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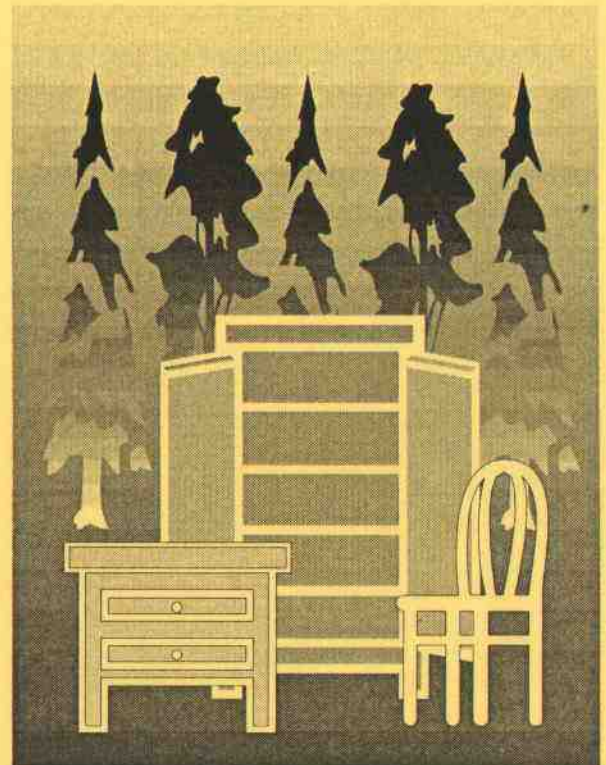
Northeastern Area

State and Private
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How to Write **Business Plans** for **Forest Products** **Companies**

Ed Pepke



How to Write
BUSINESS PLANS FOR FOREST PRODUCTS COMPANIES

By
Ed Pepke
formerly Marketing Specialist
Northeastern Area, State and Private Forestry
USDA Forest Service
1992 Folwell Avenue
St. Paul, Minnesota 55108

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INTRODUCTION FOR THIS PUBLICATION

A business plan is an essential tool in starting and managing a new or expanding venture. It is not only a comprehensive gathering of ideas and information on the potential business and its feasibility, but it is also a way of monitoring that business, once established. Business plans are important sources of information for the organizers of a company as well as for those people whom the company is trying to influence, such as bankers, investors, potential partners, business advisors and consultants, and Government personnel. A five-year period is the customary time needed to use this tool effectively.

In this publication, I explain how to write business plans for forest products industries. Many concepts will apply to other fields, but examples and sources of assistance and information will deal with the forest products field. I use as examples a fictitious company, RTA, Inc., and a business plan for that company, "Ready-to-Assemble Furniture Manufacturing: A Business Plan for the Northeastern Area" (Pepke 1988). Additional sources of information included "Writing a Business Plan in No Easy Steps: A Basic How-to Manual" by William J.F. Duggan III (1985) and "A Guide to Starting a Business in Minnesota" by the Minnesota Small Business Association" (1987). Other resources are listed in "Additional Sources of Information for Preparing Your Business Plan," later in this paper.

ESSENTIAL COMPONENTS OF A BUSINESS PLAN

Any complete business plan must contain several critical components. For example, see below the table of contents of RTA, Inc.'s business plan. You should include each of the topics listed below by adapting them to your particular product(s) or service(s). If you read the RTA Business Plan (Pepke 1988), you will find some of the topics are well-developed, and other topics that have less bearing on the particular product are included, but undeveloped.

EXECUTIVE SUMMARY

INTRODUCTION

- A. Purpose of the Business
- B. Industry Overview
- C. Financial Summary

PART 1: INDUSTRY DESCRIPTION

- A. History
- B. Trends and Projected Growth
- C. Key Success Factors
- D. RTA, Inc.'s Fit in the Industry

PART 2: PRODUCT, SERVICE, PROCESS

- A. Product Description
- B. Service Description
- C. Process Description

PART 3: MARKETING PLAN

- A. Market Size and Trends
- B. Competitor Analysis
- C. Target Market and Positioning Strategy
- D. Marketing Mix Strategy
 - 1. Product Strategy
 - 2. Price Strategy
 - 3. Promotion Strategy
 - 4. Distribution Strategy
 - 5. Sales Strategy

PART 4: BUSINESS ORGANIZATION

- A. Organizational Form
- B. Management Team and Staff
- C. Ownership

PART 5: OPERATING PLAN

- A. Location
- B. Labor Force and Labor Costs
- C. Materials Procurement
- D. Production Schedule
- E. Long-Range Plans

PART 6: FINANCIAL PLAN

- A. Capital Requirements
- B. Financing Plan
- C. Beginning Balance Sheet
- D. Statement of Projected Operations and Cash Flows
- E. Investment Criteria

PART 7: RISKS AND WEAKNESSES

Depending on your business, you may wish to include additional sections, where appropriate, such as:

Proprietary Features
Subcontracting Arrangements
Business Advisors.

For other pertinent material, you may choose to add an appendix. It might include, for example:

Resumes of Key People
Supporting Financial Data
Supporting Market Data

EXECUTIVE SUMMARY

The executive summary is a concise overview of your business plan. It will be the first part to be read—and the last if it does not entice the reader! You should include:

- Company name and location
- Description of the contents of the plan
- Purpose(s) of the business plan
- Product or service description
- Financial projections
- Finance amount sought
- Payback period
- Market description
- Market growth potential
- Sales strategy
- Industry description
- Goals of business
- Expertise of the management team
- Positive impacts on the host community

Although the executive summary will appear first in your plan—right after the title page and table of contents—write it last. All the information in the executive summary appears in detail within the body of your business plan.

EXAMPLE OF AN EXECUTIVE SUMMARY FROM "READY-TO-ASSEMBLE FURNITURE MANUFACTURING: A BUSINESS PLAN FOR THE NORTHEASTERN AREA"

Ready-to-assemble (RTA) furniture is the fastest growing segment of the world's furniture market. RTA furniture is shipped unassembled to eliminate assembly costs, to facilitate transporting, and to reduce shipping costs—the savings and the assembly are passed to the consumer. The unassembled furniture is packaged in boxes to minimize freight damage. Previously known as knock-down (KD) furniture, RTA furniture has become the consumer friendly furniture of the 1980s because of material, hardware, and design innovations. Industry estimates the 1987 U.S. retail market for RTA furniture was \$2 billion retail, and *Wood & Wood Products* predicts that figure will double by 1990.

RTA furniture typically is constructed from particle-board coated with colored melamine or wood veneers. Entertainment centers, electronic and computer furniture, and storage units are the most popular pieces of furniture purchased. At one end of the market is the intensely competitive low-priced RTA furniture with its good sales record, and at the other end is high-priced RTA furniture with its limited affordability and smaller, more exclusive market. This business plan segregates a market niche for medium-quality, moderately priced RTA furniture. While the plan is based on production of a single item of furniture, a simple bookcase, it is assumed that a manufacturer, such as the hypothetical RTA, Inc., of this report, would expand into compatible pieces of furniture. The flexibility of RTA furniture enables a simple bookcase to be transformed into a chest of drawers, a closed cabinet, an entertainment center, or a desk by adding the appropriate drawers, doors, shelves, and hardware.

The costs in the "Statement of Projected Operations and Cash Flows for the First 12 Months" are the quoted prices for plant, machinery, equipment, raw material, and supplies. The plan reflects a conservative approach: when estimates varied, the higher costs were used. The plan is *pro forma*; interested investors should regard it as a starting point and adapt these ideas and adjust the costs for their individual uses.

The values in the financial statements for the first 5 years of operation were obtained through the EVALUE computer program. EVALUE is a micro-computer program for determining the financial feasibility of a forest products industry investment, which was developed at the USDA Forest Service's Forest Products Laboratory in Madison, Wisconsin. Based on projected incomes and expenses, the program makes the financial analysis in light of the applicable tax laws and yields the decision criteria such as present net worth, payback period, and internal rate of return. Using relatively conservative input values, EVALUE predicted an internal rate of return of 33.7 percent and a payback period of 3.2 years for the hypothetical company.

INTRODUCTION OF YOUR BUSINESS PLAN

The introduction of a business plan lets readers know what to expect. It should cover:

- A. Purpose of the Business
 - General description of the company
 - General description of the product or service
 - Goal(s) of the company
- B. Industry Overview
 - Broad description of your industry
 - General market description
 - Competition
- C. Financial Summary
 - Cash requirements and their use
 - Method(s) of financing
 - Financial goals

EXAMPLE OF AN INTRODUCTION FROM RTA, INC.'S BUSINESS PLAN

RTA furniture is the fastest growing segment of the world's furniture market. RTA furniture has evolved from lower quality knock-down (KD) or quick-assembly furniture to what is known as consumer friendly furniture of the 1980s. Today, through material and technological innovations, RTA furniture manufacturers have improved their products while restricting prices to a fraction of those charged by the manufacturer of fully assembled furniture. RTA furniture is shipped unassembled to minimize shipping costs and total furniture costs; the savings and the assembly are passed on to the consumer. Shipping losses are less with RTA furniture because the flat, packaged furniture is much less vulnerable to damage.

A. Purpose of the Business

This business plan supposes an RTA furniture manufacturer who wants to produce a line of medium-quality furniture that would be marketed through mass merchandisers, specialty RTA furniture stores, and home building centers (large building supply stores that sell some furniture to the do-it-yourself (DIY) market). In the initial production stages, RTA, Inc., purchases veneered panels, machines these panels to designed dimensions, finishes, and packages and ships the unassembled units. Business expansion

could take a variety of routes, depending on the management and market. A northeastern U.S. firm competes primarily with imported RTA furniture from the Pacific Rim countries and Europe. This domestic firm will have the advantage of being closer to growing major markets.

B. Industry Overview

In the United States, retail sales of RTA furniture are estimated to be \$2 billion per year and are increasing. Most furniture imported into the United States is RTA, and most RTA furniture manufacturers are outside the United States. The domestic U.S. RTA furniture manufacturing industry has a few quality manufacturers trying to keep up with the demand for RTA furniture. Forty percent of Great Britain's total 1985 furniture sales was in RTA, while only 3 to 5 percent of the comparable U.S. market was in RTA. The U.S. RTA furniture market has been growing in excess of 5 percent annually since 1977. In the November 1987 *Wood & Wood Products*, the authors estimated a doubling of the U.S. retail RTA furniture market by 1990.

C. Financial Summary

This plan for RTA, Inc.'s furniture plant requires an investment of \$1.5 million to establish a small manufacturing operation. The initial investment easily could be scaled up to meet the larger production plans of some investors. In addition to some funding from the investors, the industrial development incentives from local, state, and federal governments could be substantial in terms of land, buildings, and capital.

PART 1. INDUSTRY DESCRIPTION

This section presents a detailed description of your industry. As you prepare it, remember your audience and realize that your proposed financiers may not understand anything about your industry and how your company fits within it.

