

## **Orchids Paper Company 2014-2015**

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*This case captures Orchids Paper Company at a time of significant change internally and in its environment. It presents opportunities to examine the concept of fit between Strategy, Environment, and Resources to maximize profit potential. The nature of Orchids' products and industry facilitate the case's accessibility, since Orchids operates in an industry which is fairly simple to understand (paper manufacturing). The case is intended for use in business policy and strategy classes at the undergraduate or MBA level, but might be used in operations, supply chain, finance, accounting or marketing classes by focusing on specific questions facing the firm.*

### **INTRODUCTION**

When Jeffrey Schoen took over as Chairman and C.E.O. of Orchids Paper in 2013, he brought with him a vision to make the small Oklahoma firm a national player in the sanitary paper products industry. Mr. Schoen had served on the firm's board of directors since 2007. The firm's Oklahoma paper mill produced bulk rolls of tissue paper, called parent rolls, which the firm then converted into tissue products at the adjacent converting facility or sold to other converters. Selected data about the firm's performance over time is presented in Appendix A.

Orchids' paper mill housed three paper machines which produced paper made primarily from recycled pre-consumer solid bleached sulfate paper, or "SBS paper," combined with a lesser amount of virgin kraft grades of fiber. The firm's paper mill began by pulping recycled fibers and kraft fibers and processing them for use in the firm's three paper machines. The firm's pulping operation had the ability to selectively process the firm's basket of fibers by specific recipe to meet customer and quality specifications.

Orchids then converted parent rolls into finished tissue products at the firm's converting facility. The converting process involved embossing, laminating, and perforating or cutting the parent rolls as they were unrolled; pressing two or more plies together in the case of multiple-ply products; printing designs for certain products and cutting into rolls or stacks. Finished products were then wrapped in polyethylene film; and packed in corrugated boxes or on display-ready pallets for shipment.

The firm sold most of its converted products in the "at home" market, focusing its efforts on dollar stores and other discount retailers. The "at-home" tissue market consisted of several quality levels, including a value tier, premium tier and ultra-premium tier. The firm's core customer base in the "away

from home” market centered around companies in the janitorial and food service industries. Most of the products sold in the “away from home” market were value tier products. Orchids sold any parent rolls not required by the firm’s converting operation to other converters.

The firm’s flexible manufacturing capabilities allowed Orchids to provide its customers with a variety of package sizes and format options, which allowed customers to fit products into particular price categories. The firm’s converting facility, together with low direct labor costs and overhead, combined to produce relatively low overall operating costs. Orchids’ small size and geographic limitations, though, meant that the firm could not cost-effectively fill the needs of customers with operations outside its geographic area.

By the beginning of 2015, the firm had taken steps toward becoming a national supplier of tissue products in the value, premium, and ultra-premium grades. In 2013 and 2014, the firm had invested significantly in upgrading its equipment. The new equipment not only expanded the firm’s paper making and converting capacity, it also allowed the firm to produce the premium and ultra-premium tier products that were increasingly in demand from the firm’s customers. In 2014, the firm entered into a deal with Mexican firm Fabrica (“the Supply Agreement”) to supply products to customers in the Southwestern United States. With these investments, Orchids was poised to take the next step. What that next step should be was the question facing Orchids.

## THE SANITARY PAPER PRODUCTS INDUSTRY

Orchids competed primarily in the sanitary paper products industry (NAICS Code 322291, SIC code 2676) but also operated in the Paper Mills Industry (NAICS code 322121, SIC code 2621). The sanitary paper products industry was in the mature stage of the industry life cycle. North American revenue in the industry exceeded \$13 billion annually with annual growth forecasts of between 0.5% and 2.0% through 2019. Products within this industry included toilet tissues, facial tissues, napkins, paper towels, feminine hygiene products and disposable diapers. These products, as daily consumables, were not subject to much seasonal or cyclical demand variation.

Excluding diapers and feminine hygiene products, the North American tissue market is comprised of toilet tissue (45% share of North American consumption), paper towels (36%), napkins (12%), facial tissue (6%) and other uses (1%). Firms in the industry competed in three tiers of products based on product quality: value tier, premium tier, and ultra-premium tier products. In addition to quality, firms in the industry competed on the basis of price and service. With no industry standard for product sizes, most firms offered a wide range of product specifications to meet specific customer preferences, as illustrated in Table 1.

**TABLE 1**  
**EXAMPLES OF VARIATION IN PRODUCT CONFIGURATIONS (TOILET TISSUE)**

|                            | Product Options |           |           |           |           |
|----------------------------|-----------------|-----------|-----------|-----------|-----------|
|                            | A               | B         | C         | D         | E         |
| <b>Sheet Size</b>          | 4.0X3.75”       | 4.0X3.25” | 4.0X3.75” | 4.5X3.25” | 4.5X3.75” |
| <b>Sheet per Roll</b>      | 1000            | 400       | 500       | 500       | 500       |
| <b>Rolls per Case</b>      | 96              | 96        | 96        | 80        | 96        |
| <b>Ply</b>                 | 1               | 2         | 2         | 2         | 2         |
| <b>Cases per Truckload</b> | 560             | 750       | 560       | 560       | 550       |

For branded products, the sanitary paper products industry was highly concentrated. A wave of acquisitions in the 1990s left three large companies (Procter & Gamble, Kimberly-Clark, and Georgia Pacific) with nearly 80% of the industry’s market share. These companies boasted well-established brands. Georgia Pacific offered products under the names Brawny, Angel Soft and Quilted Northern, Procter & Gamble’s Charmin brand alone accounted for 30% of the North American market, and

Kimberly-Clarke's Cottonelle, Kleenex, Scott, Huggies and Kotex brands combined for another 30 to 40% of the North American market. Despite the well-established brands in the industry, private label brands still accounted for significant sales volume in the industry.

The private label tissue market was highly fragmented. Entry to the industry was difficult due to the large capital expenditures required to start a paper mill and converting facility and difficulty in obtaining environmental and local permits for parent roll manufacturing facilities. The private label segment of the tissue industry was highly competitive, and discount retail customers were extremely price sensitive.

Many of Orchids' competitors were larger and better known, but competition in the tissue market was limited by geographic location. Shipping costs represented a significant portion of total product costs. The costs to ship a truckload of the product could range from \$1.50 per mile to \$5.00 per mile depending on fuel prices, wages, and timing. At these prices, the cost to ship a truckload 1,000 miles could add \$4.46 per case to the customers' costs (at \$2.50 per mile.) This was a significant addition to a product that cost roughly \$70.00 per case.

While it was economically feasible for Orchids to ship within an approximate 900-mile radius of the production site, the firm had focused mainly on customers within a 500-mile radius of its facility to maximize the firm's freight cost advantage over competitors. Competitors operating within a 500-mile radius of the Oklahoma facility included Georgia-Pacific in Muskogee, Oklahoma, Cascades and Pacific Paper in Memphis, Tennessee, Sofidel in Tulsa, Oklahoma and Clearwater Paper Corporation in Oklahoma City. The firm's competitors also had plants in a 500-mile radius from Fabrica's Mexicali plant, including Royal Paper and Cascades in Arizona, Clearwater and Sofidel in Nevada and Asia Pulp and Paper in California.

Most of Orchids' competitors had additional facilities in the Southeast and Midwest regions of the United States. Georgia-Pacific had plants in Georgia, Louisiana and Wisconsin; Cascades had plants in Pennsylvania, Wisconsin, and North Carolina; and Clearwater Paper Corporation had plants in Georgia, Idaho, Illinois, Mississippi, New York, North Carolina and Wisconsin. These 32 firms had net sales of just over \$3 billion annually, or average net sales of \$94.7 per firm—similar to Orchids. Comparative financial data for Orchids and selected similar-sized competitors is included in Appendix B, C and D.

