracting independent certifying groups, such as Green Cross and Green Seal, to promote their firm's concern that the products they use are safe. Others are involved in programs in which they plant a tree for every piece of furniture sold. One company is promoting their concern for the environment by printing their catalogues on chlorine-free paper.

Technological Advances

Technological advances will also continue to alter competition in the industry. New technology is aiding manufacturers in streamlining and automating production facilities (Witt 1992, Kolebuck 1992, Staub 1991). Technology is being developed and implemented which aids in manufacturing productivity and efficiency. Software developments are also aiding manufacturers in planning, manufacturing, communication and design (Dutton 1993, Corbett 1992, Knight 1992, Foronda and Corino 1992).

Technology has been credited for the development and success of new designs and styles of furniture (Campbell 1988). The development of RTA (Ready-to-Assemble) furniture, 32mm furniture, and frameless cabinets are examples of the influence of technology on design (Chanil 1991, Campbell 1988, Bullard 1989).

Other Trends

As mentioned previously, demographic trends are also affecting the U.S. furniture industry. Increases in the furniture buying age group population, larger salaries in this age group, increased home ownership, larger sized homes, and changes in consumer life style should have positive effects on furniture demand.

Competition in the Furniture Industry

The U.S. furniture industry is very competitive, experiencing domestic as well as international pressures. Imports have gained increasing market share, while U.S. manufacturers have been reluctant to pursue foreign markets, thus the industry has incurred an increasing trade deficit. The U.S. industry has been slow to adopt labor saving technology (Geiger et al. 1990), and has invested little in new equipment, allowing foreign competitors to gain an advantage.

The trend toward industry consolidation has allowed United States firms to remain competitive if the face of increased competition from imports (Bullard 1989). Other factors which will affect competition in the U.S. furniture industry include marketing and production innovations, education of employees, changes in government regulations and taxation, research and implementation of technology (Geiger et al. 1990, Bullard 1989).

Firms in the furniture industry develop competitive advantage in several ways. Some manufacturers claim to be leaders in fashion to gain a competitive edge. These manufacturers are the first to introduce new styles. Another strategy is to see which of the competitors' lines are successful and imitate them. This strategy allows manufacturers to reduce engineering and design expenses while eliminating the risk involved in predicting consumer response. Other firms may emphasize quality at a low cost. Firms may offer a variety of furniture types and styles, emphasizing to the small retailers that they can provide all their needs with the same delivery, reducing freight costs. Firms may also use other service oriented components in their strategies including reduced delivery times, promotional support and credit.

Competitive Strategy

The arena in which United States' industries compete has changed drastically in the past few decades (Robert 1993, Hanan 1991, Ross 1993). Until recently, U.S. companies have had the advantage of immediate proximity to the world's largest consumer market and have had access to tremendous quantities of natural resources. Many industries' strategies

were focused toward growth to accommodate the continually increasing demand for their products. Companies could sell domestically all they could produce and exports were only considered by many to be "incremental" business (Robert 1993). Export markets were not often seriously considered as a method of expanding sales.

Recently, however, U.S. industries have been faced with increasing foreign competition, lower domestic growth and increasing restrictions on resources. Current trends are toward increased globalization as trade barriers are decreasing. Competition can no longer be considered regional or domestic but worldwide (Ross 1993). Not only will there be more competitors in the marketplace, but also more intense competition. Likewise, new markets will become accessible to American companies. The challenge of crossing geographic and cultural barriers to become competitive in new markets will face many American firms.

Competitive strategy can be defined as an organization's goals and the methods that organization implements to achieve its goals (Porter 1980). The effectiveness of a firm's strategy depends on the firm's resources and skills in the face of controllable and uncontrollable forces. All firms have goals, no matter how unorganized or informal, and all have methods in which they attempt to meet their goals. Thus, all firms have strategies whether or not they are formally planned. Research indicates, however, that formal planning is associated with superior financial performance (Thune and House 1970, Herold 1972, Eastlack and McDonald 1970, Ansoff et al. 1971, Karger and Malik 1975, Hofer 1978).

Competing firms have varied levels of success. The success of a firm is greatly influenced by the strategy it implements and the synergy between the strategy, the firm's

resources and the environment in which the firm operates (Hofer 1978). Firms may alter strategies to maximize performance in changing environments.

Competitive strategy can be viewed at a business or corporate level (Hofer 1975). Corporate-level strategy deals with which industries a corporation chooses to be in (Varadarajan 1991, Hambrick 1980, Patel and Younger 1978). Decisions to be made at the corporate level include, choice of customer function to satisfy, customer groups to serve, technologies to utilize, and stages of value added to be in (Robert 1993, Varadarajan 1992). Recent corporate level strategic trends have been toward greater focus with respect to product-market-technology scope. Firms are divesting businesses which are unrelated to the firms' core competencies along product-market-technology dimensions (Robert 1993, Varadarajan 1992).

Business-level strategy is concerned with achieving (and maintaining) competitive advantage in a single industry or product market (Varadarajan 1992; Hambrick 1983; Porter 1980, 1985; Day 1984; Patel and Younger 1978). More specifically, business level strategy entails how a business may gain competitive advantage through optimal utilization of its skills and resources. Business level strategy involves new product decisions, product deletion decisions and management of the product mix (Varadarajan 1992).

There should be a strong correlation between business and corporate strategies. The corporate level strategy usually is the driving force behind the business level strategy (Robert 1993). If a business under a corporation does not fit the corporate strategy, it is divested.

Likewise, new businesses are often acquired by corporations if they will enhance the corporate position. As would be expected, there is often overlap between corporate level and business level strategy and to differentiate between the two may often be difficult.

Techniques of Investigating Strategy

There are many popular techniques that have been employed to investigate strategies at both the business and corporate levels. At the corporate level, popular methods have included the business portfolio matrix and General Electric's "Business Screen". At the business level, the product-positioning matrix, policy decision tree and functional area resource deployment matrix have been used (Hofer 1978). Generic strategy and strategic grouping techniques have been employed in corporate level as well as business level research (Hofer 1978). Each method has inherit advantages and disadvantages.

Corporate Level Strategy Analysis

Business portfolio matrices, popular during the 1970's, are useful for determining firm scope. The most popular business portfolio matrix is the Boston Consulting Group's, which plots a firm's businesses by growth rates within the industry and the firm's relative competitive position based on market share. Depending on a business' location on the matrix, they can be catalogued as Stars (high growth and high market share), Cash Cows (low growth and high market share), Dogs (low growth and high market share) or Problem Children, also called Question Marks or Wildcats (high growth and low share).

This method has been criticized as being too simplistic and having inadequate descriptors as scales. Growth rate is a deficient indicator of industry attractiveness when supply has increased faster than demand, even in high growth industries. Likewise, market share may not always be an adequate surrogate for success. For example, in the automobile industry, GM has the greatest worldwide market share, but has consistently been outperformed by Daimler-Benz in terms of profit (Robert 1993).

General Electric's Business Screen is a nine cell matrix which plots industry attractiveness against business strength. The scales are composite measures based on a variety of subfactors which include growth rate and market share. The main criticism of this technique is that it does not depict effectively the positions of new businesses in new industries (Hofer 1978).

Business Level Strategy Analysis

The product-positioning matrix may be used to learn about strategy at the business level (Hofer 1978). The competitive position of the firm's major products are plotted relative to competitors for each market segment served. This type of analysis is useful in determining the relative scope of markets in which the firm competes.

The policy decision tree can also be used to study strategy (Hofer 1978). In constructing a policy decision tree, the firm must rank variables in a list of various policy decisions by level of importance as perceived by that firm. For each variable the decision made by that firm is then indicated. A comparison of policy decision trees from different businesses will suggest strengths and weaknesses of competing firms and types of synergy they wish to develop between policy components. This information should reflect the firms' "strategic drive" if firms have clear strategies. If no strategic drive is apparent it may be evidence that the firm's strategy will be ineffective (Robert 1993, Hofer 1978).

A third tool for examining business level strategy is a functional area resource deployment matrix (Hofer 1978). This matrix plots the allocation over time of expenditures across crucial functional areas including product research and development, manufacturing, marketing, finance and management. The matrix provides information on the relative importance the firm places on different functional areas, implying information about the firm's strategy and how it evolves over time.

Strategic Group Analysis

Generic strategy and strategic grouping techniques have been used in corporate as well as business level research. The strategic group concept first appeared in the early seventies, and became popular in the 1980's. The concept of strategic groups has been accepted across several disciplines, including industrial-organizational economics, strategic management and marketing (Fiegenbaum et al. 1987).

The concept is based on the idea that, although firms in an industry are not homogeneous, neither are they all unique in the competitive strategies they utilize (Fiegenbaum et al. 1987; McGee and Thomas 1986; Newman 1978). The structure of competitive strategy for an entire industry is comprised of individual strategic groups which are comprised of individual firms with similar strategies. Firms within the same strategic group have similar perceptions of the industry and the competitive forces affecting them. Firms within the same strategic group also have similar goals and resources to fulfill these goals (Fiegenbaum et al. 1987). Thus, firms within a strategic group are confined to their group because of their philosophies and resources.

A firm wanting to change strategic groups must alter its philosophies and adapt its resources, which can be costly, not only from the perspective of real costs but also resulting from defensive actions from competing firms who may resist the change. Likewise, a strategic move made by a firm within a strategic group often cannot be imitated by firms outside the group without substantial cost or risks (McGee and Thomas 1986). Thus, "mobility barriers"

exist between strategic groups, which induce firms to stay within their strategic group (Fiegenbaum et al. 1987, McGee and Thomas 1986). Several studies have supported the notion that firms stay within the same strategic group over time, even if the strategic components underlying the group change (Oster 1982, Fiegenbaum and Primeaux 1983).

Research based on the strategic group concept is considerable. Table 1-9[1] addresses the most popular of these studies but is in no way all inclusive. As shown, these studies differ in research methods and purpose. However, they all use some form of the strategic group concept, although the basis of group membership varies greatly. Each researcher found homogeneous groups of firms based on these criteria.

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[1] Also included in Table 9 are studies based on typologies which based categorization on some form of strategic grouping.

Table 1-9. Studies involving the strategic group concept. (Adapted from McGee and Thomas (1986) and Galbraith and Schendel (1983)). The bases of strategic groups for each study are bolded.

Hunt (1972)	Coined Phrase Strategic Group- Looked at white goods industry and observed three sources of asymmetry based on product line-1) **Degree of product diversification, 2)differences in product differentiation and 3)extent of vertical integration.** Based on these criteria Hunt detected four strategic groups.
Newman (1973,1978)	Researched 'producer goods' industries'. Based strategic groups on **degree of vertical integration.**
Porter (1973)	Research 'consumer goods' industries. Classified firms as leaders or followers based on **firm size.** Leaders were characterized by achieving economies of scale in production, vertical integration, captive distribution, broad product lines and large sales forces. Followers have narrow line, regional and non-integrated strategies.
Hatten (1974), Hatten and Schendel (1977)	Researched brewing industry. Based strategic groups on 1) **manufacturing variables** (number, age and capital intensity of plants, 2) **marketing variables** (number of brands, price and receivables/sales and 3) **structural variables** (concentration ratio and firm size) and related these to performance.
Hatten, Schendel and Cooper (1978)	Researched brewing industry. Based strategic groups on 1) **manufacturing variables** (number, age and capital intensity of plants, 2) **marketing variables** (number of brands, price and receivables/sales and 3) sales and 3) **financial variables** (leverage, merger/acquisition behavior).
Harrigan (1980)	Researched declining industries. Used strategic mapping to based strategic groups on **strategic posture.**
Caves and Pugel (1980)	Researched U.S. manufacturing industries. Based groups on **firm size.** Found small firms in some industries, more profitable.
Oster (1982)	Researched "consumer goods" industries. Based group differentiation on **product strategy** (advertising strategies).
Ramsler (1982)	Researched the banking industry. Based groupings on **product differentiation, size and geographic scope.**
Ryans and Wittink (1985)	Researched the airline industry. Based groups on **financial strategy.**
Baird and Sudharsan (1983)	Researched office equipment and computer industry. Grouped firms based on **financial strategy** (leverage and return on assets).
Primeaux (1985)	Researched petroleum and textile industries. Based groupings on **size and investment strategies** and linked to life cycle strategy. Compared his strategy with Porter's (1973, 1978) and found performance of the theories depended on the industry it was applied to.
Howell and Frazier (1983)	Researched medical supply industry. Used **degree of scope and differentiation on customer groups and customer needs** to differentiate between firms.
Hayes, Spence and Marks (1983)	Researched investment banking industry. Based groupings on **bank characteristics and customer characteristics.** Discovered for groups.
Hergert (1983)	Research U.S. manufacturing industry. Showed groupings could be linked to **managerial input, buyer diversity, product complexity, market growth and stage of the product life cycle.**

Table 1-9(Cont.). Studies involving the strategic group concept. (Adapted from McGee and Thomas (1986) and Galbraith and Schendel (1983)). The bases of strategic groups for each study are bolded.

Dess and Davis (1984)	Examined intended business-level strategies in the paint and allied products industry. They provide empirical evidence of Porter's generic strategies.
Hawes and Crittenden (1984)	Researched the supermarket industry. Found groupings based on a firm's target market, product, promotion,price, buying and display.
Lathi (1983)	Studied Finnish knitwear industry. Based groups on firm size and product grouping.
Hatten and Hatten (1985)	Studied the brewing industry. Found strategic groups based on price, advertising, number of brands and market share.
Miles and Snow (1978)	Based typologies on degree of innovativeness.
Hambrick (1983), Miller (1986) and Snow and Hrebiniak (1980)	Investigated functional attributes or policies in production, management, capital asset management, etc. Found typologies based on different functional attributes and policies, notable in product R&D and marketing expenditures.
Porter (1980)	Bases typologies on type of competitive advantage (low cost producer vs. perceived product differentiation) and scope of target market (broad vs. focus).
Galbraith and Schendel (1983)	Validate Porter's (1980) generic typology.
Hambrick 1983a	Validate Porter's (1980) generic typology.
Buzzel et al. (1975)	Based typology on investment strategy.
Utterback and Abernathy (1975)	Typology based on degree of product performance,product R&D, process technology,sales and market share.
Hofer and Shendel (1978)	Typology based on strategic posture and investment strategy.
Vesper (1979)	Typology based on market share and strategic posture.
Wissema et al. (1980)	Typology based on financial strategy and market share.
Miles (1982)	Typology based on product innovation and market segmentation.

Research based on the strategic group concept has been very useful in management as well as research applications. Such studies allow for simultaneous consideration of many pertinent strategic variables. Grouping firms with similar strategies allows comparisons across strategic groups. Correlations between strategic groups and variables such as profit or growth may be detected.

Of particular significance to this research project, is a study by Dess and Davis (1984) which demonstrated "the viability and usefulness of categorizing firms within an industry into strategic groups on the basis of their intended strategies (p.467)". Dess and Davis (1984), using multivariate techniques to investigate strategies, provided evidence of strategic groups based on Porter's (1980) generic strategies. Dess and Davis also found differences in after-tax profits and growth across strategy types. Since the validity of Dess and Davis's measure has been demonstrated, their measure will be used to operationalize the concept of strategy in this study. Figure 1-6 shows the strategic variables used by Dess and Davis to operationalize the concept of business level competitive strategy.

Competitive Strategy Research in Wood Products Industries

Several studies have examined competitive strategy in the wood products industries. Rich (1986) investigated corporate-level competitive strategy in large forest products firms in both fiber and solid wood products, classifying firms using Porter's (1980) generic strategies classifications. Rich (1986) found that although most firms utilized an overall low cost strategy, there was a trend toward the use of differentiation and focus strategies (trends were based on comparisons with results of a previous but similar study (Rich 1979)). Firms implementing differentiation and focus strategies were found to be more profitable (Rich 1979).

1. Experienced/Trained Personnel.
2. Procurement of Raw Material
3. Products in High Priced Market Segments
4. Maintain High Inventory Levels
5. Developing/Refining Existing Products
6. Innovation in Marketing Techniques/Methods
7. Control of Channels of Distribution Growth
8. Minimizing Use of Outside Financing
9. Serving Special Geographic Markets
10. Capability to Manufacture Specialty Products
11. Innovation in Manufacturing Processes
12. Customer Service
13. Operating Efficiency
14. Product Quality Control
15. Competitive Pricing
16. Broad Range of Products
17. Brand Identification
18. Forecasting Market Growth
19. Advertising
20. Reputation Within Industry
21. New Product Development

Figure 1-6. Strategic variables used by Dess and Davis (1984) to operationalize the concept of business level competitive strategy.

O'Laughlin and Ellefson (1981a,b,c) investigated the economic structure of lumber and lumber products, pulp and paper and wood furniture firms in aggregate. Their third article (1981c) examined the strategic groups within these industries, based on sales rank and diversification strategies. Four groups were identified: traditional top 10 wood-based companies, traditional wood-based companies similar in sales to new diversified entrants, new diversified entrants, and other traditional wood-based companies. The authors concluded that

competition within an industry increases 1) with the presence of firms in an industry whose primary business is outside the industry and, 2) with increasing group complexity.

Cleaves and O'Laughlin (1986 a,b) examined intra-industry business-level strategy in the southern pine plywood industry. Manufacturing, size, integration, timberland ownership, procurement, distribution and geographic specialization were used as the basis to define strategic groups. Five strategic groups were found: 1) integrated wood giants, 2) local lumber producers, 3) regional solid wood products specialists, 4) timber baron subsidiaries and, 5) diversified paper producers. Cleaves and O'Laughlin concluded that the identification of strategic groups facilitates the prediction of industry responses to competitive forces.

Bauerschmidt et al. (1986) examined the popularity of competitive tactics, business strategies adopted, and strategic groups in the U.S. pulp and paper industry. Customer service was considered the top priority of a competitive strategy followed by cost control. Efficient plants and people were not considered strategic options by the industry but fundamental necessities. Factor analysis of their data lead to five "strategic groups". These groups were given the following names: 1) differentiation, 2) overall cost leadership, 3) focus strategy, 4) geographical focus and 5) customer focus.

Bush and Sinclair (1991) examined the business-level competitive strategies of large firms in the hardwood lumber industry through the identification of strategic groups along the dimensions of cost leadership, focus, and differentiation. Strategy was operationalized based on variables developed by Dess and Davis (1984). A five strategic group model was identified: one exhibiting an overall cost leadership strategy, one a differentiation strategy, one

a dual overall cost leader/differentiation strategy, and two had no strategic orientation. Most firms indicated a trend toward a differentiation strategy.

Bush et al. (1991) qualitatively examined competition of large firms in the hardwood lumber industry. The largest and smallest firms were found to be the most production oriented. Overall cost leadership strategies were the most prevalent strategies utilized, followed by a dual focus/differentiation strategy. Quality, customer service and price were the most used competitive tools. The most frequently reported trends in the industry were shortened distribution channels, increased product specialization, and increased inventories kept by supplies.

Cohen and Sinclair (1992) developed a model of relating strategies to firm profitability in the wood building products industry. Five strategic variables (adoption of process technology, grade sector focus, investment intensity, forward integration and relative market share) were used to predict profitability. Adoption of process technology, grade sector focus and investment intensity all were positively related to profitability.

Smith and West (1990) examined the position of U.S. furniture producers from a global perspective by examining important strategic issues and alternative strategies facing global competition. Three furniture producing countries were compared (the U.S., Taiwan and Korea) on product and distribution policies. It was found that Taiwan and Korea have labor cost advantages over the U.S. while the U.S. enjoys cost advantages related to raw materials. Taiwan and Korea expect to spend more on modern equipment over the years from 1990 to 2002 than firms in the U.S. United States trade shows and U.S. marketing consultants are the

primary methods used by Taiwanese and Korean firms to gain information regarding U.S. markets. In Taiwan, the primary export method used by small and medium sized firms was the use of Taiwanese sales staffs. Large Taiwanese furniture firms exported primarily through joint ventures with U.S. firms. Small firms in Korea primarily exported through Korean sales staffs, while large and medium sized firms primarily exported through U.S. distributors and agents. Both Korea and Taiwan believed their major advantage in U.S. markets was greater product value and exchange rates were their major disadvantage.

Although the forest product based literature addresses many very important aspects of competition, none have investigated the effect of strategy on competitiveness or the relationship between these and other determinants of competitiveness.

Performance

Performance is the driving force behind strategy development. Strategies are the goals of an organization and the methods used to reach those goals (Porter 1980). Performance is a measure of how well those goals are being met (McGuire et al. 1986). Thus, a measure of performance is a measure of strategy effectiveness within a given environment. Conceptionalizing organizational performance has important research as well as applied managerial implications. Strategic theories usually are based on performance implications (Venkatraman and Ramanujam 1986), while managers utilize performance measures to evaluate business success (or failure).

There are conflicting arguments in the literature pertaining to conceptualizing performance (Cohen and Sinclair 1992, Booth and Vertinsky 1991, Venketramen and Ramanujam 1986, McQuire et al. 1986). There is disagreement in defining the domain of the performance concept as well as the appropriate measure to employ to conceptualize performance. Venkatraman and Ramanujam (1986) describe the domain of organizational performance at three levels. The first level of organizational performance is the "domain of financial performance". This domain "centers on the use of financial indicators that are assumed to reflect the fulfillment of the economic goals of the firm" (Venkatraman and Ramanujam 1986, p. 803). Financial indicators include sales growth, profitability and earnings per share. The majority of strategy-performance research literature measures performance in this domain (Venkatraman and Ramanujam 1986, Hofer 1983). This approach assumes that financial goals are the dominant goal of an organization. Although such is not the case for all firms, including some firms in the furniture industry, by far the vast majority of firms are profit motivated.

The next level of performance in Venkatraman and Ramanujam's model, is the domain of "financial and operational performance". This definition of the domain of performance extends beyond the scope of only considering financial data and incorporates operational performance data, including such measures as market share, new product introduction, product quality, marketing effectiveness, value-added manufacturing, and measures of technological efficiency. In short, not only are financial performance data considered but factors which may lead to financial performance.

The most comprehensive domain of performance defined by Venkatraman and Ramanujam (1986) is that of "organizational effectiveness". This domain is very broad and encompasses all organizational goals, including those goals influenced by shareholders of the organization. However, available data reflecting shareholder influenced goals are generally biased and based on incomplete information. Such data often measures the investors' prediction of future performance expectations of the firm, and not the actual firm performance (Booth and Vertinsky 1991). Because of the controversy of such data, and the difficulty involved in conceptualizing a domain of such breadth, most strategy research has viewed performance within the first of Venkatraman and Ramanujam's two domains (Venkatraman and Ramanujam 1986).

The majority of data collected in performance research can be categorized as financial or operational performance information. Which type of data is best for performance measures is disputed. Both financial indicators and operational indicators have advantages and disadvantages (McGuire et al. 1986). The criticisms of financial and operational indicators are addressed below.

Criticisms of Financial Performance Data

Difficulties may arise when collecting financial data from private companies, due to the sensitive nature of such data (Dess and Robinson 1983). Financial indicators may be biased or noncomparable, since firms use differing accounting methods (Cohen and Sinclair 1992, Booth and Vertinsky 1991, Venkatrman and Ramanujam 1986). Financial data are also oriented to the past, and are time sensitive (Cohen and Sinclair 1992, Booth and Vertinsky 1991). However, financial data is relatively easily obtained, especially for public held companies, and is generally easily interpretable (Venkatrman and Ramanujam 1986). Much support exists for the use of financial data in the literature (Cohen and Sinclair 1992, Booth and Vertinsky 1991, Jacobsen 1987, Venkatrman and Ramanujam 1986). Also, many of the criticisms of using financial data can be argued. As stated by Booth and Vertinsky (1991, p. 913):

> "The arguments for using accounting data are based on the premise that the noise created by accounting distortions need not be expected to drown out the underlying signals of economic performance"

Booth and Vertinsky's statement is supported by Cohen and Sinclair (1992) in their research on the North American building products industry. To compensate for differing

accounting procedures, Cohen and Sinclair examined the methods used by firms in their sample and found (Cohen and Sinclair 1989, p. 797):

> "The great majority of firms (both in the U.S. and Canada) used the same method of calculations during the study period. Where differences did exist, comparative financial analysis showed they had minimal impact on the profitability measure used."

The problem of the time sensitivity of financial data can be minimized by averaging the data over a chosen time frame (Cohen and Sinclair 1992, Booth and Vertinski 1991).

Criticisms of Operational Performance Data

Operational performance data have the advantage of employing a more comprehensive examination of the performance measure (Venkatraman and Ramanujam 1986). However, problems involving the availability of operational data, as well as bias due to measurement inaccuracies, make the use of operational data difficult, if not impossible. Many firms do not keep formal records of such data, and when they do, no standard collection method exists, thus, data may not be comparable across firms. Also, operational performance data does not recognize financial aspects of performance, and the relationships between financial and operational performance is not known (Venkatraman and Ramanujam 1986).

Based on the available literature, it is concluded that financial data is the most appropriate and easily obtainable indicator of organizational performance. There are numerous financial indicators, which can be utilized to assess performance. A discussion of commonly used indicators follows.