- A. History
 - Describe the background of your industry
 - Describe the current industry: size, make-up
 - Report the history of your company:

name, date and place of formation, legal structure

- Discuss subsidiaries and degree of ownership

B. Trends and Projected Growth

- Describe important industry trends
- Describe industry growth (I hope you're entering a growth market!)
- Consider current industry-wide research and development (R&D) efforts

C. Key Success Factors

- Differentiate your company from the rest of the industry
- Describe unique features of your product or service
- Discuss competitive advantages and whether you expect them to continue
- Describe proprietary features: patents, exclusive rights, licenses, copyrights
- Describe any R&D plans

D. Your Company's Market Niche

- Explain how your company fits into the industry
- Show how your company differentiates itself
- Describe your market niche

EXAMPLE OF INDUSTRY DESCRIPTION FROM RTA, INC.'S BUSINESS PLAN

A. History

Originally RTA furniture was known as KD for knock-down and unfortunately the products came apart almost as easily as they were put together. Substantial improvements in construction methods and hardware have heightened product quality to its present consumer friendly status of the 1980s. While RTA furniture has a long history in Europe, the early introductions into the U.S. market were poorly constructed compared to today's products. The original products were vinyl-wrapped particleboard television stands and bookcases which sold for under \$40. The products were purchased as short-term, disposable furniture, but the value was still good for the price paid. The industry realized that long-term survival would entail increasing quality, design, and function. Improvements have enabled composite board to be printed with wood grains or colored with

coatings of paint or melamine. Construction methods, hardware, and fasteners have improved dramatically in the last decade.

RTA furniture (also called flat-pack or carry-home furniture or furniture-in-a-box) is made of solid wood, wood veneers, laminated wood cores, particleboard, medium density fiberboard (mdf), low-pressure paper laminates, high-pressure laminates, melamine, vinyl wrap, or metal. Products include wall systems, bedroom furniture, living room furniture, cabinetry, and other household and office furniture. Current technology requires use of the 32 millimeter (mm) system, which uses construction and hardware on 32mm spacing. The two benefits of the 32mm system design standardization are (1) a reduction in boring machine set-up time and (2) the versatility of the basic cabinet box that can be altered by using interchangeable parts. Since assembly is not required and the machinery is automated, RTA furniture is produced with less labor than conventional furniture. The initial investment in equipment is recovered through reduced production and labor costs. Packaging the product in boxes is the most labor intensive step.

The primary distribution paths for RTA furniture are the mass merchandisers such as K-Mart, Sears, J. C. Penney, and Montgomery Wards and discount stores like Target, Caldor, and Gemco. Well-known retail chains, who often carry two or more lines of RTA furniture to segregate themselves from the mass merchandisers, are Storehouse, Workbench, Room & Board, and Conrans. Other RTA furniture outlets are contemporary specialty chains, including small lifestyle shops and Scandinavian stores importing RTA products direct from Europe. One of the newest markets for RTA furniture is home improvement stores; these stores often carry RTA wall units and cabinets, bathroom vanities, and kitchen cabinets.

B. Trends and Projected Growth

Retail sales in the United States are estimated at \$2 billion per year and are increasing. According to the Ready-to-Assemble Furniture Association, 3 to 5 percent of all furniture sales are consumer assembled. Forty percent of Great Britain's furniture sales are in RTA—there exists tremendous potential for the U.S. market. U.S. retail furniture sales for 1987 were about \$19.2 billion, which is about 5.3 percent greater than 1986; imported furniture, most of which is RTA, represented 18 percent of this total in 1987. Glen Goodwin, a Partner in Seidman &

Seidman, the major accounting firm for the furniture industry, predicted no increase in sales in 1988 for the domestic furniture manufacturing industry and a 14 percent increase (down from 1987's increase) in imported furniture sales in 1988. Additional information on market trends appears in Part 3, Section A, "Market Size and Trends".

An article in the May 1986 *Wood & Wood Products* states that the DIY market is now the fastest growing segment in the retail economy. For 1986 an 8.6 percent growth rate is projected for DIY versus a 6.6 percent growth rate for overall retailing. Kitchen and bath remodeling are the largest and most profitable projects in the home improvement industry, with a conservative estimate of \$15 billion in annual sales. Francis Jones, Executive Director of the National Kitchen & Bath Association, (NKBA) states in the February 1988 *Wood & Wood Products*, "The interest deduction for home equity loans, increasing income, decreasing unemployment, the continued aging of 100 million housing units and the decrease of new housing units are all positive reasons for increased kitchen and bath sales." NKBA sees an 11 percent increase in kitchen remodeling and a 14 percent increase in bath remodeling in 1988. The National Kitchen Cabinet Association, in the March 1988 *Wood & Wood Products*, predicted 43.1 million cabinets for kitchens and baths would be sold in 1988 (a modest 0.7 percent increase over 1987). Housing starts, 1.6 million units in 1987, are estimated by the National Forest Products Association to be 1.5 million units in 1988. *Wood & Wood Products* feels that the European influence, in terms of design and manufacture, will result in many of these cabinets being manufactured under the 32mm system and in RTA form.

C. Key Success Factors

The strong current market for RTA furniture, resulting from the low interest rates that spur consumer spending, home building, and new household formations, has increased imports of RTA furniture to the United States; also contributing to increased imports is the currently devalued U.S. dollar. Much imported RTA furniture is relatively low quality, while the remainder of the imports and the small domestic production are higher quality with an accordingly higher price. The market is open for a medium-quality product that appeals to the quality- and value-conscious buyer who does not find the highest priced RTA furniture affordable. Production of a medium-

quality product allows RTA, Inc., to expand either up to a high-end product or down to a low-end product, depending on future market conditions.

New machinery tooled exclusively for the 32mm method of construction is available. The advantage of the 32mm system is the standardization of spacing which enables easier set-ups and quicker assembly. Hardware developed for the 32mm system has advanced sufficiently so that fasteners, hinges, handles, drawer glides, and other pieces of hardware match the 32mm spacing. Versatility is imperative in manufacturing RTA furniture, and the 32mm system machinery provides the ultimate flexibility.

D. RTA, Inc.'s Fit in the Industry

Furniture buyers at Room & Board and International Design Center in Minneapolis and St. Paul, Minnesota, agreed that there are two segments in the retail RTA furniture market. The low-price market (or KD lifestyle) is shopping for price only; the anticipated usage is for 2 to 3 years and often for children. The high-quality market is shopping for quality, durability, function, and appearance. More wood is visible for the high-quality market. Price is less important, and frequently the customer has the store assemble and deliver the furniture.

Del Olson, owner and RTA furniture buyer for International Design Center, feels that he must carry at least two models of every piece of furniture in order to sell anything. Olson says, "I can't sell a black table unless the customer has two black tables to choose from." Similarly, he carries one line of low-price RTA furniture for comparison with his lines of higher quality RTA furniture. At International Design Center, the hang tags read "Furniture-in-a-Carton." The customer can take the furniture home in a box or pay for assembly and delivery. Room & Board will not sell their high-quality Techline, manufactured by Marshall Erdman near Madison, Wisconsin, unassembled—they like to keep control by in-house assembly and gain the additional revenue. However, Room & Board does sell their lower line Star, which is from Europe, assembled or unassembled. Discount merchandisers and department stores commonly sell all RTA furniture unassembled. Many furniture manufacturers from the Pacific Rim countries ship their furniture to captive assembly plants in the United States. Most imported furniture is shipped unassembled to some degree.

If a firm contemplating following this business plan has previous experience in the high-end RTA furniture market, it should expand in that direction. Competition in the low-priced RTA furniture market is very tough, and any firm would always compete with the high-production manufacturers that export to the United States.

The fledgling firm that has little or no experience in the RTA furniture market should produce a medium-quality product priced to fall between the two extremes. This product would appeal to specialty stores' buyers who are trying to find a product above low-end, cheap RTA furniture and below top-end, expensive RTA furniture.

PART 2. PRODUCT, SERVICE, PROCESS

This section presents details on your product, the service you will provide along with the product, and the process used to produce your product. If your company produces a "service" such as an industry or forestry consultant might, then orient your business plan accordingly. Keep these descriptions concise, and put any details in the appendix. If appropriate, include pictures of your product and well-drawn graphics—this is especially important if your business plan will be used internationally.

A. Product Description

- Include a general description of the product
- Describe important attributes of your product
- Report intended quality level
- Describe anticipated performance and use
- Describe important technologies
- Describe technical status of your product: prototype, developmental, established product
- If the company produces more than one product or service, explain their relative importance
- Describe regulatory or approval requirements and their current status
- Discuss technical and legal considerations that influence development

B. Service Description

- Describe technical service for your product
- Describe marketing service

- Describe replacement and repair services
- Explain field support policies

C. Process Description

- Explain the production process
- Describe important machinery and equipment
- Explain correlation between expected production and equipment size
- Use a flow diagram if helpful

EXAMPLE OF PRODUCT, SERVICE, PROCESS SECTION FROM RTA INC.'S BUSINESS PLAN

A. Product Description

RTA furniture typically is constructed from particle-board with colored melamine or wood veneer surfaces. Often the products produced have square corners, as the most popular products are casegoods. The furniture is shipped unassembled in a box and the final assembly is performed by the retail store or customer.

As previously described, the RTA furniture produced by RTA, Inc., is of medium quality, below top-of-the-line RTA furniture (with its associated top-of-the-line prices) and above lower quality, cheap RTA furniture. In contrast with low-priced RTA furniture, the medium-quality product has thicker board, heavier hardware, and better machining, finishing, and edgebanding. Drawer and door hardware has evolved due to the 32mm standardization and the hidden camlock system of assembly (a quarter turn of the cam locks pieces together which eliminates turning screws). The firm should produce a line of furniture with components to fit the bedroom, living room, kitchen, and office. The product in greatest demand is the wall system of storage shelves, which adapts to any area of the home or office. Shelf storage units can be fitted with a variety of accessories: solid or glass doors to produce cupboards, drawers and fold-down tops to make desks, and drawers to make chests. RTA, Inc., designs products with as much versatility as the machinery, materials, and hardware permits and with as much variety as the market demands.

B. Service Description

The RTA furniture manufacturer ships the product unassembled, in a box to mass merchandisers,

specialty stores, and home improvement centers. The manufacturer provides detailed instructions for assembly to the final customer as well as the store. The manufacturer also provides some sales support to store managers by educating them about the manufacturing process, construction materials, assembly, and product quality. The manufacturer publishes a catalog showing the various furniture pieces with illustrations depicting the versatility of usage. The catalog with other promotional materials helps market the products through the retailers. The manufacturer and retailers must agree about some type of repair or replacement service for parts damaged in shipment or use.

C. Process Description

This process is for a new company establishing the minimal capital system to produce medium-quality RTA furniture (fig.1). The plan could be scaled up considerably for firms wishing to process more than the 100 sheets of particleboard per shift that is described here.

Several equipment manufacturers were solicited for general quotes on their machinery; because SLI Machinery Corporation of Grand Rapids, Michigan, was the only company to respond, its machinery and costs will be used. This use does not constitute endorsement of any particular equipment, and users of this report are encouraged to solicit bids from a number of manufacturers of 32mm equipment.