Other than the equipment needed to manufacture and convert paper, supplies were relatively simple. The main supplies needed in industry were water, energy, and some form of wood pulp, often mixed with recycled paper. Ink, packaging and other supplies were incidental to the manufacturing process. This industry was the world's largest customer for recycled material.

Customers fell into two broad categories. The "at home" customers included individual purchasers who bought the product through grocery stores, supermarkets, discount stores and other retail outlets. These retail outlets resold the products, but many also offered their own house brands, which they purchased from manufacturers like Orchids. Competition for shelf space with these retailers was fierce. The "away from home" market was comprised of restaurants, hotels, janitorial services and other parties who used the products in the course of their business rather than reselling the product. Converted product sales generally commanded a higher profit margin than parent roll sales. Within the converted product category, sales in the "away from home" market generally commanded a slightly (2%) lower price than sales in the "at home" market. Margins increased as product quality rose from value tier through ultra-premium tier products.

## **THE FIRM**

In March 2004, Orchids Acquisition Group, Inc. acquired the firm's present facilities in Pryor, Oklahoma outside Tulsa from a bankrupt predecessor for a price of \$21.6 million. They began updating equipment to improve capacity, efficiency, and product breadth. In July 2005, Orchids completed its initial public offering. The \$15.0 million net proceeds were used to partially finance the construction and start-up of a new paper machine. In 2009, a second public offering netted \$14.8 million dollars, which the firm used partially to finance a major converting expansion project, which cost approximately \$27 million.

In June 2014, Orchids completed a transaction with Fabrica de Papel San Francisco, S.A. de C.V., a privately owned Mexican company that produced parent rolls, paper towels, bathroom tissue and paper napkins. As part of the transaction, Orchids acquired papermaking and converting equipment from Fabrica as well as Fabrica's U.S. business, which was primarily in the western United States. The transaction included a supply agreement with Fabrica that provided Orchids the option to purchase up to 19,800 tons of product each year, with an additional 7,700 tons annually in each of the first two years of the agreement. The supply agreement with Fabrica increased the firm's capacity to serve customers in the premium and ultra-premium market tiers primarily in the western United States. Fabrica also agreed to a non-compete in the United States for 20 years or until two years after the termination of the supply agreement, if the supply agreement were terminated prior to 18 years after the transaction.

The installation of a new paper machine and a new converting line in the firm's Oklahoma facility in mid-2015 brought the firm's manufacturing capacity in line with its paper production capacity, at approximately 74,000 tons. The new paper machine could produce a broad range of paper grades used in manufacturing value and premium tier products at lower costs than the machines it replaced. The new converting line increased manufacturing flexibility and capacity in the firm's converting operation.

### **Products**

Orchids manufactured products in the value, premium and ultra-premium market segments. In 2014, 53% of the firm's converted product case shipments were paper towels, 44% were bathroom tissue and 3% were paper napkins. Of the firm's converted products sold in 2014, 74% were packaged as private label products made to customers' specifications. The remaining 26% were packaged under the firm's brands including Colortex®, My Size®, Velvet®, Big Mopper®, Linen Soft®, Soft & Fluffy® and Tackle®, as well as brands acquired under the exclusive U.S. rights to Fabrica's products under the names Virtue®, Truly Green®, Golden Gate Paper® and Big Quality®. Orchids had never actively promoted the firm's brand names and the firm's brand names had no significant market recognition. The firm's branded products were sold mostly to smaller customers who used them as their in-store labels.

In 2014, approximately 67% of the firm's converted product net sales came from sales to discount retailers. Orchids was among the first to focus on serving customers in the discount retail channel and had benefited from the growth of discount retailers and their increased emphasis on consumable products such as bathroom tissue and paper towels. Discount retailers had been expanding their private label product lines into higher tiers as part of their merchandising strategies. By seeking to provide improved product quality, consistently competitive prices, and superior customer service, Orchids managers hoped to capitalize on these trends.

Orchids' investments in new paper machines and converting equipment expanded its ability to provide higher quality products and broadened the firm's product offering into the higher tier markets through improved quality of paper, increased packaging configurations, enhanced graphics and improved embossing. In 2011, Orchids began to place premium and ultra-premium tier products with several customers and was able to grow its sales in these tiers. From only 6.8% of the firm's total production in 2011, premium and ultra-premium sales had risen to 37.9% of total cases shipped in 2013 and 2014.

### **Human Resources**

At the end of 2014, Orchids employed 313 full time employees of whom 254 were union hourly employees and 59 were non-union salaried employees. Most (289) employees worked in the manufacturing and production functions at the Oklahoma facility, while 24 were engaged in sales, clerical and administrative functions and two in engineering. Hourly employees were represented under collective bargaining agreements with the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial & Service Workers International Union Local 5-930 and Local 5-1480 at the mill and converting facility, respectively. In 2015, the firm negotiated a new three-year contract with hourly employees at the mill which expires in February 2018. In 2012, the firm negotiated a new four-year contract with hourly employees in the converting plant that was due to expire on June 25, 2016.

## **Marketing**

Although the firm served customers located throughout the United States, most sales were within approximately 500 miles of its manufacturing facility in Oklahoma and Fabrica's Mexicali, Mexico facility to maximize the firm's freight cost advantage. In the areas near the firm's Oklahoma and Mexicali facilities, Orchids typically had lower freight costs to customers' distribution centers in those regions. The firm's target region for the Oklahoma facility included Texas, Oklahoma, Kansas, Missouri and Arkansas. The transaction with Fabrica allowed Orchids to add customers in California, Nevada, Arizona, New Mexico and Utah. Growth in the "at-home" tissue market historically had been closely correlated to population growth. The firm's expanded target region had experienced strong population growth for the past fourteen years relative to the national average, and these trends were expected to continue.

None of the firm's products were sold under supply contracts. Instead, customers ordered products as needed with truckload purchase orders. This practice was common in the industry. The firm's ability to increase net sales depended significantly on the growth of the firm's largest customers or on increasing business with other discount retailers, increasing business in the grocery chain market, increasing the share of the premium and ultra-premium tier markets or taking market share from competitors.

Orchids depended on four customers for 71% of its converted product sales in 2014. The remaining converted product net sales in 2014 came from other discount retailers, grocery stores, grocery wholesalers and cooperatives, convenience stores, janitorial supply companies and companies in the food service market.

Dollar General accounted for approximately 40% of the firm's net sales in 2014. With annual revenue of \$17.5 billion and more than 11,000 stores in 40 states, Dollar General was the largest small-box discount retailer in the United States. Orchids supplied value tier products to over half of Dollar General's eleven distribution centers and supplied premium tier products to less than half of Dollar General's distribution centers.

HEB became the firm's second largest customer in 2014, primarily due to business gained in the Fabrica Transaction, accounting for approximately 12% of net sales. HEB was one of the largest independent food retailers in the United States with stores in more than 150 communities in Texas and Mexico. Orchids supplied value and premium tier products to HEB. Orchids supplied value tier products to all of the HEB distribution centers.

Family Dollar accounted for approximately 11% of the firm's net sales in 2014. Family Dollar had become one of the leading discount retailers in the industry with more than 8,100 stores in 46 states and sales in excess of \$10 billion. Family Dollar had ten distribution centers throughout the United States. Orchids supplied value tier products to six of Family Dollar's 13 distribution centers and premium tier products to half of Family Dollar's distribution centers. In early 2015, Dollar Tree announced its acquisition of Family Dollar, but had not announced plans for integrating the two firms.

Wal-Mart accounted for approximately 9% of the firm's net sales in 2014. Wal-Mart was the largest discount retailer in the United States, with U.S. sales of more than \$279 billion and more than 4,000 stores in the U.S. Orchids served 25 distribution centers with value tier products in 2015.

Orchids' internal sales team of six employees led by the Vice President of Sales and Marketing directly serviced six customers representing roughly 30% of the firm's sales in 2014 and supervised the firm's network of approximately 40 brokers. These brokers had relationships with many of the firm's customers and Orchids sales staff worked with these brokers to increase business with their accounts. With each of the firm's key customers, however, the senior management team participated with the independent brokers in all critical customer meetings to solidify direct customer relationships.

