

A Market Analysis of the Ready-To-Assemble Furniture Industry

Richard P. Vlosky, Associate Professor
Forest Products Marketing Program
Louisiana Forest Products Laboratory
Louisiana State University Agricultural Center
Baton Rouge, LA

Kofi Poku, Ph.D. Candidate
Forest Products Marketing Program
Louisiana Forest Products Laboratory
Louisiana State University Agricultural Center
Baton Rouge, LA

Stefan Wille, President
AKTRIN Furniture Information Center
151 Randall St.
Oakville, Ontario
Canada L6J 1P5

Working Paper #49
Louisiana Forest Products Laboratory
Louisiana State University
Baton Rouge, LA

This Study was funded with a grant from:
Macon Ridge Economic Development Region, Inc.
903 Louisiana Avenue
PO Drawer 746
Ferriday, LA 71334

July 27, 2001

Introduction

A major factor in determining the probability of forest-based industry success is the market structure for current or potential products. A 1997 study conducted by the LSU AgCenter identified potential markets and products for secondary forest products manufacturers in the Macon Ridge Economic Development Region in Northeast Louisiana. The Ready-To-Assemble (RTA) furniture was identified as a high potential sector for development in the region. This paper discusses the results of RTA furniture market research which was conducted to better understand the current dynamics in this furniture sector.

The findings in this report are a precursor to developing a comprehensive business plan for this value-added wood product sector in the Macon Ridge Region. Specific objectives for this study were to discern RTA furniture company demographics and prerequisites that would be necessary for RTA furniture companies to relocate, expand, or develop new subsidiary facilities. This information will be used to identify strengths and weaknesses of attracting such industry to the Macon Ridge Region.

Ready-to-Assemble (RTA) furniture-an overview

Ready-to-assemble (RTA) furniture is one of the fastest growing segments of the furniture market in the world (2). Sometimes also known as knock-down (KD) furniture, RTA furniture has become a consumer-friendly furniture alternative because of improved materials, hardware, and design innovations. While cost is the most important factor for many corporate buyers and business owners, consumers are drawn to the improved quality, easy assembly, and increased options and styles that are available in today's RTA furniture.

RTA furniture is typically constructed from particleboard coated with colored melamine or wood veneers. Primary RTA furniture products include entertainment centers, electronic and computer furniture, storage units, cabinets, desks, and dressers. RTA furniture has flexible designs that allow multiple pieces to be made from basic configurations (9). For example, flexible RTA furniture design enables a simple bookcase to be transformed into a chest of drawers, a closed cabinet and an entertainment center, or a desk by adding the appropriate drawers, doors, shelves, and hardware.

The manufacturing process of RTA furniture after the design stage is basically panel sizing for sides, ends, backs, and shelves; boring of holes for assembly and hardware; application of edgebands with adhesive to all exposed edges; finishing by spraying first coat, drying, sanding lightly, spraying second coat, and drying; and wrapping furniture parts, hardware, and assembly instructions and placing them in boxes on pallets for shipping. High quality is achieved through the use of the best available materials and machinery, maintenance of close tolerances, and controlling the finishing steps (9).

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.

Once viewed as an inferior alternative to solid wood furniture, much of the RTA furniture on the market today are quality products while still being offered at lower price points. There has been significant improvement in quality over the years from the early KD furniture products to RTA furniture. RTA furniture makers, in order to be more competitive with pre-assembled furniture, are adding real wood surfaces and other authentic-looking finishes such as veneer, improved laminates, coatings, and other finishes to enhance quality and protect the surface against scratches (7). In addition, recent advances in production machinery have enabled

producers to make more intricate cuts and develop designs that are far removed from the basic look that was common less than a decade ago. Thus, most of the major producers have added in-house designers in recent years to take advantage of these technological advancements (11). To continue to attract new customers and meet the ever-changing needs of existing customers, RTA furniture companies are continually adding to their product lines (1).

The enthusiasm for step-up RTA furniture appears to stretch across a wide spectrum of home office, entertainment, bedroom, and kitchen items by producers and retailers. Ready-to-assemble furniture is growing and maturing as a product line. It does not look like RTA furniture anymore. Many pieces are difficult to tell from traditional goods. In the United States, RTA furniture has been growing in excess of five percent annually since 1977 with forecasted growth of more than 10 percent annually over the next two to three years (11).