The first piece of machinery that comes to mind when thinking about RTA furniture manufacturing is the panel saw. This machine is a sophisticated table saw used to accurately size cuttings from large sheets of panel products, in our case veneered 4-foot by 8-foot particleboard. A new operation needs a versatile machine capable of panel sizing, tenoning, and dadoing. SLI's TS 100 has the required flexibility and capabilities and has an additional scoring saw preceding the main saw.

While not used during the first step in RTA furniture manufacturing, the boring machine is the heart of the 32mm system. SLI's Biesse Forecon 51 is a compact

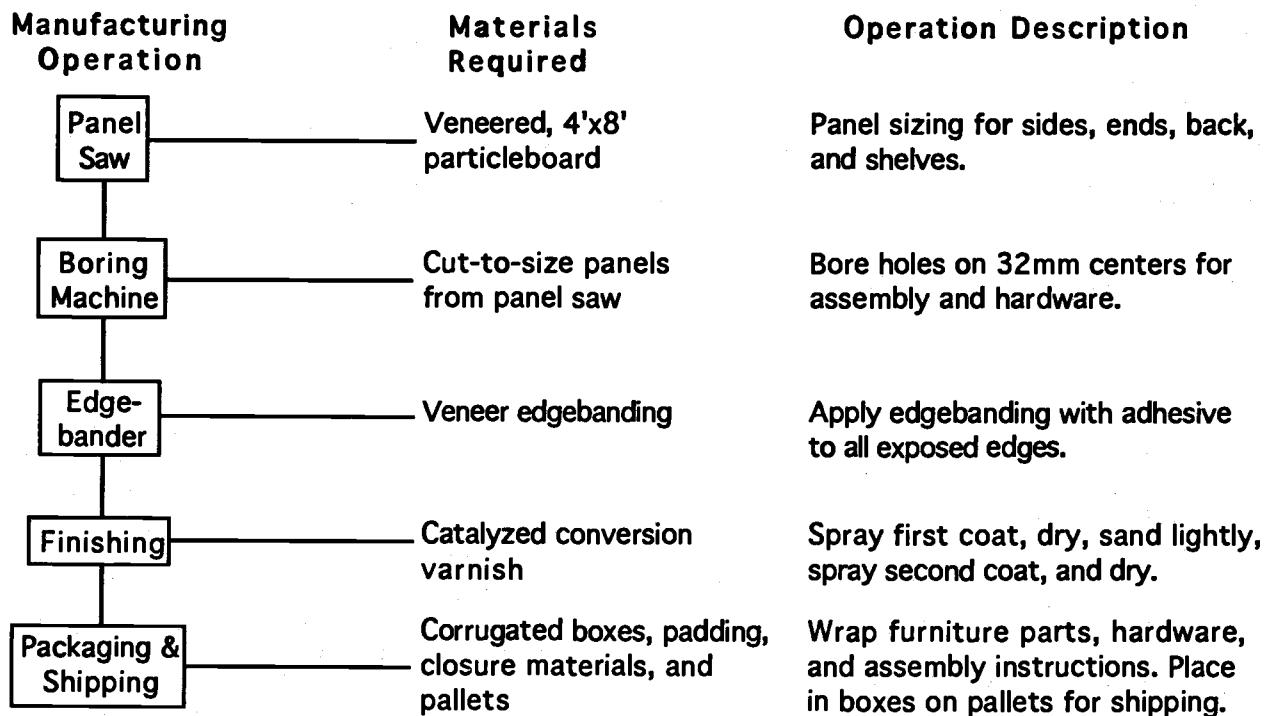


Figure 1.—Process chart for RTA furniture.

multi-spindle boring machine that performs both horizontal and vertical boring without changing position of the boring heads. The horizontal unit has 21 spindles, and the swiveling vertical units have 15, 18, or 21 quick-disconnect boring heads. This small, versatile unit could be used eventually for off-line boring if the company expands and acquires larger equipment for on-line production.

The edges of composite board products require edgebanding of wood veneer, Formica, PVC (plastic), or wood edgings up to three-fourths of an inch in thickness. SLI's Nova 2 is a single-sided edgebander with a hot melt glue pot, an end cutting unit, and top and bottom trimming heads. The trimming head angles are adjustable to 35 degrees if beveling is desired.

Finishing the cut-to-size, bored, and edgebanded panels necessitates a cost-effective finish system. For RTA, Inc., a relatively low-cost plant, compatible finish equipment includes an airless sprayer with a compressor and a pot for the finish. An airless sprayer operates at 5 cubic feet per minute which is one-half to two-thirds less air pressure than conventional air guns; the advantages are finish material savings from reduced overspray, thicker films that reduce the number of coats required, energy savings, and less filter maintenance of the booth. A spray booth with an explosion-proof fan motor and a filtered air exchange system should meet most fire codes. The flat panels can be sprayed on racks, which also facilitates air drying. The finish itself is a catalyzed conversion varnish that provides a very adequate finish in two coats (with an intermediate step involving sanding). To eliminate any final rubbing or polishing, the finish itself can provide the desired final sheen.

The finishing system described above is relatively labor-intensive compared to automated systems for flat-line finishing that are available now. With an increase in production volume, a more automated system might be cost justified in the future. Automated systems involve automatic spray, roll, or curtain coating, force dry facilities, buffers or sanders, and conveyors. New finishing technology such as electrostatic spraying should be investigated if production is being significantly upscaled from this plan.

Since no assembly is required, the fully finished parts are packaged in corrugated cardboard boxes and

shipped on pallets. If furniture is ever sold assembled or partially assembled, the manufacturer needs a doweling machine and case clamps.

PART 3. MARKETING PLAN

For an existing company, this section could be the most important in the business plan. For new companies, beware that incomplete market analyses have failed to disclose that a viable, substantial market would not support their operation. Realize that this publication was written from a marketing perspective and that you must perform sufficient market research. Anyone can produce a product, but it requires a successful, comprehensive marketing effort to ensure the company's success. Relevant market information is generally the most difficult to find (and often lacking in business plans for new, small companies), but market research findings are often the most important part of a start-up business plan. Financiers and potential associates will want to make sure you have a viable market before they spend any time or money on your company. Use graphics to help show trends—this is especially important if your business plan will be used internationally.

A. Market Size and Trends

- Show total market size
- Describe your local and regional market
- Show your anticipated market share
- Show industry growth rates—short and long term
- Describe important market trends
- Describe your firm's growth into national markets, and if appropriate, international markets
- Explain sources of your information
- Describe influence on your business of major economic, social, political, technological, and regulatory trends

B. Competitor Analysis

- Describe direct competitors making the same product(s)
- Describe current and future foreign competition
- Include statistics on competitors' products, production, number of salaried and hourly employees, annual sales, etc.
- Describe market shares of established competitors

- Show, perhaps with a map, the location of competitors
 - If known, describe any competitors' recently completed expansions or their plans for expansion
- C. Target Market and Positioning Strategy
- Describe your final market; *i.e.*, the consumers
 - Describe your direct market; *i.e.*, wholesalers, retailers, etc.
 - Show names, locations, sales volumes, and current products sold to present customers
 - Describe how your company will position itself to expand to new customers and increase sales to present customers
 - Explain how your company distinguishes itself from the competitors' companies discussed above
 - Describe any contracts, licensing, and franchising opportunities
 - Identify your specific target market
 - Profile typical customers' buying habits, requirements, reactions to prototype products
- D. Marketing Mix Strategy
1. Product Strategy
 - Concisely describe your product
 - Describe how it differs from competitors' product(s)
 2. Price Strategy
 - Show how you will price your product(s)
 - Compare your prices to competitors' prices
 - Show typical mark-ups within your industry
 - Show correlation between price and demand for your product. Does demand reflect influences other than price?
 - What is your pricing policy?
 - Describe any payment discount strategies
 3. Promotion Strategy
 - Describe advertising plans
 - Describe direct sales calls planned
 - Describe expositions planned
 - Describe your in-plant showroom
 4. Distribution Strategy
 - Describe additional contacts with buyers and final customers
 - Describe sales channels
 - Describe sales force
 - Show the priorities of your promotions
 5. Sales Strategy
 - What is your sales force?
 - Describe function of your sales force
 - How will your sales strategies evolve?
 - How do you identify new customers?
 - Describe terms of sales
 - Describe anticipated time from sale to delivery
 - Describe typical or anticipated order size

EXAMPLE OF MARKETING PLAN FROM RTA INC.'S BUSINESS PLAN

A. Market Size and Trends

RTA furniture is the fastest growing segment of the world's furniture market. Retail U.S. sales volume is increasing from \$2 billion per year. Only 3 to 5 percent of U.S. furniture is consumer assembled, while 40 percent of Great Britain's furniture sales are in RTA furniture. The 1987 sales of all furniture totaled \$19.2 billion on the retail level; no increase in domestic manufacturers' sales is predicted for 1988 while a 14 percent increase is projected for 1988 for imported furniture retail sales. A study by the Minnesota Department of Trade and Economic Development cites over 5 percent growth annually in the RTA furniture market since 1977. The State of Minnesota study projects an annual growth rate of 4 percent or more to the year 2000. "If we were to have a year where we only had a 25 percent growth in sales, I'd tell you we were having a bad year," stated Tim Wilson, Vice President of Affordable, one of the faster-growing RTA furniture manufacturers interviewed by *Furniture/Today Newspaper*. Wilson said sales growth from 1985 to 1986 ranged from 20 to 70

percent for RTA furniture companies. Positive factors leading to growth are low current market saturation, highly competitive pricing, innovative production technology, and maturing distribution channels. The dominant industry trend is towards improved design and increased quality. *Wood & Wood Products* magazine in November 1987 predicted a doubling of the \$2 billion retail sales by 1990 (fig. 2).

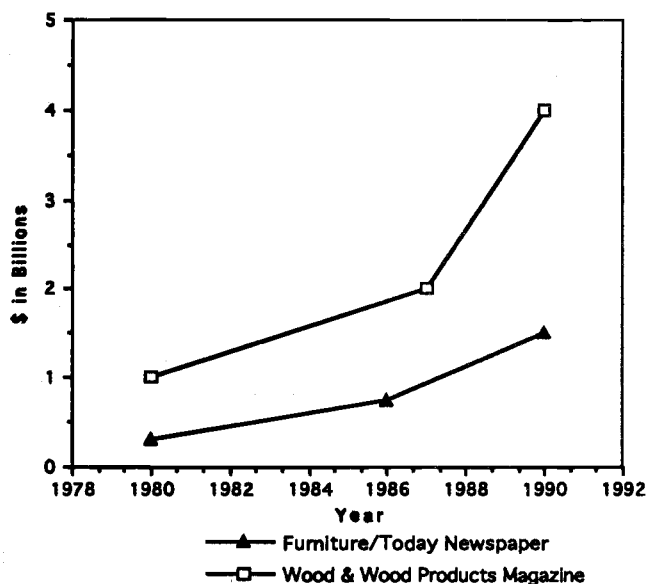


Figure 2.—U.S. RTA industry sales volume estimates.

