AN EVALUATION OF FORWARD INTEGRATION IN THE TRANSFER CONVEYOR MARKET

by

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ABSTRACT

The Wire Belt Company of America, a manufacturer of wire mesh conveyor belting, has considered launching a separate company to manufacture transfer conveyors that utilize the company's belting. The company presently manufactures these conveyors, but the sales volume is low because the conveyors have not been actively marketed. The company management believe that the launch of a separate company would relieve floor space constraints within the plant and provide focus to the conveyor products which would increase conveyor sales. This venture would represent forward integration, where Wire Belt Company would be selling products that would compete with some of the parent company's customers. The purpose of this thesis is to determine the customer needs, the competitor's strengths and weaknesses, the ramifications and possible success of launching such a venture.

The thesis conclusion is that the company should not proceed with launching a conveyor manufacturing subsidiary, but exit the manufacture of assembled conveyors. The Wire Belt Company's core business of conveyor belting may best be served by augmenting the product through expanded services and product offerings to help customers make their own conveyors. This approach will avoid the problem of competing with their existing customer base and should increase the use of their conveyor belting. As customers find it easier to manufacture their own conveyors for their own use or resale, the number of conveyors that use the Wire Belt Company belting will expand, increasing the demand for the company's belting products. It will also alleviate the floor space problem that the company had hoped to solve by removing conveyor manufacture from the facility.

The research for this thesis was conducted primarily through interviews with company personnel and customers. The appendix of this thesis contains the highlights of those interviews.

Thesis Supervisor: Barbara E. Bund
Title: Senior Lecturer

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Most importantly, I would like to express my sincere appreciation for my fiancée, Aggie Roeder. Her unyielding encouragement and understanding have made the last two years more enjoyable. She has allowed me to focus all my energies on my education. I look forward to a long and fruitful life together.

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CHAPTER 1 - INTRODUCTION

The focus of this thesis is the study of the markets and opportunities that are related to the business of my sponsor, the Wire Belt Company of America (WBCA). Specifically, the company is considering expanding their existing business to include making downstream products.

The Wire Belt Company of America is a manufacturer of wire conveyor belting which is primarily used in the food processing industry. The belting is formed of stainless steel wire and assembled into a conveying surface that has a high percentage of open space. The belting is ideal for applications that require product drainage, heating or cooling. And since the belt has no areas that can trap food particles, the belt is easily cleaned and is approved by the USDA for processing food.

In addition to making conveyor belting, the company has made transfer conveyors to custom dimensions that use WBCA belting to satisfy customer requests. Most applications that use the belting produced by WBCA involve processing of product such as deep fat frying, battering or coating, breading and heating. Transfer conveyors are the class of conveyors that are used to move product from one point to another without any processing occurring to the product during its transit on the conveyor. Hence, a transfer conveyor is used to transfer product between process machinery.

While sales of transfer conveyors by WBCA have been low (approximately 40 conveyors have been sold each year in the last three years, representing roughly 35% of all conveyors quoted), WBCA management believe that more conveyors could be

sold if the company were to deliver these conveyors with a shorter lead time. It was thought that the design and manufacture of conveyors could be separated from the parent company (both financially and physically) and focused for further growth. The purpose of this study is to determine the customer needs, the competitor's strengths and weaknesses, the ramifications and possible success of launching such a spin off. The conclusion of this work will propose an action and the general knowledge learned through this effort.

CHAPTER 2 - BACKGROUND

The Wire Belt Company of America (WBCA) was started as a business for the sole purpose of producing wire conveyor belting for its parent company, the J. W. Greer Company, a manufacturer of food processing machinery. During the 1920's the J. W. Greer Company began making continuous baking ovens which required a particular style of conveyor belting. This style of belting is constructed of wires that are bent and assembled into an open mesh. The belting is referred to as Flat-Flex® belting. However, the only supplier of Flat-Flex belting in the United States, the National Equipment Company, was also a competitor in the food processing machinery market. As such, this company would supply the J. W. Greer Company with inferior product and long lead times for delivery.

In 1927 the J. W. Greer Company set up a separate department, the Wire Belt department, to manufacture this style of belting. During the 1930's the National Equipment Company ceased production of this style of conveyor belting and started purchasing belting from the J. W. Greer Company. Twenty years later, this department was established as a separate company, the Wire Belt Company of America. At this point the company manufactured and sold Flat-Flex belting and associated drive sprockets. See figure 1 for a picture of these products.

The next new product to be introduced by WBCA was a conveyor to augment the fabric belt turn produced by J. W. Greer Company with a belt made of stainless steel wire. In 1955, the company (WBCA) received a patent for a tapered belt which was designed to convey around corners. The company then developed a conveyor,

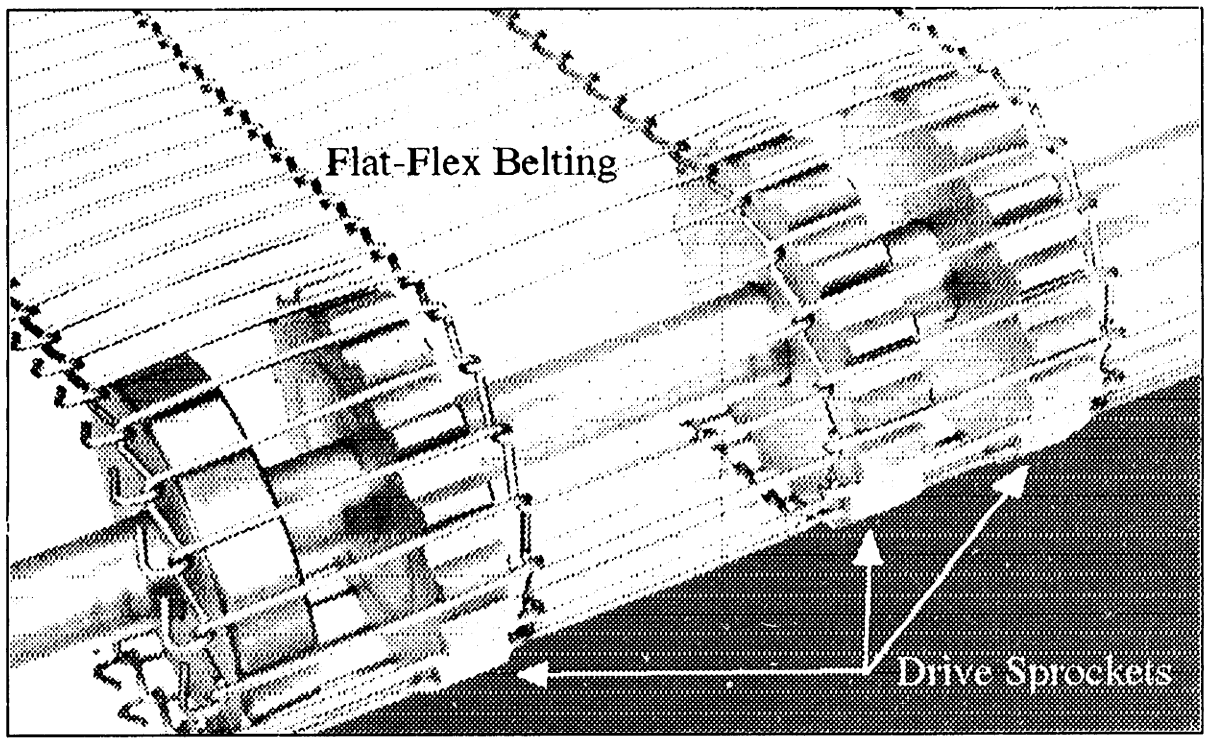

Figure 1 - WBCA Belting and Drive Components.

known as the Flex-Turn®, that made use of this style of belting. A picture of this type of conveyor is shown in figure 2. This expanded the company's product line to include the sale of conveying equipment, but only for conveying around corners.

Occasionally belting customers inquired about where to purchase a custom made straight transfer conveyor for their application. It was felt that the company's product knowledge and excess machine shop and engineering capacity could be used to satisfy these requests and further serve the customers, and augment revenues. In the early 1960's the company began to design and manufacture custom straight transfer conveyors, called Flat-Flex® conveyors (for the name of the belting which it employs). See figure 3 for a drawing of a typical Flat-Flex transfer conveyor.

Since then WBCA has been selling both the Flex-Turn and Flat-Flex conveyors. However, these products have not been advertised or marketed broadly.