The driving force behind much of the demand for RTA furniture is the consumer's seemingly insatiable appetite for televisions, computers, and other electronic devices. Other positive factors leading to growth are low current market saturation, highly competitive pricing, innovative production technology, and maturing distribution channels (11). Similarly, low interest rates that spur consumer spending; home building, and new household formations have increased demand of RTA furniture in the United States.

In a broad sense, the RTA furniture market can be divided into two components: Residential component and Office component. The office component is frequently referred to as the Small Office, Home Office component (SOHO). The Residential component accounts for about 74 percent of the market value. However, SOHO RTA furniture is the fastest growing segment within the RTA furniture market. Between 1994 and 1999, its market share increased from 20 percent to 26 percent (2).

More and more RTA furniture for the commercial office is blossoming as one of the hottest growth areas for manufacturers (1). Small-to-mid-sized companies are the targeted market for most of this new RTA office furniture. However, by far the biggest sub-category within the residential RTA furniture market is furniture for home entertainment purposes, followed by bedroom furniture, bookcase/wall units, storage units, and tables (2). There is growing consumer demand for larger screen size televisions, and RTA furniture producers are expected to produce furniture that will accommodate the wider dimensions and support the greater weight of the TVs in order to be competitive (6).

The biggest challenge for manufacturers is to get their product to the market place (1). The primary distribution paths for RTA furniture are the mass merchandisers such as K-Mart, Wal-Mart, Sears, J. C. Penney, Montgomery Wards, and discount stores such as Target, Caldor, and Gemco. These stores have traditionally shunned the high-priced furniture even though they are willing to raise the price based on the superior quality of the product. Other outlets which are leading the way in marketing step-up RTA furniture are contemporary specialty chains including small lifestyle shops, superstores such as Office Depot, Staples, Office Max, and IKEA (9,11).

One of the newest markets for RTA furniture is home improvement stores such as Home Depot, which often carry RTA wall units and cabinets, bathroom vanities, and kitchen cabinets at moderate and affordable prices.

With increasing competition and bidding to increase margins, many retailers of RTA furniture are embracing price points hundreds of dollars higher than anyone thought possible a few years ago. This has been made possible because of the value the product delivers – especially when compared to traditional case goods - and its instant availability, as perceived by the customers (11).

At present, Sauder Woodworking Company (revenues \$500 million) is the top United States maker of RTA furniture ahead of Bush Industries, Inc (revenues \$413.5 million) and O'Sullivan Industries Holdings, Inc (revenues \$339.4 million) (3, 4, 8, 9).

The Study

A mail survey of RTA furniture manufacturers was conducted in spring 2000. Sampling survey procedures and follow-up efforts followed the widely used and accepted Total Design Method (TDM) (4). The sample frame for this study was a census of 64 RTA furniture manufacturers. This sample list was supplied by AKTRIN Information Center, a leading authority on furniture market research. Mailing lists, key informants, and selected demographic and industry data were compiled using this source.

Pre-testing of the draft survey instrument was conducted using input from industry experts and researchers at the Louisiana State University Agricultural Center. Based on pre-testing, the survey instrument was refined before final distribution. Question structure was varied including 5-point Likert scaled questions anchored on scales of importance or agreement. In accordance with TDM procedures, the survey process included pre-notification, three mailings, and a reminder. It was clearly communicated to respondents that questionnaires will be completely anonymous and confidential, an approach that has been attributable to increased response rates. Study respondents were promised a copy of summary study results for participating in the study.

Data entry was closely supervised by the principal investigator to ensure data entry accuracy. A mainframe computer software package, SPSS, as well as personal computer based analytical and statistical tools were used in data analysis. A variety of qualitative and quantitative techniques were used to analyze and report data. Quantitative data reporting included tables, graphs, charts, and other figures convey study results. Descriptive, univariate, and multivariate statistical methods were also used extensively.

Of the 64 surveys mailed, 7 were undeliverable due to the respondent company being out of business or moving without an available forwarding address. Fourteen surveys were returned as useable for an adjusted response rate of 25 percent. Given that typical response rates for industrial studies range from 15 percent to 30 percent, a response rate of 25 percent in this study is considered adequate.

Non-response bias is a common concern in survey research. In mail surveys, the bias associated with non-response is generally due to two factors. First, people with an interest in the subject matter are more likely to respond than disinterested parties. The second major bias is that better educated people usually return questionnaires faster than less educated people. Because late responders tend to behave like non-responders, bias due to non-response can be evaluated by comparing those who responded to the initial mailing with those who responded as a result of subsequent mailings and other follow-up efforts.