Financially Based Indicators of Performance

Not all businesses are driven by the same motivation factors. Some companies may exist to provide employment or training to certain groups of individuals (e.g., companies which exist primarily to provide work place training to prison inmates). Family businesses exist which are content operating at break-even, since the business keeps the family together. There are many possible reasons that a company may be in business. However, by far the primary goal of most companies is to be profitable.

Profitability, in accounting terms, is the ability of an entity to earn income. There are several commonly employed measures of profitability used in business accounting. These include; the ratio of net sales to assets, rate earned on total assets, rate earned on stockholders' equity, rate earned on common stockholder's equity, earnings per share on common stock, dividends per share of common stock, price-earnings ratio, and dividend yields (Fess and Warren 1986). Rate of return of investment is commonly used for divisional performance measure and for measuring performance of private entities (Fess and Warren 1986).

The ratio of net sales to assets is a profitability measure that assesses how effectively a firm utilizes its assets. It is a ratio of net sales to the average total assets excluding long term investments. The rate earned on total assets is the ratio of the sum of net income and interest expense, to average total assets. It is a measure of the profitability of the assets without regard to the equity of creditors and stockholders in the assets. Rate earned on stockholder's equity, rate earned on common stockholders equity, earnings per share on common stock, dividends per share of common stock, price-earnings ratio and dividend yields are applicable only when a company issues stocks. Such measures are not appropriate for this study, since this project examines business level strategies and will include many small private firms.

The rate of return on investment (ROI) is one of the most commonly used measures of performance. Corporations track ROI divisionally, and ROI is available from private companies. Revenues, expenses and invested assets are included in the calculation of ROI, all of which are subject to control by management strategy. ROI is the product of the profit margin (operating income over sales) and the investment turnover (sales over invested assets). The profit margin component of the equation focuses on the amount of profit realized on each sales dollar, while the investment turnover component focuses on the efficiency of the use of assets. Thus, ROI measures performance based on profit and investment criteria.

After reviewing the literature on performance measure and financial indicators, it is concluded that return on investment is the best possible measure of performance in light of the goals of this project. The use of ROI as a measure of performance is strongly supported in past strategy research (Cohen and Sinclair 1992, Booth and Vertinsky 1991, Jacobsen 1987,

Venkatrman and Ramanujam 1986, Schneewies 1983; Bettis and Hall 1982, Beard and Dess 1981, McMillan et al. 1980, Grinyer et al. 1980). Jacobsen (1987) in his research on the validity of financial data to measure performance sums it up best through his conclusion that ROI is "perhaps the best available indicator of business performance".

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Chapter 2 - Competitive Stategy in the U.S. Wood Household Furniture Industry

A manuscript developed for possible submission to *Forest Science*

Abstract

A multivariate measure was used to investigate competitive strategy in the U.S. wood household furniture industry. The measure was evaluated for reliability and validity using confirmatory factor analysis and by comparison of the results with a separate direct measure of strategy. Firms were categorized into strategic groups using hierarchical agglomerative cluster analysis based on factor scores. Cluster analysis resulted in three strategic groups: a differentiation group, a overall low cost group, and a focus group (which appeared as a sub-group of the differentiation group). There were no differences between the strategic groups based on performance levels (return on assets or growth). In addition, performance differences between firms with a distinct strategic orientation and those that appeared to be "stuck in the middle" (Porter 1980, p41) could not be shown. Firms in the overall low cost group were, on average, larger and targeted lower selling price points than did firms in other groups. Focusers, on average, had a larger portion of total shipments represented by exports and new products. Over the next five years, the overall low cost group predicted increased emphasis primarily on the differentiation dimension, the differentiation group predicted increased emphasis on the focus dimension and the focus group predicted greater emphasis would be placed on the overall low cost and differentiation dimensions.

The U.S. wood household furniture industry is a major and relatively stable market for many wood products. The wood furniture industry (including wood office furniture and dimension parts manufacturers) is the largest domestic user of high grade hardwood lumber (Haynes 1989; Luppold 1988, 1987; Cardellichio and Binkley 1984; Spelter et al. 1978; Sinclair 1992). Nearly one-half of the hardwood lumber consumed by the wood furniture industry is used in manufacturing wood household furniture (Forbes et al. 1993). The wood household industry also consumes large amounts of other primary wood products including softwood lumber, structural plywood, hardwood plywood, dimension parts, and veneer (Forbes et al. 1993, 1992; Meyer et al. 1992). Estimates of the volumes of wood and wood composites used by the wood household furniture industry (during 1991) are shown in Table 2-1. These volumes reflect the importance of the wood furniture industry to primary wood products industries.

In recent years, competition in the wood household furniture industry has changed considerably. A changing industry structure, increasing furniture trade deficit, and rapidly advancing technology, among other factors, have caused changes in the way the industry competes. For example, recent shifts toward mergers and consolidations have resulted in a more concentrated industry (Standard and Poor's 1994, 1991; Sinclair 1993; Bullard 1989). In 1980, the top 10 furniture manufacturers accounted for only 21% of total furniture shipments, while in 1992 the top 10 captured a 42% share (Standard and Poor's 1994,1991). The largest furniture manufacturer in 1992 controlled nearly 8% of the U.S. furniture market (Standard and Poor's 1994).

Mergers and acquisitions have provided larger firms with deeper financial resources; superior production, warehousing, and distribution economies of scale; and the opportunity to diversify, or enter market segments that may offer superior financial or strategic benefits (Standard and Poor's 1991).

Table 2-1. Materials used by manufacturers of wood household and office furniture, upholstered furniture and public building (and related) furniture in 1992 (Forbes et al. 1993).

Material (units)	**Volume Used**
Hardwood Lumber (MMBF)	1,505
Softwood Lumber (MMBF)	638
Particleboard (MMSF)	1,088
Medium Density Fiberboard (MMSF)	307
Softwood Plywood (MMSF)	86
Hardwood Plywood (MMSF)	76
Veneer (MMSF)	741

There has also been a trend toward consolidations of furniture retailers. The number of independent furniture retailers declined 30% from 1979 to 1991 (Standard and Poor's 1991). From a manufacturer's viewpoint, the consolidation of furniture retailers reduces the number of potential customers, creating a more competitive environment.

The channels of distribution employed by the industry are also changing. Specialty retailers, warehouse stores, discounters, mail order catalogues, home electronic shopping networks, and 800-number discounters have become important distributors of furniture. The independent furniture retailer and department stores have lost sales to these other furniture distributors (Standard and Poor's 1991).

Competition in the industry has been affected by an increasing furniture trade deficit. Wage differences, reduced shipping costs, the development and popularity of RTA (Ready-to-assemble) furniture, improvements in foreign design and quality, increased promotion, changing currency rates, differing government regulations and tariff levels, among other factors, have all influenced the furniture trade imbalance (Bullard 1989, Florence 1990, USDC-ITA 1990, 1985). In 1992, furniture imports totaled to an estimated $3.43 billion, while exports were only $1.16 billion. This resulted in a $2.27 billion furniture trade deficit in 1992, up nearly 15% as compared to 1990 (USDOC-ITA 1994). The furniture trade deficit is predicted to increase to $2.38 billion by the end of 1994 (USDOC-ITA 1994). The result of increased imports has been increased competition among manufacturers and downward pressure on furniture prices.

Increasing environmental concerns and worker safety regulations have also affected competition in the U.S. wood furniture industry (Bullard 1989). Furniture manufacturers will continue to experience increased regulations designed to protect workers and the environment (Mayfield 1993, Nemetz 1992, McMorrow 1992, Martin et al. 1992). Regulations protecting raw material sources may promote the use of wood substitutes and increase the implementation of waste reducing technologies. Manufacturers will face increased material and energy costs driven by regulations on materials and energy supplying industries. Increasing costs of disposal will affect the industry, stimulating the implementation of new technologies.

Many furniture manufacturers are already reacting to environmental pressures. The "green movement" is becoming apparent in the marketing strategies of some manufacturers (Poirier 1992, McMorrow 1992). Some companies are contracting independent certifying groups, such as Green Cross and Green Seal, to promote their firm's concern that the products they use are environmentally safe. Other firms' marketing strategies include programs in which a tree is planted for every piece of furniture sold and printing their catalogues on chlorine-free paper (Poirier 1992).

Technological advances also continue to alter competition in the industry. New technology is aiding manufacturers in streamlining and automating production facilities (Witt 1992, Kolebuck 1992, Staub 1991). Technology is being developed and implemented which aids in manufacturing productivity and efficiency. Software developments are also aiding manufacturers in planning, manufacturing, communication and design (Dutton 1993, Corbett

1992, Knight 1992, Foronda and Corino 1992). The development of RTA (Ready-to-Assemble) furniture, 32mm furniture, and frameless cabinets are examples of the influence of technology on design (Chanil 1991, Campbell 1988, Bullard 1989).

The above are only a few examples of the influences that are affecting the competitive environment of the furniture industry. The ability of firms to compete effectively in a dynamic competitive environment depends on the strategies they employ. A better understanding of the competitive structure of the industry and how it is changing is important to manufacturers developing business policies and strategies. Likewise, such knowledge also benefits research by contributing to the development of a comprehensive theory of competitive strategy.

In spite of the importance of understanding competition, limited research has been done concerning competitive strategy in the forest products industries. In fact, no previous research can be found that empirically examines the structure of competitive strategy in the furniture industry, nor the future direction of competitive strategy. This study sought to improve the understanding of competitive strategy in the U.S. furniture industry by defining the competitive structure of the U.S. wood household furniture industry and predicting changes in the industry's structure over the next five years. The relationship between performance and strategic group membership was also investigated.

Background

Strategic Group Research in Wood Products

As mentioned, the literature concerning competitive strategy in the forest products industries is not extensive. However, there are several key studies that should be examined. Rich (1986) investigated corporate-level competitive strategy among large producers of fiber and solid wood products and classified firms using Porter's (1980) generic strategies classifications. Rich (1986) found that although most firms utilized an overall low cost strategy (using Porter's 1980 terminology), there was a trend toward the use of differentiation and focus strategies (trends were based on comparisons with results of a previous but similar study (Rich 1979)). Firms implementing differentiation and focus strategies were found to be more profitable (Rich 1979, 1986).

O'Laughlin and Ellefson (1981a,b,c) investigated the economic structure of lumber and lumber products, pulp and paper, and wood furniture firms in aggregate. Their third article (1981c) examined strategic groups within these industries, based on sales rank and diversification strategies. Four groups were identified: traditional top 10 wood-based companies, traditional wood-based companies similar in sales to new diversified entrants, new diversified entrants, and other traditional wood-based companies. The authors concluded that competition within an industry increases 1) with the presence of firms in an industry whose primary business is outside the industry and, 2) with increasing group complexity.

Cleaves and O'Laughlin (1986 a,b) examined intra-industry business-level strategy in the southern pine plywood industry. Manufacturing domain, size, integration, timberland ownership, procurement, distribution and geographic specialization were used as the bases to define strategic groups. Five strategic groups were found: 1) integrated wood giants, 2) local lumber producers, 3) regional solid wood products specialists, 4) timber baron subsidiaries and, 5) diversified paper producers. Cleaves and O'Laughlin concluded that the identification of strategic groups facilitates the prediction of industry responses to competitive forces.

Bauerschmidt et al. (1986) examined competitive tactics, business strategies, and strategic groups in the U.S. pulp and paper industry. Customer service was the top competitive tactic followed by cost control. Efficient plants and people were not considered strategic options by the industry but fundamental necessities. Factor analysis of their data lead to five strategic groups. These groups were given the following names: 1) differentiation, 2) overall cost leadership, 3) focus 4) geographical focus and 5) customer focus.

Smith and West (1990) investigated the position of U.S. furniture producers from a global perspective by examining important strategic issues and the alternative strategies facing global competitors. Three furniture producing countries were compared (the U.S., Taiwan and Korea) on product and distribution policies. It was found that Taiwan and Korea have labor cost advantages over the U.S. while the U.S. enjoys cost advantages related to raw materials. Manufacturers in Taiwan and Korea expected to spend more on modern equipment

from 1990 to 2002, than did firms in the U.S. Trade shows and marketing consultants were the primary methods used by Taiwanese and Korea firms to gain information regarding U.S. markets. In Taiwan, the primary export method used by small- and medium-sized firms was the use of Taiwanese sales staffs. Large Taiwanese furniture firms exported primarily through joint ventures with U.S. firms. Small firms in Korea primarily exported through Korean sales staffs, while large- and medium-sized firms primarily exported through U.S. distributors and agents. Firms in both Korea and Taiwan believed their major advantage in U.S. markets was greater product value and exchange rates were their major disadvantage (Smith and West 1990).

Booth and Vertinsky (1991) investigated the relationship between firms' diversification strategies and performance in the pulp and paper and solid wood industries. Using regression analysis, the relationships between performance (measured by ROA, growth, perceived portfolio risks, and bankruptcy venerability) and strategic position (based on geographical and product diversification) were examined. They concluded that product differentiation and investment in new technology is related to increased performance.

Bush and Sinclair (1991) examined the business-level competitive strategies of large firms in the hardwood lumber industry through the identification of strategic groups along the dimensions of overall low cost, focus, and differentiation. Strategy was operationalized based on variables developed by Dess and Davis (1984). A five strategic group model was identified: one exhibiting an overall low cost strategy, one a differentiation strategy, one a

dual overall low cost/differentiation strategy, and two had no strategic orientation. Most firms indicated plans to increase emphasis on the differentiation dimension of strategy.

Bush et al. (1991) qualitatively examined competition of large firms in the hardwood lumber industry. The largest and smallest firms were found to be the most production oriented. Overall low cost strategies were the most prevalent strategies utilized, followed by a dual focus/differentiation strategy. Quality, customer service and price were the most commonly used competitive tools. The most frequently reported trends in the industry were shortened distribution channels, increased product specialization, and increased inventories kept by suppliers.

Cohen and Sinclair (1992) developed a model of relating strategies to firm profitability in the wood building products industry. Five strategic variables (adoption of process technology, grade sector focus, investment intensity, forward integration and relative market share) were used to predict profitability (return on sales). Adoption of process technology, grade sector focus and investment intensity all were positively related to profitability.

The Strategic Group Concept

Competitive strategy can be defined as an organization's goals and the methods an organization implements to achieve those goals (Porter 1980). The success of a firm is greatly influenced by the strategy implemented and the synergy between the strategy, the firm's skills and resources (facilities, raw material supply, labor, etc.) and the environment in

which the firm operates (Hofer 1978). No two firms in an industry, in the most specific sense, possess exactly the same skills and resources, nor do any compete in exactly the same way. This complexity poses a potential problem for researchers desiring to quantify and interpret the strategy construct and has led to the development of the strategic group concept (Hunt 1974). The concept is built around the idea that although firms within an industry are heterogeneous with respect to their competitive strategies, firms can be clustered into strategic groups based on underlying similarities in their adoption or implementation of certain strategic factors (Fiegenbaum et al. 1987, McGee and Thomas 1986, Newman 1978).

The structure of competitive strategy for an entire industry is comprised of individual strategic groups which are comprised of individual firms with similar strategies (Fiegenbaum et al. 1987, McGee and Thomas 1986, Newman 1978). Firms within the same strategic group have similar perceptions of the industry and the competitive forces affecting them (Fiegenbaum et al. 1987, McGee and Thomas 1986, Newman 1978). Firms within the same strategic group also have similar goals and resources to fulfill these goals (Fiegenbaum et al. 1987). Thus, firms within a strategic group are to some degree confined to their group because of their philosophies and resources.

A firm attempting to change strategic groups must alter its philosophies and adapt its resources. This can be costly, not only from the perspective of real costs but also as a result of defensive actions from competing firms who may resist the change (Fiegenbaum et al. 1987). Likewise, a strategic move made by a firm within a strategic group often cannot be imitated by firms outside the group without substantial cost or risks (McGee and Thomas

1986). Thus, mobility barriers exist between strategic groups, which induce firms to stay within their group (Fiegenbaum et al. 1987, McGee and Thomas 1986). Several studies have supported the notion that firms stay within the same strategic group over time, even if the strategic components underlying the group change (Oster 1982, Fiegenbaum and Primeaux 1983).

Porter's (1980) Model of Competitive Strategy

One of the most widely accepted and prevalent bases for strategic grouping in the competitive strategy literature are Porter's (1980) three generic strategy types. Porter's (1980) concepts have been referenced in many prominent journals (Miller and Dess 1993), including several in the forest products area (Cohen and Sinclair 1992, Bush and Sinclair 1991, Bush et al. 1991a, Bush et al. 1991b, Booth and Vertinsky 1991, Bauerschmidt et al. 1986 (implicit reference to Porter's strategy), Cleaves and O' Laughlin 1986, Rich 1986).

The framework of Porter's (1980) model describes strategy on two dimensions "strategic advantage" and "strategic target" (Porter 1980. p.39). Porter (1980) defines three generic strategy types based on these dimensions. These strategy types are as follows: 1) *Differentiation* - a strategy in which a firm seeks to position itself from competitors by offering favorable product or service attributes perceived industry-wide as unique, 2) *Overall cost leadership* - strategy in which a firm attempts to gain competitive advantage by

becoming the industry's low cost producer, and 3) *Focus* - a strategy in which a firm gains an advantage in a particular segment of the market by serving that segment particularly well.

Porter (1980) argues that a firm successfully employing any of these strategy types may out perform competitors in an industry. However, rarely can a firm out perform competitors if more than one strategy type is targeted, a situation Porter (1980, p.41) terms "stuck-in-the-middle". This point has been heavily criticized in the academic literature and has often disputed by empirical data (Miller and Dess 1993, Wright et al. 1991, Wright et al. 1990, Wright 1987, Dess and Davis 1986).

Recent research has (implicitly and explicitly) veered away from modelling strategy as three generic strategy types toward a paradigm that views strategy along three dimensions of strategic positioning (Miller and Dess 1993, Bush and Sinclair 1991, Dess and Davis 1986). By conceptualizing Porter's (1980) strategy types as dimensions, instead of discrete strategic categories, firms can be positioned along a continuum on all three dimensions, resulting in model more accurately reflecting reality (Miller and Dess 1993).

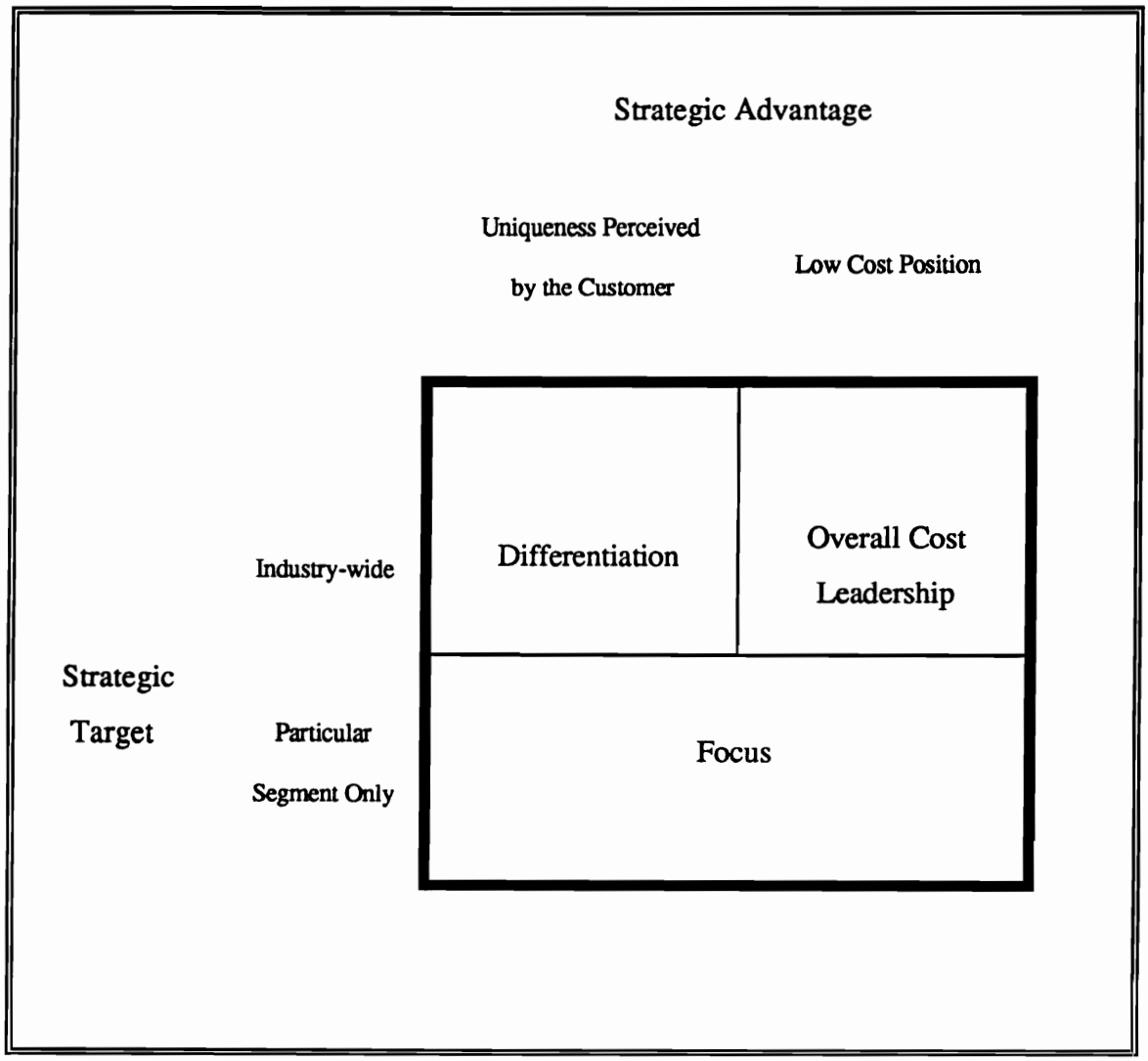

Figure 2-1. Porter's (1980) model of competitive strategy.

One of the first studies which viewed Porter's (1980) strategy as dimensions instead of discrete categories was Dess and Davis (1984) which demonstrated "the viability and

usefulness of categorizing firms within an industry into strategic groups on the basis of their intended strategies" (p.467). Dess and Davis (1984), using multivariate techniques to investigate competitive strategy in the paints and allied products industry, provided evidence of strategic groups based on dimensions reflecting Porter's (1980) generic strategies. Their research involved three phases. In the first phase, Dess and Davis asked top management to rate the importance of certain strategic variables to their firm's strategy. The importance scores of the strategic variables were factor-analyzed to develop dimensions of competitive strategy based on Porter's (1980) model. In the second phase, Dess and Davis had strategic management academicians rate each of the strategic variables as to how important each variable should be to each of Porter's three generic strategies. Results of phase 1 and phase 2 of Dess and Davis's study are presented in Appendix I. The third phase involved clustering firms into strategic groups based on factor scores calculated from phase 1 results.

The third phase of Dess and Davis' (1984) analysis resulted in two cluster solutions. The first, a three cluster solution implied the existence of three strategic groups: one implementing a differentiation strategy, one a focus strategy, and one "stuck-in-the-middle" (Porter 1980, p.41). The second solution, consisting of four clusters, suggested the existence of an overall low cost strategy group, a differentiation strategy group, a focus strategy group, and a stuck-in-the-middle group.

The Dess and Davis (1984) measure was the basis of a similar measure used by Bush and Sinclair (1991) in their investigation of business-level competitive strategy in the hardwood lumber industry. A description of Bush and Sinclair's (1991) study was discussed

previously. The apparent ability of their measure to operationalize the strategy construct makes their work particularly important to this study. Their results, combined with the results of Dess and Davis (1984), were pertinent to the development of the measure used in this study. Details of their results are presented in Appendix I.

Methods

The objective of this study was to define the competitive structure of the U.S. wood household furniture industry and to predict changes in the industry's structure over the next five years. The first of these objectives was accomplished by clustering firms based on their strategic orientation. The second objective was achieved by examining predicted shifts in importance levels of strategic variables which define competitive strategy.

The Population

The population of interest to this study was domestic wood household furniture manufacturers (SIC 2511). The sample frame included only firms with at least 60 percent of total furniture sales[2] in wood household furniture to avoid confusion between business-level strategic tactics used by firms competing in multiple businesses. Similar tactics have been

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[2] In the case of a corporation or multi-product firm, "total sales" refers to the total sales of the furniture producing business unit.

used successfully in previous research (Forbes 1993b, Dess and Davis 1984, Rumelt 1974). Throughout the remainder of this section, "wood household furniture manufacturers" refers only to manufacturers as defined by the population of interest.

Anticipating a low response rate from the subject industry (based on the results obtained by Hansen et al. 1993 and Forbes et al. 1993), a census was conducted to increase the number of total responses. The sample frame was identified using a list from Dun and Bradstreet Informational Services[3]. Dun and Bradstreet was chosen since their list was believed to be more complete and less biased than alternative sources (Meyer et al. 1990). The list was reviewed for errors and cross checked with other available sources (Furniture Design and Manufacturing 1993) for accuracy and completeness. The final list consisted of 946 addresses.