The flexibility of design in RTA furniture could lead RTA, Inc., to expand into the kitchen cabinet market. The State of Minnesota study also found that 4 to 6 percent of kitchen cabinet sales in the United States are in RTA (this is a low share of the market, compared with Europe where up to 65 percent of cabinets are RTA and the United Kingdom where up to 75 percent are RTA). The 1986 U.S. retail market was \$4.5 billion for 40.1 million cabinets in 5.6 million new or remodeled kitchens; a stable annual growth of 1 to 3 percent has been documented. Increased sales of RTA kitchen cabinets have been to DIY customers at home improvement center stores, which account for three-fourths of the total of hardware and remodeling merchandise in the United States. The new "frameless" or "European" design lends itself well to RTA and 32mm construction techniques.

The current trend is to incorporate more wood, solid and veneer, into the RTA products. Manufacturers must balance price and quality. Where a product

would not sell for over \$50 ten years ago, the break point is now \$250 according to *Furniture/Today Newspaper*. The industry hopes for a \$800 break point in 1990.

Paul Bush, President of Bush Industries, the fourth largest U.S. RTA furniture manufacturer as quoted in *Furniture/Today* says, "What we're making now is far better in style. It assembles better and is a better quality and better appearing type of product. There was at one time a lot of junk out there and that's what the industry has to overcome. Frankly, anybody who can upgrade and sell a higher-priced product is an asset to the industry because there's a real consumer need out there."

"We welcome innovative product, and hopefully ours as well as anybody else's will help the total industry," Bush said. "What we don't like to see is people out there that sell the stuff that isn't innovative. Those people are going to get weeded out and the consumer is not going to accept it."

RTA kitchen cabinets share all the advantages of other RTA furniture, such as reduced transportation costs, less shipping damage, less inventory space—and they cost roughly half the price of conventional cabinets. The Minnesota study states that the growing midwest market, now at \$40 to \$45 million for RTA kitchen cabinets, "could easily double within the next several years, however, as awareness and acceptance of RTA increases." While the study identified several RTA cabinet manufacturers, it could not find a major midwest-based producer.

B. Competitor Analysis

The main competition for a new U.S. manufacturer is imported RTA furniture from the Pacific Rim and Europe and some established U.S. manufacturers. Most design trends and improvements in construction come from Europe. Much imported RTA furniture, sold through discount store chains, mass merchandisers, and stores like IKEA, is the lowest quality and the lowest priced. Swedish-based IKEA, for example, invests in plants in countries of the world where the least-cost labor and resources are available; some plants are in the U.S.S.R. where IKEA is being paid back in product which they sell in their European and three U.S. stores. It would not be profitable to start a furniture manufacturing operation to compete with low-priced RTA furniture.

Some higher quality RTA furniture is also imported, and some is made domestically. In the Great Lakes area Marshall Erdman and Associates, Inc., located near Madison, Wisconsin, produced about \$12 million worth of high-quality Techline furniture in 1986 and estimates that in 1988 their production will be at \$18 million. High quality is achieved through use of the best available materials and machinery, maintenance of close tolerances, and controlling the finishing steps. In 1986 Marshall Erdman spent over \$2 million for machinery to apply melamine to their particleboard as well as to produce coated board for other manufacturers.

Furniture/Today Newspaper states that 50 percent of the U.S. RTA furniture sales are produced by five domestic manufacturers. However, their estimate of the market size is about half of *Wood & Wood Products'* estimate that the current retail sales market is \$2 billion. Table 1 shows *Furniture/Today's* summary of the "top five domestic producers" of RTA furniture as updated by *Furniture Design & Manufacturing's* "Top 300 North American Furniture Manufacturers" sales volumes.

Table 1.—Summary of the top five domestic RTA furniture producers

Company	Location	Total shipments	Estimated 1987 plant capacity
		Millions	Thousand square feet
Foremost	Archibold, Ohio	\$200	1,300
O'Sullivan	Lamar, Missouri	\$135	1,000
Bush	Jamestown, New York	\$65	576
Gusdorf	St. Louis, Missouri	\$60	650
Charleswood	Chesterfield, Missouri	\$55	600

Sources: *Furniture/Today Newspaper*, Volume 10, Number 45, August 18, 1986, page 23; *Furniture Design & Manufacturing*, Volume 60, Number 2, February 1988, pages 20-152.

Foremost Furniture, the largest domestic manufacturer and a division of Sauder Woodworking Company, credits its success to their competitive production of low-priced entertainment centers, electronic and computer furniture, wall units, and bedroom furniture. Their competitors expect Foremost to remain the top U.S. manufacturer in terms of sales due to their reliable laminate finishing process and to their growing brand loyalty.

O'Sullivan Industries, Inc., also produces electronic and computer furniture, entertainment centers, and wall units as well as office furniture. O'Sullivan has moved from a low-priced general product line to veneered entertainment centers at higher prices. They have also entered a more conventional furniture market by selling some assembled entertainment centers.

Bush Industries, Inc., produces higher-priced electronic and office furniture, entertainment centers, and utility carts that include some solid wood. Bush is expanding their products to include more sophisticated and upscale products.

The oldest U.S. RTA furniture maker is Gusdorf Corporation which has been in business since 1946. They specialize in low-priced electronic and computer furniture, but also produce tables, utility carts, and office furniture. Gusdorf is experimenting with a broader line of products at higher price points in order to regain market share.

Charleswood manufactures a wide line of low- to medium-priced electronic, office, and bedroom furniture and wall systems. Charleswood distinguishes itself by offering products in the colors of white, black, rosewood, hickory, and maple.

The leading five RTA furniture manufacturers are discussed above, but other companies such as Affordable, Casard-Case, and Royal Creations are gaining in size. Some traditional furniture manufacturers like Singer, Thomasville, and Rowe are expanding into the RTA furniture market.

In November 1987 Singer Furniture Company, a conventional furniture manufacturer, purchased L&B Wood Specialties, Inc., a manufacturer of RTA furniture. Singer is familiar with the market through their past imports of RTA furniture from Brazil and the Far East. Singer's RTA furniture line is focused on the higher-priced market using solid wood in many

products; it is Singer's belief that the future RTA products will be all wood. L&B Wood Specialties strength has been a \$400 entertainment center. Singer President Jeff Holmes is quoted in the October 5, 1987 *Furniture/Today Newspaper* as saying, "We feel like to take advantage of the 25 percent annual growth rate projected for RTA over the next several years, there's no real advantage to importing the product because it's not a highly labor-intensive product." This move shows potential competition for RTA furniture makers from expanding conventional furniture manufacturers. Of the "Top 300 North American Furniture Manufacturers" identified by *Furniture Design & Manufacturing* in February 1988, 19 listed RTA furniture as one of their products; 8 of the 19 listed RTA furniture as their primary or only product.

With the low end flooded by imported RTA furniture and the high end dominated by established brand name manufacturers, the market has a share left for the middle-quality product. There will still be foreign and domestic competition for this market niche, but it is substantially less than competition at the extremes. The huge, growing demand for RTA furniture should strengthen the market position for medium-quality RTA product as consumers become educated about RTA furniture. With an initial orientation towards the medium-quality market, the manufacturer could eventually expand to a higher quality line.

C. Target Market and Positioning Strategy

While original KD furniture was inexpensive and poor quality and while it was purchased only by price shoppers, the trend towards improved design and quality means that medium-quality RTA furniture appeals to a wide range of consumers, a larger market. For those in the low-price market or KD lifestyle, the medium-quality product is a logical step up in price and quality. Conversely, the high-quality market chooses the less expensive, medium-quality RTA furniture because of its value. The market niche for the medium-quality product falls between the extremes and appeals to quality-conscious consumers looking for value in their purchases.

D. Marketing Mix Strategy

1. Product strategy. Product strategy calls for producing a line of medium-quality RTA furniture consistent with the capabilities of the plant design. A

keen marketing orientation, with designs and products that keep pace with innovations in the RTA furniture market, will maintain a progressive product. This market plan utilizes a single piece of furniture: a four-shelf bookcase, because bookcases, electronic and computer furniture, and storage units are the most popular pieces produced and sold (fig. 3). Growing demand for tables, chairs, desks, and kitchen cabinets could encourage and direct the expansion of the company.

2. Price strategy. The price of medium-quality RTA furniture falls between prices for low-quality and high-quality RTA furniture. For example, a simple bookcase with four adjustable shelves that stands 50 3/4 inches tall by 27 1/2 inches wide and 11 3/4 inches deep (129 cm x 70 cm x 30 cm) with wood veneers on 5/8-inch particleboard would retail for \$270 at the high end. At the low end, a comparable bookcase of 5/8-inch melamine coated particleboard retails for \$75. A medium-quality manufacturer could easily produce to price within this range. While the example bookcase for RTA, Inc., uses oak-veneered particleboard and competes in quality with the top-priced furniture, the unit is priced at \$70 wholesale (because this figure brought the gross and operating profits in line with data on similar manufacturing firms from Robert Morris Associates) and at \$105 to \$140 retail (a 50 percent to 100 percent mark-up).

3. Promotion strategy. RTA, Inc., promotes its products through contact with RTA furniture buyers. Initially mail, phone, and direct sales calls introduce the furniture line to buyers. Furniture expositions such as the International Ready-To-Assemble Furniture Show, the Cabinet Manufacturing and Marketing Seminar and Exposition, and the National Home Center Show (all held in the United States) are logical places to exhibit the new product line. Eventually the company will require permanent display showrooms at U.S. furniture marts where store buyers and interior designers select their purchases. Of course, a small display area within the plant should always be maintained too.

4. Distribution strategy. The primary distribution paths for RTA furniture are mass merchandisers such as K-Mart, Sears, J.C. Penney, and Montgomery Wards and discount stores like Target, Caldor, and Gemco. Well-known retail chains, which often carry two or more lines of RTA furniture to segregate themselves from the mass merchandisers, are

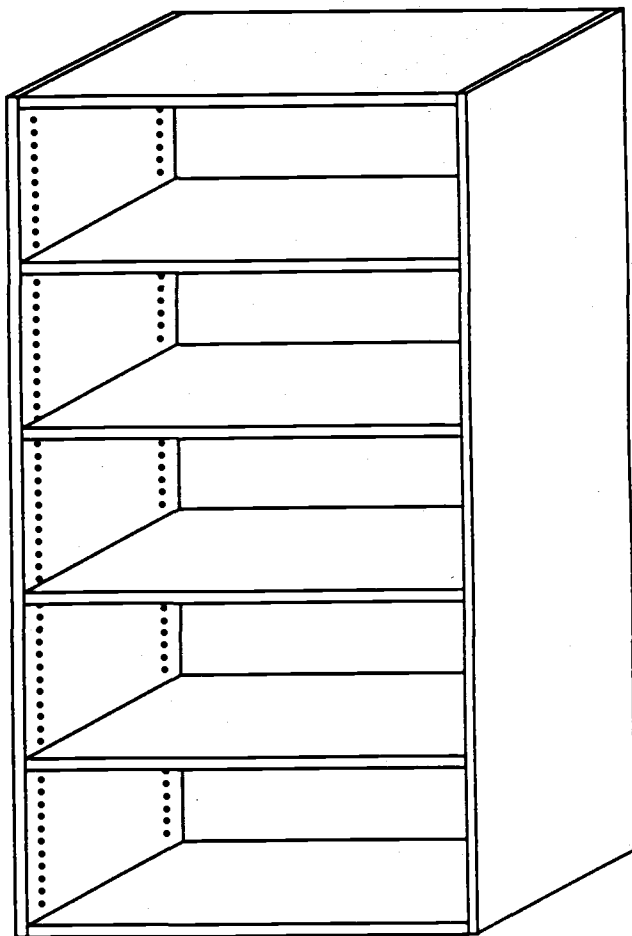


Figure 3.—Open bookcase with four adjustable shelves.