By examining differences between the two mailings using two-tail t-tests, statistically significant differences (at $\alpha = .05$) were found for only 6 of the 93 questions that could be compared in the study. For example, no differences were found for company size, geographic location, distribution channels used, and products produced. This lack of differences between the groups reduces the concern about response bias.

Results

Demographics

Ten respondents were from the United States and four from Canada. Fifty percent of respondents have one production facility, 25 percent have two, 17 percent have four, and 8 percent have five. In addition, 43 percent have facilities in one state/province.

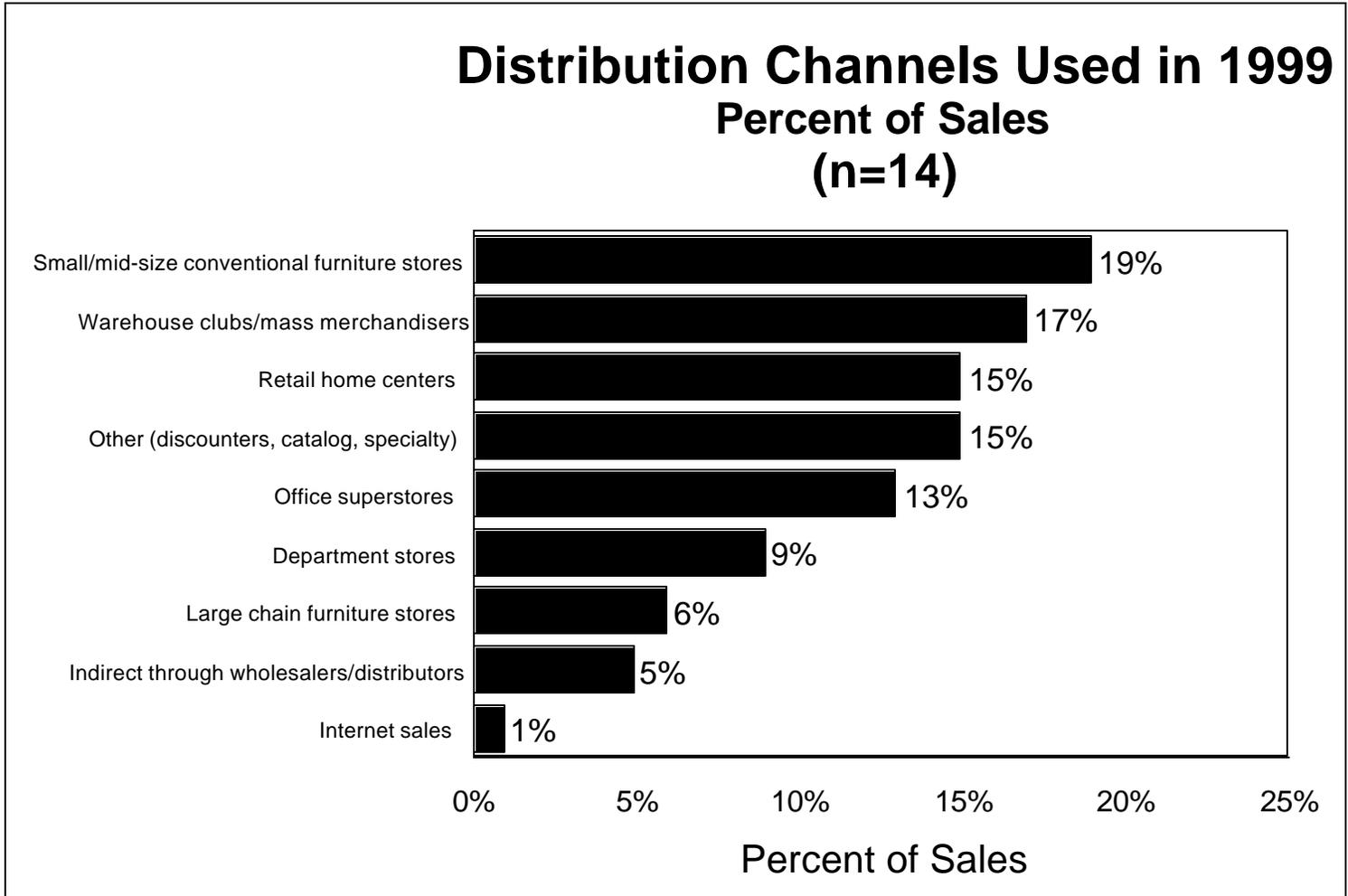
Respondent size is fairly well distributed with a mix of smaller companies and large companies by 1999 sales. Just under a third (31 percent) had 1999 sales of \$100-\$500 million. The same percentage of respondents had sales of \$21-100 million and 39 percent had sales of \$1-\$20 million.