The Data Collection Instrument

Data were collected using a structured questionnaire designed to measure the three dimensions of competitive strategy as defined by Porter's (1980) generic strategy types. The measure of strategy used was a refined version of the measure used by Dess and Davis (1984) and Bush and Sinclair (1991) in their competitive strategy research. The final measure consisted of 23 strategic variables and is shown in Figure 2-2.

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[3] Dun and Bradstreet Informational Services, 3 Sylvan Way, Parsippany, NJ 07054-3896, is a direct marketing service company offering a data base of businesses worldwide.

Strategic variables were rated using a seven point rating scale (1=Not Important, 7=Extremely Important). Firms were asked to indicate how important each item was to their firm's current strategy and how important they predicted each item will be in their firm's strategy in five years. The use of direct quantitative judgement methods is supported in marketing research practice (Churchill 1991, Green and Tull 1978, Luck et al. 1975) and similar methods were used in past research concerning competitive strategy in the wood products industry (Bush and Sinclair 1991).

Before administering the survey, the questionnaire was evaluated by a panel of experts for face and content validity. After adjustments, the questionnaire was pretested on a random sample of 50 firms. Appropriate changes were made to the questionnaire before mailing. The final questionnaire was mailed on June 1, 1994.

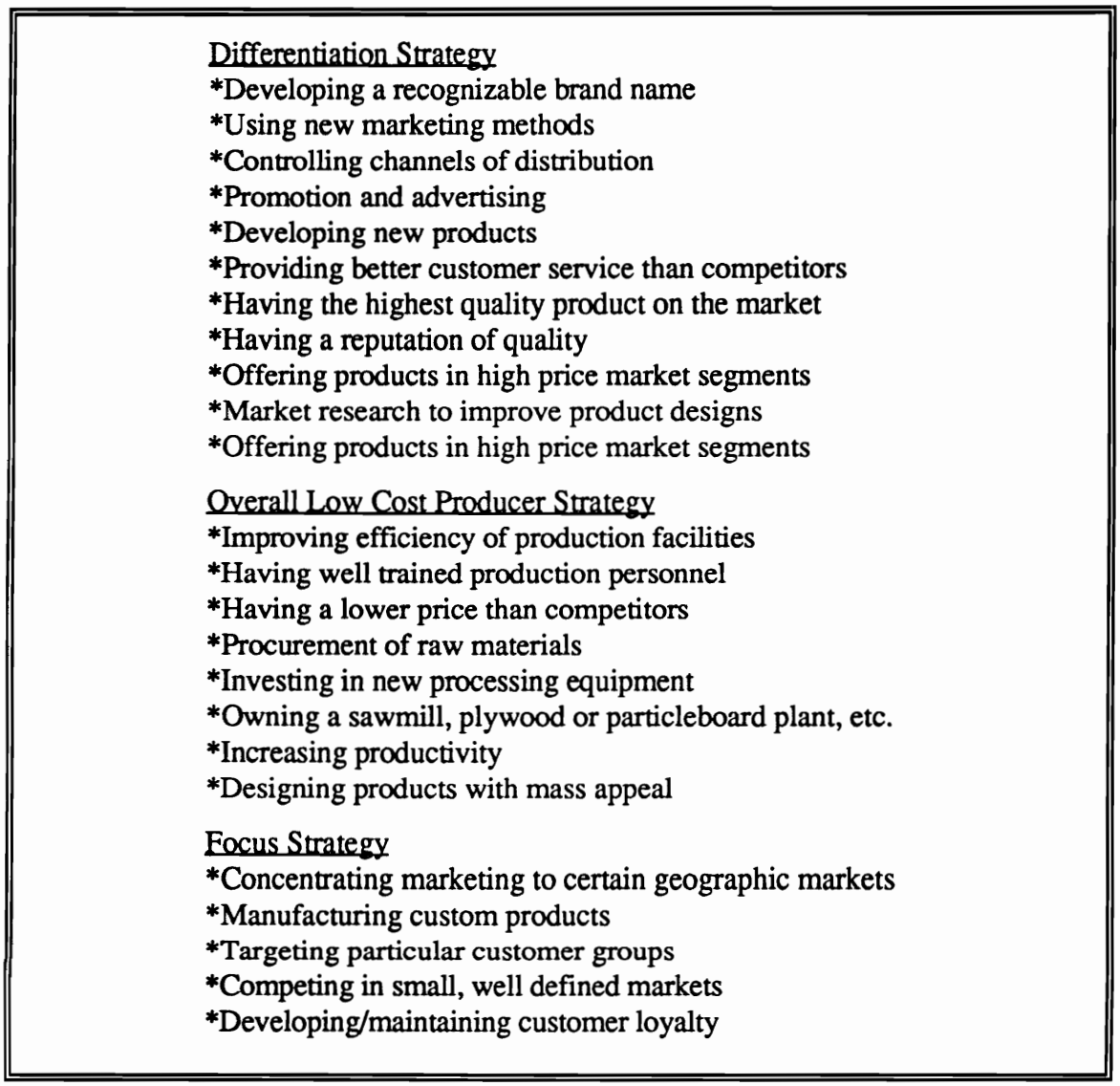

Figure 2-2. Dimensions of strategy and strategic variables hypothesized to measure each dimension

The Response

A total of 946 questionnaires were mailed. Of this total, there were 109 bad addresses, 3 returned refusals and 169 responses, resulting in a raw response rate of 18% and an adjusted response rate of 20%[4]. However, after removing outliers, and incomplete or unusable responses, only 80 subjects remained (10% usable response rate). This number is only slightly less than the minimum sample size (4 observations per variable) recommended for factor analysis (Hair et al. 1992). However, limitations such as a low number of responses per variable are common in marketing research (Hair et al. 1992)

Since the usable response rate for this study was only 10%, non-response bias was a concern. To test for non-response bias, telephone calls were made to a random sample of non-respondents and subjects were asked to answer a few of the most pertinent questions to this study. Mean scores of the responses to these questions were compared between respondents and non-respondents.

The results of this test are presented in Table 2-2. As shown , the majority of evidence suggests the absence of non-response bias. The exception is the importance rating of "Targeting particular customer groups" which non-respondents rated significantly higher.

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[4] Raw response rate is simply the number of responses divided by the number of questionnaires mailed. The adjusted response rate differs from the response rate in that the number of bad addresses (i.e., returned due to insufficient address, out of business, etc) have been subtracted from the denominator in the calculation of adjusted response rate to reflect the actual rate of non-response.

Since this variable is highly correlated with the focus dimension, it is likely that the non-response group consists of a greater percentage of focus strategy implementers than does the response group.

Table 2-2. Results of MANOVA testing for non-response bias.

Variable tested	P- value	Evidence of Non-Response Bias (þ=0.05)
Volume ($) of shipments	.12	No
Price point targeted	.33	No
Number of employees	.59	No
The importance of:		
Developing a recognizable brand name	.60	N o
Manufacturing custom products	.10	No
Targeting particular customer groups	.01	Yes
Increasing productivity	.59	No

Data Analysis

Antecedent evidence suggested that since the largest firms in the industry often compete in many diverse segments of the wood household furniture market, responses from these firms may be "noisy". For example, a single firm may compete in the low-priced market and a medium priced market simultaneously and strategically address each market differently. Thus, data from such a firm may distort results. To address this concern, outliers on the upper end of the distribution of value of shipments were not included in the analysis. Outliers were determined through the examination of frequency distributions. Also, cross tabulations, frequency distributions, Mahalanobis distance statistics and plots of the data were utilized prior to data analysis to inspect the data for errors and outliers which could possibly distort results.

Data analysis involved 1) evaluating the measure of strategy employed through confirmatory factor analysis, 2) clustering firms into strategic groups based on factor scores using agglomerative hierarchial techniques, 3) assessing differences across strategic groups using MANOVA and multiple comparisons, and 4) predicting changes in strategic group orientation based on anticipated changes in importance of strategic variables which define competitive strategy.

Factor Analysis

Confirmatory factor analysis was used to evaluate the measure of strategy hypothesized in Figure 2-2. The analysis was performed using the ITAN (ITem ANalysis with correlated data)[5] software. Communalities (the amount of variance a variable has in common with the other variables included in the analysis) were used in the indicator correlation matrix to correct for attenuation resulting from unique (specific) error and measurement error (Norusis 1990, Hair et al. 1992).

For factor analysis to be appropriate several criteria must be met (Norusis 1990). First, significant correlations must exist between the variables. If few correlations exist, it is unlikely that the variables share common factors (Norusis 1990). Although the correlation coefficients were not as high as desired, all of the variables had correlations with several other variables exhibiting p-values less than 0.05 (testing the null that the correlations were not equal to zero). Bartlett's test of sphericity tests the null hypothesis that the variables in the population correlation matrix are uncorrelated (Norusis 1990, Stevens 1986). The value of the test statistic for this study was 704.25 with a significance level of $p < 0.001$. Consequently, it is unlikely that the correlation matrix was an identity. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy compares the observed correlation coefficients

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[5] ITAN is "a statistical package for ITem ANalysis with correlated data including multiple groups confirmatory factor analysis.". ITAN is available from: David Gerbing, Department of Management, School of Business Administration, Portland State University, Portland, Oregon 97207-0751.

to the partial correlation coefficients (Norusis 1990). The Kaiser-Meyer-Olkin measure for this study was .724, a "middling", but adequate score, as described by Kaiser (1974).

The measure of sampling adequacy (MSA) was also computed for each variable. This measure is similar to the KMO measure except that scores are calculated for individual variables and only coefficients involving that variable are included in the measure (Norusis 1990). All variables exhibited MSA scores greater than 0.55 indicating a strong relationship between variables.

Confirmatory Factor Analysis Results

Figure 2-3 shows the item-to-factor correlations and reliabilities (Chronback's alpha (Churchill 1991, Peter 1979)) resulting from the confirmatory factor analysis. As shown, the item-to-factor correlations support the *a priori* predictions of which strategic variables best measure the dimensions of strategies described by Porter (1980). The alpha values shown in Figure 2-2 also support the hypotheses based on Nunnally's (1967) criteria.

Factor scores were calculated for each factor using the linear model (Bush and Sinclair 1991);

$$F_i = (a_{i1}x_{i1} + a_{i2}x_{i2} + a_{i3}x_{i3} + \ldots a_{ik}x_{ik}) / k$$

Where:

F_i = score on factor i

a_{il} = importance rating of the first variable included in factor i

x_{il} = item-to-factor correlation of variable a_{il} on factor i

k = number of variables included in the sub-measure.

Factor scores were used as the bases for cluster analysis and to assess the construct validity of the measure. To assess validity, these scores were compared to scores of a direct measure of strategy also included on the questionnaire. The direct measure consisted of written descriptions of each of Porter's (1980) strategy types. Following each description was a scale (from one to seven) on which respondents were asked to indicate how well the described strategy matched their company's strategy. The correlations between factor scores of the three strategy types, and the direct measure scores support the construct validity of the measure (Table 3-2). Note also, the significant relationships between focus and differentiation strategy measures.

	Item to Factor Correlation		
	Differentiation	Focus	Overall Low Cost
Differentiation Strategy			
Market research to improve product designs	**0.67**	0.56	0.42
Using new marketing methods	**0.66**	0.28	0.29
Developing a recognizable brand name	**0.65**	0.28	0.11
Offering products in high price market segments	**0.63**	0.45	-0.15
Controlling channels of distribution	**0.58**	0.37	0.41
Promotion and advertising	**0.57**	0.46	0.11
Having the highest quality product on the market	**0.55**	0.21	0.11
Providing better customer service than competitors	**0.54**	0.38	0.31
Developing new products	**0.52**	0.20	0.23
Having a reputation for quality	**0.50**	0.23	0.16
Chronback's Alpha = 0.789			
Focus Strategy			
Targeting Particular customer groups	0.50	**0.75**	0.15
Manufacturing custom products	0.48	**0.63**	0.10
Competing in small well-defined markets	0.22	**0.61**	-0.05
Concentrating marketing to certain geographic markets	0.20	**0.55**	0.21
Developing/maintaining customer loyalty	0.39	**0.53**	0.17
Chronback's Alpha = 0.586			
Overall Low Cost Producer Strategy			
Improving efficiency of production facilities	0.35	0.15	**0.76**
Increasing productivity	0.16	0.07	**0.67**
Investing in new processing equipment	0.28	0.22	**0.64**
Procurement of raw materials	0.35	0.37	**0.52**
Designing products with mass appeal	-0.02	-0.09	**0.47**
Having well trained production personnel	0.37	0.15	**0.46**
Having a lower price than competitors	-0.16	-0.14	**0.36**
Chronback's Alpha = 0.761			

Figure 2-3. Item-to-factor correlations (Pearson's product-moment) between strategic variables and strategy types. (Bolded correlations represent the highest value for each item across factors).

Table 2-3. Pearson product-moment correlations between factor scores and direct measure scores.

	Direct Measure		
Factor Scores	Different-iation	Overall Low Cost	Focus
Differentiation	.4317 (p<0.001)	-0.0977 (p=0.389	.3359 (p=0.02)
Overall Low Cost Producer	-0.0448 (p=0.693)	.3884 (p<0.00)	.0252 (p=.824)
Focus	.0281 (p=0.804)	.2215 (p=0.048)	.4317 (p<0.001)

Identifying Strategic Groups

The second stage of the analysis involved the grouping of firms in homogeneous clusters (strategic groups) based on the emphasis placed on the above factors. This was accomplished through the use of hierarchial agglomerative cluster algorithms.

Cluster analysis is a generic name for a number of multivariate statistical procedures which form homogeneous groups or clusters of subjects based on similarities within the data of certain specified variables (Hair et al. 1992, Norusis 1990, Aldenderfer and Blashfield 1984, Everitt 1974). "Hierarchial agglomerative" refers to a specific procedure of cluster

analysis which begins with each observation in a separate cluster and, in subsequent steps, forms a tree-like structure by combining previously formed clusters based on the distance between the clusters (Hair et al. 1992). There are several hierarchial agglomerative cluster formation procedures available. Ward's method, based on minimizing the sum of squared Euclidean distances between cluster means, has been shown to out perform alternative clustering methods in many situations (Punj and Stewart 1985) and conceptually is the best method for identifying strategic groups (Bush and Sinclair 1991). Consequently, Ward's method was the cluster formation technique employed in this study. Cluster analysis was performed on the factor scores resulting from the previous factor analysis.

Agglomerative methods are extremely sensitive to outliers (Hair et al. 1992, Aldenderfer and Blashfield 1974). To guard against this possible problem, potential outliers were identified prior to clustering by plotting factor scores against Mahalanobis' distances. This procedure is recommended by Norusis (1988). Outliers were not included in the cluster analysis due to the potentially dramatic effect they could have had on the results.

Distance coefficients of the clusters were plotted against number of clusters. Based on the results of the plot, a three factor solution was chosen as the most appropriate. Testing for differences in factor scores across clusters (MANOVA) allowed for naming the clusters based on their strategic orientation (Figure 2-4). Factor scores for the differentiation dimension were significantly higher ($p<0.0001$) for the differentiation and focus groups than were scores of the overall low cost group. Factor scores for the overall low cost dimension were significantly higher ($p<0.0001$) for the overall low cost group than for the differentiation

and focus groups. The focus group exhibited factor scores for the focus dimension significantly higher ($p<0.0001$) than did the differentiation group and the overall low cost group.

Figure 2-4, which depicts the cluster structure, shows that the industry can be divided into two strategic groups: overall low cost producers and differentiators. The differentiators appear to be comprised of two strategic sub-groups: those firms implementing a focus strategy, and other differentiators. These findings are supported by the high correlations between the focus and differentiation strategy scores presented in Table 2-3.

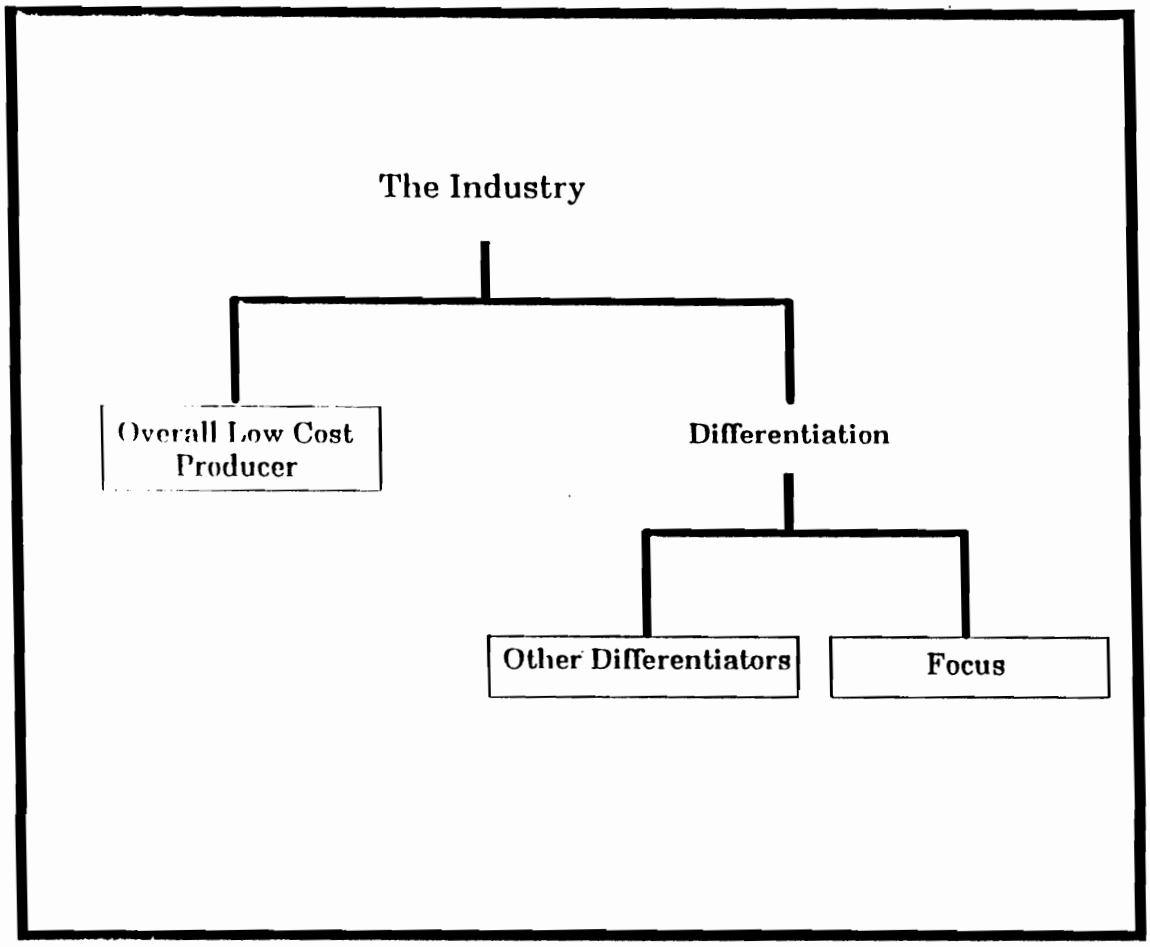

Figure 2-4. A three strategic group model of competitive strategy in the wood household furniture industry.

Reliability of the Cluster Solution

Reliability of the cluster solution was assessed using the procedure suggested by Choffray and Lilien (1980). This procedure has been used in similar research (Bush and Sinclair 1991, Doyle and Saunders 1985) and involves:

1) testing data for outliers.
2) testing the randomness of the data structure.
3) testing the uniqueness of the solution.

As previously described, the data were checked for outliers before clustering, satisfying the first stage of Choffray and Lilien's (1980) reliability assessment. A test of the randomness of the data structure was performed utilizing a procedure described by Bush and Sinclair (1991). Fifteen sets of random data were generated with means and standard deviations similar to the collected data. Each random data set was clustered using Ward's Method. The mean standardized distance coefficients of the random data sets were then compared to those of the collected data. If the random data are significantly different from the collected data, an underlying structure in the collected data is suggested. All of the comparisons indicated significant differences at α=0.05 (for all comparisons $p < 0.0001$).

The uniqueness of the solution refers to how the results compare using different methods of cluster formation. A non-trivial cluster solution should give similar results when compared to solutions using alternative methods. The solution generated using Ward's

method of cluster formation was compared to solutions generated by the complete linkage and average linkage methods. As shown in Table 4-2 the multiple method comparisons offer additional evidence of reliability of the cluster solution.

Table 2-4. Percent of cases consistently grouped by Ward's, average linkage (within group) and complete linkage clustering methods.

	Ward's Method	Average Linkage	Complete Linkage
Ward's Method	100%	-	-
Average Linkage	98%	100%	-
Complete Linkage	89%	88%	100%

Differences in Performance Levels Across Strategic Groups

To determine if performance levels differed across strategic groups, firms were asked to provide performance data for 1993. There are conflicting arguments in the literature

pertaining to the conceptualization of firm performance (Cohen and Sinclair 1992, Booth and Vertinsky 1991, Venketramen and Ramanujam 1986, McQuire et al. 1986, Dess and Robinson 1984). However, after reviewing the literature and interviewing industry experts it was concluded that return on assets (ROA) was the best possible measure of performance in light of the goals of this study. The equation used for ROA and the equation presented on the survey is as follows:

ROA = net income/ total assets

The use of financial data as a measure of performance is strongly supported in past strategy research (Cohen and Sinclair 1992; Booth and Vertinsky 1991; Jacobson 1987; Venkatraman and Ramanujam 1986; Schneeweis 1983; Bettis and Hall 1982; Beard and Dess 1981; McMillan et al. 1980). Since returns can be sacrificed for growth, data was also collected pertaining to changes in shipments.

Porter states that "the firm failing to develop its strategy in at least one of the three directions - a firm that is "stuck-in-the-middle" ... is almost guaranteed low profitability" (1980, p 41). To test Porters hypothesis, firms were reclassified into two groups, those more like "stuck-in-the-middle" firms and those clearly oriented toward one of the three strategic dimensions (called "the distinct strategy" group). For a firm to be considered as having a distinct strategy, it must have ranked in the upper half of all firms with respect to factor scores for a particular strategic dimension, while being in the lower half with respect to the other two

strategic dimensions. The exception to this rule was firms implementing the focus strategy. Since the focus strategist may employ strategic tactics characteristic of both the overall low cost and differentiation strategies, a firm only had to rank in the upper half of firms with respect to the focus dimension to be considered a focuser. All other firms not classified as having a distinct strategic orientation were classified as "stuck in the middle". Bonferroni t-tests indicated no significant difference in ROA or sales growth (from 1992 to 1993) across groups (p=0.388 and 0.662).

Comparisons (using MANOVA) were also made across strategic groups identified by cluster analysis to determine if high performance was related to a particular strategic dimension. Strategic groups did not differ significantly with respect to return on assets, or sales growth (p=0.9991 and 0.9731) .

Based on the performance data, no strategy type performed superior to any other. However, the data indicated that differentiators received a higher price for their furniture. If differentiators received higher prices, but achieved similar returns, it can be inferred that higher costs are incurred through more extensive promotion, market research and material cost. Note also that items comprising the factor scores for differentiators include market research to improve product design, promotion and advertising and using new marketing methods. Since differentiators strive toward having the highest quality and highest priced products, it is not unreasonable to expect that they use (on average) the highest priced materials to manufacture their products.

Other Differences Across Strategic Groups

Differences in importance scores of strategic variables across strategic groups were detected through the use of MANOVA. Of the twenty-three original variables, only seven exhibited significantly different importance scores ($p=0.05$) across groups (Table 2-5). Differences across groups were detected using multiple comparison tests (Bonferonni). As shown, "Having the highest quality products on the market", "Developing a recognizable brand name", and "Offering products in high price market segments" were more important tactics of the differentiation and focus groups than for the overall low cost group. "Manufacturing custom products" and "Targeting particular customer groups" were considered to be more important components to the focus group's strategy than to other groups. The overall low cost group placed greater emphasis on "Manufacturing products with mass appeal" and "Increasing productivity" than did other strategic groups.

The strategic groups also differed across other variables included on the survey (Table 2-6). As shown, members of the overall low cost group were generally larger than firms of other strategic groups, evidenced by the higher average value of shipments and number of factory employees. The overall low cost group also generally targeted a lower relative price point (selling price) than did other groups. These differences support Porter's definition of the overall low cost strategy (1980).

The focus group had a higher percentage of their total shipments represented by exports and by new products (defined as "first time offered") than did other strategic groups.

Targeting a particular export market generally involves focusing on a particular customer group. Product and service attributes must be designed to serve the target export market. Thus, the higher percentage of exports by focus strategist can possibly be explained. Likewise, focusing involves customizing to serve the target market well. It is not surprising that focusers may on average introduce more new products than other strategic groups.