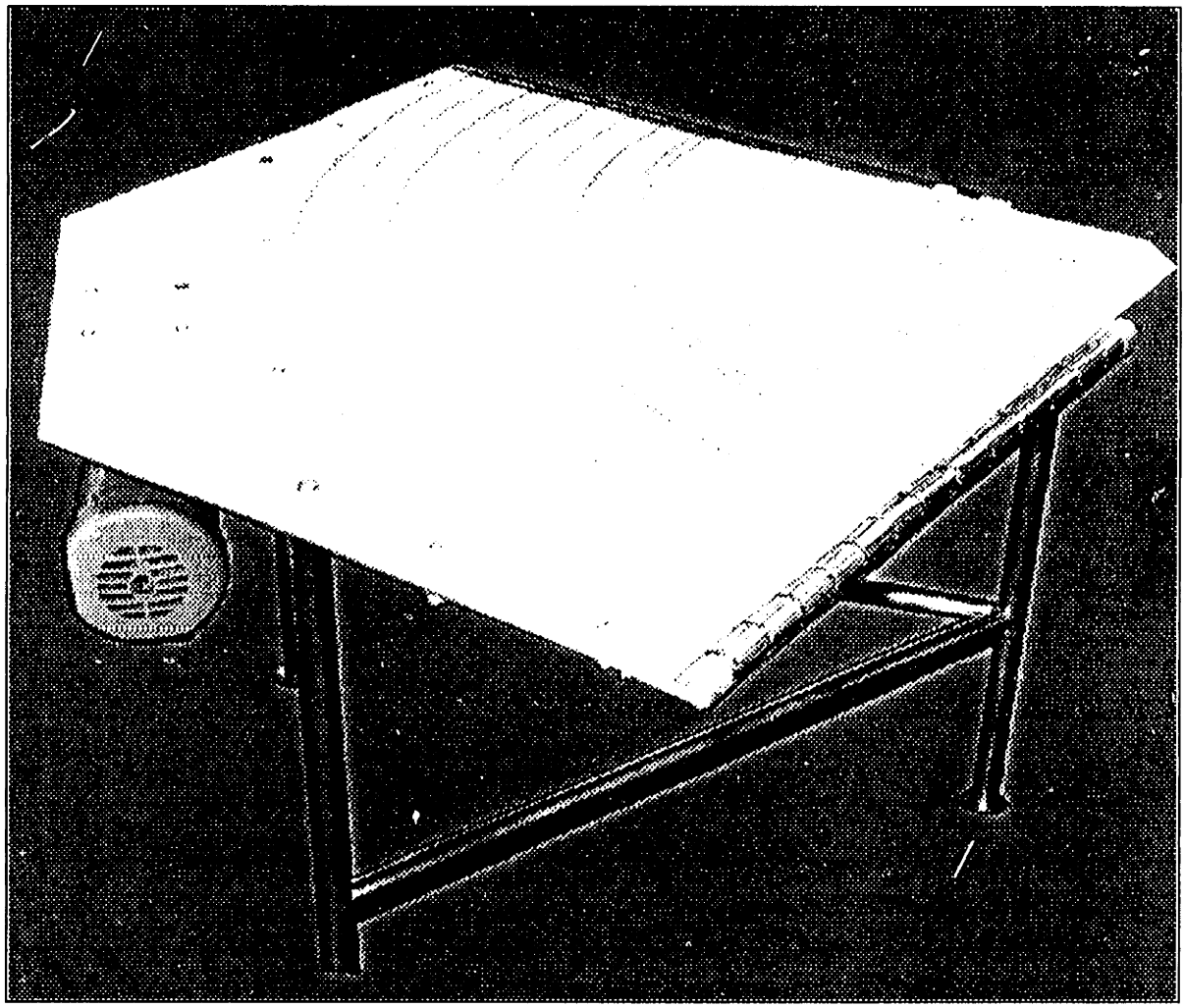

Figure 2 - A Flex-Turn® conveyor as pictured in the WBCA sales literature.

The sales literature for these products is sent to customers who request a copy of WBCA sales literature.

Recently, the floor space taken by the manufacture of the main company products (belting and drive components) has become crowded. The thinking among the company management is to expand the floor space committed to the main products by moving the manufacture of the conveyors to another site.

It has been proposed to spin-off the conveyor manufacture into a separate division. Company management believe that if a division focused on shortening the

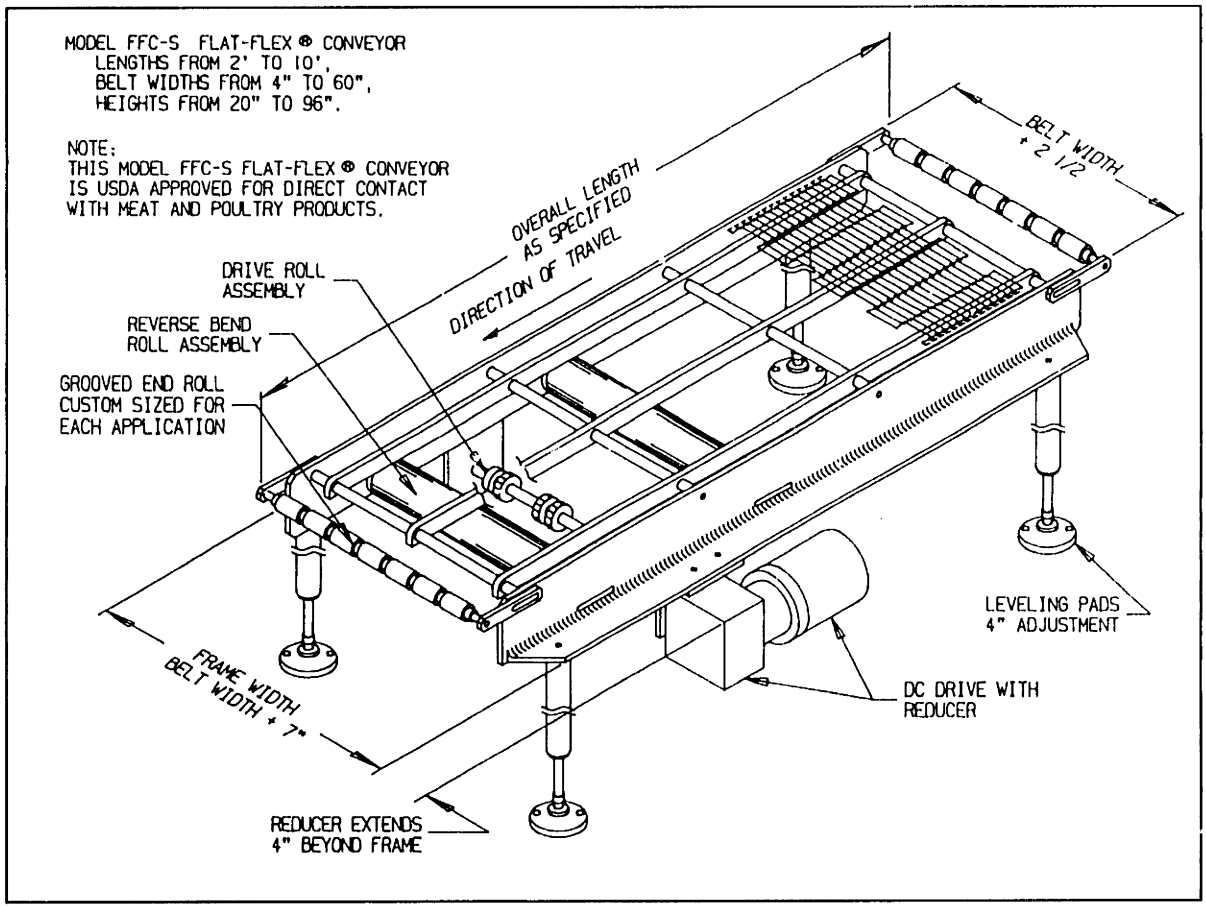

Figure 3 - A typical Flat-Flex® transfer conveyor as shown in the WBCA sales literature.

production lead times and more aggressively marketing these conveyors that this division would be successful on its own. In the following chapters I will present the issues that surround the launch of this division and propose an action.

CHAPTER 3 - CUSTOMERS

Introduction

The first step in evaluating this business opportunity is to identify the customer's needs. Once those needs are identified, then it can be determined if existing suppliers are satisfying these needs and whether there exist unmet needs that this venture could satisfy.

To identify the customer needs I decided to conduct interviews of WBCA personnel, representatives and customers. To see transcripts of these interviews, see the appendix. I started with WBCA personnel that were involved in the sales and manufacture of conveyors and then interviewed half of the WBCA manufacturers representatives.