Nearly 85 percent of respondents said they planned to add employees in the next three years indicating a positive outlook for the industry. The average number of planned additions is 118 with a strong correlation to company size.

The RTA furniture industry is not a local market for respondent companies. A majority of sales are made to customers outside their state/province (71 percent of sales). Export sales comprise 16 percent of sales. **Figure 1** shows that the greatest average percent of sales across all respondents is to small/mid-size conventional furniture stores (19 percent of sales), closely followed by warehouse clubs/mass merchandisers (17 percent of sales). Retail home centers and “other” channels (primarily discounters) account for 15 percent of sales each. Internet sales are last at 1 percent.

Furniture companies promote their products in a variety of ways. The method with the highest frequency of use is trade shows (93 percent of respondents). Catalogs were second ranked (79 percent) followed by the Internet (50 percent).

Figure 1.



The types of raw materials used in the production of RTA furniture vary from composite panels to solid wood to veneer and overlays. **Figure 2** shows that particleboard is the primary raw material used by respondents in manufacturing RTA furniture followed by softwood lumber. Ready access to quality raw materials in sufficient quantities and quality are critical requirements for the industry.

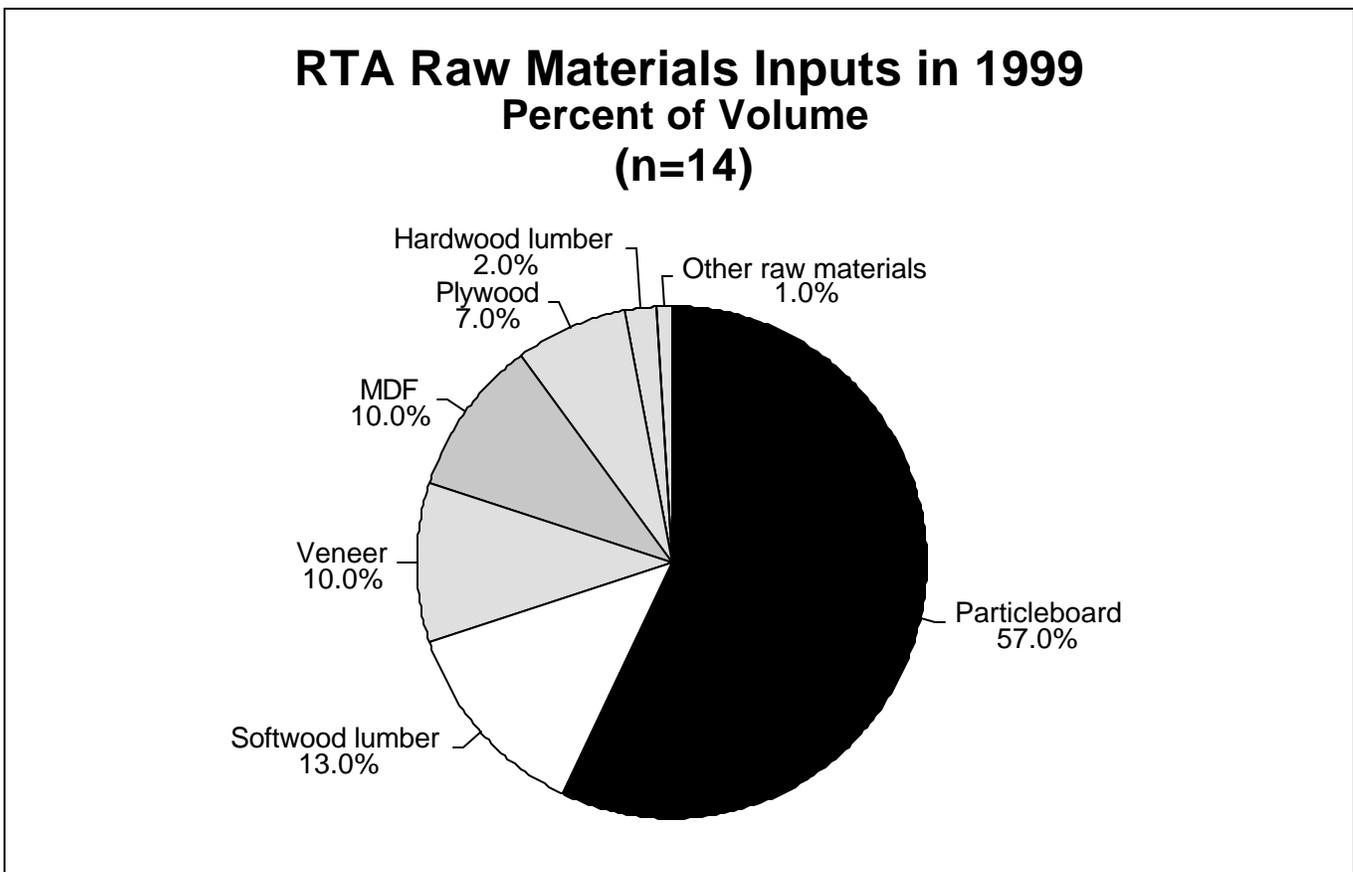
Residential components comprise 86 percent of respondent production with the balance being office components. Of the residential component, a myriad of products are produced (**Table 1**). Home entertainment furniture represented an average of 42 percent of production for respondent companies. **Table 1** also shows the average price point received for these residential product categories.