Storehouse, Workbench, Room & Board, and Conrans. Other RTA furniture outlets are contemporary specialty chains, including small lifestyle shops and Scandinavian stores importing RTA products direct from Europe. One of the newest and fastest growing markets for RTA furniture (30 percent increase from 1985 to 1986) is the home improvement stores; these stores often carry RTA wall cabinets, bathroom vanities, kitchen cabinets, and wall units. Increased RTA furniture sales through conventional furniture stores are forecast; *Furniture/Today Newspaper* breaks down current RTA furniture sales by store type (fig. 4).

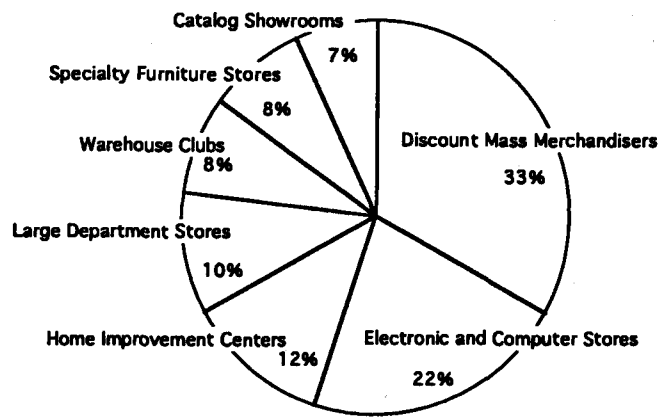


Figure 4.—RTA furniture retail distribution. Source: *Furniture/Today Newspaper*, Volume 10, Number 45, August 18, 1986, page 22.

The distribution channels for five U.S. RTA furniture manufacturers are shown below:

Company	Channels of distribution
Foremost	Discount mass merchants, large department stores, national chains, catalog showrooms, home centers, electronics specialty stores, furniture stores, and catalogs.
O'Sullivan	Electronics specialty stores, discount mass merchants, catalog showrooms, department stores.
Bush	Electronics specialty stores, discount mass merchants, department stores, catalog showrooms.

Gusdorf Discount mass merchants, department stores, electronics specialty stores.

Charleswood Discount mass merchants, home improvement centers, drug stores.

Source: Furniture/Today Newspaper, Volume 10, Number 45, August 18, 1986, page 23.

The National Home Furnishings Association's (NHFA) Operating Experiences Report for 1987 shows the following furniture type breakdown for their members' stores (fig. 5). Note that the NHFA membership does not include all the current distribution paths of foreign and domestic RTA furniture manufacturers (fig. 4).

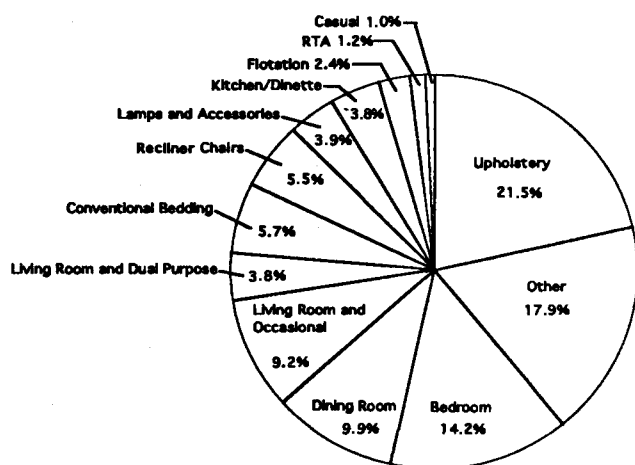


Figure 5.—Types of furniture sold in NHFA members' stores. Source: Furniture/Today Newspaper, Volume 12, Number 5, October 5, 1987, page 1.

Retailers see RTA furniture as a significant growth area and are allocating increasingly larger areas of floor space. Not only is floor space increasing, but many stores, like the 80-store Gemco chain in California, Arizona, and Nevada, include RTA furniture in their lifestyle departments located on the major aisles through which all customers pass to shop for their groceries. The distribution channels for RTA furniture are maturing, which will lead to an increased share of the furniture market.

K-Mart, which has 2,069 stores and over \$21.5 billion in total sales in 1985, is the nation's largest discount department store and the second largest retail operation. Every store carries RTA furniture on 100 to 600 square feet of floor space. William Cashman, Senior Buyer for K-Mart, has expanded furniture departments in over 100 stores in 1986 to 4,000 to 5,000 square feet. According to a March 1986 Furniture/Today article, the discount retailers find their best-selling products are: wall units, room dividers and entertainment centers, priced to retail around \$100; occasional chairs, ranging from folding chairs at \$12.99 to lacquer dining chairs at \$99; multi-functional foam seating/sleeping pieces available as sofas under the \$200 retail, with correlating loveseats and chairs; occasional tables starting at \$39.

Executives at discount department stores (Target, Caldor, and Gemco) report that wood occasional furniture is the mainstay of their furniture business. Retailers agree that, in addition to basic occasional tables and wall units, the entertainment center is currently the fastest growing category.

At Caldor, which has 108 department stores that sell RTA furniture, the buyer said that 50 percent of the European furniture market is RTA, but only 2 percent of the domestic market is penetrated.

No discussion of RTA furniture retailers would be complete without documenting the newest arrival in the United States, IKEA. With 69 stores worldwide, the Swedish firm now has 3 stores in the United States. IKEA exemplifies a fairly novel method of merchandising: stores are supermarkets of furniture—all of the major pieces are RTA. In the first 5 days, IKEA drew 200,000 customers into its new Philadelphia store and had some 50,000 people inside at one point! The crowd was a result of intense pre-opening publicity that included giveaways of a car, trips to Sweden, and furniture. Every patron also got a wine glass, balloons, and other small promotional gifts. At Christmas time, IKEA sold Christmas trees for \$5 which was refundable when the customer brought back the tree after Christmas; in the spring the customers could return with the receipt for the tree to pick up a couple of bushels of wood chips. With this strategy IKEA got the customer to visit the store three times!

IKEA's supermarket works by having the customer select purchases from the warehouse shelves and take them to the sales counter. The consumer's desire for immediacy is satisfied because purchases are taken home with the customer (a delivery service is available if desired). Bulkier items are picked up at the loading dock behind the store. An annual catalog is published and available to the customer for orders. IKEA's distinctive packages include a wrench, hardware, and instructions for assembly. IKEA offers contemporary kitchen, living, dining, and bedroom furniture. They also have a wide selection of wall systems and home entertainment centers. Office furniture is available. In addition to furniture, IKEA also carries in their 15,000-item inventory, housewares, linens, toys, lamps, wallpaper, rugs, tiles, and fabric.

A May 1986 article in *Wood & Wood Products* states that the DIY market is now the fastest growing segment in the U.S. retail economy. Growth is projected at 8.6 percent for DIY versus 6.6 percent for overall retailing. Kitchen and bath remodeling are the largest and most profitable projects in the home improvement industry with a conservative estimate of \$15 billion in annual sales; for example, new residential construction of 12 million kitchens and baths in 1986 came when only 1.8 million new houses were constructed. The NKCA expects 1988 gains in the repair and remodeling market, up 5.3 percent over 1987, will more than offset the 2.7 percent decline in the new residential construction market. In numbers, the strong economy will lead consumers to purchase 43.1 million cabinets in 1988. *Wood & Wood Products* feels the European influence, in terms of design and manufacture, will result in many of these cabinets being manufactured under the 32mm system and in RTA form. This DIY market can be reached primarily through the home improvement center stores.

Lowe's the largest home center chain in the nation installed 1,000 square foot RTA furniture departments in its 300 stores. Lowe's carries chairs, casual dining, occasional tables, wall systems, and electronic furniture according to *Furniture/Today Newspaper* (November 10, 1986).

5. Sales strategy. The marketing and sales manager work full time to direct the marketing functions such as promotions, market development, contacts with buyers, and sales. The manager continually assesses the market for new designs, trends, construction methods, fasteners, and prices of competitors.

PART 4. BUSINESS ORGANIZATION

This section allows you to explain your proposed initial organizational structure. You may wish to show any possible changes as the company grows.

- A. **Organizational Form**
 - Describe firm's organizational structure
 - Describe important tax and legal attributes of your structure

- B. **Management Team and Staff**
 - Use an organizational chart to show the management team
 - Show organization of administrative staff
 - Name key managers and describe their contributions to your business (resumes in appendix)
 - Name board of directors and their talents
 - For smaller firms, describe business advisors and their talents. Perhaps you retained these people to review your plan.

- C. **Ownership**
 - Name principal equity holders and their affiliation(s)
 - Describe how owners are involved in management
 - Describe stock situation
 - If business is financed through public funding (federal, state, regional economic groups, city, etc.), explain their interest share of the business.

EXAMPLE OF BUSINESS ORGANIZATION FROM RTA INC.'S BUSINESS PLAN

A. Organizational Form

The fledgling firm, RTA, Inc., incorporates as a small business known as an "S corporation." The regulations of the particular state in which the corporation locates affect the exact structure and taxation. The advantages of the S corporation are limited liability, recognition as a legal entity, favorable tax treatment, relative ease of transferability of interests, and continuity.

B. Management Team and Staff

The management team includes the general production manager and the sales manager. These two individuals are the basic corporation leaders and are intrinsically involved in RTA, Inc.'s startup and daily operations. Eventually the management team could expand with the corporate growth.

The remaining staff consists of one production foreman, one office manager who is a secretary-bookkeeper, one panel saw operator, one panel saw tailer, one edgebander operator, one edgebander tailer, one boring machine operator, one person for the finishing operation, two people in packaging and shipping, and one person to drive the forklift removing scrap and to do odd jobs facilitating production. In addition to the 2 managers, 11 people are needed; funding to automate some machines and transfers between stations would reduce the number of workers.

Most likely, the general production manager and the sales manager also function as the corporate officers of president and secretary-treasurer, unless there is a parent company or private investors. The corporation should explore the availability of qualified people to form a board of directors that actually helps run the company.

Supporting professional services of a certified public accountant, legal counsel, financial advisor, banker, and a business consultant should be established early in the planning process.

C. Ownership

Ownership of RTA, Inc., depends on the organization of the corporation, such as sole proprietor, partnership, or group of investors. There are many ways that public and private stock could be distributed. While unlikely, it is possible that local government's or a local economic development group's financing would affect the ownership too.