Changes in Strategic Orientation

Predicted changes in strategic group orientation were also examined. Shifts in strategic group orientation were detected by comparing importance scores based on current strategy to those based on predicted strategy. The changes presented represent predicted shifts in importance levels of strategic variables within strategic groups. Shifts in importance levels of strategic variables within strategic groups should not be confused which changes in strategic group membership.

Figure 2-5 graphically depicts the predicted changes. As shown, differentiators predicted greater emphasis on all dimensions with the greatest increase toward the focus dimension. The overall low cost group likewise anticipated increased emphasis in all three dimensions with the greatest emphasis toward differentiation. The focus group predicted increased emphasis toward differentiation and overall low cost with little change, if any, on the focus dimension.

Table 2-7 provides greater detail as to the predicted changes in strategic emphasis for the three strategic groups. Table 2-7 shows the strategic variables predicted to increase in importance from 1993 to 1998 by strategic group. As shown, differentiators predict greater emphasis in "Investing in new processing equipment", "Promotion and Advertising", "Manufacturing Custom Products", "Market Research to Improve Product Designs", "Targeting Particular Customer Groups", "Developing/Maintaining Customer Loyalty", and "Increasing Productivity." The overall low cost group expected to increase emphasis toward "Developing New Products", "Developing a Recognizable Brand Name", "Using New Marketing Methods", "Investing in New Processing Equipment", "Promotion and Advertising", "Market Research to Improve Product Design", "Targeting Particular Customer Groups", and "Offering Products in High Price Segments." The focus group predicted increased emphasis toward "Developing New Products", "Having Well Trained Production Personnel", "Using New Marketing Methods", "Investing in New Processing Equipment", "Market Research to Improve Product Design" and "Increasing Productivity."

Table 2-5. Significant differences in the importance of strategic variables across strategic groups.

Strategic Variable	Significance	Post Hoc Multiple Comparisons (Tukey's Test) Results
Having the highest quality products on the market	p=0.001	Differentiation and Focus > Overall low cost
Developing a recognizable brand name	p<0.0001	Differentiation and Focus > Overall low cost
Offering products in high price market segments	p<0.0001	Differentiation and Focus > Overall low cost
Manufacturing custom products	p<0.0001	Focus > Differentiation and Overall low cost
Targeting particular customer groups	p<0.0001	Focus > Differentiation and Overall low cost
Manufacturing products with mass appeal	p<0.0001	Overall low cost > Differentiation and Focus
Increasing productivity	p=0.003	Overall low cost > Differentiation and Focus

Table 2-6. Demographic differences across strategic groups (**Bolded** values represent a group significantly different from the other groups).

Parameter	P-value[1]	Differentiation	Focus	Overall Low Cost Producer
Value of Shipments ($)	.0089	3,149,645	1,487,773[2]	**3,884,047**
Number of Factory Employees	.0023	45	19[2]	**64**
% of Value of Shipments from Exports	.0055	4	**18**	2
% of Value of Shipments from New Products	.0186	17	**41**	17
Relative Targeted Price Points (from 1 to 5, 1 is least expensive)	.0018	3.6	4.0	**3.1**

[1] Testing for differences across group means using MANOVA
[2] Insignificantly different from differentiation due to large variance.

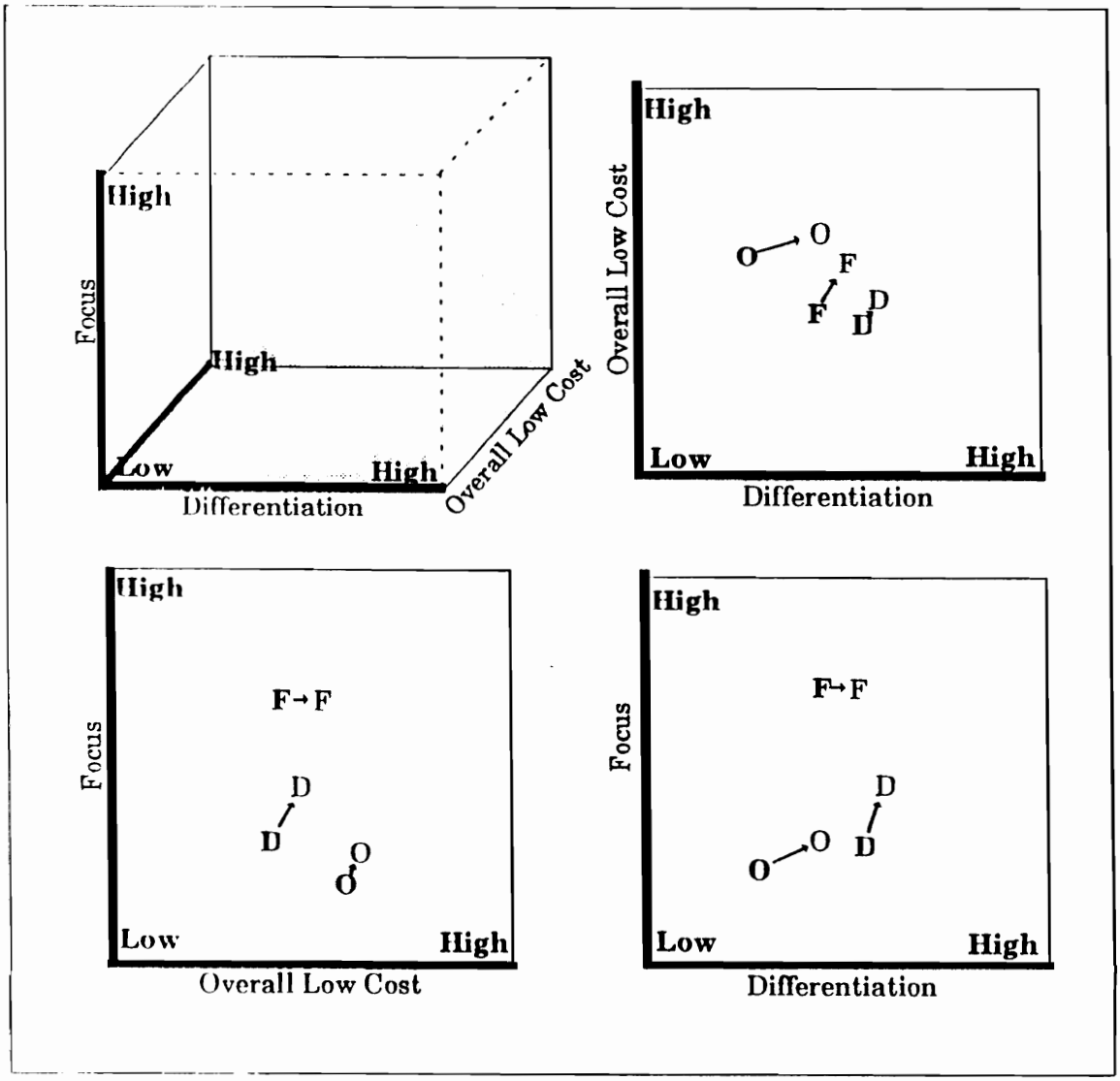

Figure 2-5. Changes in strategic orientations of strategic groups within the wood household industry. Axes represent the three dimensions of strategy depicted in the upper left. Bolded letters represent current locations (1993) of strategic group centroids (D=differentiation, O= overall low cost and F=focus). Letters not in bold represent predicted strategic positions of the group centroids over the next five years (1998).

Table 2-7. Strategic variables predicted to increase in importance from 1993 to 1998.

Strategic Variable	1993	1998	p-value*
Differentiation			
Investing in new processing equipment	4.00	4.55	0.011
Promotion and Advertising	4.64	5.23	0.006
Manufacturing Custom Products	3.23	3.77	0.056
Market Research to Improve Product Designs	3.95	4.86	0.005
Targeting Particular Customer Groups	3.95	4.82	0.013
Developing/Maintaining Customer Loyalty	6.45	6.64	0.042
Increasing Productivity	5.50	6.18	0.008
Overall Low Cost			
Developing New Products	5.11	5.96	0.001
Developing a Recognizable Brand Name	3.86	4.57	0.000
Using New Marketing Methods	3.64	4.64	0.000
Investing in New Processing Equipment	4.96	5.50	0.002
Promotion and Advertising	3.54	4.39	0.001
Market Research to Improve Product Design	3.93	4.54	0.009
Targeting Particular Customer Groups	3.36	4.00	0.006
Offering Products in High Price Segments	2.93	3.82	0.001
Focus			
Developing New Products	5.28	5.83	0.011
Having Well Trained Production Personnel	5.66	6.14	0.024
Using New Marketing Methods	4.21	5.10	0.001
Investing in New Processing Equipment	4.28	5.10	0.002
Market Research to Improve Product Design	4.48	5.03	0.011
Increasing Productivity	5.66	6.10	0.021

*p-value based on t-test.

Discussion

Cluster analysis based on factor scores facilitated the examination of the structure of competitive strategy in the wood household furniture industry. The derived model suggests the existence of three strategic groups based on the dimensions of strategy described by Porter (1980).

The model of competitive strategy proposed in Figure 2-3 compares favorably to Porter's (1980) model of competitive strategy (Figure 2-1). The primary difference between the two models is in Porter's description of the focus strategy. Porter (1980) defines focus as a separate strategy type, although he does say a firm implementing a focus strategy achieves either a low cost or differentiated position "vis-a'-vis its narrow market" (p.39). This study implies that focus is not a separate strategy, but actually a sub-classification of the differentiation strategy. In other words, differentiators can be separated into sub-groups based on the breadth of their target market. Although, not detected in the U.S. wood furniture industry, a similar sub-classification of the overall low cost strategy could conceptually exist.

No differences in performance levels (based on returns on assets and growth) were detected across strategic groups or between firms exhibiting a distinct strategic orientation and those stuck-in-the-middle. Results of research investigating the strategy-performance relationship based on Porter's (1980) typology have been inconsistent in the literature.

Rich (1979, 1986) concluded firms implementing differentiation and focus strategies were more profitable. Dess and Davis (1984) found no significant difference across groups based on return on assets for their three solution cluster analysis. Focusers did, however, experience higher growth than "stuck-in-the-middle" firms. Their four cluster solution detected higher returns on assets for overall low cost producers, followed by differentiators, "stuck-in-the-middle" firms and finally focusers. Dess and Davis' (1984) focusers experienced high sales growth followed by overall low cost producers, differentiators and finally "stuck-in-the-middle" firms. Miller and Dess (1993) found performance varied across strategic groups and firms "stuck-in-the-middle" were not the least profitable, contrary to Porter's hypothesis.

The inconsistency across studies may be a result of several factors, the most obvious being differences across industries and the changing competitive environment. Previous research offers several warnings when interpreting performance data. One should use caution when evaluating long term strategic success using short term financial data (Miller and Davis 1993). One should also recognize that an unlimited number of uncontrollable factors exists, including variation in managerial skills, consumer preferences, financial burdens specific to individual firms (law suits for example), etc., that may lead to biases in performance measures (Miller and Dess 1993, Jacobson 1990, Jacobson and Aaker 1985). As stated by Miller and Dess (1993), "There is greater variation to be explained in performance than can be captured in the labelling of strategies... (p. 577)".

In light of the inconsistencies in the performance/strategic group relationship across studies, two possible interpretations of the results of this study are: 1) that in the U.S. wood

household furniture industry, any one of Porter's strategies may perform equally well if implemented successfully, or 2) variations in performance levels in the wood household furniture industry cannot be adequately explained simply by strategic group membership. Performance variations in the U.S. wood household furniture industry may be better explained by variables not included in this study. Care should be taken, however, in interpreting this study's performance results. This study evaluated performance based only on data representing one year. Before discounting Porter's theory, the limitations of this study's performance evaluations must be realized. The insignificant performance differences resulting from this study could possible be a relic of some external and uncontrollable variable (e.g., the economic situation). Further research is needed in this area.

The results presented in this paper represent data collected from manufacturers of wood household furniture. The population of interest was defined as firms with at least 60% of their total sales represented by wood household furniture. The intent of this criteria was to provide a purer look at strategies employed by wood household furniture manufacturers. However, if the population of wood household furniture had been defined differerently (for instance, as all firms which manufactured at least one unit of wood household furniture), results may have varied. The reader should acknowledge this potential limitation when interpreting these results.

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Chapter 3 - A Qualitative Investigation of Competitive Strategy in the U.S. Wood Household Furniture Industry

A manuscript developed for possible publication in *Forest Products Journal*

Abstract

Three wood household furniture firms *a priori* classified as representing Porter's (1980) generic strategy types were studied through in-depth case analyses to identify differences in the key operating policies and perceptions of competitive strengths and threats. The firm classified as implementing a differentiation strategy emphasized product style and company image, and was very customer-oriented. The firm viewed its competitive strengths as its marketing ability, high quality and customer service. It distributed its products through its own retail stores, its own catalogues, and a small portion through other manufacturers, providing the firm considerable control over customer perceptions of product and company image. The labor force was very important to this firm, since it believed that employees play an important role in product quality.

The overall low cost firm's strategy involved manufacturing generic products exhibiting mass appeal and offering these products at the lowest cost to the customer. This strategy required the firm to operate more efficiently and productively than other firms. Special attention was given to reducing costs and designing products which emphasized efficiency and productivity. Product engineering was very important because of its contribution to manufacturing efficiency. The company's greatest competitive strength was described as the ability to offer the highest value, which was achieved through productivity, efficiency and product engineering.

The focus firm aggressively targeted a particular market segment to achieve competitive advantage. This strategy was most apparent in the target market and product line policies. The firm's position relative to other operating policies varied toward differentiation and overall low cost, as would be expected based on Porter's definition. This firm perceived its strengths to be its targeting of potential customers, marketing, quality, and ability to manufacture custom products.

Introduction

The arena in which United States' industries compete has changed drastically over the past few decades (Robert 1993, Hanan 1991, Ross 1993). Historically, companies in the United States have had the advantage of proximity to the world's largest consumer market and access to tremendous quantities of natural resources. Many companies' strategies were directed toward growth in order to accommodate the continually increasing demand for their products. Companies could sell domestically all they could produce and exports were considered mainly as "incremental" business (Robert 1993).

Recently, however, U.S. industries have been faced with issues including increasing foreign competition, decreasing domestic growth, increasing restrictions on resources and increasing environmental and safety regulations. The increase in potential competitors due to falling trade barriers, combined with decreasing demand has greatly intensified competition. Changing resource bases and new regulations have forced companies to alter the ways they do business. Faced with these and other changes in the competitive environment, companies are being forced to think more strategically. As stated by Michael Robert, a 15 year consultant to over 230 companies worldwide (Robert 1993, p. xii, p. 1):

> "With the changes that are happening all around the world, the ability to think strategically in order to formulate and articulate a clear vision accompanied by

succinct strategic goals and objectives will be a critical skill needed by CEOs who want to be successful in the years to come."

"Corporate America has never been as engrossed in techniques and formulas of competitive analysis and strategy as in the last 10 to 15 years."

"Corporate America" is not the only group who recognizes the necessity of a more comprehensive understanding of competitive strategy. Competitive strategy research has been abundant in the academic literature for many years, and has taken many directions. Considerable research, however, has focused on generic strategy typologies, and classifying firms into strategic groups based on these typologies. The strategic group concept, first appearing in the early Seventies and becoming popular in the 1980's, has become widely accepted across academic disciplines, including industrial-organizational economics, strategic management and marketing (Fiegenbaum et al. 1987).

The strategic group concept has been the bases of several studies in the wood products literature as well. However, no such research can be found which provides in-depth investigations of firms *a priori* classified in strategic groups. Such a study could offer insight as to how strategic groups differ in terms of perceptions of their firms' strengths and weaknesses, their adoption of key operating policies and their perceptions of industry threats and opportunities. This information could provide a better understanding of how firms implementing different strategies operationalize their intended strategy. The purpose of this study was to provide such knowledge.

Background

The strategic group concept is based on the idea that, although firms in an industry are not homogeneous, neither are they all unique in the competitive strategies they utilize (Fiegenbaum et al. 1987; McGee and Thomas 1986; Newman 1978). The structure of competitive strategy for an entire industry is comprised of individual strategic groups which are comprised of individual firms with similar strategies. Firms within the same strategic group have similar perceptions of the industry and its competitive forces. Firms within the same strategic group also have similar goals and resources to fulfill these goals (Fiegenbaum et al. 1987). Thus, firms within a strategic group are confined to their group because of their philosophies and resources.

A firm attempting to change strategic groups must alter its philosophies and adapt its resources which can be costly, not only from the perspective of real costs but also resulting from increased defensive actions from competing firms who may resist the change. Likewise, a strategic move made by a firm within a strategic group often cannot be imitated by firms outside the group without substantial cost or risks (McGee and Thomas 1986). Thus, "mobility barriers" exist between strategic groups, which induce firms to stay within their strategic group (Fiegenbaum et al. 1987, McGee and Thomas 1986). Several studies have supported the notion that firms stay within the same strategic group over time, even if the

strategic components underlying the group change (Oster 1982, Fiegenbaum and Primeaux 1983).

Porter's (1980) Model of Competitive Strategy

One of the most widely accepted and prevalent bases for strategic grouping in the competitive strategy literature is Porter's (1980) strategic typology. Porter's (1980) concepts have been referenced in many prominent journals (Miller and Dess 1993) including several in the forest products area (Cohen and Sinclair 1992; Bush and Sinclair 1991; Bush et al 1991a, 1991b; Booth and Vertinsky 1991; Bauerschmidt et al. 1986 (implicit); Cleaves and O' Laughlin 1985; Rich 1986).

The framework of Porter's (1980) model describes strategy based on two dimensions: "strategic advantage" and "strategic target". Porter (1980) defines the three generic strategy types based on these dimensions. These strategy types are as follows: 1) Differentiation - a strategy in which a firm seeks to position itself from competitors by offering favorable product or service attributes perceived industry-wide as unique, 2) Overall cost leadership - a strategy in which a firm attempts to gain competitive advantage by becoming the industry's low cost producer, and 3) Focus - a strategy in which a firm gains an advantage in a particular segment of the market by serving that segment particularly well.

Porter (1980) also models the context in which a company formulates its competitive strategy. Porter's model is shown in Figure 3-1. On the right side of the figure are factors

external to the company. These include "Industry Opportunities and Threats" (such as increased competition from imports, technological advances, increased leverage from consolidations of larger firms, changing demographics) and "Broader Societal Concerns" (including environmental regulations, safety standards). On the left side of Porter's model are factors internal to the company. These factors include the strengths and weaknesses of a particular company (such as brand recognition or highly efficient operations, etc.) and needs and motivations of the key implementers of a company's strategy. A firm's position relative to the four factors presented in Figure 3-1 influences the strategy the company adopts.

The areas through which a company's competitive strategy is operationalized is shown on Porter's (1980) "Wheel of Competitive Strategy" (Figure 3-2). On Porter's wheel, the hub represents the goals and objectives of a firm, or more specifically, how the firm intends on competing and the targeted profitability, growth, etc. The spokes of the wheel represent the key operating policies (or tactics) a firm employs to achieve the goals. The strategy a firm chooses will be reflected in the tactics used to implement the strategy (Porter 1980).

The relationships between key operating policies adopted by a firm (Figure 3-2) and the factors which influence strategy formulation (Figure 3-1) are tightly woven. The policies adopted by a firm influence the strengths and weaknesses of a company, the issues which threaten or provide opportunities for the company, the motivation levels of key employees, and the effect of societal concerns. Likewise, these factors influence the operating policies adopted.

A firm's position relative to these items should differ across strategic groups. Firms implementing different strategies should have different perceptions of which factors are most important to their strategy, and should emphasize different key policies in their competitive strategies. A firm implementing a focus strategy, for example, would identify a separate set of company strengths and weaknesses, than would an overall cost leader. Likewise, different sets of industry opportunities and threats would be perceived by the two firms. The key policies employed to address these issues would also vary by strategy type. Figure 3-3 provides examples of differences in company strengths and weaknesses, and firm policies expected across Porter's strategy types (adapted from Porter (1980), p 41).

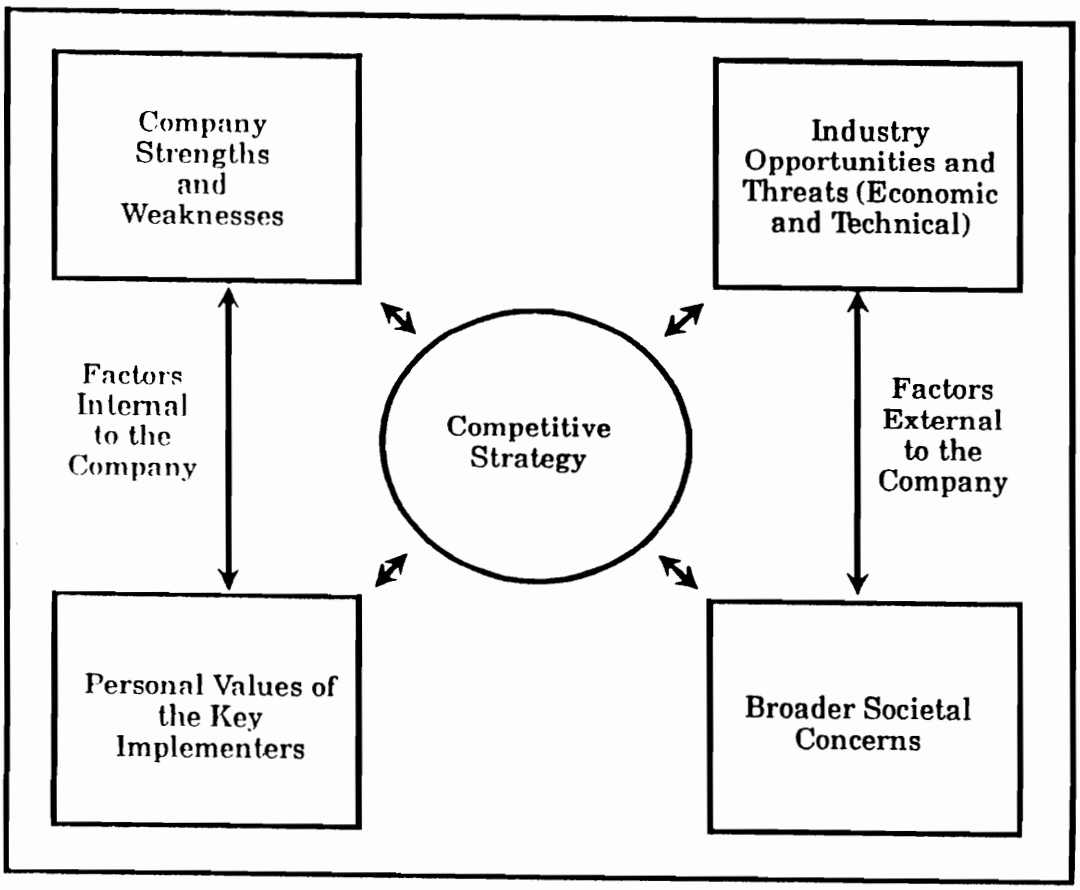

Figure 3-1. Context in which competitive strategy is formulated (from Porter 1980, p.xvii).

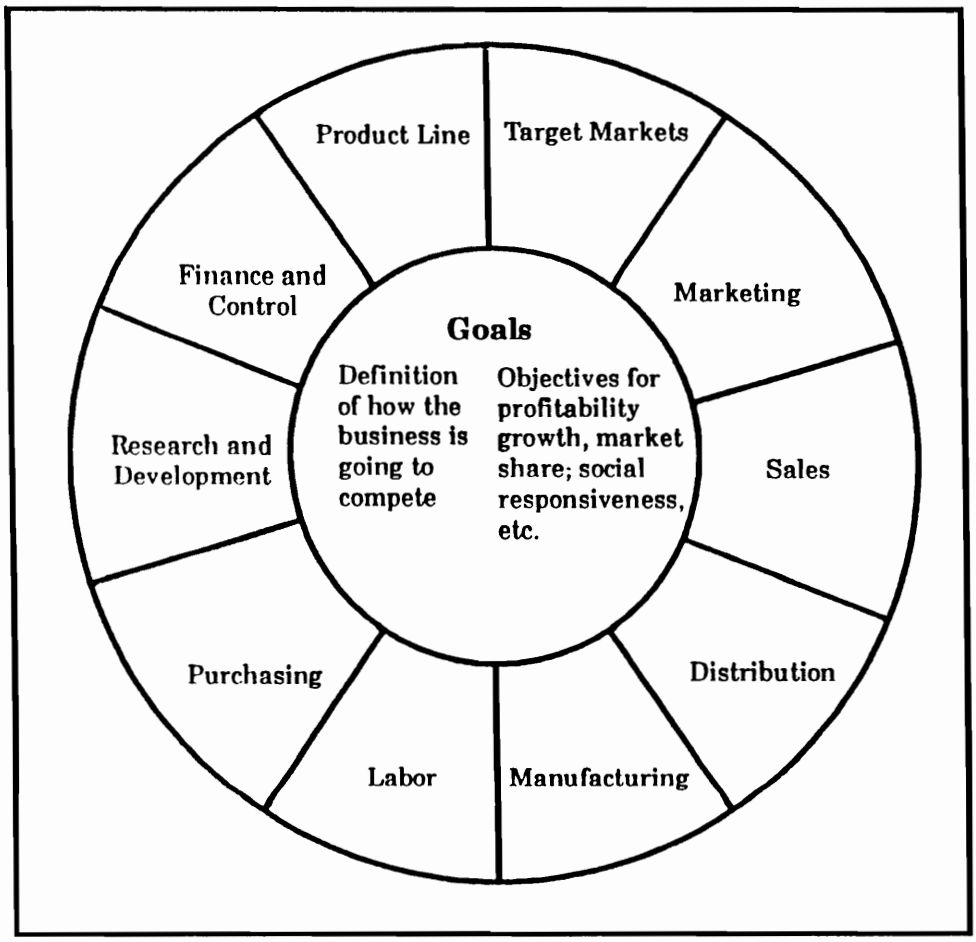

Figure 3-2. The wheel of competitive strategy (Porter 1980, p. xvii).