Office components comprise 14 percent of respondent production. Of the office component, workstations and desks comprise the highest average percentage of products manufactured by respondents (**Table 1**). The average price point received for these office product categories is also shown in **Table 1**.

Table 1. Percent of Production and Price Point for Residential and Office RTA Furniture

Residential RTA Furniture	Percent of Production	Average Price Point
Home entertainment furniture	42%	\$ 295
Bedroom furniture	18%	\$ 139
Bookcases/wall units	14%	\$ 99
Storage units	12%	\$ 100
Tables	7%	\$ 126
Other	7%	\$ 108
Office RTA Furniture		
	Percent of Production	Average Price Point
Workstations	31%	\$ 404
Desks	21%	\$ 190
Filing/storage	18%	\$ 135
Credenzas/hutches	15%	\$ 169
Bookcases	12%	\$ 92
Other	3%	\$ 159

Figure 2.



One of the most important questions in the study dealt with factors that contribute to respondent success as RTA manufacturers. **Figure 3** shows that product quality and a high level of customer service are the two highest ranked factors. Reputation, product availability, customer relationships, and innovation are also highly ranked. Overall, there are many factors that are rated as important to success.

In addition to success factors, it is also important to understand the challenges RTA furniture manufacturers face. **Figure 4** shows that the greatest challenge faced by respondents was getting consistent raw materials and volatile pricing in the marketplace. Overseas competition is also fairly highly ranked. Local in-state competition was ranked last.

The final question in the study looked at decision factors for relocating or expanding RTA furniture manufacturing production capacity. Labor-related issues account for four of the top five ranked issues (**Figure 5**). Taxes and raw materials issues are also highly ranked criteria.

While all of these issues are important for recruiters to understand, the issues in the top half of the list need to be addressed before successful recruitment can take place.

Figure 3.