Most of the firm's brokers provided marketing support to their retail accounts which included shelf placement of products and in-store merchandising activities to support the firm's product distribution. Orchids paid commissions to its brokers ranging from 1% to 3% of the sales they generated. These commissions amounted to \$1.6 million and \$1.9 million in the years ended December 31, 2014 and 2013.

## **Distribution**

The firm's products were delivered to customers in truckload quantities. For shipments from the Oklahoma location, most of the firm's customers arranged for transportation of the firm's products to their distribution centers. In 2014, the customer or their agent picked up approximately 76% of the shipments from Pryor. For the firm's remaining shipments, Orchids arranged for third-party freight companies to deliver the products. In 2014, Fabrica arranged for third-party freight companies to deliver shipments under the Supply Agreement.

## **Manufacturing**

Orchids owned a 36-acre property in Pryor, Oklahoma that served as the company's headquarters and main production facilities. Parent roll production was housed in the firm's two paper mills. The older paper making facility was a 135,000 square foot building which, as of March 2015, housed two paper machines and related processing equipment. The newer paper making facility was approximately 27,000 square feet with one paper machine and a 23,000 square foot parent roll warehouse.

Generally, the Oklahoma paper mill operated 24 hours a day, 362 days a year, with a three-day annual planned maintenance shutdown. The firm's parent roll production capacity historically exceeded the requirements of the firm's converting operation and any excess parent rolls were sold into the open market. However, in September of 2014, the firm demolished two older paper machines in order to begin construction of the new paper machine. As a result, Orchids purchased parent rolls from third parties during the fourth quarter of 2014. During 2013, the company purchased parent rolls from third parties due to an anticipated short-term increase in converted product shipments that exceeded the firm's parent roll manufacturing capacity.

In March of 2015, Orchids replaced two of the firm's older paper machines with a new paper machine, which increased the firm's tissue paper making capacity from 57,000 tons to 74,000 tons, depending upon the mix of paper grades produced. The new machine was also installed to reduce the firm's manufacturing costs, improve product quality and increase manufacturing flexibility.

Adjacent to the firm's paper mill, Orchids operated a 300,000 square feet converting facility containing eleven lines of converting equipment. Orchids ran its higher-speed, more flexible converting lines on a 24 hours a day 7 days a week schedule and utilized the other converting lines as needed. The converting facility produced approximately 8.0 million cases, or 51,000 tons, in 2014.

The addition of another high-speed, flexible converting line in 2015 further increased the firm's converting capacity. The capacity of the firm's eleven converting lines depended on the mix of products produced (e.g. toilet paper versus paper towels versus napkins) and the configuration of products produced (e.g., one roll pack versus multi-roll packs), the size of multi-roll packs (6-count versus 8-count versus 12-count), and sheet counts). Current and expected product configurations and efficiencies reflected an annual converting capacity of approximately 11.5 million cases, or 70,000 tons, of finished tissue products.

The firm also owned a 245,000 square foot finished goods warehouse adjacent to the converting facility. The warehouse had the capacity to hold approximately 600,000 cases of finished product. The firm's normal finished goods inventory level is three to four weeks of sales. In 2013, Orchids began leasing storage space from a third party to meet the warehousing requirement of increasing converted product shipments. Sales projections for 2015 indicated that Orchids would need to continue to rent third party warehousing to meet sales forecasts and maintain customer service levels. The Oklahoma site offered enough land to add additional paper making capacity, but any future expansion of converting capacity would require the firm to acquire additional land and manufacturing space. During 2013, Orchids entered into an option to purchase land adjacent to the converting facility.

With the Fabrica transaction, Orchids acquired one paper machine and two converting lines with capacity of approximately 19,800 annual tons. The equipment had a net book value of \$6.9 million in 2014. The equipment remained in Mexico operated by Fabrica under the terms of an equipment lease agreement signed as part of the transaction. Fabrica may use these assets to provide parent rolls or converted products under the supply agreement or may use these assets to manufacture products sold to

its customers. Furthermore, in accordance with terms of the transaction, items produced under the supply agreement may be manufactured on Fabrica's paper making assets, which can produce quality grades ranging from the value tier to the ultra-premium tier, using the latest paper machine technology. Under the supply agreement, Fabrica agreed to supply Orchids with up to 19,800 tons (27,500 tons in the first two years of the agreement) of the firm's products or parent rolls manufactured at Fabrica's location in Mexicali, Mexico.

Orchids' volume, in tons, of parent rolls manufactured, sold, purchased and converted for each of the past five years, including products produced in Mexico by Fabrica following the Fabrica Transaction in June 2014 appear in Table 2 and 3.

**TABLE 2**  
**ORCHIDS' OUTPUT VOLUME AND PURCHASED QUANTITIES**

|                              | 2014          | 2013          | 2012          | 2011          | 2010          |
|------------------------------|---------------|---------------|---------------|---------------|---------------|
| Total Manufactured           | 68,023        | 57,734        | 56,775        | 56,145        | 55,765        |
| Sold to Third Parties        | (4,922)       | (6,726)       | (10,334)      | (16,410)      | (20,537)      |
| Purchased from Third Parties | 492           | 1,155         | -             | -             | -             |
| Converted                    | <u>63,593</u> | <u>52,163</u> | <u>46,441</u> | <u>39,735</u> | <u>35,228</u> |

**TABLE 3**  
**ORCHIDS' SALES AND TONS SHIPPED**

|                                | Years Ended December 31,                      |            |            |
|--------------------------------|---|------------|------------|
|                                | 2014  | 2013       | 2012       |
|                                | (in thousands, except price per ton and tons) |            |            |
| Converted product net sales    | \$ 138,382                                    | \$ 109,611 | \$ 90,505  |
| Parent roll net sales          | 4,342   | 6,763      | 10,314     |
| Total net sales                | \$ 142,724                                    | \$ 116,374 | \$ 100,819 |
| Converted product tons shipped | 67,870  | 52,592     | 43,661     |
| Parent roll tons shipped       | 4,922   | 6,726      | 10,334     |
| Total tons shipped             | 72,792  | 59,318     | 53,995     |

Net sales figures include gross selling price, including freight, less discounts and sales promotions.

### Procurement

Recycled fiber accounted for most of the fiber used to produce the firm's parent rolls. The pulping process at the paper mill was configured to primarily process a particular class of recycled fiber known as Solid Bleached Sulfate (SBS) paper. Dixie Pulp and Paper, Inc. supplied all of the firm's recycled fiber needs. Under the terms of the contract, unless either party gave notice at least ninety days prior to the end of the term, the agreement automatically renewed each year for one additional year to ensure the firm's long-term supply of quality, recycled fiber on reasonable terms. If Orchids were unable to purchase a sufficient quantity of SBS paper or if prices increased, the firm could reconfigure the firm's pulping plant to process other forms of fiber or could use an alternative type of fiber with the firm's existing pulping process. Both of these options could result in significant cost increases. To ensure an adequate supply of SBS paper, Orchids maintained approximately a three-week inventory.

Orchids combined these high grades of recycled SBS fiber with virgin bleached pulp kraft fiber (e.g., northern bleached softwood, eucalyptus and northern bleached hardwood) to produce the firm's parent rolls. The mix of fiber used depended on the quality attributes required for the particular grades of product. Orchids purchased the majority of its virgin kraft fiber from a single supplier—Marubeni

America Corporation. Virgin kraft fibers were used in the production of premium and ultra-premium tier products. Producing for the higher quality premium and ultra-premium tier markets, would require the firm to increase its use of virgin bleached pulp kraft fiber. Table 4 shows Orchids' cost of sales.