Next, I interviewed a cross section of WBCA conveyor customers to determine what needs were being met, what needs were still unmet and how the purchasing decision was made. First, I focused on the customers that had purchased either Flex-Turn® conveyors or custom made straight conveyors. I chose customers that had purchased as recently as six months ago up to those that had purchased within the last two years to get a variety of feedback on the purchase and use of these conveyors. Then I interviewed those customers that had requested a quote for either type of conveyor within the last six months to determine why they had not purchased the conveyor.

From these interviews it was apparent that there were two distinct types of conveyor customers: distributors and end users. Also, the needs of customers that

purchase Flex-Turn® conveyors are different from the needs of customers that purchase the custom made straight conveyors. In the remainder of this chapter I will present these findings.

Generic Needs

Many customers purchase the Flat-Flex® and Flex-Turn style of conveyors because their applications require a USDA approved conveyor. The majority of these sales are to food processing companies. The USDA approval requires a product design that facilitates the wash down of machinery and components. This means that there should be no areas within the conveying area (both belting and conveyor elements) that can capture and hold biological material that will not be removed when washed down by an approved method.

The use of Flat-Flex style conveyors is different from the use of the Flex-Turn conveyors. Typically, a Flat-Flex conveyor is purchased to transfer product from one process to another. For example, a transfer conveyor may be employed to move product from a breading machine to a freezer. Because the Flat-Flex style of conveyor belting is very open and USDA approved, other applications for the Flat-Flex style conveyor include: product cooling, draining or drying.

While the USDA approval of the Flex-Turn style conveyor lends itself to use in these food processing plants, their application in the manufacturing process is quite different. The sole purpose of a Flex-Turn is to convey products around a corner through angles from 45° to 180°. Customers use these Flex-Turns to extend their

processing lines around corners. This allows many customers to fit more processing capacity within the same facility.

In addition, the people I interviewed identified the following needs:

- timely quotations (within 24 hours),
- application assistance,
- design consultation,
- good communication throughout the sales process,
- reliability of the conveyors,
- reasonable pricing,
- custom dimensions for Flat-Flex® straight transfer conveyors, and
- quick delivery (within 1-2 weeks) for Flex-Turn® conveyors.

Most of these needs are common in many markets, however, the amount of technical support in the quotation and design phase can be significant. Often a customer has requirements for moving product between two points but the customer will not know what specifications are important for ensuring the successful application of a transfer conveyor. One of WBCA's representatives was concerned about the knowledge required to elicit the customer's application requirements noting that, "it will require a different set of skills to sell conveyors [than are required to sell belting]. This will require intensive training of the reps."

This need for coaxing application information out of a customer requires good communication with the customer on the part of the vendor. Some customers prefer to deal with a local vendor to avoid any miscommunication as the vendor can visit the customer's site and gather the application information firsthand.

Distributors

Distributors that purchase conveyors from WBCA typically specialize in the sale of material handling and/or processing equipment. They often purchase a conveyor from WBCA to sell as part of a larger system. Occasionally, they will merely act as an agent, supplying a transfer conveyor that best fits their customer's need.

Consequently, the distributors need a conveyor manufacturer that will supply a product that satisfies their customer's need. To secure this business a company must supply timely quotes to distributor's requests. This allows the distributer the ability to quote their systems to their customers quickly.

In some instances the distributors also need application assistance as their expertise may be in material processing, not the design of transfer conveyors. Again, as the distributor must submit a quote to their customer, the support must be delivered in a timely fashion.

The purchasing decision ultimately lies with the distributor's customer, but often the product is specified by one of the distributor's sales people. Some distributors claimed that if the product fit the customer's need then they, "were not so concerned with price or delivery." However, in instances where more than one product would satisfy the customer's need then the distributor would, "shop based on price."

In general, delivery lead time was not a concern of the distributors since the transfer conveyors where only part of a larger system that was being sold. These

larger systems were normally capital budget items for their customers and as such were planned well in advance of the need. Only in situations when the distributor was supplying just the transfer conveyor to a customer was delivery lead time a consideration in the purchase decision.

None of the distributors that I interviewed inventoried WBCA conveyors. All purchases were directly for their customer's need.

End Users

The end user is a customer that purchases a product for their own use, not for resale. The end users specialize in other businesses and the purchase of conveyors is merely necessary to conduct their business. The applications and needs of these customers is more broad than those of the distributor. Also, the needs and purchasing decision may differ between the end users that purchase a Flex-Turn® conveyor and those that purchase a straight conveyor.

As conveyor design is not typically part of the end user's expertise, many end users have required much more application assistance and design consultation. Although an end user may know the dimensions of the conveyor that they require, many do not realize the other design considerations such as operating environment and material selection. Often these issues can be clarified through telephone conversations, but sometimes these result in multiple telephone conversations before the design and consequently price are established. Occasionally it becomes necessary to send company personnel to the customer's location to determine the design criteria. This can be costly and time consuming but some customers are willing to pay for this

added service. John Moreschi at Ravioli Kitchens stated that he, "paid extra for technical support in the design of the conveyor but it was worth it."

The need for custom design is primarily limited to the straight transfer conveyors. Infrequently a Flex-Turn® conveyor will be designed and manufactured to special requirements (different turn angles and drive configurations), but for the most part these conveyors are sold from stock in 90° and 180° turns.

Also, the use of these conveyors is somewhat different than the straight conveyors. Flex-Turn conveyors are viewed as a "problem solver" in that they are often used to extend a production line within a confined plant by redirecting the production flow with a turn conveyor.

The difference in the use of these conveyors underscores the difference in the customer's need for prompt delivery. As customers typically order a straight conveyor as part of a plant expansion, they have planned the need for the conveyor well in advance of the installation date. In contrast, a Flex-Turn is often purchased to solve an immediate problem and the customers desire shipment within a few weeks.

The primary modification to the Flex-Turn conveyors is to specify a different means of driving the conveyor to maintain consistency of drive types within a customer's plant. Any modifications have resulted in the delivery of Flex-Turns extending to four to six weeks from the order date.

The purchase decision for the straight and Flex-Turn conveyors is typically driven by the engineering or maintenance departments at the customer's site. The engineering departments are involved in the specification of new equipment and often

prepare capital budget requests. The maintenance departments are more focused on the day to day operation of the plant and purchase equipment as the need arises. In both cases the purchase is based on the fitness to the application and schedule, and price is not an issue as long as it is "reasonable."

The purchase decision for conveyors is often very different than the purchase decision made for the conveyor belting and drive sprockets that WBCA sells. Unlike the conveyor market where the engineering or maintenance department would make the purchase decision, in the end user market, most company's purchasing departments choose their supplier of conveyor belting and drive components. These items are viewed as commodity products that are consumed in the normal course of business and as such are purchased based on price and availability. Further, the performance of purchasing personnel can be based on the money that they save in making necessary purchases. This causes many purchasing personnel to be very price sensitive in choosing conveyor belting suppliers.

Delivery of conveyor belting can also be very important as some facilities suffer expensive losses when their production line is down. I have heard of figures as high as $150 per minute that the production line has unscheduled down time. As can be seen the needs for companies that buy conveyors is quite different from those that buy belting.

CHAPTER 4 - SUPPLIERS

Introduction

The next step is to examine all of the possible suppliers of transfer conveyors that would use the Flat-Flex® style of conveyor belting. An analysis of each type of supplier will provide a clearer picture of how the customer's needs are presently being met. To determine the types of possible suppliers I consulted various resources including: interviews, sales literature and listings of suppliers such as the Thomas Register of American Manufacturers.

From this I identified five general classes of suppliers to this market: transfer conveyor manufacturers, food processing machinery manufacturers, food processing company maintenance departments, job shops and conveyor belt manufacturers. In the remainder of this chapter I will present the background or characteristics of each type of supplier as well as their strengths and weaknesses in fulfilling the customer's needs.

To be a successful competitor in this market requires addressing the customer's needs identified in the previous chapter. Specifically a company must provide:

- timely quotations (within 24 hours),
- application assistance,
- design consultation,
- good communication throughout the sales process,
- reliable conveyors that are USDA approved,
- reasonable pricing,
- custom dimensions for Flat-Flex® style straight transfer conveyors, and
- quick delivery (within 1-2 weeks) for Flex-Turn® style conveyors.

This means that a company must acquire experience in the design and manufacture of the Flat-Flex® and Flex-Turn® style of conveyors as well as the distribution channels to market these conveyors. Additionally, the company should have the capability to communicate with customers regarding their applications either through a representative or by being in close proximity to the customer.

Transfer Conveyor Manufacturers

Looking through the Thomas Register I found hundreds of conveyor manufacturers listed under dozens of headings. I restricted my search for possible suppliers to the following headings under 'conveyors': wire mesh belt, stainless steel, cooling, and food handling and processing. From the hundreds of companies listed I culled a list of 34 likely companies based on size and published products. The only company that advertised a conveyor that uses the Flat-Flex style of belting was Kamflex Corporation.