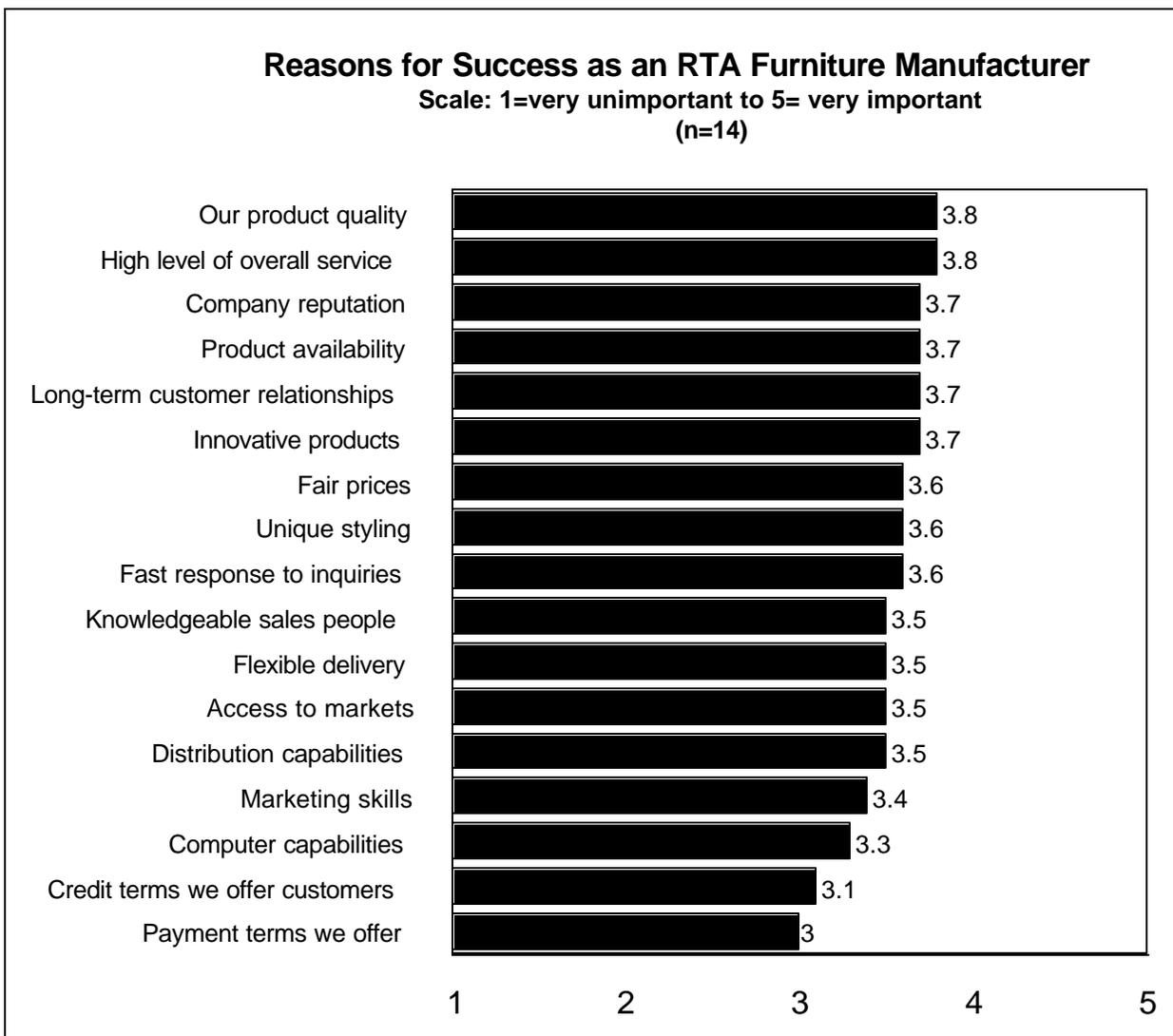


Figure 4.