Energy also was a key cost factor in the firm's business operations. Orchids sourced the firm's electricity from the Grand River Dam Authority. In 2006, in connection with the purchase of a new paper machine, Orchids installed a natural gas fired boiler to supply the firm's own steam. Orchids used a third-party energy supplier to purchase all of the firm's natural gas requirements through a combination of fixed price contracts, options and spot purchases. In 2009, Orchids entered into a fixed price contract to supply approximately 60% of its natural gas requirements, or 334,000 MMBTUs (British Thermal Units) per year. The agreement was extended to supply approximately 70% of the firm's natural gas requirements through December 2017 with the price/MMBTUs dropping from \$5.57/MMBTUs in 2013 to \$4.06/MMBTUs in 2017. Under these contracts, Orchids was required to purchase these minimum amounts regardless of its production requirements.

**TABLE 4  
ORCHIDS' COST OF SALES**

|                                   | <b>Years Ended December 31,</b>                                       |             |             |
|-----------------------------------|---|-------------|-------------|
|                                   | <b>2014</b>   | <b>2013</b> | <b>2012</b> |
|                                   | <b>(in thousands, except gross profit margin % and price per ton)</b> |             |             |
| Cost of goods sold                | \$ 107,049  | \$ 80,881   | \$ 70,712   |
| Depreciation                      | 8,936   | 7,613       | 7,541       |
| Cost of sales                     | \$ 115,985  | \$ 88,494   | \$ 78,253   |
| Gross Profit                      | \$ 26,739   | \$ 27,880   | \$ 22,566   |
| Gross Profit Margin %             | 18.7%   | 24.0%       | 22.4%       |
| Total paper cost per ton consumed | \$ 781  | \$ 746      | \$ 754      |

Water was another key input to the process and came with its own issues for the firm. Environmental, health and safety laws and regulations by federal, state and local governments imposed strict standards regarding air emissions, water discharges, handling of hazardous materials, disposal of waste, and remediation of environmental contamination. The U.S. Environmental Protection Agency required that certain pulp and paper mills meet stringent air emissions and waste water discharge standards for toxic and hazardous pollutants. These standards were commonly known as the "Cluster Rules." Since Orchids' products were made primarily from SBS paper, the firm did not make extensive use of chemicals and Orchids' operations were not subject to the current "Cluster Rules." The manufacturing facilities met all existing federal, state and local environmental regulations and Orchids had all of the environmental permits and approvals necessary for its continued operation, either directly or through the Oklahoma Ordinance Works Authority.

The Oklahoma Ordinance Works Authority ("OOWA") which owned the industrial park in which Orchids operated, held the waste water permit that covered Orchids' facilities and OOWA could determine the level of biological oxygen demand ("BOD") and total suspended solids ("TSS") that Orchids could send to the OOWA following pre-treatment at the Orchids facility. The OOWA reduced Orchids' BOD and TSS limits in August of 2007 and Orchids invested to improve the capability and increase capacity in the firm's waste water treatment facility. The improvements allowed the facility to meet the revised permit limits.

Production in Mexicali was operated by Fabrica under the Equipment Lease Agreement entered into as part of the Fabrica Transaction. In accordance with the terms of this agreement, Fabrica indemnified Orchids against any claims, actions, suits, losses, damage, demands and liabilities arising directly or indirectly from operations located in Mexico, including environmental matters.

## CONCLUSION

Orchids had been profitable, but its stock performance had underperformed its selected peer group (Clearwater Paper Products, Wausau Paper, and Cascades) as well as broader measures of paper products investments as shown below. A decade of upgrades and capacity expansion had gone into setting the stage for Orchids to become a national player in the paper products industry. Whether the firm's goals were appropriate and how to implement any plan for increased profitability remained in question.

## CASE QUESTIONS

1. What factors in the external environment have the potential to influence profitability in Orchids' industry (sanitary paper products or paper mills)?
2. Using Porter's Five Forces Model, analyze the industry environment of Orchids and its competitors. Identify opportunities and threats as well as the key success factors for this industry.
3. Complete an internal analysis of Orchids' resources. What Strengths and Weaknesses make Orchids different from its competitors?
4. What are the main issues facing Orchids?
5. Develop a Strategic Proposal for the firm by selecting a business level strategy for the firm. Explain how the chosen strategy addresses the firm's strengths and weaknesses which will allow Orchids to exploit opportunities and neutralize threats.
6. Why has Orchids' stock price lagged behind the stock performance of its peers?
7. Develop a functional implementation plan that addresses the problems identified.

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**APPENDIX A  
ORCHIDS PERFORMANCE OVER TIME**

|   | Year Ended<br>December<br>31,<br>2014 | Year Ended<br>December<br>31,<br>2013 | Year Ended<br>December<br>31,<br>2012 | Year Ended<br>December<br>31,<br>2011 | Year Ended<br>December<br>31,<br>2010 |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| (in thousands, except per share and Tons)       |                                       |                                       |                                       |                                       |                                       |
| Converted Product Net Sales                     | \$ 138,382                            | \$ 109,611                            | \$ 90,505                             | \$ 81,949                             | \$ 74,078                             |
| Parent Roll Net Sales                           | 4,342                                 | 6,763                                 | 10,314                                | 15,894                                | 18,426                                |
| Net Sales                                       | 142,724                               | 116,374                               | 100,819                               | 97,843                                | 92,504                                |
| Cost of Sales                                   | 115,985                               | 88,494                                | 78,253                                | 81,886                                | 76,752                                |
| Gross Profit                                    | 26,739                                | 27,880                                | 22,566                                | 15,957                                | 15,752                                |
| Selling, General and<br>Administrative Expenses | 11,675                                | 9,471                                 | 8,456                                 | 6,810                                 | 6,618                                 |
| Intangibles Amortization                        | 753                                   | -                                     | -                                     | -                                     | -                                     |
| Operating Income                                | 14,311                                | 18,409                                | 14,110                                | 9,147                                 | 9,134                                 |
| Interest Expense                                | 271                                   | 371                                   | 407                                   | 647                                   | 934                                   |
| Other (Income) Expense, net                     | 181                                   | (173)                                 | 302                                   | (42)                                  | (65)                                  |
| Income Before Income Taxes                      | 13,859                                | 18,211                                | 13,401                                | 8,542                                 | 8,265                                 |
| Provision for Income Taxes                      | 4,394                                 | 4,892                                 | 4,144                                 | 2,344                                 | 2,351                                 |
| Net Income                                      | <u>\$ 9,465</u>                       | <u>\$ 13,319</u>                      | <u>\$ 9,257</u>                       | <u>\$ 6,198</u>                       | <u>\$ 5,914</u>                       |

|  |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|
| Net income per common share -<br>Diluted | \$ 1.11 | \$ 1.67 | \$ 1.18 | \$ 0.80 | \$ 0.76 |
| Cash dividends declared per share        | \$ 1.40 | \$ 1.35 | \$ 0.85 | \$ 0.50 | \$ -    |

**Operating Data**

|                                |        |        |        |        |        |
|--------------------------------|--------|--------|--------|--------|--------|
| Converted product tons shipped | 67,870 | 52,592 | 43,661 | 39,104 | 36,126 |
| Parent roll tons shipped       | 4,922  | 6,726  | 10,334 | 16,410 | 20,537 |
| Total Tons Shipped             | 72,792 | 59,318 | 53,995 | 55,514 | 56,663 |

**Cash Flow Data**

Cash Flow Provided by (Used in):

|                      |             |             |            |             |             |
|----------------------|-------------|-------------|------------|-------------|-------------|
| Operating Activities | \$ 20,152   | \$ 20,796   | \$ 17,451  | \$ 15,655   | \$ 12,648   |
| Investing Activities | \$ (37,434) | \$ (12,179) | \$ (9,788) | \$ 1,969    | \$ (17,795) |
| Financing Activities | \$ 11,098   | \$ (7,146)  | \$ (6,226) | \$ (13,469) | \$ 4,057    |

|  |            |            |            |            |            |
|--|------------|------------|------------|------------|------------|
| Working Capital                        | \$ 6,488   | \$ 22,440  | \$ 20,454  | \$ 15,342  | \$ 10,429  |
| Net Property, Plant and Equipment      | \$ 119,720 | \$ 95,745  | \$ 91,188  | \$ 92,285  | \$ 93,805  |
| Total Assets                           | \$ 170,739 | \$ 127,092 | \$ 119,358 | \$ 114,968 | \$ 122,571 |
| Long-Term Debt, net of current portion | \$ 33,662  | \$ 13,927  | \$ 15,079  | \$ 16,231  | \$ 16,615  |
| Total Stockholders' Equity             | \$ 100,513 | \$ 84,849  | \$ 77,178  | \$ 72,649  | \$ 69,596  |

Notes:

1. Net sales figures include gross selling price, including freight, less discounts and sales promotions.
2. Cost of sales includes the cost of internally produced paper, raw materials, direct labor and benefits, freight on products shipped to customers, insurance, repairs and maintenance, energy,

utilities, depreciation and the cost of converted products purchased under the Supply Agreement with Fabrica.