I believe that the reason I did not find more companies using the Flat-Flex style of belting is that WBCA has rarely advertised its products. Original equipment manufacturers that have had success with the products continue to use them. While end users have had to purchase replacement belts either from the manufacturer of the machinery that uses the belting or from WBCA. Other equipment manufacturers would not know about WBCA's products unless they actively sought such products.

I then checked to see if any of the other companies had purchased products from WBCA within the last five years. Up until four years ago, WBCA was the only manufacturer in North America to supply the Flat-Flex® style of conveyor belting.

From this I assumed that if a company had not purchased products from WBCA during this time then they probably did not manufacture transfer conveyors that used this style of belting. It was surprising to find that some companies made a wide variety of transfer conveyors for food processing but did not make any that used the Flat-Flex belting. Also, as I expected, I found that Kamflex Corporation is a customer of WBCA. To evaluate a transfer conveyor manufacturer I will focus on Kamflex Corporation.

Kamflex Corporation is privately held so my information was gathered from an interview with a Sales Engineer at Kamflex, their sales literature and discussions with WBCA personnel. Their literature claims, "Excellence in Engineering and Manufacturing." Established in 1974, "Kamflex has specialized exclusively in the design and manufacture of stainless steel conveyors and related systems." They serve customers in food, pharmaceutical and cosmetics industries. They boast, "the broadest range of sanitary conveyors officially accepted by the USDA." They sell a wide variety of conveyors utilizing many types of conveying belts. All of their conveyors are made to custom dimensions from a catalog of styles.

The company has many strengths in addressing the needs of customers that purchase transfer conveyors that use Flat-Flex style belting. First, they have broad knowledge of the design of transfer conveyors as this is the focus of their business. Second, they can supply transfer conveyors with the most appropriate style of belting for a customer's application; they are not limited to one style of belting. Third, they are quite familiar with the USDA requirements for the design of sanitary conveyors.

Fourth, they have the manufacturing facilities and expertise to manufacture these conveyors. Fifth, they build all of their conveyors to custom dimensions, providing exactly what the customer needs.

The only weakness I have identified is that their marketing is limited to the customers that need stainless steel conveyors for USDA approved applications.

Food Processing Machinery Manufacturers

There are many manufacturers of food processing machinery but I will limit my discussion to those that specialize in continuous process machines that require conveying with the Flat-Flex style of belting. As a representative example I have chosen to focus my evaluation on Stein, Incorporated, a Frigoscandia company. Stein is one of WBCA's largest and oldest customers. The success of Stein's machinery has contributed to the growth of WBCA.

Stein, Incorporated was founded in 1955 as Sam Stein Associates, Incorporated. They now have sales of $40 million per year and employ 300 employees. According to their literature, "it is estimated that 90% of all the commercially prepared foods coated with batter or a batter and dry breading material are prepared on Stein equipment." In addition to the breading equipment, Stein also sells frying and oven processing equipment. Their customers number about 1200 and include such companies as: Tyson Foods, Campbell Soup Incorporated, ConAgra, Pillsbury Company and Gorton Corporation.

As can be seen, Stein also has some significant strengths in addressing the transfer conveyor market. They have extensive knowledge of processing machinery

design which includes conveyor design and USDA requirements. Also, they have the manufacturing facilities, standard parts inventory and expertise to fabricate transfer conveyors. Their focus has been on selling turnkey systems which include transfer conveyors when necessary. This provides a consistent appearance to the design of the complete system sold to the customer.

The major weakness that I see is their focus is restricted to the food processing industry.

Food Processing Company Maintenance Departments

Many large food processing companies employ maintenance departments to maintain and improve their production facilities. Some of these company maintenance departments have fabricated Flat-Flex® style transfer conveyors for in-house use. Since unscheduled down time on a production line can cost up to $150 per minute, the maintenance departments do what is necessary to keep the factory running. Typically these departments have a short-term focus while an engineering department would be responsible for the longer term projects.

The strength of these departments in fulfilling the need for transfer conveyors is their intimate knowledge of the application requirements. They know exactly the problem that needs to be solved, better than most departments in the plant.

However, they may lack expertise in designing conveyors. Some WBCA representatives and employees have observed conveyors that had basic design flaws that were designed and fabricated by a maintenance department. These flaws included: running the belt in the wrong direction (backwards), over tensioning the belt

or not providing a mechanism to allow for the proper tensioning of the belt, incorrect drive sprocket placement and improper belt path geometry. These errors result in reduced belt life or poor conveyor performance. Unfortunately for WBCA, the first thing a customer blames for the poor performance is faulty conveyor belting.

As far as satisfying customer needs for the transfer conveyor market, the maintenance department can only satisfy the local need. They are not equipped to market transfer conveyors to other companies but they could possibly supply other locations within their organization.

Job Shops

Thousands of 'job shops' service manufacturing across America. A job shop is a machine shop that specializes in producing machined parts in relatively small quantities to a customer's specification. They typically have a wide variety of machining capabilities which are utilized by customers that do not have the capability either physically or operationally within their own organizations.

Around any large food processing plant one can find job shops that will fulfill the extraneous machining and fabrication needs of the plant. These job shops are very dependent upon the welfare of the plants they serve and are forced to level out their business or grow it by finding new machining needs within their customer base or find new customers. When the need arises at a plant for a transfer conveyor, some job shops have ventured to fill the need.

By virtue of their location and relationship with these plants they can provide better communication and coordination when fabricating a conveyor for the plant. They are also available locally after the sale to provide service if necessary.

However, their expertise is in machining and fabrication, not designing transfer conveyors. Also, they may have limited or no knowledge of the USDA requirements for sanitary conveyors. And they are only equipped to supply the local market. They have neither the marketing or distribution to sell transfer conveyors beyond their geographic area.

Conveyor Belt Manufacturers

Conveyor belt manufacturers is the class of manufacturers whose main business is to manufacture and sell conveyor belting and associated drive components. Of course this includes WBCA but I will evaluate this classification in general.

The marketing and sales of transfer conveyors by conveyor belt manufacturers represents forward integration. Forward integration occurs when a company sells products that use the company's main products much the way the company's customers might. This allows more value to be added to the main product but also presents some challenges.

Obviously, the company has an advantage in that they have a thorough knowledge of the conveying medium and its design limits. They also have a distribution and marketing channel that is focused on the applications that utilize this style of conveyor belting.

However, the company may lack the fabrication facilities and design personnel, and possibly the expertise required to manufacture transfer conveyors. The fabrication processes for conveyors can be quite different than those necessary for conveyor belt manufacture. Another more disturbing issue is the conflict between forward integration and the direct competition with customers of the company's main product.

CHAPTER 5 - COMPETITIVE ISSUES

The venture to forward integrate into transfer conveyors presents some serious competitive issues to be considered. This chapter presents these issues.

Customers Become Competitors

If WBCA were to make a concerted effort to market conveyors, they would be in direct competition with some of their conveyor belt customers. While WBCA sells replacement belts to end users, a significant amount of belting sales are to OEMs that sell transfer conveyors as either their main product or part of a conveyorized system. Some of these customers may choose to purchase their conveyor belting from other suppliers as they might believe that WBCA would not be as willing to satisfy a competitor's needs. The question is whether the gain in profits from conveyor sales will more than offset the possible loss of belting sales to these OEMs.

Brand Identity and Credibility

WBCA enjoys a significant history in the conveying industry and has a good reputation among customers for manufacturing quality products. One way to avoid the perception of direct competition with WBCA customers is to market the conveyors under a different company name. However, this then raises the issue of brand identity and credibility. Customers rely on these conveyors to keep their production line running. Will they be willing to order conveyors from a company that has no apparent history or experience in the conveying business? This issue must be addressed before WBCA launches a separate conveyor manufacturing venture.

Competitor Response

If WBCA does proceed with this venture the question then becomes will they be able to compete with the existing players in the transfer conveyor industry? What competitive advantage will they have over the competitors? Many of these companies such as Kamflex Corporation and Stein Incorporated have well established reputations in the conveyor market. Further, their operations are expressly organized for the marketing, manufacturing and distribution of conveyors. They also have economies of scale that will not be realized immediately by WBCA.

CHAPTER 6 - ALTERNATIVES

Given this market opportunity there are many alternative approaches that WBCA could take in fulfilling the needs of transfer conveyor customers. The possibilities range from doing nothing to launching a full line transfer conveyor manufacturing firm to exiting transfer conveyor manufacture altogether. This chapter presents these possibilities and the associated issues.