Strategy Type	Company Strengths Expected	Key Operating Policies Expected
Overall Cost Leader	Sustained capital investment and access to capital; Process engineering skills; Intense supervision of labor; Products designed for ease in manufacturing; Low-cost distribution system	Tight cost control; Frequent, detailed control reports; Structured organization and responsibilities; Incentives based on meeting strict quantitative targets
Differentiation	Strong marketing abilities; Product engineering; Creative flair; Strong capability in basic research; Corporate reputation for quality or technological leadership; Long tradition in the industry or unique combination of skills drawn from other businesses; Strong cooperation from channels	Strong coordination among functions in R&D, product development and marketing; Subjective measurement and incentives instead of quantitative measures; Amenities to attract highly skilled labor, scientists, or creative people
Focus	Combination of the above policies directed at the particular strategic target.	Combination of the above policies directed at the particular strategic target.

Figure 3-3. Expected differences in company strengths and key operating policies across strategy types (adapted from Porter 1980, p.41).

Porter's (1980) Model in the Forest Products Literature

As previously mentioned, considerable forest products research has been conducted that is based on, or refers to Porter's model of competitive strategy. Rich (1986) investigated corporate-level competitive strategy in large forest products firms in both fiber and solid wood products, classifying firms using Porter's (1980) generic strategies. Rich (1986) found that although most firms utilized an overall low cost strategy, there was a trend toward the use of differentiation and focus strategies (trends were based on comparisons with results of a previous but similar study (Rich 1979)). Firms implementing differentiation and focus strategies were found to be more profitable (Rich 1979).

Bauerschmidt et al. (1986) examined the popularity of competitive tactics, business strategies adopted, and strategic groups in the U.S. pulp and paper industry. Customer service was considered the top priority of a competitive strategy followed by cost control. Efficient plants and people were not considered strategic options by the industry, but rather, fundamental necessities. Factor analysis of their data lead to five "strategic groups". These groups were given the following names: 1) differentiation, 2) overall cost leadership, 3) focus strategy, 4) geographical focus and 5) customer focus.

Bush and Sinclair (1991) examined the business-level competitive strategy of large firms in the hardwood lumber industry through the identification of strategic groups along the dimensions of overall low cost, focus, and differentiation. Strategy was operationalized based on variables developed by Dess and Davis (1984). A five strategic group model was

identified: one exhibiting an overall low cost strategy, one a differentiation strategy, one a dual overall low cost/differentiation strategy, and two had no strategic orientation. Most firms indicated plans to increase emphasis on the differentiation dimension of strategy.

Bush et al. (1991) qualitatively examined competition of large firms in the hardwood lumber industry. The largest and smallest firms were found to be the most production oriented. Overall low cost strategies were the most prevalent strategies utilized, followed by a dual focus/differentiation strategy. Quality, customer service, and price were the most commonly used competitive tools. The most frequently reported trends in the industry were shortened distribution channels, increased product specialization, and increased inventories kept by suppliers.

Although Porter's concepts are not new in the forest products literature, past research has primarily involved categorizing firms based on some operationalization of the strategy construct to provide evidence of the underlying structure of competitive strategy. This study provides in-depth investigations of firms *a priori* classified by Porter's generic strategies.

The United States wood household furniture industry was the subject of this study. This industry was chosen because of its importance as a major consumer of primary wood products (Forbes et al. 1993, 1992; Sinclair 1992; Meyer 1992; Haynes 1989; Luppold 1988, 1987; Cardellichio and Binkley 1984) and because of its importance to the U.S. economy (USDOC-BOC 1992a, 1992b).

Methods

Case study analyses were performed on each of three wood household furniture manufacturers classified *a priori* as representing Porter's (1980) three generic strategy types. The case study approach was utilized to allow for in-depth analysis not possible in mass surveys (Marshall and Rossman 1989).

Selection of Subject Firms

The three firms included in this study were chosen based on results from a previous study of competitive strategy in the wood household furniture industry (see chapter 2). In the previous study, U.S. wood household furniture manufacturers were administered a questionnaire asking firms to rate the importance of certain strategic variables to their company's overall competitive strategy. Factor scores were calculated from the importance ratings (weighted by the item-to-factor correlations resulting from confirmatory factor analysis) for each dimension of strategy defined by Porter (1980). Firms were then clustered based on the factor scores using agglomerative hierarchial cluster analysis. This resulted in a three cluster solution representing a differentiation group, a focus strategy group, and an overall low cost producer group. Using MANOVA, the strategic orientation of each cluster was identified.

The questionnaire also contained a direct measure of Porter's generic strategies. A brief definition of each strategy type was presented and subjects were asked to indicate how well each of the defined strategies described their company's strategy. These data, along with the cluster results, were used as the criteria for selecting subject firms for the current study.

A list of potential subject firms was compiled which consisted of firms closest to the centroid of the strategic groups identified by cluster analysis. The lists were further refined by omitting firms whose responses to the direct measure of strategy did not reflect the strategic group assignment from cluster analysis. Finally, firms not located in Virginia, Pennsylvania or North Carolina were omitted due to cost considerations. This last criterion was not seen as a potential problem since this region represents the highest concentration of U.S. wood household furniture manufacturers (Forbes et al. 1992), and is comprised of a broad range of manufacturer types.

The research plan involved contacting potential firms (starting with the firms closest to the centroid) until a participating firm was located to represent each strategy type. However, such action was not necessary since the "first choice" for each strategy type agreed to be interviewed. To reduce bias, subjects were not told why they were chosen to be interviewed nor was direct reference made to Porters (1980) strategy types until after the interviews.

Data Collection and Analysis

Data were collected through semi-structured interviews of key personnel from the selected manufacturers. This technique allows the researcher to collect in-depth data in a manner which best captures the subject's unbiased perceptions (Marshall and Rossman 1989). The semi-structured approach provided an outline of key points to address but allowed the researcher freedom to probe deeper into pertinent areas if necessary to provide better understanding or additional information. These methods are appropriate when collecting such data (Strauss and Corbin 1990, Patton 1990, Marshall and Rossman 1989).

Data collection for each subject firm began with an interview of the Chief Executive Officer (CEO) or appropriate top ranking official. Interviews followed the outline shown in Appendix 2. Interviews began with an introduction which briefly described the study (but not alluding to why the subjects were chosen) and an assurance that sensitive data would remain confidential (addressing the concern of the willingness of subjects to disclose truthful information (Marshall and Rossman 1989)). The subject was then asked to identify strategic groups he/she perceived to exist in the industry. The purpose of this question was primarily to create the concept of strategic groups in the subject's mind and to allow him/her to position his/her company's strategic group relative to other groups. This set the stage for the remainder of the interview.

Subjects were then questioned as to the company's position on certain key operating policies and how they differed compared to other strategic groups. Additional questions

designed to capture management's strategic emphases were also asked. Likewise, subjects were asked to address their company's perceived strengths and weaknesses and to comment on important industry issues. Other demographic data were also collected from the subjects[6]. After collecting the data, analytic procedures as suggested by Marshall and Rossman (1989) were employed. This procedure involved: "organizing the data; generating categories, themes and patterns, testing the emergent hypotheses against the data; searching for alternative explanations of the data; and writing the report"(Marshall and Rossman 1989, p. 114).

Results and Discussion

Demographic profiles of the three subject firms (collected before the interviews) are outlined in Table 3-1. As shown, all companies manufactured furniture targeted toward the same relative price point category. The overall low cost firm was considerably larger than the other firms, consistent with Porter's (1980) definition of the overall low cost leader and with previous research (see chapter 2). The overall low cost firm offered the broadest line of furniture and manufactured furniture for several product segments. This also supports Porter who included in his definition of an overall low cost leader, "maintaining a wide line of related products to spread costs" (Porter 1980, p. 36) as a possible component of this strategy. Based on the channels of distribution utilized, the overall low cost firm targeted retailers,

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[6] Some demographic and company data were collected in an earlier study (See chapter 2). These data were also utilized during analysis.

whereas, the other firms primarily targeted end consumers (direct sales). This also supports Porter's description of an overall low cost leader commonly utilizing a relatively "low-cost distribution system" (Porter 1980, p.40)).

Based on past research (Fiegenbaum et al. 1987, McGee and Thomas 1986), firms in different strategic groups are expected to differ in their emphasis and implementation of strategic policies, their perceptions of industry threats, and their perceived strengths and weakness. Subject firms were asked to comment on these, and other areas which might reflect differences across strategy groups. Their responses are discussed below[7]:

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[7] Several section headings seem intuitively to overlap in content (for instance sales may be considered a sub-section of marketing). This overlap resulted from an attempt to use sections headings which reflected the key operating policies from Porter's "wheel of competitive strategy" (Porter 1980, p.xvii).

Table 3-1. Profiles of demographic data across subject firms.

	Company #1 (Differentiation)	**Company #2 (Focus)**	**Company #3 (Overall Low Cost)**
Primary Distribution Channels and % of shipments ($) sold through each channel	Own Retail Store (50%),Sold to Other Manufacturers (30%)	Catalogue (100%)	Local and Small Regional Full Line Furniture Stores (90%)
Relative Price Point Targeted (from 1 to 5, 1 is least expensive)	4	4	4
Number of Employees	23	24	110
Furniture Products Manufactured and % of total shipments ($) represented in each category	Dining Room (95%), Occasional Tables (5%)	Porch Furniture (95%), Occasional Tables (5%)	Bedroom (40%), Dining Room (40%), Occasional Tables (10%), Entertainment Centers (5%), Curio Cabinets (3%), Home Office (2%)
Number of Stock-Keeping-Units Offered	80	20	175

Perceived Strategic Groups

Although the intention of addressing strategic groups was to develop the concept of groups in the subjects' minds before proceeding with the interview, the responses to this question offered interesting results. The focus firm identified three groups: 1) small very specialized custom manufacturers (very targeted), 2) larger specialized companies, and 3) and large unspecialized companies with very broad product lines. The differentiation firm identified two groups: 1) large manufacturers producing broad lines, and 2) smaller firms in niche markets. Later in the interview, however, a third group was implied - the custom shop. The overall low cost firm also identified three groups: 1) cost driven "generic product" manufacturers, 2) specialized manufacturers (specialization through product or service attributes), and 3) custom manufacturers.

What is most interesting is that the focus and differentiation firms categorized firms primarily by targeted market, whereas, the overall low cost firm recognized a distinction based on manufacturing costs as well as specialization. This difference in perception is possibly a reflection of differences in strategic orientation. Since focusers and differentiators primarily compete by emphasizing tactics other than cost reduction (Porter 1980), it seems likely that the cost leadership dimension of strategy may not be as obvious to these firms when distinguishing between strategic groups.

Target Markets

Subjects differed considerably on policies regarding target markets. The focus firm, as was expected, clearly placed highest emphasis in this area. The main drive behind the focus firm's product line, which consisted of purchased items as well as products from its own manufacturing facilities, was to best serve the needs of its targeted customer group. Their advertising efforts, primarily in specialty magazines, were very narrowly focused to appeal to the targeted customer group. This firm considered its ability to target to be its greatest competitive strength.

Although the differentiation firm also claimed to target a relatively narrow market, their target market was defined by the products they produced. In other words, while the focus firm's targeted market determined its product line, the differentiation firm's product line determined its targeted market. The differentiation firm manufactured a particular style of furniture, and tried to identify who might buy that furniture. The overall low cost firm's target market, likewise, was determined by the furniture they manufactured, but was considerably broader.

Marketing

The marketing function was most important to the focus and differentiation firms. Both firms advertised through national specialty magazines, directly to the end consumer. They viewed marketing as very customer oriented, often basing management decisions on suggestions offered by customers. Customer satisfaction and developing/maintaining an image of quality were important components of these firms' marketing efforts. Both firms viewed marketing as one of their greatest strengths.

The overall cost leader viewed marketing quite differently. This firm viewed marketing's function as identifying potential customers for the products they produced. Product line decisions were based on the potential of a product to possess broad popularity and ease of manufacturing. Once the products were manufactured, it was marketing's function to identify the potential customers. Marketing was not considered to be a major component of their competitive strategy.

Sales

Sales policies also differed considerably across the three firms. The differentiation and focus firms policies were to sell few high-priced specialty items, emphasizing quality and style.

The overall low cost firm, however, sought to sell high volumes of generic products emphasizing value in their targeted price point[8].

Pricing policies also differed across strategic groups. The differentiation and focus firms emphasized the design and style of an item, then looked at prices of competing products to determine an appropriate selling price (a follow-the-leader pricing strategy (Bennington 1985)). The overall low cost leader, in contrast, determined an item's target price prior to designing, and then designed the item to reflect that price. In other words, the differentiation and focus firms priced based on their designs, whereas, the overall low cost leader designed based on predetermined price categories.

Channels of Distribution

The focus firm's distribution policy strongly reflected their highly targeted market. Products were advertized in national specialty magazines. All sales were made directly to the consumer through catalogue purchases or custom orders. Catalogues were distributed only upon request from prospects who responded to magazine advertisements. Choosing to use this channel of distribution was considered to be one of their greatest expenses but was also considered an important strategic component.

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[8] Relative pricing within a price point should not be confused with targeted price points. All subject firms targeted the same price point category, however, their pricing strategy within that category differed.

On the other end of the distribution channel spectrum was the overall cost leadership firm. The overall cost leadership firm primarily sold to local and small regional furniture stores. This firm was the only one interviewed which utilized the furniture markets as a vehicle to promote sales. The chosen distribution channels allow for a relatively low-cost highly visible (but highly competitive) outlet for their product.

The differentiation firm utilized three distribution channels; their own retail store, catalogue sales, and a small portion of sales to other manufacturers (unfinished furniture). Catalogues were mailed, upon request to prospective customers reached through national specialty magazine advertisements. Sales were also made through a company-owned retail store. These distribution methods reflect an attempt to contact a broad base of potential customers for a specialized product.

Manufacturing

As expected, considerable differences were found across firms with respect to manufacturing policies, with the overall cost leadership firm placing greatest emphasis in this area. The overall low cost firm had the most technologically advanced equipment and recognized efficient and productive manufacturing as the sources of their competitive advantage. The overall low cost firm ranked manufacturing as their greatest strength and planned on the greatest future expenditures in this area.

In contrast, the differentiation firm viewed manufacturing's role as maintaining the highest quality levels possible. Only minor expenditures were directed toward manufacturing equipment purchases and these were in areas to improve quality control. Goals of maintaining the highest quality greatly overshadowed productivity and efficiency efforts.

Although the focus firm's main drive was not to be the most efficient and productive manufacturer, they realized that keeping costs low was necessary to allow for competitive (comparable) pricing. They placed much more emphasis on reducing manufacturing costs than did the differentiation firm, but not as much emphasis as did the overall cost leadership firm. They also recognized that their manufacturing techniques allowed them to maintain high quality standards and provide customized service.

In summary, all firms felt manufacturing was important but for different reasons. The overall low cost firm placed great emphasis on manufacturing because it allowed the firm low manufacturing cost. The differentiation firm valued manufacturing because it was in this area that high quality was maintained. The focus firm's view of manufacturing was a combination of the other firms' views - emphasizing quality customization, and efficiency.

Labor

The differentiation firm placed much more importance in the contribution of their labor force than did the other firms. Relative wages (compared to similar employment opportunities in their geographical region) were higher for the differentiation firm than for the other firms. The differentiation firm felt that employee incentives and personal relationships between management and employees were important components of their strategy. This firm believed that by looking out for its employees it would in return, achieve higher quality and more conscientious employees, ultimately resulting in higher quality products. The differentiation firm also seemed to have a more rigorous hiring policy.

The overall low cost and focus firms placed less emphasis on their employee policies. Wages were lower and less attention was given to developing employee morale as compared to the differentiation firm. Employees were viewed as important, but not a unique resource. This result is consistent with Porter's requirement for a differentation firm to offer "amenities to attract highly skilled labor..." (Porter 1980, p. 41).

Purchasing

Purchasing of raw materials played an important strategic role for the overall low cost and the focus firms. Both firms used several suppliers to ensure low costs. The differentiation firm, however, used only one supplier and never checked market prices. The

differentiation firm also purchased many pre-manufactured furniture parts. Purchasing was not considered an important strategic area for the differentiation firm. This result reflects the high level of cost consciousness exhibited by the overall low cost and focus firms as compared to the differentiation firm.

Research and Development

Research and development was practically non-existent for the differentiation and focus firms, possibly a factor of their size and product type. The primary research function was simply observing and tracking competing firms' product lines and prices. New products were developed based on intuition or customer recommendation. If a decision were made to manufacture a new design, company employees determined the best way to build the product with quality being the main drive behind the design.

The overall low cost firm also closely watched competitors' products and pricing. When a competitor's product seemed to perform well its basic design was often copied. The product was then designed with manufacturing efficiency in mind. The main drive behind this firm's research and design efforts was to produce a popular "generic" product and, through efficient design, have the ability to offer the best value (lowest price for that quality level) on the market.

Finance and Cost Control

Due to the sensitive nature of finance policies, little information was available in this area. However, differences were detected across subjects in the area of cost control. As would be expected, the overall low cost firm placed considerably more emphasis on cost control than did other firms. This firm monitored many areas including the packaging room, the cabinet room and rough lumber use, among others. The company utilized a complex bar-coding system to help track production. This rigorous control contrasted greatly with the differentiation firm, which monitored practically nothing outside of shipments and inventory. There were no records of costs, materials used, etc. The focus firm's policy, once again, fell somewhere between the other firms. Cost control was not as rigorous as was that of the overall low cost firm. However, some functions, including production, downtime, lumber yield, etc., were monitored.

Product Line

Product line policies also reflected the competitive strategies employed by the firms, not only in line breadth, but more importantly, in the drive behind product line decisions. The differentiation firm offered 80 stock keeping units (SKUs) but almost all of one distinct style. Their unique style, exceptionally high quality and company name differentiated their product line from other manufacturers.

The focus firm offered only 20 SKUs in their furniture line, but offered a wide range of non-furniture products to accent their catalogue. All products were targeted to a well defined customer group. Product line decisions were based on how well products might appeal to the target group.

The overall low cost firm offered a line consisting of several "generic" styles. Product line decisions were based on mass appeal and ease of manufacturing. This firm competed by manufacturing products similar to those of other manufacturers in the same style and price categories, but offering it at a lower price. This firm had the broadest product line, consisting of 175 SKUs (reflecting a broad product line which should be expected from an overall low cost strategist) and were marketed toward a relatively broad target.

Perceived Threats

Perceived competitive threats varied greatly across firms. The largest threat to the overall low cost firm was from direct competition. Since a firm's primary protection, when implementing Porter's (1980) overall low cost strategy, is its low cost position, it is clear to see why potential threats from competitors also pursuing this strategy are crucial. Price competition between overall low cost firms is intense (Porter 1980), and in an industry characterized by low profit margins (Geiger et al. 1990), competing against firms with lower costs (including importing firms) can be demanding.

The overall low cost firm did not perceive the increasingly stricter safety and environmental regulations as a threat. If fact, it felt these regulations may actually provide opportunities, since such regulations may eliminate competition from smaller firms who could not afford the required changes, and from larger firms who fail to budget for the upcoming changes.

The differentiation firm, in contrast, perceived no significant threats. It believed that it was isolated from competition due to the unique niche it served and that it sufficiently met all current environmental and safety regulations. This response is not surprising since a well implemented differentiation strategy provides insulation against competitive rivalry through brand loyalty and barriers resulting from differentiated products (Porter 1980). The differentiation firm also did not perceive new regulations as a threat. Its relatively small size and its unique niche were thought to protect this firm from potential threats.

The focus firm was more threatened by increasing regulations and "people related" problems. This firm had already experienced fines from violations of OSHA regulations, and felt that many of the upcoming regulations may be expensive or impractical. This firm also felt that obtaining knowledge about upcoming changes would be difficult, since it is difficult for a company to keep abreast of continually changing legislation and regulations. Trying to comply to new regulations protecting employee safety, rights and privileges was also a concern.

Porter's framework does not explain way the focus firm should be more concerned about safety and environmental regulations than other firms. This observation may in fact be

company specific, possibly an artifact of the previous fines. However, the fact that the nature of perceived threats varied across strategic groups does support Porter's model. Likewise, threats perceived by the differentiation and overall low cost firms support Porter's (1980) model.

Summaries of the responses by the three subject firms are shown in Figures 3-4, 3-5, and 3-6. As shown, the firms differed considerable across key policies and in their perceptions of competitive threats.

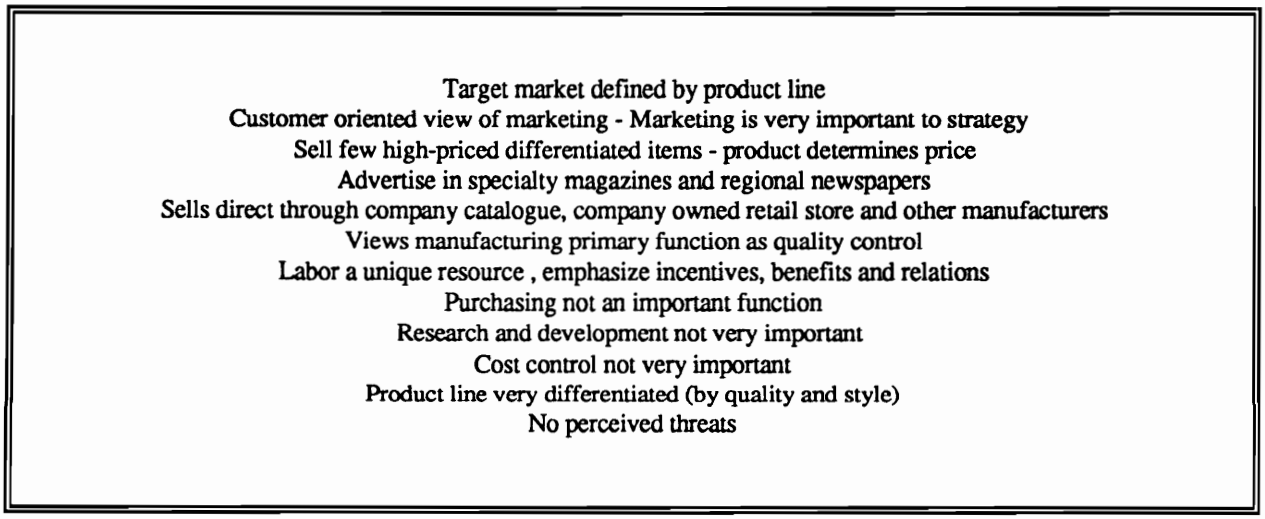

Figure 3-4. Profile of attributes characteristic of the differentiation firm.

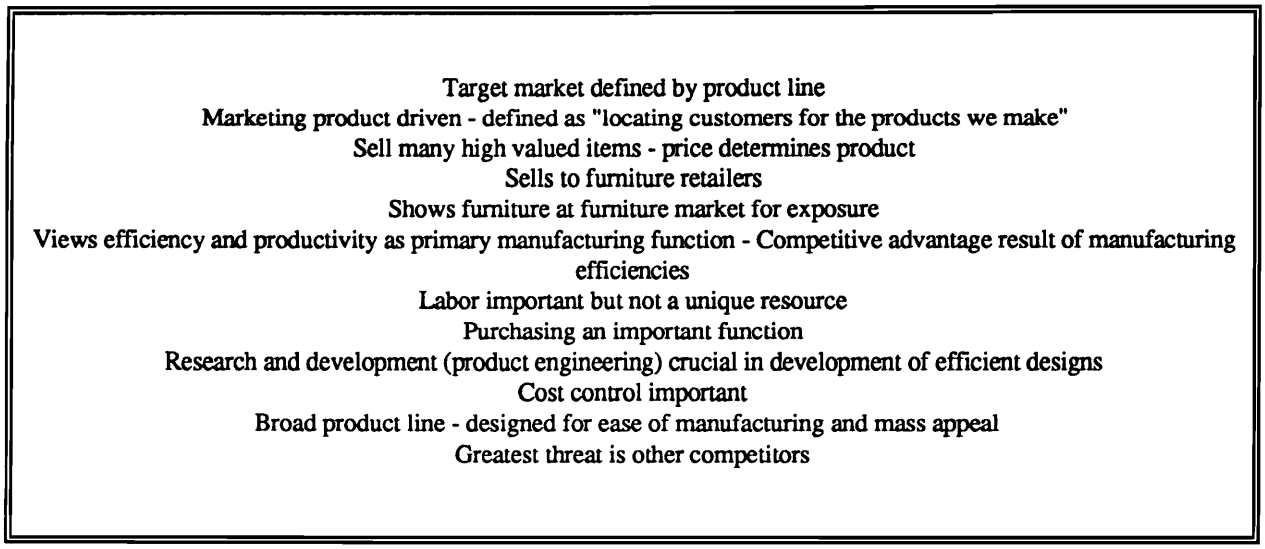

Figure 3-5. Profile of attributes characteristic of the overall low cost firm.