3. Selling, general and administrative (SG&A) expenses include salaries, commissions to brokers and other miscellaneous expenses.

**APPENDIX B  
COMPARATIVE FINANCIAL INFORMATION**

**Annual Income Statement (in 000's) Orchids Paper**

| Period Ending:                          | 12/31/2014 | 12/31/2013 | 12/31/2012 |
|---|------------|------------|------------|
| <b>Total Revenue</b>                    | \$142,724  | \$116,374  | \$100,819  |
| <b>Cost of Revenue</b>                  | \$115,985  | \$88,494   | \$78,253   |
| <b>Gross Profit</b>                     | \$26,739   | \$27,880   | \$22,566   |
| <b>Sales, General and Admin.</b>        | \$11,675   | \$9,471    | \$8,456    |
| <b>Non-Recurring Items</b>              | \$0        | \$0        | \$0        |
| <b>Other Operating Items</b>            | \$753      | \$0        | \$0        |
| <b>Operating Income</b>                 | \$14,311   | \$18,409   | \$14,110   |
| <b>Add'l income/expense items</b>       | (\$181)    | \$173      | (\$302)    |
| <b>Earnings Before Interest and Tax</b> | \$14,130   | \$18,582   | \$13,808   |
| <b>Interest Expense</b>                 | \$271      | \$371      | \$407      |
| <b>Earnings Before Tax</b>              | \$13,859   | \$18,211   | \$13,401   |
| <b>Income Tax</b>                       | \$4,394    | \$4,892    | \$4,144    |
| <b>Net Income-Cont. Operations</b>      | \$9,465    | \$13,319   | \$9,257    |
| <b>Net Income</b>                       | \$9,465    | \$13,319   | \$9,257    |

**Annual Income Statement (in 000's) Clearwater Paper**

| Period Ending:                          | 12/31/2014  | 12/31/2013  | 12/31/2012  |
|---|-------------|-------------|-------------|
| <b>Total Revenue</b>                    | \$1,967,139 | \$1,889,830 | \$1,874,304 |
| <b>Cost of Revenue</b>                  | \$1,708,840 | \$1,671,371 | \$1,607,872 |
| <b>Gross Profit</b>                     | \$258,299   | \$218,459   | \$266,432   |
| <b>Sales, General and Admin.</b>        | \$130,102   | \$119,131   | \$121,045   |
| <b>Non-Recurring Items</b>              | \$8,227     | \$0         | \$0         |
| <b>Other Operating Items</b>            | \$0         | \$0         | \$0         |
| <b>Operating Income</b>                 | \$79,811    | \$99,328    | \$145,387   |
| <b>Add'l income/expense items</b>       | (\$64,579)  | (\$17,058)  | \$0         |
| <b>Earnings Before Interest and Tax</b> | \$55,391    | \$82,270    | \$145,387   |
| <b>Interest Expense</b>                 | \$39,150    | \$44,036    | \$33,796    |
| <b>Earnings Before Tax</b>              | \$16,241    | \$38,234    | \$111,591   |
| <b>Income Tax</b>                       | \$18,556    | (\$68,721)  | \$47,460    |
| <b>Net Income-Cont. Operations</b>      | (\$2,315)   | \$106,955   | \$64,131    |
| <b>Net Income</b>                       | (\$2,315)   | \$106,955   | \$64,131    |

**APPENDIX B (continued)**  
**COMPARATIVE FINANCIAL INFORMATION**

**Annual Balance Sheet (in 000's) Orchids Paper**

| Period Ending:   | 12/31/2014 | 12/31/2013 | 12/31/2012 |
|--|------------|------------|------------|
| <b>Current Assets</b>                                      |            |            |            |
| <b>Cash and Cash Equivalents</b>                           | \$1,021    | \$7,205    | \$5,734    |
| <b>Short-Term Investments</b>                              | \$0        | \$5,035    | \$5,027    |
| <b>Net Receivables</b>                                     | \$11,443   | \$7,137    | \$6,406    |
| <b>Inventory</b>   | \$9,650    | \$10,921   | \$10,275   |
| <b>Other Current Assets</b>                                | \$2,184    | \$1,009    | \$681      |
| <b>Total Current Assets</b>                                | \$24,298   | \$31,307   | \$28,123   |
| <b>Long-Term Assets</b>                                    |            |            |            |
| <b>Long-Term Investments</b>                               | \$1,734    | \$0        | \$0        |
| <b>Fixed Assets</b>  | \$119,720  | \$95,745   | \$91,188   |
| <b>Goodwill</b>  | \$7,560    | \$0        | \$0        |
| <b>Intangible Assets</b>                                   | \$17,237   | \$0        | \$0        |
| <b>Other Assets</b>  | \$190      | \$40       | \$47       |
| <b>Deferred Asset Charges</b>                              | \$0        | \$0        | \$0        |
| <b>Total Assets</b>  | \$170,739  | \$127,092  | \$119,358  |
| <b>Current Liabilities</b>                                 |            |            |            |
| <b>Accounts Payable</b>                                    | \$15,138   | \$7,715    | \$6,517    |
| <b>Short-Term Debt / Current Portion of Long-Term Debt</b> | \$2,700    | \$1,152    | \$1,152    |
| <b>Other Current Liabilities</b>                           | \$1,706    | \$0        | \$0        |
| <b>Total Current Liabilities</b>                           | \$19,544   | \$8,867    | \$7,669    |
| <b>Long-Term Debt</b>                                      | \$33,662   | \$13,927   | \$15,079   |
| <b>Other Liabilities</b>                                   | \$0        | \$0        | \$0        |
| <b>Deferred Liability Charges</b>                          | \$17,020   | \$19,449   | \$19,432   |
| <b>Total Liabilities</b>                                   | \$70,226   | \$42,243   | \$42,180   |
| <b>Stockholders' Equity</b>                                |            |            |            |
| <b>Common Stocks</b>                                       | \$9        | \$8        | \$8        |
| <b>Capital Surplus</b>                                     | \$64,275   | \$46,298   | \$41,238   |
| <b>Retained Earnings</b>                                   | \$36,229   | \$38,543   | \$35,932   |
| <b>Treasury Stock</b>                                      | \$0        | \$0        | \$0        |
| <b>Other Equity</b>  | \$0        | \$0        | \$0        |
| <b>Total Equity</b>  | \$100,513  | \$84,849   | \$77,178   |
| <b>Total Liabilities &amp; Equity</b>                      | \$170,739  | \$127,092  | \$119,358  |