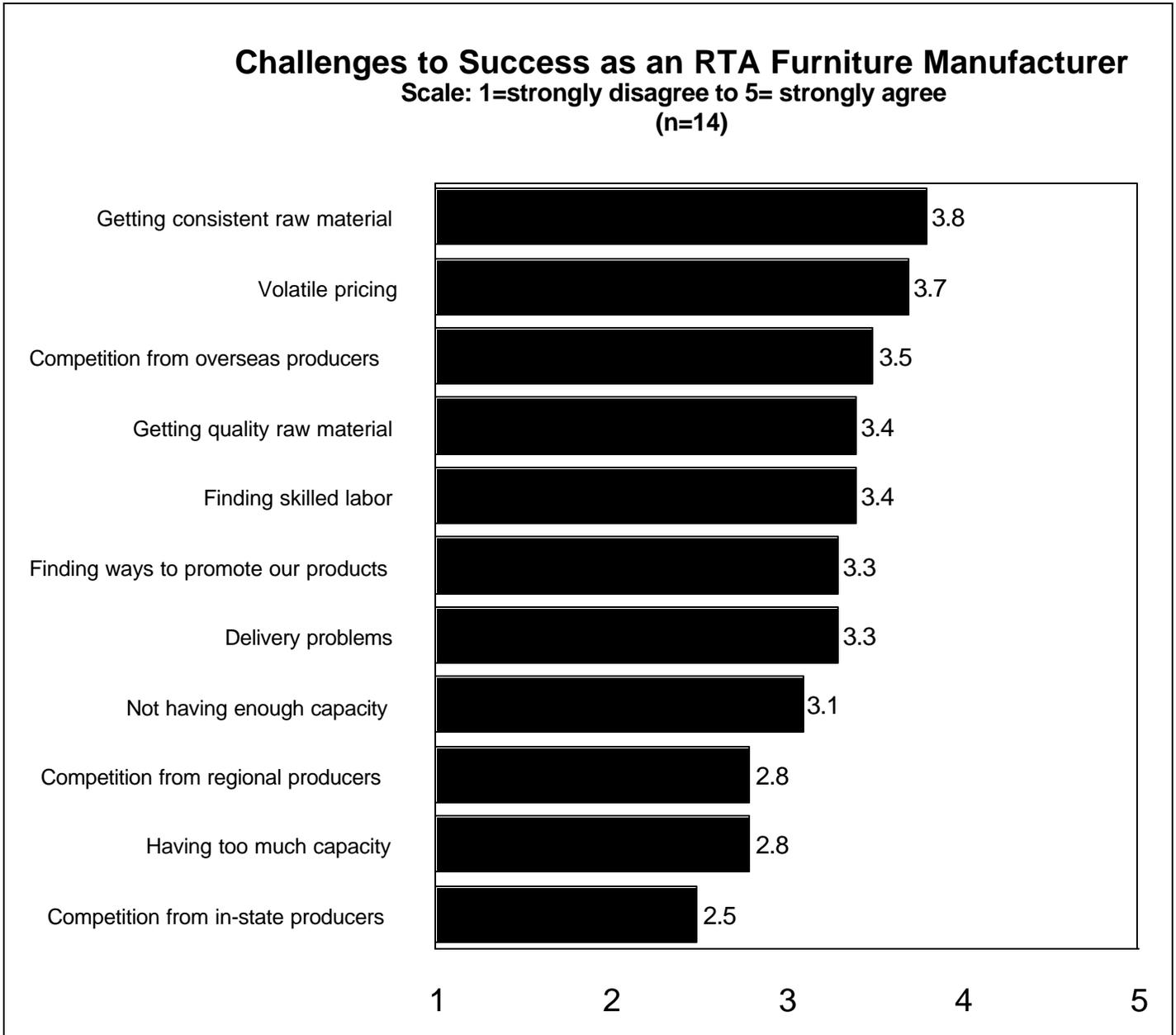
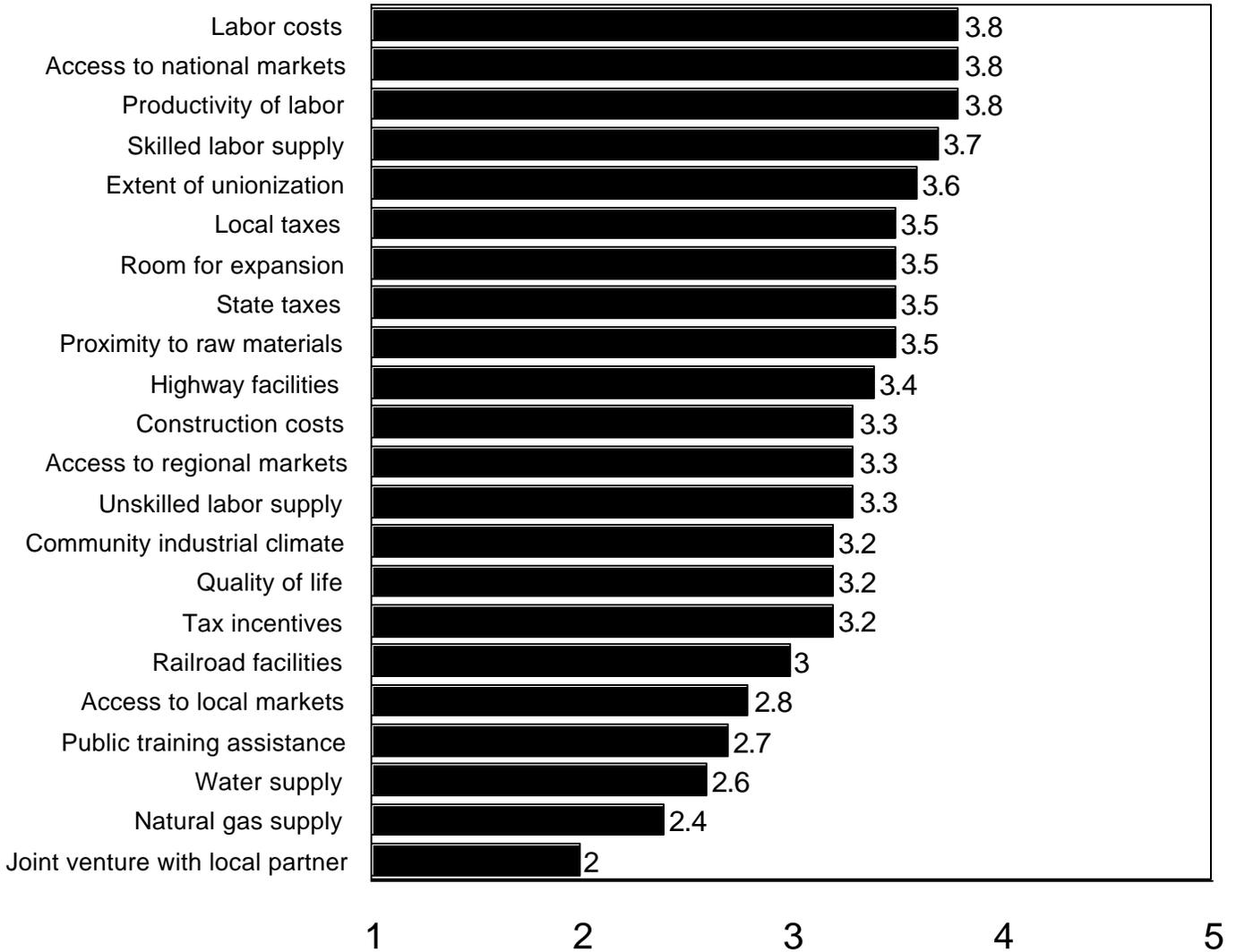