Do Nothing

This is always a possibility. However, this does not resolve the issue of the need for floor space at the WBCA plant. The original impetus to consider starting a separate company for the manufacture of transfer conveyors arose out of the need for more floor space at WBCA's plant and the belief that more conveyors could be sold if the company focused on satisfying the customer's needs better.

As no other companies appear to be aggressively pursuing the transfer conveyor market, and the fact that this market is mature and fairly stable, there appears to be no urgency to enter this market. Delaying this decision would allow WBCA to focus their efforts on their main product line but still leaves the sale of conveyors an unresolved issue.

Start a Small Transfer Conveyor Division

This represents the initial proposal by WBCA. Move the design and manufacture of transfer conveyors out of the main plant and make it stand on its own, financially. WBCA would still market and distribute transfer conveyors, but they would forward orders to this division and purchase the completed conveyors for resale.

This approach raises many competitive issues as described in the previous chapter. Two main concerns are the support and financial aspects of this proposal. If WBCA is the ultimate vendor of the conveyors, who will be responsible for customer support? Certainly the conveyor division could support the customer directly, but there may be problems in providing seamless support to the end customer.

The financial concern is whether a separate division could be profitable operating on its own. WBCA has often made use of excess machine shop capacity to manufacture conveyors. Also product costing has been suspect. As one employee queried, "are we making money on our conveyors?"

To satisfy the need of conveyor customers for shorter delivery lead times at reasonable prices, the division would need to develop a modular conveyor design. A modular conveyor design refers to a design that utilizes common parts for a wide variety of conveyor dimensions. Parts could be designed for certain stock widths and increments of length such that a minimum number of parts could be used on the maximum number of desired conveyor dimensions. Not only does this reduce the cost of parts, but it also can simplify the assembly process as assembly of different dimension conveyors would be fairly consistent and the process can be improved upon with the manufacture of each conveyor.

In addition to the investment in redesign, machinery purchases, employee salaries and facility rent would increase the overhead placed on these products. Alternatively, fabrication of many parts could be subcontracted and only design and final assembly would be performed by the conveyor division. This may be a good

initial solution to reduce the cost of acquiring machinery and personnel for part fabrication. However, it could raise the cost of the parts and possibly reduce the flexibility of the company to respond quickly to customer orders. The question still remains, can the division satisfy the customer's needs and be profitable?

Another limitation on the revenue potential of this conveyor venture is that its products would be restricted to transfer conveyors that utilize the Flat-Flex® or Flex-Turn® style of belting. This market represents a niche within a segment of the conveyor industry that is limited in size.

Launch a Full Service Transfer Conveyor Company

One way to increase the revenue generation of a conveyor venture is to expand the product line to transfer conveyors that use any type of conveyor belting. WBCA could launch a full service transfer conveyor company. Full service refers to both the breadth of product line and services provided by the venture.

While this would improve the revenue generation possibilities it does not solve the issues raised about the launching of a conveyor division. If anything, this move may prove more threatening to WBCA customers. This venture would best be launched as a separate company without public affiliation with WBCA to avoid this threat.

Additional concerns arise with this approach which include the increased level of capitalization required to successfully launch this venture and the time necessary to develop a distribution, service and support network. There is also the time to develop or acquire design and fabrication expertise in the other types of conveyor belting.

This type of venture would be very similar to the business presently performed by Kamflex Corporation. What could we provide as a competitive advantage beyond what is presently delivered by Kamflex? An obvious extension to this venture would be to also provide processing machinery design and fabrication. However, the same issues arise, but to a larger extent.

Exit the Transfer Conveyor Market

Another solution to the problem of alleviating the floor space requirements at WBCA would be to discontinue the fabrication of conveyors. This would allow company resources to be focused on the core business of making conveyor belting. An obvious method of exit is to liquidate the stock of conveyors and parts and refer future conveyor inquiries to another manufacturer.

Considering that the core business at WBCA is to sell conveyor belting suggests further analysis of this alternative. Every conveyor that is sold that uses the Flat-Flex® or Flex-Turn® style of belting represents not only an immediate sale of conveyor belting but also the possibility of replacement belt sales for each conveyor. From this standpoint WBCA should actively encourage customers to manufacture transfer conveyors rather than building them internally.

In his book, The Marketing Imagination, Theodore Levitt defines an augmented product as one that offers the customer, "more than what he thinks he needs or has become accustomed to expect." WBCA could augment their product by providing the support and necessary parts for a customer to fabricate their own conveyors. WBCA already provides drive components as an augmentation to their conveyor belt product.

WBCA should consider extending their product offering to a catalog of components that would facilitate a customer fabricating a conveyor that uses the WBCA belts. In this sense WBCA would be avoiding the issue of forward integration while augmenting their core product.

Further, to encourage the use of conveyors that use their belts, WBCA could develop relationships with companies that would satisfy regional demands for these conveyors from customers that do not have the capability of either designing or fabricating a conveyor. WBCA began selling these conveyors to satisfy customer requests. One problem with other companies manufacturing these conveyors is that if they do not execute the design properly the customer will receive a conveyor that provides poor performance. Often the customer assumes that the poor performance is the fault of the conveyor belting. This ultimately damages WBCA's reputation.

Also, WBCA has been unable to provide geographically close support and service to the end users as WBCA is located solely in New Hampshire. This is an advantage that job shops have had over WBCA in that they are located near the customer and can provide better service from specification to installation and start up. By developing exclusive referrals of conveyor requests to regional companies that have been trained in the design of these conveyors, WBCA will expand the use of their belting while improving the acceptance of their belting.

These regional companies that receive referrals could service customer requests within their geographic areas. Upon receiving a referral they could visit the customer and develop an appropriate design. They could then submit their design for WBCA

review and approval and also place an order with WBCA for the necessary parts. Once the regional manufacturer receives the parts they could assemble the conveyor and install it at the customer's site. This will result in more complete service to the conveyor customer, expand the regional company's business and promote sales of WBCA products.

For the customers that have the ability to specify and assemble conveyors, WBCA could provide design consultation and the parts to facilitate the construction of these conveyors. The design consultation can ensure the effective use of the parts offered by WBCA and augment the value to the customer of purchasing these parts from WBCA.

Given these situations it may still make sense for WBCA to develop modular conveyor parts that will simplify the design and construction of customer's conveyors.

CHAPTER 7 - CONCLUSION

After considering the customer needs and the market it appears that WBCA's original motivation to move towards forward integration in the conveying market may not be the best solution. WBCA had proposed to start a subsidiary to manufacture transfer conveyors.

It now seems that their core business of conveyor belting sales may be best served by augmenting the product through expanded services and product offerings to help customers make their own conveyors. This approach will avoid the problem of competing with their existing customer base and should increase the use of their conveyor belting. It will also alleviate the floor space problem that WBCA had hoped to solve by removing conveyor manufacture from the facility.

WBCA should now focus on the implementation issues involved in this redirection of their conveyor business. Further analysis will be necessary to ensure the success of this venture.

APPENDIX - INTERVIEW TRANSCRIPTS

During the interviews I kept written notes of what the interviewee said. I have tried to preserve the wording used in the responses as best as possible. The following transcripts contain the highlights of these interviews.

Person interviewed:	David L. Greer	Date of interview:	January 12, 1994
Person's employer:	WBCA	Relationship to WBCA:	Employee
Person's title:	President	Method of interview:	In person

Focusing only on belt products:
What does WBCA do best for its customers?

- Quick turn around on custom products.
- Reasonable pricing.
- Good technical support, but it could be better.

What could WBCA improve?

- Follow up on customer requests.
- Information system - giving the right information to the sales department.
- The sales literature could be more informative, but we are working on this.
- We could have smarter production planning which would give better efficiency and then a quicker turn around on orders.
- Internal improvements
  - Team building
  - Empowerment of the sales department

Are there different customer groups with different needs?

- Some are price buyers, some delivery, some quality
- Some customers can be different at different times.
- Some are smart and some are dumb - some of these need education in general and some need education about our product.
- Original equipment manufacturers, end-users, food processors (they are more sensitive to delivery lead time) and electronics processors.

How do you compete in this market?

- Our competition will always price lower, we try to keep market share by playing with price and keeping reasonable profit. We will not sell at a loss.
- Price buyer will always buy on price.
- Quality buyer is our desired customer.
- Quality of our product is our strength. We have better equipment that allows better quality and productivity.

Why does WBCA have higher prices than the competition?

- We have higher wages and benefits costs than our competition (we have seen their wage rate in the help wanted section of the paper).

- Also, I believe our material costs are higher. The competition allegedly uses foreign material.

Anything else you would like to comment on?

- We have a good representative network across most of the country. This gives us more visibility.