**APPENDIX B (continued)**  
**COMPARATIVE FINANCIAL INFORMATION**

**Annual Balance Sheet (in 000's) Clearwater Paper**

| Period Ending:   | 12/31/2014  | 12/31/2013  | 12/31/2012  |
|--|-------------|-------------|-------------|
| <b>Current Assets</b>                                      |             |             |             |
| <b>Cash and Cash Equivalents</b>                           | \$28,831    | \$25,175    | \$12,579    |
| <b>Short-Term Investments</b>                              | \$50,000    | \$70,000    | \$20,000    |
| <b>Net Receivables</b>                                     | \$156,929   | \$206,915   | \$192,107   |
| <b>Inventory</b>   | \$286,626   | \$267,788   | \$231,466   |
| <b>Other Current Assets</b>                                | \$3,424     | \$5,523     | \$12,314    |
| <b>Total Current Assets</b>                                | \$525,810   | \$575,401   | \$468,466   |
| <b>Long-Term Assets</b>                                    |             |             |             |
| <b>Long-Term Investments</b>                               | \$0         | \$0         | \$0         |
| <b>Fixed Assets</b>  | \$810,987   | \$884,698   | \$877,377   |
| <b>Goodwill</b>  | \$209,087   | \$229,533   | \$229,533   |
| <b>Intangible Assets</b>                                   | \$24,956    | \$40,778    | \$47,753    |
| <b>Other Assets</b>  | \$8,309     | \$14,415    | \$10,327    |
| <b>Deferred Asset Charges</b>                              | \$0         | \$0         | \$0         |
| <b>Total Assets</b>  | \$1,579,149 | \$1,744,825 | \$1,633,456 |
| <b>Current Liabilities</b>                                 |             |             |             |
| <b>Accounts Payable</b>                                    | \$223,741   | \$199,426   | \$174,733   |
| <b>Short-Term Debt / Current Portion of Long-Term Debt</b> | \$0         | \$0         | \$0         |
| <b>Other Current Liabilities</b>                           | \$0         | \$0         | \$0         |
| <b>Total Current Liabilities</b>                           | \$223,741   | \$199,426   | \$174,733   |
| <b>Long-Term Debt</b>                                      | \$568,221   | \$650,000   | \$523,933   |
| <b>Other Liabilities</b>                                   | \$178,016   | \$165,407   | \$333,772   |
| <b>Deferred Liability Charges</b>                          | \$111,634   | \$124,898   | \$60,124    |
| <b>Total Liabilities</b>                                   | \$1,081,612 | \$1,139,731 | \$1,092,562 |
| <b>Stockholders' Equity</b>                                |             |             |             |
| <b>Common Stocks</b>                                       | \$2         | \$2         | \$2         |
| <b>Capital Surplus</b>                                     | \$334,074   | \$326,546   | \$326,901   |
| <b>Retained Earnings</b>                                   | \$464,324   | \$466,639   | \$359,684   |
| <b>Treasury Stock</b>                                      | (\$230,000) | (\$130,000) | (\$30,000)  |
| <b>Other Equity</b>  | (\$70,863)  | (\$58,093)  | (\$115,693) |
| <b>Total Equity</b>  | \$497,537   | \$605,094   | \$540,894   |
| <b>Total Liabilities &amp; Equity</b>                      | \$1,579,149 | \$1,744,825 | \$1,633,456 |

**APPENDIX C**  
**COMPARISON OF ORCHIDS' FINANCIAL RATIOS AND PRODUCTION FIGURES WITH**  
**SELECTED INDUSTRY DATA**

**Comparative Financial Ratios and Production Figures Available in the Case**

| <b>RATIOS</b>   | <b>Orchids, 2014</b> | <b>Clearwater, 2014</b> | <b>Industry Averages</b> |
|---|----------------------|-------------------------|--------------------------|
| <b>Expense Ratios</b>   |                      |                         |                          |
| COGS / NS   | .813                 | .868                    | .79                      |
| Gross Profit / NS   | .187                 | .131                    | .21                      |
| Operating Expenses / NS   | .092                 | .070                    | .156                     |
| Operating Profit / NS   | .100                 | .041                    | .053                     |
| All Other Expenses (net) / NS   | 0                    | 0                       | .014                     |
| Interest Expense / NS   | .003                 | .018                    |                          |
| Profit Before Taxes / NS  | .097                 | .008                    | .039                     |
| <b>Liquidity Ratios</b>   |                      |                         |                          |
| Current = CA / CL   | 1.24                 | 2.35                    | 1.6                      |
| Quick = (CA-Inventory) / CL   | .75                  | 2.22                    | .9                       |
| <b>Activity Ratios</b>  |                      |                         |                          |
| Sales / Receivables   | 12.47                | 12.53                   | 9.6                      |
| Sales / Inventory   | 12.47                | 6.85                    |                          |
| Cost of Sales / Inventory   | 12.01                | 5.98                    | 6.7                      |
| EBIT / Interest   | 52.14                | 1.41                    | 5.6                      |
| Fixed / Worth   | 1.19                 | 1.62                    | 1.5                      |
| Debt / Worth  | .336                 | 1.14                    | 2.7                      |
| Sales / Net Fixed Assets  | 1.20                 | 2.42                    | 4.9                      |
| Sales / Total Assets  | 0.83                 | 1.25                    | 1.8                      |
| <b>Production Figures</b>   |                      |                         |                          |
| 70,000 tons = 11.5 million Cases = 164 Cases/ton  |                      |                         |                          |
| 51,000 tons = 8.0 million Cases = 156 Cases/ton   |                      |                         |                          |
| Converted Price (produced) = \$138 million/63,593 tons = \$2170.05 per ton                                  |                      |                         |                          |
| Converted Price (shipped) = \$138 million/67,870 tons = \$2038.93 per ton                                   |                      |                         |                          |
| Parent Roll Price = \$4.34 million/4,922 tons = \$882.16 per ton  |                      |                         |                          |
| Price per Converted Case = \$2,100/160 cases per ton = \$13.125 per case                                    |                      |                         |                          |
| Price per Truckload = \$13.125 per case X 560 cases per truckload = \$7,350.00 per truckload                |                      |                         |                          |
| Shipping cost per case (1,000 miles) at \$2.50 per mile = \$2,500/560 cases per truckload = \$4.46 per case |                      |                         |                          |

**APPENDIX D**  
**COMPARISON OF ORCHIDS' STOCK PRICE WITH SELECTED PEERS**

|   | 12/31/2009 | 12/31/2010 | December<br>31, 2011 | December<br>31, 2012 | December<br>31, 2013 | December<br>31, 2014 |
|---|------------|------------|----------------------|----------------------|----------------------|----------------------|
| Orchids Paper Products<br>Company               | \$100.00   | \$61.13    | \$90.91              | \$101.00             | \$164.04             | \$145.40             |
| Regional Peer Group<br>(average)                | \$100.00   | \$106.40   | \$97.85              | \$115.12             | \$137.29             | \$150.01             |
| S & P Composite 600<br>Paper Products (average) | \$100.00   | \$116.73   | \$130.90             | \$143.43             | \$227.62             | \$236.18             |

## TEACHING NOTES

### Case Synopsis

Orchids Paper Company (Orchids) is a small U.S. manufacturer of tissue products, primarily toilet paper and paper towels. They have longstanding relationships with several discount retailers both for the firm's own brands and as a maker of house brands for those firms. The firm owns a single production facility in Pryor, Oklahoma (near Tulsa) and has recently completed a supplier agreement with a Mexican competitor. At the time of the case, the firm has been considering expansion. Whether this would be a wise choice and what to do next are possible directions to pursue with the case.

### Teaching Objectives

The case captures a firm at a time of significant change internally and in its environment. The case is intended for use in business policy and strategy classes at the undergraduate or MBA level, but might be used in operations, supply chain, finance, accounting or marketing classes by focusing on specific questions facing the firm. From a strategy perspective, it presents opportunities for students to examine the concept of fit between strategy, environment, and resources to maximize profit potential in an actual firm. The nature of Orchids' products and its industry facilitate the case's accessibility to students, since Orchids operates in an industry which is fairly simple to understand (paper manufacturing). Students should be able to analyze the firm and its environment, identify the issues facing the firm, and develop a strategy for addressing those issues.