PART 5. OPERATING PLAN

The operating plan covers short- and long-range plans for production and labor. You will describe your operation's site(s) and the management and labor force. The production schedule presented in this section will be a narrative description; a monthly schedule will be projected in the "Statement of Projected Operations and Cash Flows" in Part 6. You will also discuss sources and costs of materials.

A. Location

- Describe location(s)
- List attributes of chosen location(s)
- Describe any special facilities requirements
- Show costs for facilities, including total cost and cost per square foot

B. Labor Force and Labor Costs

- List entire management force by name if known
- Show annual salaries
- List production management positions and salaries
- Depending on firm size, list combined labor force or individual positions
- Show annual labor wages
- Describe fringe benefits and their costs, including insurance, profit sharing, and pensions
- If applicable, describe workers' union(s)
- Describe staff additions
- Describe method of compensation, bonuses, stock options, etc.
- Discuss stability of work force, its seasonality or cyclical nature
- Describe any special skills and training for laborers

- C. **Materials Procurement**
 - Show sources of raw materials
 - Show costs of materials
 - Include anticipated freight methods and costs
 - Describe influences on materials availability
 - Describe anticipated cost trends
 - Describe usual terms of purchase and lead times

- D. **Production Schedule**
 - Describe anticipated production schedule
 - Describe expected start-up delays
 - Consider additional shifts to maximize equipment capital expenditures
 - Describe how you will account for production and work in process
 - Describe inventory control procedures

- E. **Long-range Plans**
 - Describe the ultimate goal of the business
 - Describe plans to achieve that goal
 - Describe your business environment and work attitudes that will lead to success
 - Consider expansions, new product lines, diversification, and integration

EXAMPLE OF OPERATING PLAN FROM RTA INC.'S BUSINESS PLAN

A. Location

Locating this plant in the Northeastern Area places the products within 1 to 2 days' trucking distance of over one-half the U.S. population. Incentives available to new manufacturers vary, and when a firm has narrowed its choice of location, it should contact the state's Department of Industrial Development (or its equivalent) for details of the incentives. Most states utilize the federal industrial development incentives such as industrial revenue bonds and worker training.

B. Labor Force and Labor Costs

Listed below are the corporation's entire labor force, including managers and staff, and the labor costs of their salaries and fringe benefits.

Position	Annual salary or wages
General production manager (corporate president)	\$30,000
Sales manager (corporate secretary-treasurer)	30,000
Office manager and secretary-bookkeeper	20,000
Production foreman	25,000
Panel saw operator	20,000
Panel saw tailer	20,000
Edgebander operator	20,000
Edgebander tailer	20,000
Boring machine operator	20,000
Finishing person	20,000
Packaging and shipping person	15,000
Packaging and shipping person	15,000
Forklift driver and odd-job person	15,000
Total with 20% fringe benefits added	\$324,000

C. Materials Procurement

Prices for anticipated inventory needs were collected in order to project values for the financial plan, Part 6 of this report. It suffices to say that finished and unfinished board is available and that contracts for quantity orders cut material costs according to volumes purchased. Individual costs may be found in the "Notes" included in Section E "Statement of Projected Operations and Cash Flows" of Part 6. Shipments of all incoming materials and finished goods are by commercial truck.

D. Production Schedule

At the start of production (and until the plant is running smoothly) one shift will run. We expect only about 50 percent of production capacity the first year; in the second year more efficient utilization of plant and equipment can be achieved by adding a second full shift to double production.

Production could eventually be more than tripled by using a "rolling 40" work week. Use of the rolling 40 production schedule is controversial in highly unionized areas, but has good acceptance in right-to-work states. The difference in work hours during the first

and second years is illustrated below. A more detailed description of the rolling 40 with 4 shifts appears in Appendix A.

Year 1: 1 shift at 40 hours/week, 8 hours/day
40 hours/week x 50 weeks/year = 2,000 hours/year

Year 2: 2 shifts at 80 hours/week, 16 hours/day
80 hours/week x 50 weeks/year = 4,000 hours/year

E. Long-range Plans

The ultimate goal for the investors is to build a company that will be salable when they wish to leave the business. To accomplish this goal, the company must be progressive in its designs, production techniques, marketing strategies, and business operation.

The company should plan to grow from the medium-quality RTA furniture market to the high-quality RTA furniture market because profit margins will be greater at the upper end. If experience in marketing and producing medium-quality RTA furniture leads the firm to establish a favorable reputation, the firm should have few problems entering the high-quality RTA furniture market. A progressive company continually seeks profitable opportunities for expansion, such as production of kitchen and bathroom cabinets compatible with the company's production capabilities.

PART 6. FINANCIAL PLAN

Unless you **are** an accountant, you need to enlist help for this section. Some subsections are best presented as lists or in standard accounting format, while others such as the financing plan and investment criteria should be presented as narratives. If you are planning a new business, you will have to acquire prices and production figures and costs from reliable sources (one source may not be sufficient). Back up all numbers with a notation of their source to establish credibility for your estimates. You may also wish to discuss fiscal responsibility and the issues of financial control—for example, to whom will the company be accountable?

- A. Capital Requirements
 - Show first year's capital requirements and its intended uses
 - Project capital infusions necessary for the next 5 years
 - Show requirements for machinery, transport equipment, tools, supplies, and office furniture and equipment
 - Show working capital: salaries, wages, contingency funds, receivables, inventory
 - Note sources of information
 - Show capital requirements for replacement equipment and other capital acquisitions
 - Allow for contingencies in your capital needs
 - Remember to build in a reserve for payment of taxes
- B. Financing Plan
 - Describe all sources of funding for your business
 - Explore economic development loans and grants from public and private agencies
 - Explain what portion of total financial needs will be borne by you and your investors
 - Describe stock plans
 - Describe bank loans required
 - Identify grants from economic development sources of land, buildings, site improvements, tax assistance, worker training grants, etc.
- C. Beginning Balance Sheet
 - Show *pro forma* balance sheet for first year of operation
 - If you are presently in the business, include current balance sheet
- D. Statement of Projected Operations and CashFlows
 - Project for 5 years: monthly for year 1, quarterly for years 2 and 3, and annually for years 4 and 5
 - Divide the statement into a sales plan and a financial plan
 - Explain any assumptions you make with footnotes
 - Discuss how costs may fluctuate with production volumes
 - Describe cost system and budgets you will use

- For RTA, Inc., the statement headings are shown in the accompanying example of "Statement of Projected Operations and Cash Flows."

Because this is such a critical part of your business plan, I have listed the important formulas which correspond to the headings in the detailed example.

Gross profit = sales minus cost of goods sold.

Operating profit = gross profit minus selling, general, and administrative expense.

Earnings before taxes = operating profit plus net other income (expense).

Cash available from operations = earnings before taxes plus depreciation.

Increase in accounts payable = total cost of goods sold for the next month.

Total cash available = cash available from operations plus total cash provided.

Increase in inventory = total cost of goods sold (COGS) from 2 months hence minus total COGS for next month.

Increase in accounts receivable = 45 days of previous month's average sales level minus the previous month's increase in accounts receivable balances.

Cash excess (shortfall) = total cash available minus total cash used.

Cumulative cash position = each preceding period's cash excess or shortfall plus the current period's cash excess or shortfall.

E. Investment Criteria

- Calculate internal rate of return
- Calculate payback period
- Calculate break-even point
- Calculate present net worth
- Calculate the ratio of present net worth to initial investment
- Calculate other appropriate ratios your audience needs—bankers often compare published, standardized ratios to loan requests
- Include a sensitivity analysis to indicate the strength of your figures

EXAMPLE OF FINANCIAL PLAN FROM RTA INC.'S BUSINESS PLAN

A. Capital Requirements

The capital requirements of RTA, Inc., for the first year are below:

Machinery (panel saw, edgebander, boring machine, and finishing equipment)	\$55,000
Working capital	
12 months' salaries and wages	324,000
Contingency money	100,000
Receivables	100,000
Inventory for 26,100 units (100 units/working day)	
Particleboard: oak-veneered, 5/8-inch thick, 45-pound, 4-foot by 8-foot (1/unit x \$23/board)	600,300
Fasteners and hardware (36/unit x \$0.10/piece)	93,960
Edgebanding (80 feet/unit x \$0.018/lineal foot)	37,584
Catalyzed varnish (128 square feet/unit for 2 coats x \$0.0257812/square foot)	86,130
Shipping boxes (1 box/unit x \$2.10/box)	54,810
Pallets for shipping (\$4/pallet x 2/day)	2,088
Total working capital	1,398,872
Forklift and 20 factory trucks	12,000
Miscellaneous tools (\$2,000) plus factory supplies (\$5,000)	7,000
Office furniture and equipment (\$5,000) plus supplies (\$1,200)	6,200
Total	\$1,479,072

B. Financing Plan

Financial grants and low interest loans are available from the federal government and from most state or local governments. Some states have operating capital loans that will be necessary in the second year when production is increased. Often state and local governments and economic development associations will provide land, site improvements,

and buildings to entice new businesses to locate in their area (these industrial development incentives would take the place of rent in the "Statement of Projected Operations and Cash Flows for the First 12 Months" in Section E). Regardless of the sources of financing, grants, government loans, private bank loans, or public and private stock, some proportion of financing (10 to 25 percent) should be borne by the investors.

C. Beginning Balance Sheet

A *pro forma* balance sheet is offered here only to show the format and the entries for the scenario described thus far.

RTA, Inc.
***Pro Forma* Balance Sheet**
First Year of Operation

Assets

Current assets	
Cash	\$524,000
Inventory	874,872
Supplies	6,200
Fixed assets	
Machinery	55,000
Forklift, factory carts	12,000
Miscellaneous tools	2,000
Office equipment	5,000
Total assets	\$1,479,072

Liabilities and owners' equity

Current liabilities (year 1 salaries and wages)	
	324,000
Long-term liabilities (machinery)	55,000
Owners' equity	1,100,072
Total liabilities and owners' equity	\$1,479,072

D. Statement of Projected Operations and Cash Flows for the First 12 Months

(See next page)

STATEMENT OF PROJECTED OPERATIONS AND CASH FLOWS FOR THE FIRST 12 MONTHS *(in dollars)*

SALES PLAN

Month in Year 1 of Operation	January	February	March	April	May	June
UNIT SALES PLANNED	—0—	—0—	2,300	2,100	2,200	2,300
DOLLAR SALES PLANNED	—0—	—0—	161,000	147,000	154,000	161,000

FINANCIAL PLAN

SALES	—0—	—0—	161,000	147,000	154,000	161,000
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COST OF GOODS SOLD

Materials

Veneered particleboard ¹	—0—	48,300	52,900	48,300	50,800	52,900
Fasteners and hardware ²	—0—	7,560	8,280	7,560	7,920	8,280
Edgebanding ³	—0—	3,024	3,312	3,024	3,168	3,312
Finishing ⁴	—0—	6,930	7,590	6,930	7,260	7,590
Shipping boxes and pallets ⁵	—0—	4,578	5,014	4,578	4,798	5,014
Total materials	—0—	70,392	77,096	70,392	73,744	77,096