Is there anything to inhibit customers from switching suppliers?

- No.

Focusing only on conveyor products:
What does WBCA do best for its customers?

- We produce a conveyor that will give excellent belt life.
- We know how to use our product.
- We provide a conveyor that fits their needs exactly - each conveyor is a custom machine.

As far as the product itself, what would you improve?

- Delivery. This is the reason we don't make sales.
- Design. *How?* More modular - this would help reduce the lead time. Use more purchased parts and square leg stock.
- Marketing is horrible. Poor sales information sheets. We need to focus literature to push conveyor sales.
- Examine pricing - we may be a little high.
- Basic engineering changes - upgrade the gear box (white epoxy finish).
- Develop in-house welding capability for the legs and belt supports. This would help reduce costs and delivery time.

Can customers switch suppliers?

- Yes it's easy.

Who are our potential competitors?

- Established conveyor manufacturers like Kamflex.
- Maintenance departments of large companies.
- Small sheet metal benders that locate near big companies. "Cling ons" "Bottom feeders" These are potentially the most damaging, worst suppliers because they don't understand how to design a conveyor to use our belt. This will cause the customer to be unhappy with our belt. To the customer a conveyor is a conveyor.
- Stein, Incorporated would be a potential competitor. Their focus is on [food] processing equipment. Our type of conveyors [transfer] is a necessary product, not a marketed stand alone product. They sell systems.
- We shouldn't get into processing machinery so we can avoid stepping on the toes of our OEM customers.

- All OEM's like Stein who find it necessary to sell transfer conveyors to sell complete systems.

What are their strengths?

- Distribution channel.
- Good products.

What about their products is good?

- Good looking but not the best technical design. Looks like it belongs with other equipment.

Do you think that's important to customers?

- No, to some it is.

What are their weaknesses?

- I have no data, but I suspect they price [transfer conveyors] high like car accessories.
- Lead time is not their focus. Their focus is on systems.

What about Kamflex which only manufactures transfer conveyors?

- They have a much better turn around.
- But they have poorly designed machines. We have had complaints about belt life on their machines.
- They can make conveyors for any type of belting a customer may want.
- They are an established company with a good name. I suspect they are vulnerable and complacent but that may be wishful thinking.
- They don't appear to be aggressive.

Another thing to consider is the shipping costs and location to the customer. This is a bulky product.

What threats exist in this market?

- Other competition.
- Changing technology. New conveying ideas and plastic belting.
- Economic cycle. This is capital equipment. The main product at WBCA [belting] is fairly recession proof.

Person interviewed:	Chris Lynch	Date of interview:	January 12, 1994
Person's employer:	WBCA	Relationship to WBCA:	Employee
Person's title:	Mach. Shop Spvr.	Method of interview:	In person

What do we do best for our conveyor customers?

- Delivery times. For custom products, we are very quick.
- Quality product. We have had only one return in the last 2 years. The customer borrowed the conveyor on a trial basis and claimed they had used it only 5 hours. It looked like they used it 5 years. But it was returned because it didn't fit their needs.

What would you improve?

- Design changes.
  - Longer continuous side plates (but this is limited by the vendor's capabilities).
- Find more suitable vendors.
- Offer more technical support, particularly about splicing the belt.

Any general comments about conveyor manufacturing?

- Our scheduling of orders works well. 4-6-8 weeks for a conveyor. The side frames and custom parts take time.
- If everything were in stock it would take:
  - 2 to 3 days to build a straight conveyor.
  - 1 to 2 days for a Flex-Turn®.
- More work needs to be done on pricing. Are we making money on our conveyors?

Person interviewed:	Don Frye	Date of interview:	January 27, 1994
Person's employer:	WBCA	Relationship to WBCA:	Employee
Person's title:	V. P. of Marketing	Method of interview:	In person

Focusing only on belt products:
What does WBCA do best for its customers?

- Delivery, lead time. Our inventories are decent. If the product is not available, we might not get the order. Our worst lead time is 2 1/2 weeks is the product is not in stock. In stock, it ships the same or following day. We are trying to improve our same day delivery.

What would you improve?

- Closed end belts.

Anything else?

- Technical sales support.
- Coordination. We need to get copies of our orders to our representatives.

Are some customers different from others?

- Absolutely. Price buyers - this makes the purchasing agents look good. The key strategy we use to break this is to compare belts. We can't knock a competitor's product.
- [Customers in] Alabama is [are] a different case. We must develop a relationship with the customers. No one buys directly [but through manufacturers representatives or distributors].

Any other differences?

- Some buy through purchasing agents, some through maintenance departments.
- Maintenance people have better knowledge of the product. These are the people we target.
- Quite a variety of people buy in a plant. If Tyson [Food Company] had centralized purchasing, they would eliminate the corruption that occurs. In Pine Bluffs [Arkansas] we under priced Lumsden. The Maintenance Supervisor was "taken care of monetarily" by Motion Industries. They were both fired. Another example is at the Green Forest plant where there were $100,000 in checks made to the Plant Manager for hydraulic components that were purchased and thrown away which made them the #1 volume in all the plants. The trick is getting to the right person.
- All customers are different.

Focusing only on conveyor products:
What does WBCA do best for its conveyor customers?

- We build them a good conveyor. They work well and are trouble free.
- We have had very few complaints, other than the [Flex-]Turns® [there are complaints of black deposits that appear on the conveying surface]. Even these work well, but could be improved.

- We don't have the capability to do sophisticated design. The talent in the company is there but is used in other places.
- We could customize a lot. Our designs are simple.

What would you improve?

- Delivery.
- Price is a little too high; we could sell more. We've lost orders because of delivery.

What do you think is good delivery?

- One week, providing price is reasonable. We can't quote 8 weeks and expect to get a lot of business. Probably 2 weeks; just like belts.
- Our plant planning is terrible. We're having trouble implementing a simple inventory system.
- Everything is conservative in the delivery of conveyors.
- The feedback from reps [manufacturer's representatives] is that the prices give sticker shock.
- I'm leading up to modular parts.

What about customization?

- We could go into a plant where they don't have the expertise or support personnel; like Ravioli Kitchens, we made special transfers.
- We need to be capable to attack all kinds of conveyors and take responsibility for the application. We need applications engineering capability. Do the layout and installation of the conveyors. We can charge $500 per day for installation; we can always make money on installation.
- We need to be prepared to handle all kinds of belts - plastic, fabric, (God forbid) balanced weave and flat wire. Just wire belt would be greatly limited. Consider the sales [volume of belts]: Plastic belts $250 million per year, Metal belts $100 million per year, and Fabric (synthetic/rubber/kevlar) ?? per year.
- We need to be able to provide the customer with any kind of belt.
- Wire Belt needs to be able to develop new products. We should try [to produce] flat wire belt with our equipment. There's a consensus among reps that Flat-Flex® will diminish in sales.

Who are the potential competitors?

- Lots

Are there any particular types or groups?

- Local sheet metal shops.
- Conveyor manufacturers (general conveyor manufacturers). I looked in the Yellow Pages and found many. In Massachusetts there is Capway and C. H. Babb (a customer of ours), but they're expensive.

What are their strengths and weaknesses?

- I really don't know.

- Their only business is conveyors. [a weakness] Wire Belt is locked into one belt.

Are any potential competitors also WBCA customers?

- They could be. C. H. Babb is obviously one.
- I don't think that would affect anything.
- I think you wouldn't want [the conveyor division] to be too close to WBCA.
- We'd be competitors of Stein [our largest customer].

What does WBCA bring to this venture?

- Reps. They know conveyors. They also represent other belt manufacturers.
- Our company has a great name in the business.
- The west coast may be a problem with delivery (both time and freight costs).
- Some of the problems we might have are:
  - We are going to need to build crates and the rug industry uses belts that are 16 feet wide.
  - We will need in-house stainless steel welding capability (this is a weakness we presently have).

What initiates the purchasing of conveyors?

- Need, expansion of facilities.

Is it a capital good?

- Yes, normally.

Person interviewed:	Jeff	Date of interview:	February 2, 1994
Person's employer:	Kamflex Corp.	Relationship to WBCA:	Customer
Person's title:	Sales Engineer	Method of interview:	Telephone

Are your conveyors made to standard sizes?

- No. All of our conveyors are made to custom dimensions from a catalog of styies.

What type of conveyors do you make?

- Transfer conveyors only. No used equipment, just new conveyors.

What kind of lead time do you have for delivery of your products?

- As low as one week for a 10 foot long by 12 inch wide conveyor. Otherwise it can be up to months.

What is your business like as far as orders and seasonality?