For operations and supply chain management, students should analyze operations with regard to process improvements, new product development opportunities, production expansion (facility location decisions), logistics/transportation and procurement. With regard to marketing, students can focus on issues related to merchandising, pricing, promotion, customer retention and new customer acquisition. They could also consider whether the firm should consider developing their brands to compete on a national level. For finance and accounting, the case includes financial data for a full financial ratio analysis of the firm, which can include analyzing financial data of primary competitors. It could be used in an investments course to consider whether the firm is a viable addition to an investment portfolio.

The case was envisioned originally to serve as an end-of-semester integrative project, but can be segmented into smaller assignments through the use of questions to focus students' analyses. Students might begin with an analysis of the industry (the five forces) or with a SWOT analysis, either alone or as a prelude to selecting and implementing a strategy for the firm. Identifying the issues facing Orchids and the alternatives available for dealing with those issues could provide for interesting discussion.

### Questions for Discussion

1. What factors in the external environment have the potential to influence profitability in Orchids' industry (sanitary paper products or paper mills)?

*Political/Legal* – Union contracts with manufacturing workers are a potential challenge for the industry. Poor negotiations with labor can shut down a facility for an undetermined time. Environmental regulations can have a significant impact on the industry. The EPA's "Cluster Rules" refer to the air emissions and waste water discharge standards that pulp and paper mills must meet. Additional state and local environmental regulations can also affect organizations in this industry with regard to handling and disposal of waste, handling of hazardous materials, and remediation of environmental contamination.

Water shortages during droughts could also affect the industry if restrictions for water volume are imposed. Firms could be required to implement significant water recycling programs if they aren't proactive in this area. The industry does have a high rate of recycling with regard to fibers, however, use of renewable sources may become increasingly important with shifts in consumer expectations.

*Economic* – The cost of some inputs, in particular energy and water, can vary significantly based on worldwide supply and demand. Changes in financial regulations has increased the cost of financing for many firms making interest rates potentially more volatile especially on revolving lines of credit.

Consumers grew more price-sensitive after the 2008-2009 financial crisis. This sensitivity caused a boom in sales for dollar stores and other discount retailers as middle class customers shifted their buying habits. Some consumers have returned to products purchased before the crisis, however, many have placed more emphasis on value and price than previously. The discounters, in turn, added products which appealed more to these new customers. Economic improvements leading to significant increases in wages could have the effect of some consumers choosing national brands over private label options. Since facilities generally operate 24/7, energy (electricity and/or natural gas) is another significant factor of production directly impacting cost of goods sold.

*Social/Demographic* – Shifts in population can affect the industry due to high shipping costs and low margins. More consumers are becoming aware of environmental impacts of manufacturing and some are willing to pay more for a recycled product or support firms that are environmentally friendly in their operations (e.g. those not shipping products from one coast to the other). Consumer preferences for convenience of purchase, combined with the acceptability of discounters to middle class consumers meant that securing shelf space in established discount retailers was increasingly attractive to manufacturers.

*Technology* – Production automation technology is important to improve output capacity and capability. The case highlights several instances in which Orchids lowered costs while increasing capacity and flexibility in its paper mill and converting facility when they acquired new equipment. For example, the new paper machine replaced two older machines and the new converting lines are lower cost.

2. Using Porter's Five Forces Model, analyze the industry environment of Orchids and its competitors. Identify opportunities and threats as well as the key success factors for this industry.

Orchids competes heavily with other private labels within specific geographic regions. Orchids' geographic competitors in the private label tissue market are: Pacific Paper, Cascades, Sofidel and Clearwater Paper Corporation. Firms such as Procter & Gamble, Kimberly-Clark, and Georgia Pacific are competitors in the ultra-premium market tier. Students should be reminded that this analysis is of the Sanitary Paper Products industry not the firm (Orchids). It is a good idea to tell students to not mention the firm once the industry has been identified (e.g. "Sanitary Paper Products"). This may help students focus less on the firm and think about each of the Five Forces with regard to the industry as a whole.

*Barriers to Entry (Threat of New Entrants)* – Students should consider what barriers exist in the industry. Questions to consider include: How much would it cost to open/acquire a new manufacturing facility? Are there cost advantages to being large or small? Does experience help you to continually lower costs or improve performance?

High barriers to entry result in a low threat of new entrants. Barriers to entry primarily relate to the cost of production facilities and equipment. Economies of scale favor larger firms with a cost advantage and the industry is dominated by a few established national brands. It is easier for these national brands to secure distribution and retail shelf space versus unknown brands. Another barrier is the high cost to ship low margin products over significant distances. Lastly, government regulations regarding paper mills and paper product manufacturing are significant barriers to entry.

*Bargaining Power of Buyers* – Bargaining power of buyers is somewhat tricky in this industry. Students often focus on the individual end consumer having low bargaining power to affect industry offerings or prices. In this case, however, the customers are the distributors/retailers who purchase the products for resale.

High bargaining power of buyers is due to low switching costs for customers (retailers can switch to another private label) and low product differentiation among private label brands. Shelf space is difficult to secure for relatively bulky items that have low margins. Discount retailers are highly price sensitive and are not loyal to a particular brand and can switch to another manufacturer for a private label. The private label tissue market is highly fragmented with no single large competitor.

*Bargaining Power of Suppliers* – Bargaining power of suppliers refers to those entities who provide the industry's inputs (recycled fibers, virgin kraft fibers, energy and water).

High bargaining power of suppliers is due to a limited number of suppliers of the Solid Bleached Sulfate (SBS) recycled fibers and virgin kraft fibers. Recycled fibers are generally lower cost than first generation fibers, however, white/light colored fibers are needed for the tissue industry. Additionally, there is often only one supplier for particular categories of energy (electricity or natural gas) and water (local municipality).

*Threat of Substitutes* – There is a low threat of substitute products from other industries. Although customers do not incur a significant cost to switch to a substitute, it is unlikely that other options such as fabric or wet wipes would become more popular due to lower convenience and/or higher cost of those products.

*Competitive Rivalry*: As a result of the above forces, competitive rivalry is high in the sanitary paper products industry. The sanitary paper products industry is in the mature stage of growth (2% to 3%). Average profit in the industry is 6.4% of revenue. This is primarily due to the nature of the product itself and the lack of product differentiation among private label brands. Due to slow industry growth, the primary way to increase sales (market share) is to steal customers from competitors. Firms have high fixed costs due to the automated nature of the paper manufacturing process and it is not economically feasible to add capacity in small increments. The equipment is highly specialized and not suitable for other purposes. Products are simple for consumers to understand and compare among competitors.

*Key Success Factors* – Key success factors are ‘problems’ that all competitors in the industry must solve for long-term competitiveness, profitability and sustainability. For the sanitary paper products industry these include: low switching costs for customers, high fixed cost of production facilities, low product differentiation, and slow industry growth rate. From the macroenvironment, a key success factor would be the changes in the discount retail industry. Which of these key success factors represents an opportunity and which represents a threat?

3. Complete an internal analysis of Orchids’ resources. What Strengths and Weaknesses make Orchids different from its competitors?

The case should allow students to analyze the firm’s strengths and weaknesses. It may help to ask students “What resources does Orchids have to work with?” Students could complete a comparison of financial ratios for Orchids and key competitors (using the DuPont model or another tool). A comparison of financial ratios for Orchids and key competitors supports many of the strengths and weaknesses to which the case alludes, but also may provide additional insights into the firm. Appendix A presents numerical information that could be gleaned from the case. The case highlights Orchids’ capabilities with respect to both strengths and weaknesses.

*Strengths* – Orchids has a number of strengths that are valuable within this competitive industry.