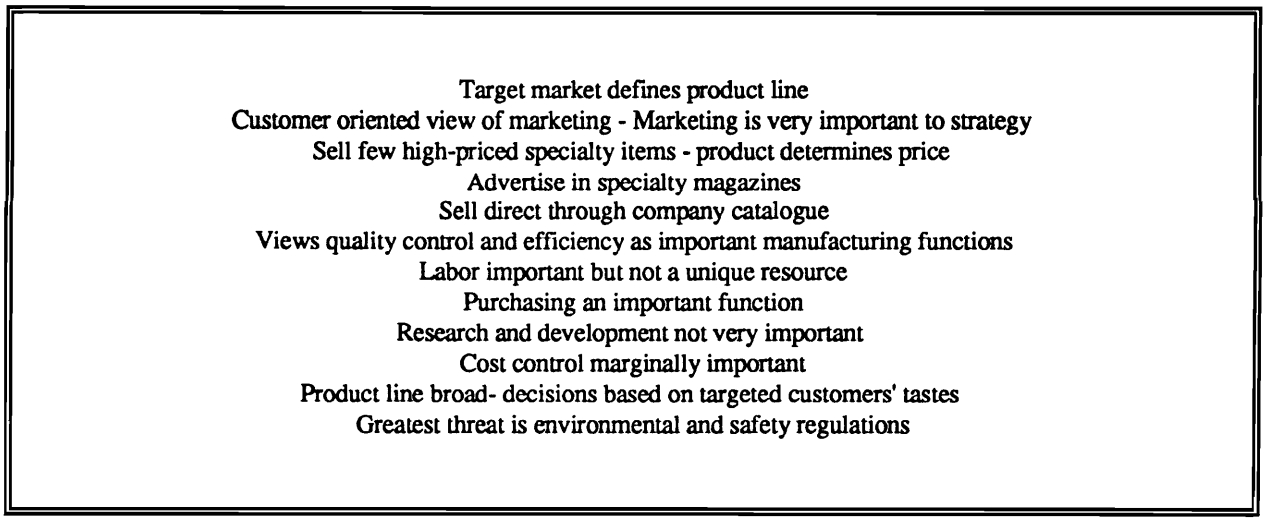

Figure 3-6. Profile of attributes characteristic of the focus firm.

Summary and Conclusions

The results of this study offer a better understanding of how companies compete. The differentiation firm's policies (Figure 3-4) were primarily driven by product style and company image. This firm was very customer-oriented. The firm viewed its competitive strengths as its marketing ability, high quality and customer service. It distributed its products through its own retail stores and catalogues, but sold a small portion of unfinished furniture to other furniture manufacturers. These are relatively expensive channels but offer the manufacturer considerable control in developing customer perception and company image. The labor force was very important to this firm, since it believed employees played an important role in product quality. The firm offered many employee incentives and actively developed employee-employer relationships.

Porter (1980) described the differentiation strategy as having characteristics including: some differentiating attribute (design or brand image); strong marketing ability; reputation for quality; strong coordination between departments; amenities to attract highly skilled labor; and strong cooperation from channels, all of which were exhibited by the subject firm. The only characteristic of Porter's differentiation strategy which did not appear in the subject firm, was a strong research and development program. However, this observation may be a result of the size of the firm as well as the nature of their product and the industry.

The overall low cost firm's policies (Figure 3-5) were to manufacture generic products exhibiting mass appeal and to offer these products at the lowest cost to the customer. This

strategy required the firm to operate efficiently and productively. Special attention was given to cost reduction and furniture designs emphasized manufacturing efficiency and productivity. This firm attempted to sell large volumes of generic items. Product engineering was very important because of its contribution to manufacturing efficiency. Their competitive strength was described as the ability to offer the highest value. This was achieved through productivity, efficiency and product engineering.

Porter, in his description of the overall cost leadership strategy refers to several key characteristics including: efficient state-of-the-art facilities; tight cost control and frequent detailed reports; products designed for ease in manufacturing; high sales volumes; wide product lines; aggressive pricing; aggressive purchasing; process engineering skills; low cost distribution system; and structured management. As discussed previously, the overall low cost firm exhibited all of these characteristics.

Porter (1980) describes the focus strategy as targeting a particular buyer group. A focus strategy uses components of both the overall low cost strategy and the differentiation strategy to accomplish this task. Figure 3-6 offers a profile of the subject focus firm. The efforts of the subject firm to focus on a particular market segment were apparent, especially in their target market and product line policies. The subject firm's position relative to other operating policies varied, sometimes toward the differentiation firm and other times toward the overall low cost firm. Based on Porter's (1980) definition of a focus strategy, this result is not surprising. This firm perceived its strengths to be its targeting of potential customers, its marketing strengths, its quality and its ability to manufacture custom products.

Firms *a priori* classified by Porter's generic strategy types were studied in depth to detect differences in the key operation policies across strategy types. Likewise, perceived strengths and weaknesses, and industry opportunities and threats were also investigated. The similarities between the subject firms and Porter's (1980) descriptions of how the three generic strategies are implemented provide alternative support of Porter's model of competitive strategy.

Limitations

In this study, as is characteristic of case study analyses, broadness was sacrificed for depth. Care must be taken when interpreting these results, since firms within the same strategic group may vary in their implementation of certain operating policies. However, provided that 1) the characteristics of the firms interviewed sufficiently represent the overall characteristics of their strategic group, and 2) firms within the same strategic group are generally more similar than different, these results should possess sufficient validity. Based on previous research, such assumptions are reasonable (Fiegenbaum et al. 1987; McGee and Thomas 1986; Newman 1978)

Subjects for this study were selected based on their competitive position relative to dimensions of strategy as defined by Porter. Although the subjects were from the wood household furniture industry, it is believed that the broadness of the terminology utilized to describe key operating policy categories, facilitate the applicability of these results to other

industries with competitive structures similar to the furniture industry (i.e., similar strategic groups).

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Chapter 4 - A Profile of the U.S. Wood Household Furniture Industry

A manuscript developed for possible submission to *Forest Products Journal*

Abstract

Wood household furniture manufacturers in the U.S. were surveyed to better understand the structural characteristics of the industry. Information collected included: furniture shipments, the percentage of shipments exported, the percentage of shipments that were new products, the percentage of shipments that were consumer Ready-to-Assemble (RTA), channels of distribution, product types and targeted price points.

Over 60% of reported furniture shipments (based on value) were targeted toward a medium price point. Nearly 85% of shipments were from the largest 25% of responding firms. The majority of furniture shipped by respondents was bedroom furniture (36%), followed by dining room furniture (19%) and occasional tables (11%). Over one-third of the reported shipments were through local and regional full line furniture stores. Other important channels were national furniture chains (20%) and discount chains, department stores and mass merchants (14%). Approximately 6% of the total shipments (based on value) were exported, 16% were consumer ready-to-assemble (RTA) furniture and 17% were new products (first time offered).

Wood household furniture is an important segment of the U.S. forest products industries. Not only does this segment contribute to the overall U.S. economy (accounting for $8.8 billion in shipments, providing 121,200 jobs, and consuming nearly $4.1 billion in materials in 1992 (USDOC 1994)), but it also is a very important market for many primary and secondary wood products. The furniture industry is the largest domestic user of high grade hardwood lumber (Haynes 1989; Luppold 1987, 1988; Cardellichio and Binkley 1984; Spelter et al. 1978; Sinclair 1992) and consumes significant amounts of other wood products including softwood lumber, structural plywood, hardwood plywood, dimension parts, and veneer (Forbes et al. 1992, 1993; Meyer et al. 1992b).

Understanding the organization and structure of this industry is important to furniture manufacturers involved in strategic decision-making as well as researchers studying the industry. However, limited data exists in this area. Data which are available are not without limitations.

The U.S. Department of Commerce, Bureau of the Census provides volume of shipments by product type for the wood household furniture industry in the Census of Manufactures report (USDOC 1994). However, this data is collected only once every five years and it takes several years before final results are available.

The most recent Bureau of the Census report is for 1992. The preliminary results of the 1992 Census reported 2667 companies which manufacture wood household furniture and total shipments of $8.8 billion. Of the total value of shipments, 12% were RTA, 21% were

dining room furniture, 31% were bedroom, 20% were living room and 4% were infant and children's furniture (USDOC 1994).

Meyer et al. (1992a) also investigated wood household furniture manufacturers. Their data included information pertaining to products manufactured and channels of distribution employed. Meyer et al. (1992a) found that traditional free-standing furniture stores were the primary distribution channel (accounting for 30% of total shipments), followed by mass merchants (10%), small furniture/specialty lifestyle stores (8%), department stores (6%), and design centers (31%). The product data reported reflected only frequencies of firms which manufactured the products (instead of value of shipments by product category). Another limitation of their results possibly exists in that their sample frame, which was intended to contain all U.S. wood household furniture, consisted of only 347 firms. This number is far from the Bureau of the Census (USDOC 1994) estimate of 2667 total firms in the industry.

Although other data exists in trade publications (Anonymous 1994, Epperson 1993), no additional research can be found in the academic literature which investigates such industry characteristics as product type categories, targeted price points, channels of distributions employed, as well as other basic characteristics of the industry's structure. The objective of this study was to provide such information. Industry characteristics including volume of shipments (base on value); channels of distribution, targeted price points, products manufactured and firm size were investigated. In addition, the value of wood household furniture exported, that manufactured as consumer ready-to-assemble (RTA), and new products were also studied.

Background

The Wood Furniture Industry

The furniture industry has historically been characterized by a low level of technology implementation, low levels of equipment investment, poor profitability (an average of 4.7% on total sales in 1989), low return of net worth, and low labor productivity (Geiger et al. 1990). The industry is labor intensive, with the labor force consisting primarily of unskilled workers (USDC-ITA 1985).

Many U.S. furniture manufacturing facilities are not designed to support efficient and productive furniture production (Geiger et al. 1990). Even the newer facilities house inefficient processes and are often poorly laid out. Manufacturing equipment throughout the industry is mostly outdated, processes are labor intensive, and improper consideration is often given to the purchase of new machinery (Geiger et al. 1990). Inventory turns are, on average, 10 per year (much lower than foreign competitors) and there is often little, if any, training of employees (Gieger et al. 1990).

The wood furniture industry has a very high cost of entry. The manufacturing of wood household furniture requires highly specialized equipment in the rough end, sanding room and finishing rooms, and often includes highly technical mechanized processes throughout the manufacturing facility (Epperson 1993).

Over the past few decades, the wood household furniture industry has become increasingly competitive. Recent trends will promote even more competition. Some of the most influential of these trends include: increases in manufacturing costs, changes in the industry's structure (in the form of mergers and consolidations), diversification of distribution channels, increases in international trade, changes in environmental and safety policies and technological advances (Standard and Poor's 1994, 1992; Bullard 1989; Sinclair 1993; Epperson et al. 1993; Anonymous 1991; Geiger et al. 1990; Florence 1990; USDC International Trade Administration 1985; USDC International Trade Administration 1990; Davis 1990; Mayfield 1993; McMorrow 1992; Martin et al. 1992; Witt 1992; Kolebuck 1992; Knight 1992; Campbell 1988).

Common Classifications within the Wood Furniture Industry

The wood furniture industry is commonly segmented based on several distinguishing characteristics, including product segment, target price (quality) of product, product style, product distribution method, and materials used in manufacturing (Standard and Poor's 1991, 1992; Epperson 1993).

Classification by Product Segment

Household or residential furniture can be classified based on the product's intended use. Classifications generally used for residential furniture are based on the Bureau of the Census standard industrial classification codes (Sinclair 1993). Standard industrial classifications for household furniture include wood household (SIC 2511), upholstered (SIC 2512), metal household furniture (SIC 2514), mattresses and bedsprings (SIC 2515), wood television and radio cabinets (SIC 2517), and household furniture not elsewhere classified (SIC 2519). Wood household furniture is the most important of these segments based on value of shipments, cost of materials used, value added by manufacturing, number of companies and number of employees. Of total shipments of household furniture shipped in 1992, 41.7% were wood household furniture (USDC 1994).

Classification by Style

Furniture is sometimes classified by style, although such classification may be of limited benefit since most larger firms manufacture several different styles within their product mix (Bennington 1985). Also, classification by style can be confusing. Many furniture designs are hybrid in style, consisting of attributes from several common styles. Such designs may not be easily or clearly definable (Epperson 1993). The descriptions and names of

common furniture styles may vary from source to source. Further confusion results from the classification of unique styles.

Classification by Price Point

Firms can be categorized by targeted price point and the pricing strategy. The price point a manufacturer targets determines the niche where that firm will compete relative to other manufacturers (Bennington 1985). The pricing strategy is based on the fiscal and marketing objectives of the firm and determines the positioning of a manufacturer within the price point.

Pricing within the household furniture industry is generally based on product price point categories established by furniture retailers (Sinclair 1992). The industry recognizes three to five price point categories (the number varying by source) but there is no apparent standard terminology in the industry to describe these price points (Sinclair 1993, Epperson 1993). The targeted price point determines the general quality of a piece of furniture. Firms competing within a given price category differentiate their products based on style, product segment and to some degree, quality and price within the price point category.

Classification by Channel of Distribution

Furniture manufacturers also differ in the channels of distribution employed. There are numerous channels through which a manufacturer may move its product to the consumer, and recent trends have indicated considerable shifts in the channels used (Standard and Poor's 1994, Epperson 1993). Specialty retailers, warehouse stores, discounters, mail order catalogues, home electronic shopping networks, and 800-number discounters have become important distributors of furniture (Epperson et al. 1993) while independent furniture retailers and department stores have lost sales (Standard and Poor's 1992). Some industry experts have noted that a relationship may exist between channels of distribution used and price points targeted by manufacturers (Epperson 1993).

Methods

Wood household furniture manufacturers in the U.S. were surveyed to provide a better understanding of the industry. The survey instrument, a mail questionnaire, was designed to capture information regarding important industry characteristics.

Population and Sample Frame

The population of interest to this study was domestic wood household furniture manufacturers (SIC 2511). The sample frame included only firms with at least 60 percent of their total furniture sales[9] in wood household furniture. The intent of this tactic was to insure that the data properly described wood household furniture manufacturers, instead of detecting residual characteristics of firms primarily involved in other manufacturing segments. Similar tactics have been used successfully in previous research (Forbes 1993b, Dess and Davis 1984, Rumelt 1974).

The sample frame was identified using a list from Dun and Bradstreet Informational Services[10]. Dun and Bradstreet was chosen since their list was believed to be more complete and less bias than alternative sources. The list was reviewed for errors and cross checked with other available sources, including The FDM Top 300 (Furniture Design and Manufacturing 1993), for accuracy and completeness. The final list consisted of 946 manufacturers. A census of the firms defined by the sample frame was taken.

The number of firms included in the sample frame is lower than the Bureau of the Census's (USDC 1994) estimated total number of companies (2667) but nearer to their

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[9] In the case of a corporation or multi-product firm, "total sales" refers to the total sales of the furniture producing business unit.

[10] Dun and Bradstreet Informational Services, 3 Sylvan Way, Parsippany, NJ 07054-3896, is a direct marketing service company offering a data base of businesses worldwide.

estimated number of firms with 20 or more employees (720). It is believed that this difference is a combined result of the differing criteria used to classify firms as wood household manufacturers and a possible bias against the smallest firms which existed in the mailing list. Since the objective of this study was to investigate characteristics specific to the wood household the above limitations were not considered problematic.

Data Collection

Data were collected via a structured questionnaire. Before administering the survey, the questionnaire was evaluated by a panel of experts for face and content validity. After adjustments, the questionnaire was pretested on a random sample (n=50). Appropriate changes were made to the questionnaire before mailing. The questionnaire was mailed on June 1, 1994.

The questionnaire asked subjects to provide the value of their 1993 wood household furniture shipments. Firms were then asked to provide the percentage of total shipments which were exported, consumer RTA furniture, and new products (products shipped for the first time in 1993) and to give the percentage of shipments by product type and channel of distribution. By multiplying the respondents' volume of shipments by the given percentages, volume of shipments for respondents were calculated for each of the above categories.

Respondents were also asked to indicate on a scale of one to five, how the targeted retail price of their company's furniture compared to the reminder of the market. This

information allowed for categorizing shipments by price point. Price point categories were arbitrarily named low, low-medium, medium, medium-high, and high to assist in describing the results.

Response Rate

When collecting data via a survey, subjects have the option to refuse to provide information. A lack of sufficient data due to non-response is potentially problematic. To reduce the likelihood of non-response, methods including, pre-notification letters, follow-up letters, phone calls and multiple surveys, were employed. Such methods have been shown to improve response rates (Duhan and Wilson 1990, Dillman 1978). Out of the total number of questionnaires mailed (946), there were 109 bad addresses, 3 returned refusals and 169 responses, resulting in a raw response rate of 18% and an adjusted response rate of 20%[11].

[11] Raw response rate is simply the number of responses divided by the number of questionnaires mailed. The adjusted response rate differs from the response rate in that the number of bad addresses (i.e., returned due to insufficient address, out of business, etc) have been subtracted from the denominator in the calculation of the adjusted response rate.

Non-response Bias

Whenever the response rate of a survey is less than 100%, the potential for non-response bias exists. The lower the response rate, the greater the potential. Since the response rate for this study was 20%, non-response bias was a concern. To test for non-response bias, telephone calls were made to a random sample of non-respondents and subjects were asked to answer a few of the most pertinent questions on the questionnaire. The variables included in the non-response bias survey were chosen because they reflect the size of the firm, the firms' targeted quality level (i.e., price point category), and the productivity level of the firm, all which are important distinguishing characteristics of furniture manufacturers. Mean scores of the responses to these questions were compared between respondents and non-respondents. The results of this test are presented in Table 4-1. As shown, non-response bias was not indicated.

Table 4-1. Results of MANOVA testing for non-response bias.

Variable tested	**P- value (t-test)**	**Evidence of Non-Response Bias**
Volume ($) of shipments	0.12	No
Price Point Targeted	0.33	No
Number of Employees	0.59	No

Results

Total value of 1993 shipments reported for all respondents was $2.9 billion. Of this volume, 6.0% was exported, 15.6% was consumer ready-to-assemble (RTA) furniture, and 16.9% was new products (first time offered). The following sections provide breakdowns (reported as percentage of total shipments of respondents) by product type, targeted price point, channel of distributions, and firm size.

Shipments by price point category

Nearly 61% of reported shipments were targeted toward a medium price point, 20% toward a medium-high price point, 15% toward a low-medium price point, 3% toward a high price point, and 2% toward a low price point (Figure 4-1).

The majority of high priced furniture shipments were dining room (33%) followed by bedroom (25%) and occasional tables (15%) (Table 4-2). The largest markets for the medium-high priced furniture were bedroom and dining room, each representing 27% of that category. Bedroom furniture also represented the largest portion of shipments of the medium and low-medium priced furniture. The largest overall market by price point and product type was for medium priced bedroom furniture (Table 4-3).

Local and small regional full line service stores were the major channels used to distribute furniture of all price points except low (Table 4-4). The high priced furniture

segment also sold much of its products through manufacturer dedicated freestanding stores (16%) and designer/decorator showrooms (14%). The medium priced furniture segment sold a higher percentage of their furniture through discount chains, department stores and mass merchants than did other price segments, whereas the low-medium priced segment sold a greater percentage through other manufacturers. The largest single segment of furniture shipped by respondents was medium priced and sold through local and small regional full line furniture stores (Table 4-5).

Medium priced furniture represented the greatest volume of exported furniture, RTA furniture and new products (Table 4-6). Low-medium priced furniture followed medium priced furniture for percent of shipments exported and percent RTA, whereas medium-high priced furniture was the second most predominant price category for new products.

Shipments by firm size

Firms were divided into four equal groups based on value of shipments. The largest-sized firms[12] (annual sales > $15,000,001) accounted for nearly 85% of total shipments by value (Figure 4-2). Medium-sized firms (annual sales between $4,300,001 and 15,000,000) shipped over 10%, small-medium firms (annual sales between $1,775,001 and $4,300,000)

[12] Responding firms were ranked by size (based on volume of shipments) and divided into quartiles. Thus, the largest firms represent the top twenty-five percent of firms ranked by size.

shipped almost 4% and the small firms (annual sales less than $1,775,000) shipped only 1.4% of total shipments.

Bedroom furniture was the most commonly shipped product by firms of all size and curio cabinets were least common (Table 4-7). Thirty percent of total shipments were from the largest firms selling through local and small regional full line furniture stores (Table 4-8).

There were some notable differences in channels of distribution used by firms of different sizes (Table 4-9). Small firms sold a higher percentage of their products through other manufacturers than did other firms, and less through national furniture chains. Non-store retailing was also a more popular channel for small firms than other firms. The large and largest firms sold a higher percent of their products through discount chains, department stores and mass merchants than did medium and small firms. The largest firms sold a higher percentage to rental furniture stores than did other sized firms. Overall, the largest single segment by size and product type was the largest sized bedroom furniture manufacturers, representing 31% of the market (Table 4-10).

The largest percentage of total exports, RTA and new products were from the largest firms (Table 4-11). Large firms were the second most predominant size category based on percent of total shipments exported, RTA, and new products, followed by medium sized firms and small firms.

Shipments by product type

Nearly 36% of total shipments were bedroom furniture. Nineteen percent were dining room, 11% were occasional tables, 9% were home office and 12% were entertainment centers and curio cabinets (Figure 4-3).

The majority of bedroom furniture shipped was medium priced (61%), followed by low-medium priced (22%) and medium-high priced (16%) (Table 4-12). The majority of dining room furniture was medium priced (54%), followed by medium-high priced (28%). Reported shipments of occasional tables were also primarily medium priced (58%) as were nearly all of curio cabinet (96%) and home office furniture (81%) shipments. Entertainment centers were predominantly medium-high priced (53.3%). The majority of total shipments in each product type were from the largest firms (Table 4-13).

The majority of reported shipments of bedroom and dining room furniture as well as occasional tables were distributed through local and small regional full line furniture stores (40%, 41% and 35% respectively) (Table 4-14). Curio cabinets were sold primarily through national furniture chains (34%) although considerable volumes were sold through local and small regional full line furniture stores (34%). Most of the respondents' home office furniture was sold through discount chains, department stores and mass merchants (32%) and home centers, electronic stores and wholesale clubs (30%). Entertainment centers were sold primarily through manufacturer dedicated free standing stores (39%) and local and regional full line furniture stores (23%), although considerable volumes were distributed through

discount chains, department stores and mass merchants (13%), home centers, electronic stores and wholesale clubs (9%) and national furniture stores (9%).

Shipments by channel of distribution

The predominant channel of distribution used by respondents was local and regional full line furniture stores, representing 35% of the total reported furniture shipments. Twenty percent of total shipments were through national furniture chains and 14% were through discount chains, department stores and mass merchants (Figure 4-4). Bedroom furniture was the primary product shipped through all channels except home centers, electronic stores and wholesale clubs. Home office furniture was the primary product shipped through these channels (Table 4-15). Medium priced furniture was prevalent through all channels (Table 4-16 and 4-17) and, as would be expected, most shipments were from the largest firms (Table 4-18 and 4-19).

Summary

This study provided information about the structure of the United States wood household furniture industry in 1993. Specifically, percent of total shipments exported, percent of total shipments that were new products, percent of total shipments that were consumer Ready-to-Assemble (RTA), percent of shipments by channel of distribution, percent

of total shipments by product type and percent of total shipments by targeted price point were investigated.

Over 60% of respondents' shipments were targeted toward a medium price point. Nearly 85% of shipments were from the top 25% of responding firms ranked by size. The majority of furniture shipped by respondents was bedroom furniture, followed by dining room furniture (19%) and occasional tables (11%). Over one third of the respondents shipments were through local and regional full line furniture stores. Other important channels were national furniture chains (20%) and discount chains, department stores and mass merchants (14%).

Notable differences appeared across firms based on their size. Small and medium sized firms had a higher proportion of their total shipments represented in the smaller product segments. This infers that smaller firms were more niche oriented than larger firms. Smaller firms also distributed a larger proportion of their furniture through non-store retailing, manufacturer's dedicated freestanding stores, and to other manufacturers. Smaller firms also had a higher proportion of shipments through "other" channels. This suggests that smaller firms have learned to use more innovative channels to distribute their product.