Direct labor⁶

Overhead

Indirect labor ⁷	—0—	3,213	3,519	3,213	3,366	3,519
Benefits ⁸	—0—	3,058	3,349	3,058	3,203	3,349
Equipment depreciation ⁹	—0—	983	983	983	983	983
Utilities and supplies ¹⁰	—0—	2,500	2,500	2,500	2,500	2,500
Total overhead	—0—	9,754	10,351	9,754	10,052	10,351
Total cost of goods sold	—0—	92,221	100,672	92,221	96,446	100,672

GROSS PROFIT

	—0—	-92,221	60,328	54,779	57,554	60,328
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SELLING, GENERAL, AND ADMINISTRATIVE EXPENSE

Salaries ¹¹	6,667	6,667	6,667	6,667	6,667	6,667
Benefits ⁴	1,333	1,333	1,333	1,333	1,333	1,333
Freight ¹²	—0—	—0—	4,830	4,410	4,820	4,830
Travel ¹³	—0—	1,800	1,800	1,800	1,800	1,800
Rent ¹⁴	4,000	4,000	4,000	4,000	4,000	4,000
Office supplies ¹⁵	100	100	100	100	100	100
Depreciation ¹⁶	75	75	75	75	75	75
Miscellaneous S,G,&A expense ¹⁷	500	500	5,000	500	500	500
Total S,G,&A expense	12,675	14,475	23,805	18,885	19,095	19,305

OPERATING PROFIT

	-12,675	-106,896	36,523	35,894	38,458	41,023
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OTHER INCOME (Expense)

Interest expense ¹⁸	—0—	—0—	—0—	—0—	—0—	—0—
Net other income	—0—	—0—	—0—	—0—	—0—	—0—

EARNINGS BEFORE TAXES

	-12,675	-106,896	36,523	35,894	38,458	41,023
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RESULTS OF OPERATIONS

Earnings before taxes	-12,675	-106,896	36,523	35,894	38,458	41,023
Depreciation	—0—	917	917	917	917	917
Cash available from operations	-12,675	-105,779	37,440	36,811	39,375	41,940

CASH PROVIDED BY:

Increase in accounts payable ¹⁹	88,738	8,451	-8,451	4,226	4,226	-4,226
Total cash provided	88,738	8,451	-8,451	4,226	4,226	-4,226

TOTAL CASH AVAILABLE

	76,062	-97,328	28,989	41,037	43,601	37,714
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CASH USED BY:

Increase in inventory ²⁰	50,000	-8,451	4,226	4,226	-4,226	4,226
Increase in accounts receivable ²¹	—0—	—0—	—0—	241,500	-21,000	10,500
Decrease in accounts payable	—0—	—0—	—0—	—0—	—0—	—0—
Paydown of loans ¹⁸	—0—	—0—	—0—	—0—	—0—	—0—
Purchase of equipment ²²	74,000	—0—	—0—	—0—	—0—	—0—
Total cash used	124,000	-8,451	4,226	245,726	-25,226	14,726

CASH EXCESS (Shortfall)

	-47,938	-88,877	24,763	-204,689	68,827	22,989
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CUMULATIVE CASH POSITION

	-47,938	-136,814	-112,051	-316,740	-247,914	-224,925
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RTA, INC.

July	August	September	October	November	December	TOTALS
2,200	2,300	2,200	2,100	2,100	2,200	22,300
154,000	161,000	154,000	147,000	147,000	154,000	1,540,000
154,000	161,000	154,000	147,000	147,000	154,000	1,540,000
50,600	52,900	50,600	48,300	48,300	50,600	554,300
7,920	8,280	7,920	7,560	7,560	7,920	86,760
3,168	3,312	3,168	3,024	3,024	3,168	34,704
7,260	7,590	7,260	6,930	6,930	7,260	79,530
4,796	5,014	4,796	4,578	4,578	4,796	52,538
73,744	77,096	73,744	70,392	70,392	73,744	807,832
12,650	13,225	12,650	12,075	12,075	12,650	138,575
3,366	3,519	3,366	3,192	3,213	3,366	36,852
3,203	3,349	3,203	3,053	3,058	3,203	35,085
983	983	983	983	983	983	10,813
2,500	2,500	2,500	2,500	2,500	2,500	27,500
10,052	10,351	10,052	9,728	9,754	10,052	110,250
96,446	100,672	96,446	92,195	92,221	96,446	1,056,657
57,554	60,328	57,554	54,805	54,779	57,554	483,343
6,667	6,667	6,667	6,667	6,667	6,667	80,004
1,333	1,333	1,333	1,333	1,333	1,333	16,001
4,620	4,830	4,620	4,410	4,410	4,620	46,200
1,800	1,800	1,800	1,800	1,800	1,800	19,800
4,000	4,000	4,000	4,000	4,000	4,000	48,000
100	100	100	100	100	100	1,200
75	75	75	75	75	75	900
500	500	500	500	500	500	10,500
19,095	19,305	19,095	18,885	18,885	19,095	222,605
38,458	41,023	38,458	35,919	35,894	38,458	260,738
-0-	-0-	-0-	-0-	-0-	-0-	-0-
-0-	-0-	-0-	-0-	-0-	-0-	-0-
38,458	41,023	38,458	35,919	35,894	38,458	260,738
38,458	41,023	38,458	35,919	35,894	38,458	N/A
917	917	917	917	917	917	N/A
39,375	41,940	39,375	36,836	36,811	39,375	N/A
4,226	-4,226	-4,251	25	4,226	-4,226	N/A
4,226	-4,226	-4,251	25	4,226	-4,226	N/A
43,601	37,714	35,125	36,861	41,037	35,150	N/A
-4,226	-4,251	25	4,226	-4,226	-4,394	N/A
10,500	-10,500	10,500	-10,500	-10,500	-0-	N/A
-0-	-0-	-0-	-0-	-0-	-0-	N/A
-0-	-0-	-0-	-0-	-0-	-0-	N/A
-0-	-0-	-0-	-0-	-0-	-0-	N/A
6,274	-14,751	10,525	-6,274	-14,726	-4,394	N/A
37,327	52,465	24,599	43,136	55,762	39,543	N/A
-187,599	-135,134	-110,534	-67,398	-11,636	27,907	N/A

**See notes on next page.

Notes:

¹ Oak-veneered, 5/8-inch thick, 45-pound, 4-foot by 8-foot particleboard or medium density fiberboard at \$23 per board, one board per unit.

² 36 fasteners and pieces of hardware per unit at \$0.10 each or \$3.60 per unit.

³ Estimated at 80 feet per unit at \$0.018 per lineal foot or \$1.44 per unit.

⁴ Estimated at \$3.30 per unit: \$12.36 per gallon catalyzed conversion varnish with 480 square foot coverage (23 percent overspray allowance); 64 square feet per unit, 2 coats varnish required, 0.13 gallon per coat.

⁵ Printed shipping boxes and padding at \$2.10 per box; one box per bookcase. Pallets at \$4 each, 2 pallets per 1 day's production of 100 units, \$0.08 per unit. Combined cost, \$2.18 per unit.

⁶ Includes only machinery operators and tailors and combination shipper-and-packagers.

⁷ Includes plant foreman and combination forklift and odd-job person.

⁸ Include workers' compensation, payroll taxes and benefits, 20 percent of total salaries and labor.

⁹ Calculated using the conservative straightline depreciation method; salvage value at the end of the 5-year depreciation period estimated to be \$10,000 on the main equipment, forklift, factory trucks, and handtools combined.

¹⁰ Utilities, mainly electricity and heat, \$3,000 per month for 2 shifts or in year 1 \$2,000 per month for one shift; factory supplies, \$500 per month.

¹¹ Include general production manager, sales manager, and office manager/secretary-bookkeeper. Eventually commissions might be paid to manufacturers' representatives who help sell the line of products, but commissions are not included in this analysis.

¹² Assumed to be 3 percent of sales.

¹³ Year 1, sales manager travels extensively to generate orders and attend trade shows, 12 travel days per month at \$150 per day.

¹⁴ Includes \$1,500 per month for 5,000 square feet, sufficient for the machinery and required surge areas, shipping, storage of incoming materials and finished inventory, and office space.

¹⁵ Estimated at \$200 per month.

¹⁶ Office furniture and equipment for 3 people, estimated at \$5,000, straightline depreciated over 5 years to minimal salvage value \$500; therefore, depreciation is \$900 per year or \$75 per month.

¹⁷ Includes insurance as well as other miscellaneous selling, general, and administrative expenses such as printing product literature, advertising, promotional items, and other smaller selling expenses. March \$5,000 promotional cost covers major items for the year.

¹⁸ No allowance because state or federal grant is assumed as is owners' equity in the business. However, this item appears in the statement to draw attention to interest expenses recording location if a loan is taken out and included in the records.

¹⁹ Results from cost change from one month to the next month for manufacturing and direct labor plus material costs of board, fasteners, edgebanding, and packaging; also known as "materials purchased."

²⁰ Equals the difference in total cost of goods sold in the month after next and the next month. For example, July's increase in inventory is September's \$96,446 - August's \$100,672 = (\$4,226).

²¹ Equals 45 days of previous month's average sales level minus the previous month's increase in accounts receivable balances. For example, July increase in accounts receivable is \$161,000 x 1.5 months - June's \$10,500 - May's (\$21,000) - April's \$241,500 = \$10,500.

²² Totals \$57,000, including \$51,000 for panel saw, edgebander, and boring machine, plus \$4,000 for finishing equipment with spraying equipment and spray booth, plus \$2,000 in miscellaneous tools.

E. Investment Criteria

The EVALUE computer program was used in order to calculate the investment criteria of internal rate of return, payback period, present net worth, and present net worth to initial investment ratio. The complete printout for EVALUE, the microcomputer program for determining the financial feasibility of forest products industry investments, appears in Appendix B. After reproducing the assumptions input into the program, EVALUE produces these statements: Revenues and Costs, Working Capital, Initial Investment and Salvage Value, Depreciation, Profits and Earnings and Cash Flows, and Discounted Cash Flows and Investment Criteria. Section D gives a statement of projected operations and cash flows for RTA, Inc.'s first year but EVALUE has a 5-year time horizon. Another difference between these two investment examination scenarios is that actual production does not begin until the third month in the Statement of Projected Operations and Cash Flows, where in EVALUE, as required by the computer program, costs were scaled up to reflect a full 12 months of operation for the first year.

The EVALUE computer program assumptions are below:

Length of planning period	5 years
First year production (2,000 hours in year 1 / 4,000 hours in year 2)	50%
Annual inflation rate	5%
Depreciation (straightline schedule for 5 years on machinery, forklift, carts, tools, office equipment)	\$74,000
Initial working capital (salaries \$324,000 + contingency money \$100,000 + inventory \$874,872 + receivables \$100,000)	\$1,398,872
Annual gross revenues (year 1 revenues x 2 shifts in year 2)	\$3,654,000
Raw material costs (\$874,872 inventory x 2 shifts)	\$1,749,744
Other annual variable costs (utilities \$30,000 + freight \$54,810 + labor \$228,858 x 2 shifts)	\$627,336
Annual fixed costs (salaries \$96,000 + travel \$21,600 + rent \$48,000 + supplies \$1,200)	\$166,800
Tax rate	47%
Salvage value of property in year 5	\$10,500
Discount or current interest rate	9.5%

The EVALUE summaries of the cash flow show a payback period of 3.2 years based on after-tax net flow. The internal rate of return based on after-tax net cash flow is 33.7 percent, and the present net worth/initial investment ratio is 110.5 percent. The present net worth at the 9.5 percent discount rate is \$1,626,832.