- The business is cyclical with Summer and Spring slow and the beginning and end of the year are the busiest. I suspect that this is driven by the budget cycle.
- Last year was slow but this year is better.

Person interviewed:	Marty Due	Date of interview:	February 4, 1994
Person's employer:	Self	Relationship to WBCA:	WBCA Sales Rep.
Person's title:	Salesman	Method of interview:	Telephone

Focusing only on belt products:
What are the different type of customers?

- Equipment manufacturers.
- End users. Food processors.

What does Wire Belt do well?

- Very good at serving niche market.
  - They stock lots of products,
  - Short lead times,
  - Price is not an issue, and
  - There are no quality problems.

What could Wire Belt improve?

- No complaints. They have a greater variety of products than other metal belts.
- Customers are not complaining.

Are there any other customer needs that Wire Belt is not addressing?

- They have difficulty in splicing the belt. We should train one person in each customer plant how to do it.

Focusing only on conveyor products:
He said that he has quoted several conveyors.
He then said of the post sale customer needs:

- They need to be educated on Flex-Turns®. People have problems in use because they don't know how to maintain the units.
  - Sprocket placement.
  - Inner wear strip replacement.

What are the customers pre-sale needs?

- They want a cheap and dirty conveyor off the shelf to get them out of trouble.
- They are very price conscious.
- They are generally trying to solve a problem cheap (and standard).
- A larger company [customer] will make their own equipment or bring in a local conveyor company. They get better communication with a local company.

Why do customers buy WBCA conveyors?

- The customers are trying to increase production in a confused building. They need a Flex-Turn®. They are trying to cram machinery in to their plant; it's ridiculous.
- The straight conveyors are purchased when they are purchasing other new processing machinery and as such are viewed as a capital good.

Who are the potential competitors?

- Local companies that deal in used equipment (there are 2 in the Cincinnati area).
- Custom manufacturers (in any major city you should find 5).
- Distributors (there are 5 to 6 that deal in off-the-shelf conveying equipment).

What are their strengths and weaknesses?

- Used equipment dealers: strength is their low price, weakness is their selection of equipment.
- Distributors: strength is better coverage of the market, weakness is delivery.
- Custom manufacturers: strength is better communication with the customer, weakness is higher price (particularly on the Flex-Turns®).

What would it take to be successful in this industry?

- You need to target an industry and determine the needs (standard sizes) of the conveyors.
- Be able to ship a conveyor in one week.
- The custom manufacturers all make Cadillacs, we can compete on price.
- Get the price and delivery down.

Any other comments?

- Conveyor manufacturers may stop dealing with me if I sell competing lines of conveyors. So I won't be able to sell belt to these manufacturers. Selling your conveyors better be worth my while.
- Most of what I sell is to Purchasing departments, not Engineering or Maintenance. It will require a different set of skills to sell. This will require intensive training of the [manufacturers] reps. You don't want to be going back and forth to customers to get the information that should have been gotten initially. You'll probably need to develop an application questionnaire to get this information.

Person interviewed:	Mike Hitt	Date of interview:	February 7, 1994
Person's employer:	Fortney Sales Co.	Relationship to WBCA:	WBCA Sales Rep.
Person's title:	Salesman	Method of interview:	Telephone

Focusing only on belt products:
What do customers need?

- Since the belting is used in the food industry they need:
- Quality
  - Workmanship.
  - No metal flakes from the belt that could contaminate the product.
  - The belt tracks properly.
  - The belt is true.
  - No end loop problems.
  - The belt life is reasonable.
- Service.
- Right size openings in the belting.
- The belts can save energy.
- The belts are easy to clean and maintain.

What does Wire Belt do best?

- Build the best product.
- Good design of product.
- Excellent customer service and technical support.
- Competitive prices.
- Good deliveries.
- Good problem solving.
- Hands-on with the customers through the use of reps.

What does Wire Belt need to improve?

- I used to say delivery.
- Customers are getting the best product for the price.

Are there different customers with different needs?

- I'd say it depends on the industry and the weight of product they are conveying.
  - Circuit boards.
  - Heat treating.

Focusing only on conveyor products:
What do customers need?

- For the Flex-Turn® conveyors in the food industry: the chicken market is booming and there is more demand to run faster and get more output. There is limited space in a plant. Instead of separate lines through a plant the Flex-Turn

conveyor is used as a problem solver to make a continuous flow through the plant.
- For the straight [Flat-Flex®] conveyors: flexibility of length and width.

Is delivery a problem?
- Most plants know (plan) a year in advance. It's not a spontaneous purchase for most processing plants. This is also true for turns [conveyors].

Who are the potential competitors?
- Turns: none. Some company's Maintenance departments have attempted to make them.
- Straights: many as far as design. But we are selling the belts and drive sprockets.

What are the strengths and weaknesses of the competitors?
- The engineering at other companies that use our belt is not the best. I've seen the belt run backwards and incorrect sprocket placement.

Are potential competitors a problem?
- If WBCA marketed conveyors strongly, you would have a problem.
- You have to make a decision, how will it affect the belt business.
- Market under another name but carry the assurance of WBCA endorsement.

Person interviewed:	Bob Sneath	Date of interview:	February 11, 1994
Person's employer:	R.E.D. Associates	Relationship to WBCA:	WBCA Sales Rep.
Person's title:	Salesman	Method of interview:	Telephone

Focusing only on belt products:
What are the customer's needs?

- They need light weight product that is positively driven.
- The belt should have good open space and provide good transfer to other conveyors.
- It should be easy to clean.

What about services?

- There are only two domestic suppliers.
- Wire Belt's engineering service is superior. The competition would have to defer to their machine suppliers.

Are there different groups of customers with different needs?

- The belt is not just for conveying a product, but part of a process.
- Customers want no tracking problems [how the belt stays aligned with the conveyor].
- Most customers prefer woven wire belt to Flat-Flex® because it is easy to maintain and splice. But I think this is an education issue.

What does Wire Belt do best for its customers?

- Consistency of product. Good quality control.
- Accurate with shipping dates and lead times.

What would you improve?

- They're [WBCA] adjusting slowly. The door opened slowly to [the competition]. Wire Belt used to focus on the OEMs. Replacement business was through the OEMs. The competition went after the end users. Wire Belt was getting aloof.
- Now Wire Belt is making a good honest effort.
- An advantage [of Flat-Flex belting] over flat wire and balanced weave belts is its weight and tracking. This is why it's probably not being attacked by the plastic belt manufacturers.

[Bob declined comments on the conveyor segment of the business as he has never quoted or sold conveyors.]

Person interviewed:	Bill Hughes	Date of interview:	February 18, 1994
Person's employer:	W.D. Hughes Co.	Relationship to WBCA:	WBCA Sales Rep.
Person's title:	President	Method of interview:	Telephone

Focusing only on belt products:
What do customers need?

- A new and improved product. Flat-Flex® has become a commodity product with more competition.

What about the existing products or services?

- Customers need an easier way to splice the belt. This represents 95% of the customer's problems.
- Service has improved, but still has a long way to go. They [WBCA] don't need to be working just 4 days per week. To provide more service, they should probably work 5 days per week.
- 24 hour hot-line (toll free) service with on-call support. Let's be better than the competition or they will do it. We should be the leader.

What does it mean to be the leader?

- Satisfying customer needs.
- Keep improving the product.

Are there different groups of customers with different needs?

- Distributors, who typically carry inventory of belts up to 200 feet long.
- End users. They have minimal inventory (maybe 10 feet) and they need a quicker turnaround on orders.

What markets do you sell to?

- The furniture industry. They're not running 24 hours per day or producing 50,000 [chicken] wings per day.
- Food plants. Their downtime is expensive (about $150/minute).

What does WBCA do best?

- They make the best product.
- Their pricing is good.

What would you improve?

- Product differentiation or improvement.
- Flexibility in service. You better have it in inventory or make accommodation.
- Flexibility in manufacturing.

Focusing now on the conveyor market.

- The future is bright on selling complete systems. People will want to do one stop shopping.

What are the customer's needs?

- Their products [competitors] are really high priced; need a better price.
- Be in the business or out of the business.

Who are the potential competitors?

- Wow, that's scary. Stein. Transfer conveyors? That's a good question. There are no OEMs in this territory.

- Are you having any transfer problems? This question opens the door at many plants. Every transfer represents a new drive and potential product damage or slippage [the product that is being conveyed].
- I believe that WBCA could pull it off. If you could get it priced right.

What initiates the purchase of transfer conveyors?

- Flexibility in [customer's] manufacturing drives this. Both new production lines and rearrangements of equipment.

Any other comments?