There were also differences in the channels employed to distribute different products. Bedroom, dining room, occasional tables and curio cabinets were sold primarily through national furniture chains and local and small regional full line furniture stores. Home office furniture, however, was sold primarily through home centers, electronic stores, wholesale clubs, discount chains, department stores and mass merchants.

The results of this study are based on volumes reported by respondents. However, since a census of the population at interest was taken and no non-response bias was detected, it is reasonable to assume that these results are also representative of the population.

The population of interest was defined as firms with at least 60% of their total sales represented by wood household furniture. If the population of wood household furniture had been defined differerently (for instance, as all firms which manufactured at least one unit of wood household furniture), results may have varied. The reader should acknowledge this potential limitation when interpreting these results.

Support of the validity of this study exists through comparison of Bureau of the Census results (USDOC 1994) and this study's results. Table 20 shows a comparisons between Census data and this study on comparable categories. Although the Census data reflects 1992 shipments, whereas this study collected data from 1993, the distribution of shipments by product type varies only slightly. Such a result should be expected given that: 1) the Census and these results are both reflective of the same population., and 2) no drastic shift in the industry product mix has taken place from 1992 to 1993. Since no evidence exists which suggests an industry-wide shift in product mix, it can be inferred that this study's results, as well as the Census, reflect true industry values.

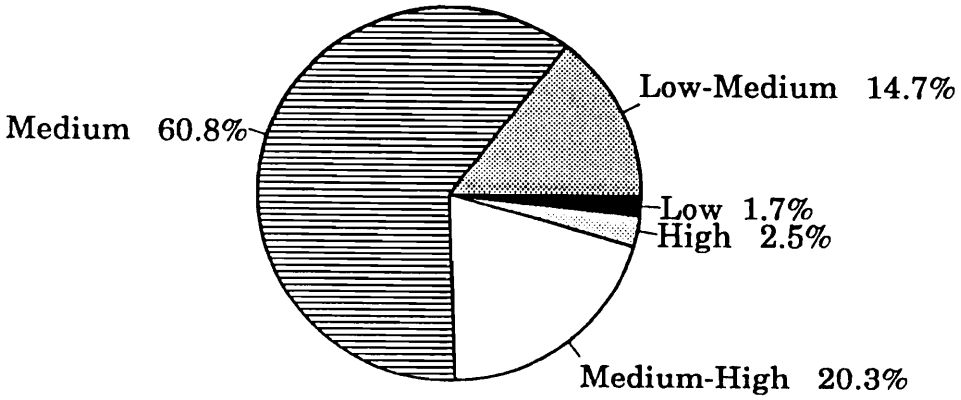
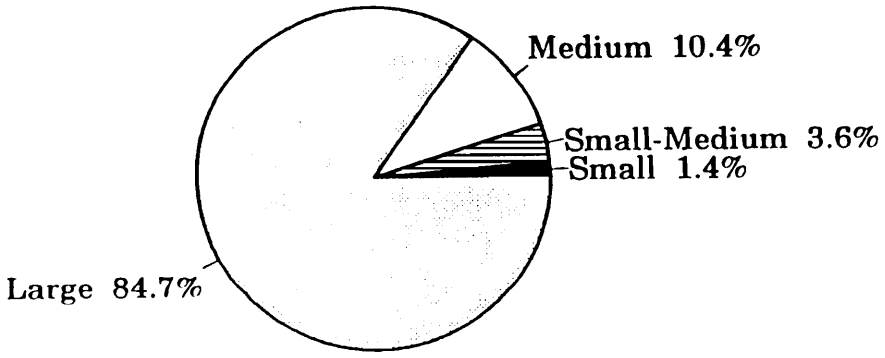


Figure 4-1. Reported 1993 furniture shipments by price point categories.



Small (Annual Sales <$1,775,000)
Small-Medium (Annual Sales $1,775,001-4,300,000)
Medium (Annual Sales $4,300,001-15,000,000)
Large (Annual Sales > $15,000,000)

Figure 4-2. Reported 1993 furniture shipments by firm size.

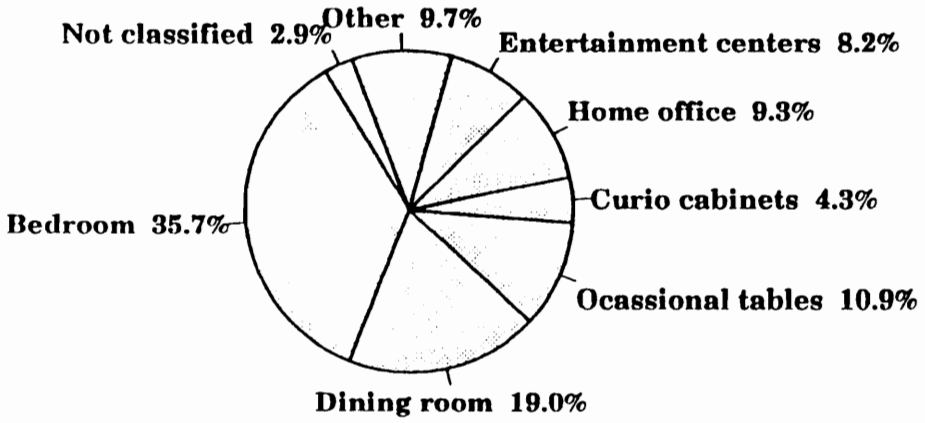


Figure 4-3. Reported 1993 furniture shipments by product type.

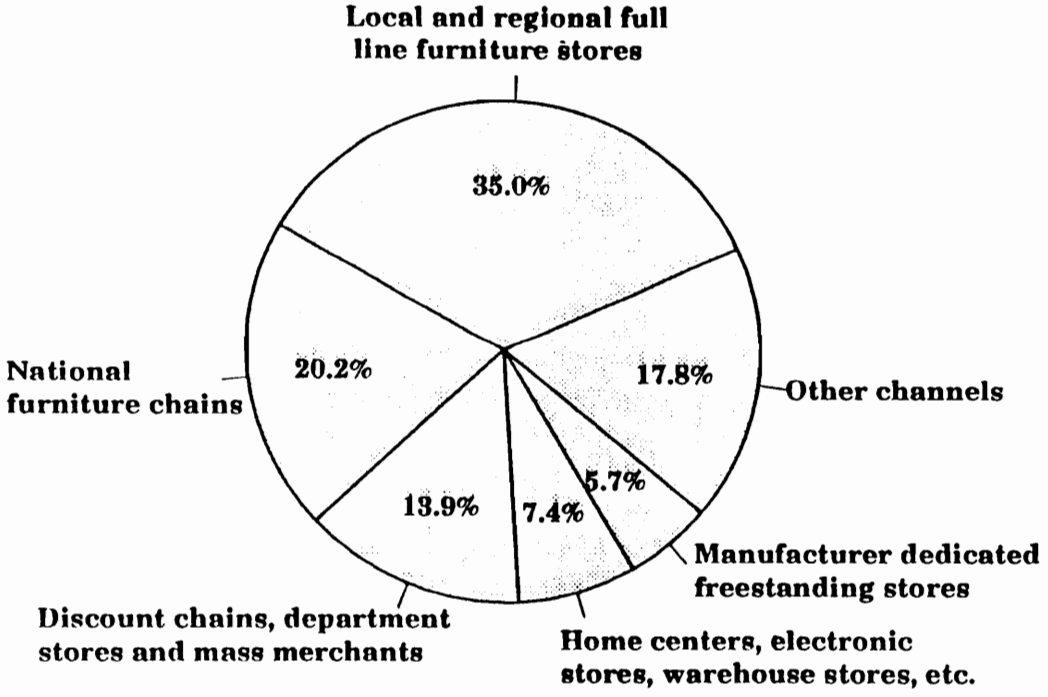


Figure 4-4. Reported 1993 furniture shipments by channel of distribution.

Table 4-2. Percentage of reported 1993 shipments by product type for each price point category. (Cell values represent the percentage of shipments from the total in that price point category accounted for by the product type*).

Product Type	% of Shipments ($) by Price Point				
	Low	Low-Medium	Medium	Medium - High	High
Bedroom	<0.1	51.8	38.4	27.2	25.0
Dining room	<0.1	17.6	18.9	27.2	33.3
Occasional tables	<0.1	16.8	11.7	8.9	14.7
Curio cabinets	<0.1	0.7	7.1	0.2	0.4
Home office	<0.1	1.4	13.9	7.5	0.8
Entertainment Centers	<0.1	8.2	0.9	10.7	9.1
Other	99	3.5	9.1	18.3	16.8
All Product Types	100	100	100	100	100

* Values may not sum exactly to 100% due to rounding.

Table 4-3. Percentage of reported 1993 shipments by price point and product type. (Cell values represent the percentage of total reported shipments which are of that product type and price point category*).

Product Type	% of Shipments ($) by Price Point					
	Low	Low-Medium	Medium	Medium - High	High	Total
Bedroom	<0.1	7.4	20.8	5.4	0.6	35.7
Dining room	<0.1	2.5	10.2	5.4	0.8	19.0
Occasional tables	<0.1	2.4	6.3	1.8	0.4	10.9
Curio cabinets	<0.1	0.1	3.9	<0.1	<0.1	4.3
Home office	<0.1	0.2	7.5	1.5	<0.1	9.3
Entertainment Centers	<0.1	1.2	0.5	2.1	0.2	8.2
Other	0.3	0.5	4.9	3.6	0.4	12.7
Not classified	1.2	0.4	6.6	0.5	<0.1	2.9
Total	1.7	14.7	60.8	20.3	2.5	100

* Values may not sum exactly to 100% due to rounding.

Table 4-4. Percentage of reported 1993 shipments by channel of distribution for each price point category. (Cell values represent the percentage of shipments from the total in that price point category accounted for by that channel*).

Channel of Distribution	% of Shipments by Price Point				
	Low	Low-Medium	Medium	Medium-High	High
Non-store retailing (mail order, electronic retailing, etc.)	5.0	4.1	1.8	1.5	<0.1
Designer/decorator showrooms	5.0	0.1	1.3	3.0	13.9
Home centers, electronic stores, and wholesale clubs, etc.	<0.1	4.2	10.7	2.5	3.6
Discount chains, department stores and mass merchants	<0.1	12.6	17.7	7.3	13.0
Manufacturer dedicated freestanding stores	<0.1	7.1	6.5	2.9	15.7
National furniture chains	75.0	24.5	23.5	8.6	<0.1
Local and small regional full line furniture stores	<0.1	26.5	30.2	63.1	48.4
Rental furniture stores	5.0	6.0	4.7	0.3	0.6
Mobile and modular home manufacturers	<0.1	0.3	0.9	<0.1	<0.1
Sold to other manufacturers	<0.1	11.5	0.7	3.4	1.0
Other Channels	<0.1	3.1	2.2	7.4	3.8
All Channels	100	100	100	100	100

* Values may not sum exactly to 100% due to rounding.

Table 4-5. Percentage of reported 1993 shipments by price point and channel of distribution. (Cell values represent the percentage of total shipments which are of that channel and price point category*).

Channel of Distribution	% of Shipments ($) by Price Point					
	Low	Low-Medium	Medium	Medium-High	High	All Firms
Non-store retailing (mail order, electronic retailing, etc.)	0.1	0.6	1.1	0.3	<0.1	2.0
Designer/decorator showrooms	0.1	<0.1	0.8	0.6	0.3	1.8
Home centers, electronic stores, and wholesale clubs, etc.	<0.1	0.6	6.5	0.5	<0.1	7.7
Discount chains, department stores and mass merchants	<0.1	1.8	10.7	1.5	0.3	14.4
Manufacturer dedicated freestanding stores	<0.1	1.0	3.9	0.6	0.4	5.9
National furniture chains	1.3	3.6	14.2	1.8	<0.1	20.9
Local and small regional full line furniture stores	0.2	3.9	18.3	12.8	1.2	36.3
Rental furniture stores	0.1	0.9	2.9	0.1	<0.1	3.9
Mobile and modular home manufacturers	<0.1	<0.1	0.5	<0.1	<0.1	0.6
Sold to other manufacturers	<0.1	1.7	0.4	0.7	<0.1	2.8
Other Channels	<0.1	0.5	1.3	1.5	0.1	3.7
Not Classified	<0.1	0.1	0.1	<0.1	<0.1	0.3
All Channels	1.7	14.7	60.8	20.3	2.5	100

* Values may not sum exactly to 100% due to rounding.

Table 4-6. Percentage of reported 1993 shipments represented by exports, RTA and new products by price point*.

	% of Shipments by Price Point					All Price Points
	Low	Low-Medium	Medium	Medium-High	High	
Percent of Shipments Exported	<0.1	1.0	4.1	0.7	0.2	6.0
Percent of Shipments RTA	<0.1	2.1	13.0	0.2	0.3	15.6
Percent of New Products	<0.1	2.0	11.2	2.9	0.5	16.9

* Categories may not sum due to non-response of certain variables.

Table 4-7. Percentage of reported shipments by product type for each firm size category. (Cell values represent percentage of shipments from the total in that size category accounted for by that product type*).

Product Type	% of Total Shipments ($) by Firm Size			
	Small	Medium	Large	Largest
Bedroom	31.6	23.3	36.2	37.5
Dining room	18.1	22.0	23.9	18.9
Occasional tables	6.4	13.7	9.8	11.3
Curio cabinets	1.9	1.4	2.5	4.8
Home office	5.9	6.5	10.5	9.6
Entertainment Centers	10.2	11.1	7.4	8.5
Other	26.0	22.0	9.7	9.3
All Product Types	100	100	100	100

* Values may not sum exactly to 100% due to rounding.

Table 4-8. Percent of reported 1993 shipments by firm size and channel of distribution. (Cell values represent the percentage of total reported shipments of that channel and firm size category*).

Channel of Distribution	% of Shipments ($) by Firm Size				
	Small	Medium	Large	Largest	Total
Non-store retailing (mail order, electronic retailing, etc.)	0.1	0.1	0.4	1.4	2.0
Designer/decorator showrooms	0.1	0.2	0.5	1.0	1.8
Home centers, electronic stores, and wholesale clubs, etc.	0.1	0.2	0.3	7.1	7.7
Discount chains, department stores and mass merchants	0.1	0.2	0.9	13.2	14.4
Manufacturer dedicated freestanding stores	0.1	0.3	0.3	5.2	5.9
National furniture chains	<0.1	0.3	1.4	19.2	20.9
Local and small regional full line furniture stores	0.3	1.5	4.8	29.8	36.3
Rental furniture stores	<0.1	<0.1	0.2	3.6	3.9
Mobile and modular home manufacturers	<0.1	<0.1	<0.1	0.5	0.6
Sold to other manufacturers	0.2	0.2	0.8	1.6	2.8
Other Channels	0.2	0.5	0.8	1.9	3.7
Not Classified	0.1	0.1	<0.1	0.1	0.3
Total	1.4	3.6	10.4	84.7	100

* Values may not sum exactly to 100% due to rounding.

Table 4-9. Percentage of reported 1993 shipments by channel of distribution for each firm size category. (Cell values represent percentage of shipments from the total in that firm size category accounted for by that channel*).

Channel of Distribution	% of Shipments ($) by Firm Size			
	Small	Medium	Large	Largest
Non-store retailing (mail order, electronic retailing, etc.)	6.5	2.7	4.2	1.7
Designer/decorator showrooms	5.3	6.9	4.8	1.2
Home centers, electronic stores, and wholesale clubs, etc.	7.2	5.9	2.7	8.4
Discount chains, department stores and mass merchants	<0.1	4.9	8.2	15.6
Manufacturer dedicated freestanding stores	11.7	8.6	2.9	6.1
National furniture chains	0.5	7.7	13.3	22.7
Local and small regional full line furniture stores	21.7	41.6	46.7	35.2
Rental furniture stores	1.9	1.4	1.8	4.3
Mobile and modular home manufacturers	0.4	1.2	0.4	0.6
Sold to other manufacturers	16.6	6.1	7.4	1.9
Other Channels	18.2	13.0	7.5	2.2
All Channels	100	100	100	100

* Values may not sum exactly to 100% due to rounding.

Table 4-10. Percentage of reported 1993 shipments by firm size and product type. (Cell values represent the percentage of total shipments which are of that product type and that firm size category*).

Product Type	% of Shipments ($) by Firm Size				
	Small	Medium	Large	Largest	All Firms
Bedroom	0.4	0.8	3.7	30.8	35.7
Dining room	0.2	0.7	2.5	15.5	19.0
Occasional tables	0.1	0.5	1.0	9.3	10.9
Curio cabinets	<0.1	<0.1	0.3	4.0	4.3
Home office	0.1	0.2	1.1	7.9	9.3
Entertainment Centers	0.1	0.4	0.8	7.0	8.2
Other	0.3	0.7	1.0	7.7	12.7
Not classified	<0.1	0.2	<0.1	2.6	2.9
All Product Types	1.3	3.4	10.3	82.0	100

* Values may not sum exactly to 100% due to rounding.

Table 4-11. Percentage of reported 1993 shipments represented by exports, RTA and new products by firm size*.

	% of Shipments by Firm Size				All Firms
	Small	Medium	Large	Largest	
Percent of Shipments Exported	<0.1	0.3	0.6	5.2	6.0
Percent of Shipments RTA	0.1	0.8	1.2	13.5	15.6
Percent of New Products	0.2	0.7	2.4	13.5	16.9

* Categories may not sum due to non-response of certain variables.

Table 4-12. Percentage of reported 1993 shipments by price point for each product type category. (Cell values represent percentage of shipments from the total in that product type accounted for by that price point*).

Product Type	% of Shipments ($) by Price Point Category					
	Low	Low-Medium	Medium	Medium-High	High	All Price Points
Bedroom	<0.1	21.7	60.8	15.8	1.8	100
Dining room	<0.1	13.2	54.0	28.4	4.4	100
Occasional tables	<0.1	22.1	58.2	16.3	3.4	100
Curio cabinets	<0.1	2.6	96.4	0.8	0.2	100
Home office	<0.1	2.2	81.4	16.1	0.2	100
Entertainment Centers	<0.1	29.4	11.7	53.3	5.63	100
Other	2.6	5.1	50.7	37.3	4.3	100
All Product types	1.7	14.7	60.8	20.3	2.5	100

* Values may not sum exactly to 100% due to rounding.

Table 4-13. Percentage of reported 1993 shipments by firm size for each product type category. (Cell values represent percentage of shipments from the total in that product type accounted for by that firm size*).

Product Type	% of Shipments ($) by Firm Size				
	Small	Medium	Large	Largest	All Firms
Bedroom	1.2	2.2	10.5	86.1	100
Dining room	1.3	4.0	13.0	81.8	100
Occasional tables	0.8	4.3	9.3	85.6	100
Curio cabinets	0.6	1.1	6.0	92.3	100
Home office	0.9	2.4	11.7	85.1	100
Entertainment Centers	1.7	4.6	9.3	84.5	100
Other	3.6	7.7	10.3	78.5	100
All Product Types	1.4	3.4	10.3	84.7	100

* Values may not sum exactly to 100% due to rounding.

Table 4-14. Percentage of reported 1993 shipments by channel of distribution for each product type category. (Cell values represent percentage of shipments from the total in that product type category accounted for by that channel*).

Channel of Distribution	Bedroom	Dining Room	Occasional	Curio cabinets	Home office	Entertainment Centers	Other
Non-store retailing mail order,electronic retailing, etc.)	1.8	0.9	2.6	7.0	0.5	1.3	4.2
Designer/decorator showrooms	1.2	1.6	1.7	2.2	1.5	1.3	5.0
Home Centers, electronic stores, and wholesale clubs, etc	4.1	3.4	0.5	5.7	29.7	9.4	8.6
Discount chains, department stores and mass merchants	10.2	12.8	13.5	15.5	32.3	13.1	15.9
Manufacturer dedicated freestanding stores	6.7	8.1	4.7	1.3	0.9	38.5	9.0
National furniture chains	24.5	18.0	29.1	34.4	13.3	8.8	10.5
Local and small regional full line furniture stores	39.7	41.2	34.8	26.4	15.9	22.6	41.0
Rental furniture stores	4.5	2.8	6.8	5.3	2.9	2.9	0.5
Mobile and modular home manufacturers	0.4	0.4	1.6	1.0	0.6	0.5	<0.1
Sold to other manufacturers	4.2	3.3	2.2	<0.1	1.5	0.9	0.7
Other Channels	2.7	7.5	2.4	1.1	0.8	0.8	4.6
All Channels	100	100	100	100	100	100	100

* Values may not sum exactly to 100% due to rounding.

Table 4-15. Percentage of reported 1993 shipments by product type and channel of distribution. (Cell values represent the percentage of total shipments which are of that product type and channel category*).

Channel of Distribution	Bedroom	Dining Room	Occasional	Curio cabinets	Home office	Entertainment Centers	Other	Total
Non-store retailing (mail order, electronic retailing, etc.)	0.7	0.2	0.3	0.3	<0.1	0.2	0.4	2.0
Designer/decorator showrooms	0.4	0.3	0.2	0.1	0.1	0.2	0.5	1.8
Home Centers, electronic stores, and wholesale clubs, etc	1.4	0.6	0.1	0.2	2.7	1.2	0.8	7.1
Discount chains, department stores and mass merchants	3.6	2.4	1.4	0.7	3.0	1.6	1.5	14.2
Manufacturer dedicated freestanding stores	2.4	1.5	0.5	0.1	0.1	1.8	0.9	10.2
National furniture chains	8.6	3.4	3.0	1.5	1.2	1.1	1.0	19.8
Local and small regional full line furniture stores	14.0	7.8	3.6	1.1	1.5	2.8	4.0	34.7
Rental furniture stores	1.6	0.5	0.7	0.2	0.3	0.4	<0.1	3.7
Mobile and modular home manufacturers	0.2	0.1	0.2	<0.1	0.1	0.1	<0.1	0.5
Sold to other manufacturers	1.5	0.6	0.2	<0.1	0.1	0.1	0.1	2.7
Other Channels	1.0	1.4	0.2	<0.1	0.1	0.1	0.4	3.3
All Channels	35.3	18.9	10.3	4.3	9.2	12.5	9.7	100

* Values may not sum exactly to 100% due to rounding.

Table 4-16. Percentage of reported 1993 shipments by price point and channel of distribution. (Cell values represent percentage of total shipments which are of that channel and price point category*).

Channel of Distribution	% of Shipments ($) by Price Point					
	Low	Low-Medium	Medium	Medium-High	High	All Price Points
Non-store retailing (mail order, electronic retailing, etc.)	0.1	0.6	1.1	0.3	<0.1	2.0
Designer/decorator showrooms	0.1	<0.1	0.8	0.6	0.3	1.8
Home centers, electronic stores, and wholesale clubs, etc.	<0.1	0.6	6.5	0.5	<0.1	7.7
Discount chains, department stores and mass merchants	<0.1	1.8	10.7	1.5	0.3	14.4
Manufacturer dedicated freestanding stores	<0.1	1.0	3.9	0.6	0.4	5.9
National furniture chains	1.3	3.6	14.2	1.8	<0.1	20.9
Local and small regional full line furniture stores	0.2	3.9	18.3	12.8	1.2	36.3
Rental furniture stores	0.1	0.9	2.9	0.1	<0.1	3.9
Mobile and modular home manufacturers	<0.1	<0.1	0.5	<0.1	<0.1	0.6
Sold to other manufacturers	<0.1	1.7	0.4	0.7	<0.1	2.8
Other Channels	<0.1	0.5	1.3	1.5	0.1	3.7
Not Classified	<0.1	0.1	0.1	<0.1	<0.1	0.3
All Channels	1.7	14.7	60.8	20.3	2.5	100

* Values may not sum exactly to 100% due to rounding.

Table 4-17. Percentage of reported 1993 shipments by price point for each channel of distribution category. (Cell values represent percentage of shipments from the total in that channel category accounted for by that price point*).

Channel of Distribution	% of Shipments ($) by Price Point					
	Low	Low-Medium	Medium	Medium-High	High	All Price Points
Non-store retailing (mail order, electronic retailing, etc.)	4.2	29.1	51.9	14.8	<0.1	100
Designer/decorator showrooms	4.7	0.5	41.9	33.9	19.0	100
Home centers, electronic stores, and wholesale clubs, etc.	<0.1	8.0	84.3	6.6	1.2	100
Discount chains, department stores and mass merchants	<0.1	12.8	74.7	10.4	2.2	100
Manufacturer dedicated freestanding stores	<0.1	17.4	66.1	9.8	6.5	100
National furniture chains	6.2	17.2	68.3	8.4	<0.1	100
Local and small regional full line furniture stores	0.5	10.7	50.4	35.2	3.3	100
Rental furniture stores	2.2	22.5	73.6	1.4	0.4	100
Mobile and modular home manufacturers	<0.1	6.7	93.4	<0.1	<0.1	100
Sold to other manufacturers	<0.1	59.4	15.2	24.6	0.9	100
Other Channels	<0.1	13.6	39.1	44.5	2.8	100
All Channels	1.7	14.7	60.8	20.3	2.5	100

* Values may not sum exactly to 100% due to rounding.