PART 7. RISKS AND WEAKNESSES

Shows your readers that you can be realistic about the chances of your business success. Cover the following:

- Consider changes in economic climate
- Consider accuracy of assumptions
- Consider adverse market trends
- Consider effects of increased material, energy, transportation, and other costs
- Project your company out 10 years and provide long-term expectations

EXAMPLE OF RISKS AND WEAKNESSES SECTION FROM RTA INC.'S BUSINESS PLAN

Obviously, this business plan is based on the best assumptions applicable at the date of writing. Changes in the assumptions will be necessary to customize the business plan for the investors, the production process or capabilities, the products produced, and the current economic climate. When given a choice in performing this analysis, conservative values were used.

Should there be a downturn in the U.S. economy, the market for RTA furniture could soften. The cost of materials in board, edgebanding, and hardware could rise—especially if the firm manufactures other products in addition to the simple bookcase used as an example in this business plan. The profit margin may decrease if the RTA furniture manufacturer becomes locked into a mass merchandiser that cuts the wholesale prices paid for the finished products.

This plan could change considerably, depending on the desires and experience of the investors—but it provides a basis for starting a customized plan.

ADDITIONAL SOURCES OF INFORMATION FOR PREPARING YOUR BUSINESS PLAN

Local, Public, or University Library

Your local library, or the library of your local university, is a good place to start your information search. Libraries have directories of trade associations, trade journals and association publications, and guidebooks, textbooks, and manuals on establishing businesses. Also look in your library for Dun & Bradstreet (D&B), Robert Morris Associates, Inc. (RMA), and Financial Research Associates. These financial reporting organizations provide excellent data for some forest products industries. If your local library does not have the materials you need, it can borrow them from other libraries. Local libraries often carry books on starting and managing small businesses such as:

Rausch, Edward N. 1982. *Financial Management for Small Businesses*. Executive Books, AMACOM, American Management Associations. 200 p.

This book has chapters on profit planning for start-up, organization, budgeting, sources of capital, obtaining financial help, use of financial statements as management tools, and of course, financial management.

Knowledgeable People

Talk to knowledgeable people in your field such as trade association directors, your competitors, vendors, and suppliers. Include discussions with the people in finance, like bankers, stock-brokers, financial planners, accountants, and consultants. Talk to the forest products utilization and marketing specialists in your State's department of natural resources or equivalent. Contact your State's department of commerce or development, or its equivalent; it will have business advisors and publications oriented to your State's requirements.

Small Business Administration

The U.S. Small Business Administration (SBA) has a variety of publications to help you start, expand, and run your business. For a list of SBA publications and video tapes on starting

and managing a small business, write for "The Small Business Directory" at P.O. Box 1000, Fort Worth, TX 76119, or call 800-U-ASK-SBA (800-827-5722). Here is a sample of SBA publications and video tapes mentioned in the directory:

"Business Plan for Small Manufacturers," Business Development Publication MP4, 1989, 11 pages.

"Business Plan for Small Service Firms," Management Aids MP11, 1987, 14 pages.

"Business Plan for Retailers," Management Aids MP-9, 1990, 11 pages.

(These three publications provide fill-in-the-blank business plans with definitions of important items.)

"The Business Plan: Your Roadmap to Success," VT2, 1990. This video tape is accompanied by a workbook.

Small Business Association has other resources that are valuable in starting or expanding a business:

Small Business Development Centers are cosponsored by SBA with State and local governments, the educational community, and the private sector. The Centers provide assistance, counseling, and training.

Small Business Institutes, organized through SBA on more than 500 college campuses, provide counseling by students and faculty to small business clients.

A publication oriented towards established businesses, but which would also be helpful for planning a new business is:

"Developing a Strategic Business Plan," by Michael L. Pulicastro, SBA, Office of Business Development, Business Development Publication MP21, 1989, 11 pages.

Consider contacting SCORE (Service Corps of Retired Executives) or ACE (Active Corps of Executives) for assistance in preparing your business plan. Sponsored by SBA and providing free help are former bankers, lawyers,

retailers, production analysts, office managers, engineers, accountants, economists, public relations/advertising experts, and owners and managers of small businesses. See major metropolitan telephone directories for local numbers of SCORE and ACE, or call the SCORE and ACE national headquarters in Washington, DC (202-205-6762). You may also find SCORE and ACE through your local or the Washington, DC SBA office. The national SBA Small Business Answer Desk at 800-827-5722 can offer you additional help.

Sources for Other Information

Although there are too many sources of information to list in this publication, you might consider these sources that will lead to additional sources:

"Business Data and Market Information Source Book for the Forest Products Industry," by Edwin Kallio and Edward Dickerhoof. 1979. Forest Products Society, Madison, WI. 215 pages.

"The Complete Information Bank for Entrepreneurs and Small Business Managers," by Ron Christy and Billy M. Jones. 1982. Center for Entrepreneurship and Small Business Management, Wichita State University, Wichita, KS. 293 pages.

Information Sources for Specific Topics

Patents, Trademarks, and Copyrights: try these publications from the local field office of the U.S. Department of Commerce, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402:

- "Patents and Inventions, an Information Aid for Inventors"
- "General Information Concerning Patents"
- "Obtaining Information from Patents"
- "Questions and Answers About Patents"
- "General Information About Trademarks"

Copyrights: see "New Copyright Registration Procedures" from the Registrar of Copyrights, Copyright Office, Library of Congress, Washington, DC 20559 or from the Consumer Information Center, Pueblo, CO 81009.

Guidelines for Product Safety Requirements: contact the Consumer Product Safety Commission (CPSC), Publications Request, Washington, DC 20250.

Compliance with Labor Laws: U.S. Department of Labor, Employment Standards Administration, 200 Constitution Avenue, NW, Washington, DC 20210.

Tax requirements for Small Businesses: U.S. Department of Treasury, Internal Revenue Service, P.O. Box 25866, Richmond, VA 23260, 800-424-3676.

Compliance with Environmental Protection Agency (EPA) Regulations: Small Business Ombudsman, 401 M Street, SW (A-149C), Washington, DC 20460, 800-368-5888.

CONCLUSION FOR THIS PUBLICATION

Now you have the structure of a business plan for a forest products company. By incorporating the headings and adapting the topics to your product(s) or service(s), you can generate a business plan that will be a useful tool in starting and managing your company. One last hint—have a professional editor look over your first business plan before sending it out. Good luck!

APPENDIX A

OPTIONAL ROLLING 40 WORK SCHEDULE

Option: 4 shifts using rolling 40 production schedule,
10 hours/day

10 hours/day/shift x 2 shifts/day = 20 hours/day

20 hours/day x 355 days/year = 7,100 hours/year

	1 Day	Shift 2 Night	3 Day	4 Night
Work	M,T,W,R	M,T,W,R	F,S,Su,M	F,S,Su,M
Off	F,S,Su,M	F,S,Su,M	T,W,R,F	T,W,R,F
Work	T,W,R,F	T,W,R,F	S,Su,M,T	S,Su,M,T
Off	S,Su,M,T	S,Su,M,T	W,R,F,S	W,R,F,S
	et cetera	et cetera	et cetera	et cetera

Key: M=Monday, T=Tuesday, W=Wednesday,
R=Thursday, F=Friday, S=Saturday, Su=Sunday

APPENDIX B

EVALUATE COMPUTER PROGRAM PRINTOUT

RTA, INC.

ASSUMPTIONS

Length of planning period	5 Years
Year 1 of planning period	1988
Startup level	50%
Inflation factor	5%
Nondepreciable property	\$0
3-Year depreciable property	\$0
5-Year depreciable property	\$74,000
15-Year depreciable property	\$0
Working capital	\$1,398,872
Gross revenues	\$3,654,000
Raw material costs	\$1,749,744
Other variable costs	\$627,336
Fixed costs	\$166,800
Depreciation schedule	Straightline
Tax rate	47%
Salvage value	\$10,500
Discount rate	9.5%

WORKING CAPITAL

(Inflation factor: 5%)

Year	Beginning	Added
1	\$1,398,872	\$69,944
2	1,468,816	73,441
3	1,542,256	77,113
4	1,619,369	80,968
5	1,700,338	85,017

DEPRECIATION

(Straightline depreciation)

Year 1	\$14,800
Year 2	14,800
Year 3	14,800
Year 4	14,800
Year 5	14,800

REVENUES AND COSTS

(Startup level: 50%, Inflation factor: 5%)

Year	Gross revenues	Raw material costs	Other variable costs	Fixed costs
1	\$1,827,000	\$ 874,872	\$313,668	\$166,800
2	3,836,700	1,837,231	658,703	175,140
3	4,028,535	1,929,093	691,638	183,897
4	4,229,962	2,025,547	726,220	193,092
5	4,441,460	2,126,825	762,531	202,746

PROFITS, EARNINGS, AND CASH FLOWS

Year	Profit before taxes	After-tax profit	After-tax earnings	After-tax net cash flow
0	\$ 0	\$ 0	\$ 0	\$1,472,873
1	471,660	249,536	264,336	194,392
2	1,165,626	609,938	624,738	551,297
3	1,223,907	640,827	655,627	578,514
4	1,285,103	673,260	688,060	607,092
5	1,349,358	707,316	2,517,970	2,517,970

INITIAL INVESTMENT AND SALVAGE VALUE

Initial Investment

Nondepreciable property	\$ 0
3-Year depreciable property	0
5-Year depreciable property	74,000
15-Year depreciable property	1,398,872
Total	<u>\$1,472,872</u>

Salvage value and recovered working capital at end of Year 5

Salvage value	\$ 10,500
Recovered working capital	1,785,355
Total	<u>\$1,795,855</u>

DISCOUNTED CASH FLOWS AND INVESTMENT CRITERIA

Present net worth at 9.5% discount	\$1,626,832
Payback period based on after-tax net cash flow	3.24 Years
Internal rate of return based on after-tax net cash flow	33.70%
Present net worth/initial investment ratio	110.45%

LITERATURE CITED

Pepke, Ed. 1988. **Ready-to-assemble furniture manufacturing: a business plan for the Northeastern Area.** NA-TP-12. Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Area, State and Private Forestry. 23 p.

Duggan, William J.F., III. 1985. **Writing a business plan in no easy steps: a basic how-to manual.** CITY, STATE OF PUBLISHER: Duggan Associates, Inc. 67 p.

Schaffer, Charles A.; Harris, Madeline; Kruger, Mary J., eds. 1987. **A guide to starting a business in Minnesota.** St. Paul, MN: Minnesota Small Business Association: 60-65.