- In house, WBCA is not market driven.
- You can't rely on commissioned reps in all cases to spend time with the engineering departments at OEMs to open doors [to new applications].
- Get all your reps together to tackle this issue.

Person interviewed:	Dan Solaris	Date of interview:	March 15, 1994
Person's employer:	L.K. Goodwin	Relationship to WBCA:	Customer
Person's title:	Salesman	Method of interview:	Telephone

L.K. Goodwin is a distributor of material handling equipment. They purchased a straight transfer conveyor in May, 1992 which was specified for a customer of theirs.

What did you like about the product?

- I was very impressed with the product. It is compact and neat. It was not a war ship.

How was the purchasing decision made?

- That's up to the sales person (we have 5 on the road). They specify a solution for the customer then shop based on price.
- The issues they consider are whether a product fits the customer's application. They are not so concerned with price or delivery.

How is the market in which you operate doing?

- Many of the companies that we serve are moving down south.

Have you had any problems with the conveyor?

- We had a slight problem with the gear reducer leaking.
- Also, the conveyor could have been made out of carbon steel instead of stainless steel. The application was not food processing.

What would you improve?

- No improvements.

Other comments:

- I would appreciate more sales literature and any sales leads that WBCA receives within our region.

Person interviewed:	John Moreschi	Date of interview:	March 24, 1994
Person's employer:	Ravioli Kitchens	Relationship to WBCA:	Customer
Person's title:	President	Method of interview:	Telephone

Ravioli Kitchens is a food processing company that purchased two straight transfer conveyors from WBCA in June, 1993 for their own use.

How did you locate WBCA as a supplier of conveyors?

- Sales brochures. I was looking for a company with USDA experience. [A manufacturer of United States Department of Agriculture approved food processing machinery.]

Would you suggest any improvements to the conveyors?

- The controls and motor mounts.

- I paid extra for technical support in the design of the conveyor and it was worth it.

What was the application for which you purchased these conveyors?

- We were installing a new freezer. The manufacturer of the freezer didn't make conveyors, so we had to find one for our application.
- I just bought an inclined conveyor from Kamflex with plastic belt. [The cooked product is so slippery that Flat-Flex® could not be used.]

What was your purchase decision based on?

- Price and fitness to use. Also, USDA approval was a must.

What drives demand for conveyor purchases in your company?

- More sales.

How has the industry been?

- Our sales are growing. Also, the food business is less cyclical than others.

Person interviewed:	Leo Denomy	Date of interview:	March 24, 1994
Person's employer:	Leo Denomy, Inc.	Relationship to WBCA:	Customer
Person's title:	President	Method of interview:	Telephone

Leo Denomy has ordered many conveyors for resale to their customers. The most recent order was for a straight transfer conveyor in September, 1993.

What do you order conveyors for?

- We resell conveyors to the food processing industry.

How have the WBCA conveyors performed?

- They hold up well.

What do you like about the WBCA conveyors?

- They provide good flexibility in dimensions.
- They are sanitary [easy to clean and USDA approved].
- They are durable.

What do you dislike about the conveyors?

- Nothing.

Would you make any improvements?

- No.

How did you first choose Wire Belt to supply conveyors?

- I'm not sure. I've been dealing with WBCA for many years.

What drives your customer's demand for transfer conveyors?

- When they buy new equipment for their facilities. We sell complete systems and choose Wire Belt when their conveyors fit the application. I do deal with other conveyor manufacturers.

How is the industry doing?

- The food business is not so cyclical but it has been slow.

Person interviewed:	Jim Dodd	Date of interview:	March 24, 1994
Person's employer:	Crown Wood Products	Relationship to WBCA:	Customer
Person's title:	Engineer	Method of interview:	Telephone

Crown Wood Products manufactures TV consoles as part of the furniture business. They purchased a straight transfer conveyor in May, 1992 for their own use.

Why did you purchase this conveyor?

- We purchased the conveyor for a print finish project. We coat the bottom of projection TV panels with black dye with a roller bottom coater. The conveyor is used for flashing volatiles off of the panel after coating.
- We needed a conveyor that would support the product and allow air circulation under the product.

How did you locate Wire Belt as a supplier?

- I'm not sure. A trade magazine?

Have you had any problems with the conveyor?

- No problems, but then belts were tearing. I blame this on our operations. The operation of the conveyor has been pretty good. This really works well for transferring panels.

How was the service you received from WBCA?

- Very enjoyable. What was advertised is what I got.

Is there anything you dislike about the WBCA product or service?

- No.

What would you improve?

- The [conveyor] belt stretches. It would be nice to have a pneumatic tensioning device to take up this stretch or possibly a floating tail assembly.

How was the purchasing decision made?

- We had this application quoted by many companies that make parts dryers. The Wire Belt price was lower, but not a lot. Talking with WBCA people it all went well.

Person interviewed:	Fred	Date of interview:	March 24, 1994
Person's employer:	BGK Circuit	Relationship to WBCA:	Customer
Person's title:	Engineer	Method of interview:	Telephone

BGK Circuit manufactures machinery for the electronics processing industry. They have purchased belting from WBCA and most recently purchased a Flex-Turn® conveyor in January, 1992.

Why did you purchase this conveyor from WBCA?

- This was a rare application for a customer. We've always dealt with Wire Belt. We don't use much belt any more because we have discontinued the product that uses your belt.

Did you have any problems with the conveyor?

- No complaints.

Why did you choose Wire Belt to supply this conveyor?

- Pricing was good.
- Availability.
- We have worked with the people at Wire Belt. They have given us good support, what little we've needed.

Person interviewed:	Fred Walsh	Date of interview:	March 24, 1994
Person's employer:	Janes Family Foods	Relationship to WBCA:	Customer
Person's title:		Method of interview:	Telephone

Janes Family Foods is a food processing company. They have purchased Flex-Turn® conveyors for their own use. The most recent purchase was May, 1993.

What do you like about the Flex-Turn conveyors?

- They provide a cheap way to get around a corner.

What do you dislike about the Flex-Turn conveyors?

- Nothing.

What improvements would you make?

- Nothing. I have installed 5 Flex-Turns and they have had no problems. Of course I have to replace the belts occasionally, but no problems.

Why did you choose the WBCA Flex-Turn?

- To consider any other equipment is out of my league. The other equipment is too pricey. I've had very good experience with Wire Belt.

What drives your need for these conveyors?

- Our demand is driven by our business expansion. Business has been good. In fact, we are planning capital expansion this year.

Person interviewed:	Chris Jarc	Date of interview:	March 24, 1994
Person's employer:	Pierre's Frozen Foods	Relationship to WBCA:	Customer
Person's title:	Engineer	Method of interview:	Telephone

Pierre's Frozen Foods is in the food preparation business. They have purchased a few Flex-Turn® conveyors from Wire Belt. The most recent purchase was November, 1993.

What do you like about the Flex-Turn conveyors?

- They're good products.
- We add our own drives to keep the drives throughout the plant standardized.
- The price is right.

What do you dislike about the Flex-Turns?

- Nothing.

What drives your need for the Flex-Turn conveyors?

- Our business expansion. We were expanding our production facilities until 2 years ago. Now we are rearranging our plant to fit more capacity in the same space.

How has your business going?

- We're growing. We experience some seasonality as we sell food to school systems and the summers are slow.

He recommended that I speak with Bill Schultz in the Maintenance department.

Person interviewed:	Bill Schultz	Date of interview:	March 24, 1994

What do you like about the Flex-Turn conveyors?

- They fit a tight radius turn.

What do you dislike about the Flex-Turns?

- We run a meat product over these conveyors and we have problems with a black build up appearing on the conveyors. Do you have any advice to help with this?

What would you improve?

- Fix this black build up problem.

What is your need for straight transfer conveyors?

- We build our own straight conveyors without any problems. Don Frye has been helpful in assisting with the design.

Person interviewed:	John Starnes	Date of interview:	March 24, 1994
Person's employer:	F. E. I.	Relationship to WBCA:	Customer
Person's title:	Salesman	Method of interview:	Telephone

F. E. I. resells equipment to food processing customers. They have purchased conveyors from WBCA and most recently requested quotes for a straight conveyor and a Flex-Turn® conveyor in August, 1993.

Why did you request a quote for these conveyors?

- The customer requested the product.

Why didn't you purchase these conveyors?

- Price was the deciding factor.

Who is your competition in the conveying market?

- Job shops are our competitors. They give us lots of competition.

What do you like about the conveyors that Wire Belt sells?

- Transferring burritos is tough. Your nose bar is what we wanted. Your conveyor would have worked well for this application.

What is you business?

- We are primarily a component manufacturer. We do not manufacture conveyors. We will quote a conveyor when a customer requests it.