Table 4-18. Percent of reported 1993 shipments by firm size and channel of distribution. (Cell values represent percent of total shipments which are of that firm size and channel category*).

Channel of Distribution	% of Shipments ($) by Firm Size				
	Small	Medium	Large	Largest	All Firms
Non-store retailing (mail order, electronic retailing, etc.)	0.1	0.1	0.4	1.4	2.0
Designer/decorator showrooms	0.1	0.2	0.5	1.0	1.8
Home centers, electronic stores, and wholesale clubs, etc.	0.1	0.2	0.3	7.1	7.7
Discount chains, department stores and mass merchants	0.1	0.2	0.9	13.2	14.4
Manufacturer dedicated freestanding stores	0.1	0.3	0.3	5.2	5.9
National furniture chains	<0.1	0.3	1.4	19.2	20.9
Local and small regional full line furniture stores	0.3	1.5	4.8	29.8	36.3
Rental furniture stores	<0.1	<0.1	0.2	3.6	3.9
Mobile and modular home manufacturers	<0.1	<0.1	<0.1	0.5	0.6
Sold to other manufacturers	0.2	0.2	0.8	1.6	2.8
Other Channels	0.2	0.5	0.8	1.9	3.7
Not Classified	0.1	0.1	<0.1	0.1	0.3
All Channels	1.4	3.6	10.4	84.7	100

* Values may not sum exactly to 100% due to rounding.

Table 4-19. Percentage of reported 1993 shipments by channel of distribution for each firm size category. (Cell values represent percentage of shipments from the total in that price point category accounted for by that product type*).

Channel of Distribution	% of Shipments ($) by Firm Size				
	Small	Medium	Large	Largest	All Sizes
Non-store retailing (mail order, electronic retailing, etc.)	3.9	4.6	21.4	70.1	100
Designer/decorator showrooms	3.6	13.4	27.4	55.6	100
Home centers, electronic stores, and wholesale clubs, etc.	1.2	2.7	3.7	92.4	100
Discount chains, department stores and mass merchants	0.9	1.2	6.0	92.0	100
Manufacturer dedicated freestanding stores	2.4	5.1	5.0	87.4	100
National furniture chains	<0.1	1.3	6.6	92.1	100
Local and small regional full line furniture stores	0.7	4.0	13.3	81.9	100
Rental furniture stores	0.6	1.3	4.8	93.3	100
Mobile and modular home manufacturers	0.8	7.4	7.1	84.7	100
Sold to other manufacturers	7.3	7.7	27.5	57.6	100
Other Channels	6.7	13.6	23.3	56.4	100
Not Classified	37.6	21.4	<0.1	42.3	100
All Channels	1.4	3.6	10.4	84.7	100

* Values may not sum exactly to 100% due to rounding.

Table 4-20. Comparison of Bureau of the Census (USDC 1994) 1992 estimates of wood household furniture shipments by product type and this study's 1993 estimates.

Product Category	Estimated Value of Wood Household Furniture Shipments by Product Category (shown as a percentage of total wood household furniture shipments)	
	Bureau of the Census Estimates for 1992	This Study's Estimates for 1993
Dining Room	21%	19%
Bedroom	31%	36%
RTA	12%	16%

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Chapter 5 - Summary

This study had four specific objectives. These objectives were to:

(1) Model competitive strategy in the U.S. wood household furniture industry and to predict changes in competitive strategy over the next five years based on predicted changes in the importance of strategic variables which define competitive strategy.

(2) Determine the relationship between competitive strategy and the variables which define competitiveness.

(3) Qualitatively examine differences in the key operating policies used to implement strategy, across strategic groups in the U.S. wood household furniture industry.

(4) Determine the relationship between competitive strategy and financial performance.

The first part of the first objective, defining the competitive structure of the U.S. wood household furniture industry, was accomplished using a multivariate measure of competitive strategy. Firms were categorized into strategic groups using hierarchical agglomerative cluster analysis based on factor scores calculated from the measure. Cluster analysis resulted in three strategic groups: a differentiation group, a overall low cost group, and a focus group (which appeared as a sub-group of the differentiation group).

A similar measure was used to predict changes in the industry's structure over the following five years (1998), fulfilling the second part of the first objective. Shifts in cluster

centroids of the strategic groups (from the current locations toward predicted locations) were used to determine predicted shifts in strategic orientation. Over the next five years, the overall low cost group predicted increased emphasis primarily on the differentiation dimension, the differentiation group predicted increased emphasis on the focus dimension and the focus group predicted greater emphasis would be placed on the overall low cost and differentiation dimensions.

The second objective was accomplished by determining the degree that each variable that was included on the measure of competitive strategy, loaded on the three dimensions of strategy (based on factor analysis). The variables loading heaviest on the differentiation dimension of strategy were "Market research to improve product designs", "Using new marketing methods", "Developing a recognizable brand name", and "Offering products in high price market segments". The variables with the highest factor loading on the focus dimension were "Targeting particular customer groups", "Manufacturing custom products", and "Competing in small well-defined markets". "Improving efficiency of production facilities", "Increasing productivity", and "Investing in new processing equipment" were the variables which loaded heaviest on the overall low cost producer dimension.

The third objective was accomplished through in-depth personal interviews with CEO's from three firms *a priori* classified as representing the strategy types identified in objective one. The firm classified as implementing a differentiation strategy emphasized product style and company image, and was very customer-oriented. The firm viewed its competitive strengths as its marketing ability, high quality and customer service. It distributed

its products through its own retail stores, its own catalogues, and a small portion through other manufacturers, providing the firm considerable control over customer perceptions of product and company image. The labor force was very important to this firm, since it believed that employees play an important role in product quality.

The overall low cost firm's strategy involved manufacturing generic products exhibiting mass appeal and to offer these products at the lowest cost to the customer. This strategy required the firm to operate more efficiently and productively than other firms. Special attention was given to reducing costs and designing products which emphasized efficiency and productivity. Product engineering was very important because of its contribution to manufacturing efficiency. The company's greatest competitive strength was described as the ability to offer the highest value, which was achieved through productivity, efficiency and product engineering.

The focus firm aggressively targeted a particular market segment to achieve competitive advantage. This strategy was most apparent in the target market and product line policies. The firm's position relative to other operating policies varied toward differentiation and overall low cost, as would be expected based on Porter's definition. This firm perceived its strengths to be its targeting of potential customers, marketing, quality, and ability to manufacture custom products.

The final objective of this study was accomplished by testing for differences in average performance levels (based on ROA and sales growth) across strategic groups. There were no differences between the strategic groups based on performance levels. In addition, performance differences between firms with a distinct strategic orientation and those that appeared to be "stuck-in-the-middle" (Porter 1980, p41) could not be shown.

Chapter 6 -Conclusions

This study investigated the competitive structure of the U.S. wood household furniture industry based on the dimensions of strategy defined by Porter (1980). Porter's theory was tested using three distinctly different methods. First a multivariate measure designed to capture the dimensions of strategy described by Porter (1980) was used to classify firms by strategic groups. The resulting clusters (based on strategic orientation of the firms) supported the existence of Porter's (1980) strategy types.

Also, a direct measure of Porter's strategy types was used to position firms along Porter's strategic dimensions. These results correlated highly with the results of the indirect multivariate measure. The high correlations provided evidence of validity of the indirect measure, as well as support the existence of Porter's strategic groups.

Finally, firms were selected to represent each of Porter's strategy types. The primary selection criterion of subject firms was their proximity to cluster centroids. The subject firms were investigated in-depth to determine how firms classified by Porter's typology operationalize their intended strategy. The emphasis placed on the key operating policies by the subject firms was very similar to what would be expected based on Porter's arguments. Thus, this study demonstrated through alternative means, the usefulness of Porter's model in describing the competitive structure of the U.S. wood household furniture industry.

Although Porter's model successfully described the industry based on dimensions of strategic target and strategic advantage, it failed to explain variances in performance levels.

This result is not entirely counter to Porter's theory, since Porter claims that any of the three strategy types can be used "for creating a defendable position in the long run and outperforming competitors in an industry" (Porter 1980, p. 34). He implies that any of the three strategies can be equally successful. Such was the case in this study; no difference was detected across strategic groups in sales growth or return on assets.

However, no performance differences were detected between firms with distinct strategic orientations and those without (termed as "stuck-in-the-middle" by Porter (1980, p.41)). Such results contradicts Porter's expectations that a firm implementing one of the three generic strategies should out perform a firm which is stuck-in-the-middle.

Care should be taken, however, in interpreting this study's performance results. This study evaluated performance based only on data representing one year. Porter's argument is that successful implementation of one of the three strategy types will return superior long-run performance. Before discounting Porter's theory, the limitations of this study's performance evaluations must be realized. The insignificant performance differences resulting from this study could possible be a relic of some external and uncontrollable variable (e.g., the economic situation). Further research is needed in this area.

The results presented in this paper represent data collected from manufacturers of wood household furniture. The population of interest was defined as firms with at least 60% of their total sales represented by wood household furniture. The intent of this criteria was to provide a purer look at strategies employed by wood household furniture manufacturers. However, if the population of wood household furniture had been defined differerently (for

instance, as all firms which manufactured at least one unit of wood household furniture), results may have varied. The reader should acknowledge this potential limitation when interpreting these results.

Also shown by this study was the usefulness of in-depth case analysis as a research method. Although such qualitative methods are rarely employed in forest products research, it is shown by this study that case study analysis can successfully be used as a research alternative for assessing validity and reliability and for procuring in-depth knowledge.

Appendix 1

Appendix I. Comparison of strategic variables used by Dess and Davis (1984), Bush and Sinclair (1991) and those to be used in this study.

Variables used by Dess and Davis (1984) *Variables used by Bush and Sinclair (1991)* **Variables used for this study**	Mean score (Experts) - Dess and Davis (1984) Factor loadings (Managers) - Dess and Davis (1984) Factor loadings - Bush et al (1991) (highest value bolded)		
	Different -iation	Cost Leadership	Focus
New product development	**4.71**	2.29	3.71
	0.199	0.153	**0.627**
Developing new products	**0.46**	0.160	0.400
Developing new products			
Customer service	**4.29**	1.71	4.29
	-0.266	**0.485**	0.416
Providing customer service	0.04	0.070	**0.770**
Providing better customer service than competitors			

Operating Efficiency *Efficient operation of production facilities* **Improving efficiency of production facilities**	2.57 0.294 -0.050	**5.00** **0.512** 0.350	3.00 -0.142 **0.620**
Product quality control *Product quality control* **Having the highest quality product on the market**	**4.29** 0.165 0.160	3.00 **0.803** 0.190	3.57 0.024 **0.730**
Experienced/trained personnel *Employing trained/experienced personnel* **Having well trained production personnel**	**4.57** .053 0.090	3.57 **0.588** **0.680**	3.57 -0.029 0.390
Maintain high inventory levels *Provide rapid delivery* **Not included**	2.57 **0.249** 0.040	**3.14** 0.079 **0.630**	2.57 -0.052 0.100

Competitive pricing *Competitive pricing* **Offering a lower price than competitors**	1.71 0.047 0.060	**4.86** 0.020 **0.690**	3.57 **-0.266** -0.060
Broad range of products *Not included* **Not Included**	1.14 0.029 -	2.14 0.112 -	**2.43** **0.268** -
Developing/refining existing products *Not included* **Not included**	**4.00** 0.198 –	3.86 **0.615** -	3.29 0.347 -
Brand identification *Developing brand identification* **Developing a recognizable brand name**	**5.0** **0.829** **0.710**	1.86 0.127 -0.220	4.57 0.033 0.280

Innovation in marketing techniques and methods	**4.86**	1.71	3.29
	0.860	0.203	0.073
Using new marketing techniques/methods	**0.730**	0.160	0.520
Using new marketing methods			
Control of channels of distribution	**4.14**	3.0	3.29
	0.709	0.292	0.073
Controlling channels of distribution	**0.450**	0.160	0.260
Controlling channels of distribution			
Procurement of raw materials	2.43	**4.86**	2.71
	0.503	**0.611**	-0.154
Procurement of raw materials	0.07	**0.560**	0.160
Procurement of raw materials			
Minimizing use of outside financing	2.29	**3.290**	2.430
	0.230	**0.301**	-0.117
Not included	-	-	-
Not included			

Serving special geographic markets *Serving special geographic markets* **Concentrating marketing to certain geographic markets**	2.71 0.173 **0.670**	1.57 0.106 0.160	**4.860** **0.252** -0.150
Capability to manufacture specialty products *Capability to manufacture specialty products* **Manufacturing custom products**	3.86 -0.082 **0.500**	1.14 0.161 0.110	**5.00** **0.766** 0.060
Products in high price market segments *Not included* **Offering products in high price market segments**	**4.57** 0.227 -	1.29 0.008 -	3.71 **0.691** -
Advertising *Promotion and advertising* **Promotion and advertising**	**4.71** **0.831** **0.650**	2.430 0.016 0.100	3.86 0.070 0.370

Reputation within the industry	**4.29**	2.57	3.5
	0.049	**0.786**	0.259
Reputation within the industry	0.150	0.080	**0.520**
Having a reputation for quality			
Forecasting market growth	3.290	**4.00**	2.86
	.551	0.513	0.171
Market Research	**0.750**	0.130	1.160
Market research to improve product designs			
Innovation in manufacturing process	2.570	**4.14**	3.71
	0.444	**0.616**	0.115
Investment in new processing equipment	0.300	**0.500**	0.320
Investing in new processing equipment			
Not included	-	-	-
	-	-	-
Serving particular customer groups	**0.640**	0.250	0.100
Targeting particular customer groups			

Not included	-	-	-
	-	-	-
Maintaining a company sales force	**0.450**	0.160	0.260
Not included			
Not included	-	-	-
	-	-	-
Owning timberlands and/or logging operations	**0.320**	0.220	-0.190
Owning a sawmill, plywood or particleboard plant, etc.			
Included on this study only:			
Competing in small well defined market segments			
Developing/maintaining customer loyalty			
Manufacturing products with mass appeal			
Increasing productivity			

Appendix 2 - Sample CEO Interview Script

Appendix 2 - Sample CEO Interview Script

Introduction:

The purpose of this study is to investigate competition in the U.S. wood furniture industry. I am interviewing several wood household furniture manufacturers to gain insight on this subject. Your company's input to this study will remain completely confidential. The only ones who will know of your involvement will be those at your company that I interview and myself. The results of the study will identify you as a small east coast wood household furniture manufacturer. The other participants of the study will be identified similarly. I will be asking you to provide sensitive and perhaps confidential information about your company's strategy and policies. It is important that you feel completely comfortable in that no association will be made between your company and the results of the study.

The interview will require approximately two hours of your time. Following the interview I would also like to talk with other key personnel. These discussions will require approximately fifteen to twenty minutes each.

Question 1 (to determine strategic groups - mainly to focus cognitive processing toward strategic barriers):

In the wood household furniture industry, there are numerous ways in which companies compete. However, there are a limited number of basic strategic orientations a firm may choose. Most furniture companies can be categorized based on these basic strategic orientations. In other words, there are many companies that compete using tactics similar to your company's, and there are those which use tactics very different. Firms could be classified based on these similarities and differences. Do you agree?

If you had to define such a classification system (of, lets say, three to five strategic categories), what would these categories be and what would be the similarities and differences between the categories?

For each category defined - If a company wanted to employ this strategy type, what characteristics would be needed.

Question 2 (Key policies - used to detect differences in key policies across strategy type):

This figure (Porter's wheel of competitive strategy) lists important aspects of competitive strategy. The figure implies that all of the key policies shown (which reflect a company's strategy) are linked to the company's goals. I would like to discuss each of these areas and how it relates to your company's strategy.

Describe your company's policy in each area:

Target Markets -	*What is your target market ? How broad or defined? How do you differ from firms in other strategic categories?*
Marketing -	*What is marketing to you? What role does marketing play in you company? How do you differ from firms in other strategic categories? Marketing research?*
Sales -	*What is your pricing policy?*
Distribution -	*What channels do you use? Why? How cooperative?*
Manufacturing -	*Innovative equipment?*
Labor -	*Skilled? How do you hire?*
Purchasing -	
Research and Development -	*What role does it play? Product engineering?*
Finance and Control-	*Relative capital investment? Access to capital? Cost control reports?*
Product Line-	*Breadth, how long in business, drive behind designs? Quality? Creative?*

On the above items, where do your strengths lie relative to other strategic categories? weaknesses? What are your company's other strengths and weaknesses?

Question 3 (structure and coordination):

Describe the management structure in your company? How rigid or loose is the structure?

How coordinated are the departments?

Question 4 (Detect management's emphasis - Does it reflect strategy?)

Do you have any company incentive programs? Describe?

Question 5 (Personal values of key implementers)

How would you rate your employees? Loyal? Motivated?

Personally how do you view the company, how is it important to you?

Question 6 (Industry opportunities and threats and societal concerns)

What current and future issues may alter the industry's strategies?

What are the major current and future opportunities in the industry? Threats?

Question 7 :

What is your company's strategy? How has it performed?

Appendix 3 - Questionnaire

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Center for Forest Products Marketing

Survey of Furniture Industry Leaders

Questions?
Call Craig Forbes
703-231-8179

1. **What percentage of your company's 1993 total furniture sales (based on dollar value) was in each of the following furniture categories?**

____ % Wood office furniture

____ % Wood household furniture

____ % Upholstered furniture

____ % Other _____

2. **Below is a list of strategic components used by furniture manufacturers. Please indicate the importance of each of these components to your company's competitive strategy.** (Please circle the appropriate number.)

	Not Important						Extremely Important
Developing new products	1	2	3	4	5	6	7
Providing better customer service than competitors	1	2	3	4	5	6	7
Improving the efficiency of production facilities	1	2	3	4	5	6	7
Having the highest quality products on the market	1	2	3	4	5	6	7
Having well trained production personnel	1	2	3	4	5	6	7
Offering a lower price than competitors	1	2	3	4	5	6	7
Developing a recognizable brand name	1	2	3	4	5	6	7
Using new marketing methods	1	2	3	4	5	6	7
Controlling channels of distribution	1	2	3	4	5	6	7
Procurement of raw materials	1	2	3	4	5	6	7
Concentrating marketing toward certain geographic areas	1	2	3	4	5	6	7
Investing in new processing equipment	1	2	3	4	5	6	7
Owning a sawmill, plywood or particleboard plant, etc.	1	2	3	4	5	6	7
Promotion and advertising	1	2	3	4	5	6	7
Manufacturing custom products	1	2	3	4	5	6	7
Market research to improve product designs	1	2	3	4	5	6	7
Targeting particular customer groups	1	2	3	4	5	6	7
Having a reputation for quality	1	2	3	4	5	6	7
Offering products in high price market segments	1	2	3	4	5	6	7
Competing in small, well defined market segments	1	2	3	4	5	6	7
Developing/maintaining customer loyalty	1	2	3	4	5	6	7
Manufacturing products with mass appeal	1	2	3	4	5	6	7
Increasing productivity	1	2	3	4	5	6	7

3. **Below is the list of strategic components from the previous question. Please indicate how important you think each of these components will be to you company's competitive strategy FIVE YEARS FROM NOW.**

	Not Important						Extremely Important
Developing new products	1	2	3	4	5	6	7
Providing better customer service than competitors	1	2	3	4	5	6	7
Improving the efficiency of production facilities	1	2	3	4	5	6	7
Having the highest quality products on the market	1	2	3	4	5	6	7
Having well trained production personnel	1	2	3	4	5	6	7
Offering a lower price than competitors	1	2	3	4	5	6	7
Developing a recognizable brand name	1	2	3	4	5	6	7
Using new marketing methods	1	2	3	4	5	6	7
Controlling channels of distribution	1	2	3	4	5	6	7
Procurement of raw materials	1	2	3	4	5	6	7
Concentrating marketing toward certain geographic areas	1	2	3	4	5	6	7
Investing in new processing equipment	1	2	3	4	5	6	7
Owning a sawmill, plywood or particleboard plant, etc.	1	2	3	4	5	6	7
Promotion and advertising	1	2	3	4	5	6	7
Manufacturing custom products	1	2	3	4	5	6	7
Market research to improve product designs	1	2	3	4	5	6	7
Targeting particular customer groups	1	2	3	4	5	6	7
Having a reputation for quality	1	2	3	4	5	6	7
Offering products in high price market segments	1	2	3	4	5	6	7
Competing in small, well defined market segments	1	2	3	4	5	6	7
Developing/maintaining customer loyalty	1	2	3	4	5	6	7
Manufacturing products with mass appeal	1	2	3	4	5	6	7
Increasing productivity	1	2	3	4	5	6	7

4. **What was the value of your company's 1993 wood household furniture shipments?**

$_____

5. **What percentage of your company's 1993 wood household furniture sales ($) were from exports?**

_____%

6. **What percentage of your company's 1993 wood household furniture shipments ($) were sold through each of the following distribution channels?**

_____% Non-store retailing (mail order, electronic retailing, etc.)

_____% Designer/decorator showrooms

_____% Home centers, electronic stores, wholesale clubs, etc.

_____% Discount chains, department stores, and mass merchants

_____% Manufacturer dedicated freestanding stores

_____% National furniture chains

_____% Local and small regional full line furniture stores

_____% Rental furniture stores

_____% Mobile and modular home manufacturers

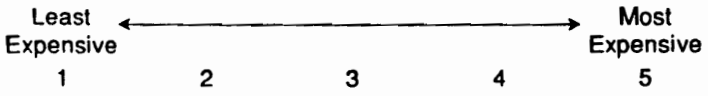
_____% Sold to other furniture manufacturers

_____% _____

_____% _____

_____% _____

7. **Overall, how does the targeted retail price of your company's wood household furniture compare to the market?**



8. **Was your company's competitive strategy oriented more toward sales growth or profits in 1993?** (Please check one).

☐ Sales growth ☐ Profit

9. **How many people are employed by your company's wood household furniture division?**

Factory employees _____ Office employees _____

10. **What percentage of your company's 1993 wood household furniture shipments ($) were in each of the following furniture product segments?**

_____% Bedroom

_____% Dining room

_____% Occasional tables

_____% Curio cabinets

_____% Home office

_____% Entertainment centers

_____% Other _____

11. **What percentage of your company's 1993 wood household furniture shipments ($) were consumer assembled RTA furniture ?** _____%

12. **What percentage of your company's 1993 wood household furniture shipments ($) were from new products (shipped for the first time in 1993)?** _____%

13. **In 1993, how many items (stock-keeping units) did your company offer?** _____

14. **What was the 1993 return on assets (ROA) for the wood household furniture division of your company?**

ROA = net income / total assets = _____

15. **How did your company's wood household furniture shipments ($) change from 1992 to 1993?** (Please cirlce whether the change was an increase (+) or a decrease (-)).

+
-
_____%

16. **Please describe two characteristics of your company which give it a competitive advantage over other companies:**

1. _____
_____
_____
_____
_____

2. _____
_____
_____
_____
_____

17. **Below are descriptions of three textbook strategy types. Please read the descriptions and indicate on the corresponding scale how well each strategy type describes your company's overall competitive strategy.**

Differentiation -

The firm seeks to differentiate the product and service offered, creating something that is perceived industry-wide as being superior. Differentiation may take many forms, such as customer service, brand image, strong captive distribution system, and/or a reputation for being on the forefront in new product development.

Not at all						Perfectly
1	2	3	4	5	6	7

Overall Cost Leadership -

The firm seeks to achieve overall low cost through aggressive construction of efficient scale facilities, adoption of new technologies, and cost minimization.

Not at all						Perfectly
1	2	3	4	5	6	7

Focus -

The firm focuses on a particular type of buyer, market group, or segment of the market. The firm seeks to serve a particular target market better than its competitors.

Not at all						Perfectly
1	2	3	4	5	6	7

Vita

Craig Lloyd Forbes, son of Samuel and Gwendolyn Forbes, was born in Norfolk, Virginia on November 18, 1963. In December 1987, Mr. Forbes received a Bachelor of Science degree in Wood Science and Technology from North Carolina State University. With some previous experience in the lumber manufacturing before completion of the Bachelor of Science degree (J.W. Jones Lumber Co, Inc., Elizabeth City, N.C.), Mr. Forbes continued his career by accepting a position in lumber sales (Jerry G. Williams and Sons, Inc., Smithfield, N.C.). Eventually, Mr. Forbes achieved a position as softwood sales manager at this company. In August 1990, Mr. Forbes accepted a position as graduate research assistance at Virginia Polytechnic Institute and State University, and pursued a Master of Science degree in Forest Products under the aid of this assistantship. Mr. Forbes completed his Masters of Science Degree in April of 1992. Mr. Forbes then was awarded a U.S.D.A. competitive grants fellowship which allowed him to pursue a Doctor of Philosophy degree also in Forest Products. His Ph.D was completed in March 1995.