Figure 5.

Company Relocation/Expansion Decision Factors

Scale: 1=very unimportant to 5= very important

(n=14)



Summary

Within the furniture industry, the RTA furniture segment is a high growth segment which is likely to continue to outperform most other segments in the industry. For individual manufacturers to succeed, quality, pricing and, above all, design has to be progressive and competitive.

The RTA furniture sector is strong and holds promise for further investment and expansion. The industry will support additional capacity. This is indicated by the fact that 83 percent of the RTA industry respondents in this study plan on adding employees in the next three years.

In the context of the potential for a company to relocate or expand to a region, further analysis would need to be conducted with regard to evaluating specific potential site locations and business opportunities. In addition, business success would also depend on the qualifications and managerial expertise of potential entrants into the marketplace.

The top considerations for getting an RTA furniture company to relocate or start-up a new facility are labor, access to markets (marketing) taxes and, once again, proximity to raw materials. The least important factor is a joint venture with local partners with respondents indicating that they would want to retain investment control.

The next step in an evaluation process would be to conduct an audit/analysis of the infrastructure that the region can offer and cast this against the requirements to start an RTA furniture manufacturing business in the region. Gaps identified in this process would need to be closed or minimized.

References

1. Adams, L. 1999. RTA furniture seeks a home in the workplace. *Wood and Wood Products* 104 (10): 26-31.
2. AKTRIN Furniture Information Center. 1999. Overview of the American RTA market. AKTRIN research Institute, High Point, NC. 6 pp.
3. Bush Industries, Inc. 1999. The industry standard: Company profile – Bush Industries, Inc. <http://www.bushfurniture.com>
4. Dillman, Don A. 1978. *Mail and Telephone Surveys-The Total Design Method*. John Wiley & Sons. New York, New York.
5. Dorel Industries, Inc. 1999. Canadian Shareowner, Windsor. 13(2): 40-43.
6. Kunkel, K. 2000. RTA races to keep pace with evolving electronics. HFN. <http://library.northernlight.com/PB200004050400064394.html>
7. Lebhar-Friedman, Inc. 1999. Making space for furniture. National Home Center News. <http://library.northernlight.com/CK19990505020006235.html>
8. O’Sullivan Industries Holdings, Inc. 1999. The industry standard: Company profile – O’Sullivan Industries Holdings, Inc. <http://www.osullivan.com>.
9. Pepke, E.1988. Ready-to-assemble furniture manufacturing: a business plan for the Northeastern area. USDA Forest Service, St. Paul, MN.
10. Sauder Woodworking Co. 1999. The industry standard: Company profile – Sauder Woodworking Co. <http://www.sauder.com>.
11. Thomas, Larry.1996. RTA blasting through old price limits. *Furniture/Today*, High Point, NC. 21(11): 8-9.