Orchids:

1. Remained focused on providing tissue products to a limited 500-mile range of its facilities. This potentially allows for a higher margin (lower cost per unit) than competitors that ship more than 500 miles from their facilities.
2. Maintained a good relationship with labor and seems able to successfully negotiate labor contracts with little to no disruption of operations.
3. Updated the Pryor, Oklahoma facility to better match capacity between the paper mills and converting lines.
4. Negotiated an exclusive supplier deal with Dixie Paper Products to ensure a source of supply for recycled fibers. The majority of the kraft fibers are purchased from Marubeni America Corporation. Current processes can be used for other types of fiber if necessary and the facility could be reconfigured to process other fiber types.
5. Had low overhead costs (SGA Expenses) which allows the firm to be highly competitive within their geographic region.

6. Sustained a strong reputation in the private label sector of the industry as evidenced by its long relationship with Discount Retailers (Dollar General, HEB, Family Dollar and Walmart)
7. Minimized use of debt for financing
8. Was able to customize products to create “store brands”
9. The new supply agreement with Fabrica has given Orchids the ability to access West Coast markets that might be difficult or costly to enter on its own.

*Weaknesses* – Orchids has some weaknesses that could make it vulnerable in this industry.

Orchids:

1. The firm is operating near its maximum production capacity. Any increase in sales would require investment in additional capacity.
2. The firm has little experience in marketing to end-users (e.g., no history of advertising, a marketing staff of six people). While its six sales people have developed relationships with discount retailers and brokers, they would be hard pressed to sell to a larger audience.
3. Procured all recycled fibers from a single supplier and the majority of its virgin kraft fibers from a single supplier. While this can be an advantage in some ways, it may become a challenge if the agreement is not renewed or if either Dixie or Marubeni America were unable to supply enough of the raw materials.
4. Owned only two production facilities and the 500-mile distribution limit are constraints to the growth of the firm.
5. Had a limited ability to expand the firm nationally due to narrow focus on the discount retail market.
6. Relied on a small number of Discount Retailers (Dollar General, HEB, Family Dollar and Walmart) which accounted for 71% of sales. Although it occurred after the date of the case, Orchids did lose Walmart in 2015 who had accounted for 10% of sales the previous year.
7. Lacked brand awareness
8. Procured water from one source at Pryor facility
9. Purchased natural gas through third-party energy supplier who utilizes a combination of fixed price contracts, options and spot purchases; Orchids was required to purchase minimum amounts regardless of production output; resulted in the firm paying higher rates

#### 4. What are the main issues facing Orchids?

The case should allow students to identify a number of issues facing the firm. Probably the main issue facing Orchids is that the firm’s small geographic footprint has left them unable to serve large customers fully. As noted in the case, the firm supplied its products to less than half the distribution centers for three of its four major customers. The exception, HEB, was a regional firm itself. The high cost of shipping a low-price, high-volume product is a key to this issue.

The core issue above also ties into the firm’s limited production capacity. Some of the issues listed below also would be incorporated into the issue above, which Orchids should address to remain competitive:

1. Small relative market share
2. Limited breadth and depth of customers
3. Limited paper making capacity (parent rolls) in Pryor

Other issues students might identify include:

4. Limited number of suppliers
5. Inability to easily switch raw materials (equipment designed for SBS) and currently don’t have to comply with “Cluster Rules”
6. Contracted natural gas price was significantly higher than market price

5. Develop a Strategic Proposal for the firm by selecting a business level strategy for the firm. Explain how the chosen strategy addresses the firm's strengths and weaknesses which will allow Orchids to exploit opportunities and neutralize threats.

The strategic proposal should start with selecting one of Porter's (1980) generic business strategies (low cost, differentiation, focused low cost, focused differentiation, or low cost/differentiation). Two strategies are likely the easiest to justify using Orchids' existing strengths and weaknesses – low cost or focused low cost. Orchids' strengths are its low overhead, labor and input costs and its flexible manufacturing equipment which allows the firm to create house brands to customers' specifications. These specifications often allow the product to be designed to meet a desired price point (e.g., 3.25 X 4.25" as opposed to 3.75 X 4.5" or single- versus two-ply toilet paper). What the firm does NOT have are accepted branding or significant marketing capabilities—both of which would be useful were the firm to pursue a differentiation strategy. The firm's low cost and flexible manufacturing capabilities also fit Orchids' environment—the discount retail industry is growing and attracting more middle-class consumers and those firms are seeking higher-end (premium and ultra-premium) products at reasonable prices to fit the preferences of those new customers.

*The competitive premise* identifies the value added by either product/service attributes for which customers will pay extra (differentiation or focused differentiation) or the source of the firm's ability to create the product/service at a lower cost (low cost or focused low cost) or both to some extent (low cost/differentiation). This part of the proposal will depend upon what strategy is selected. The competitive premise should 'fit' the strategy. For example, if a focused differentiation strategy is selected, then the proposal should revolve around how to penetrate a niche market and charge a premium price. For that strategy, students could recommend that the firm focus more on providing customizable house brands potentially at the premium and ultra-premium tiers. This is probably not a good strategy as it will put them in direct competition for shelf space with the large national brands. For a low cost or focused low cost strategy, the firm would need to find a way to expand its market share while maintaining lowest cost.

We use this discussion to make points about profitability using the basic profit equation:

$$\begin{aligned} & \text{Total Revenue (Price X Volume)} \\ & - \text{Total Cost (Fixed Costs + Variable Costs X Volume)} \\ & \text{Profit} \end{aligned}$$

A firm can therefore improve profitability by increasing price or volume (in differentiation-based strategies) or by reducing total costs (cost-based strategies like those recommended for Orchids). Those cost reductions can come from process innovation, achieving volume buying discounts or economies of scale, cutting fixed costs or by spreading those fixed costs over a larger volume of sales. The key sales pitch for Orchids centers around low costs particularly within a 500 mile radius of its manufacturing facilities. Orchids' price per case is currently about \$13.125. To this, the customer would have to add the cost of shipping the product to their own distribution facilities. This shipping adds roughly \$2.23 per case to their costs within the 500 mile radius, but that cost would double if the product were shipped 1,000 miles. This shipping adds nearly 14.5% to the customers' total cost of acquiring the product.

*The product/market focus* identifies which products/services the firm should sell (product mix) as well as to whom the firm should sell the products/services (specific demographics of the target market). With the low cost or focused low cost strategies, students should recommend several courses of action:

1. that the firm continues to focus on selling to Discount Retailers that are within the geographic reach (500 mile radius) of the firm's manufacturing facilities,
2. seek out new customers within the 500 mile reach of the existing facilities (requiring the firm to expand production capacity),
3. Add the ability to serve new distribution centers owned by existing customers (Walmart, Dollar General, Family Dollar)
4. Add new customers outside the 500 mile reach (which would add approximately 14.5% to customer costs due to shipping.)

Generally, it would be expected that the firm continue to offer the existing product lines in the three different tiers. The key change here would be adding one or more production facilities to better serve the firm's existing and potential customers outside its current geographic region. Note that any increase in sales would require additional production capacity, so a key question would be where to put the additional capacity. A good discussion point might be which factors should influence the choice of new plant location: Supplier access, customer access, transportation access, cost of land and labor, environmental issues or all of the above. Which factors would be most important? (Note: Orchids did open a new facility in Barnwell, S.C. in 2016 and a Tennessee facility in 2017.) The instructor's manual Appendix B contains information regarding current customer access (distribution centers), potential new customer access (distribution centers), potential new production facility location, supplier access for new production facilities, and rail transportation options if rail versus truck is considered to expand the profitable distribution radius beyond 500 miles. Students can complete a cost comparison that includes: the cost of adding rail access to each facility; the use of shipping containers (intermodal); or possibly partnerships with logistics firms to reduce costs.

*The business system focus* identifies the parts of the value chain (inbound/outbound logistics, operations, marketing and sales, service, human resource management, technological development, procurement, and firm infrastructure) which are of primary importance in implementing the strategy successfully. Generally, low cost and focused low cost strategies rely heavily on the firm's operations, logistics, and procurement functions to maintain or reduce costs through process improvements or reduction of input costs.

*Goals* for the firm should be specific, measurable, and timely while also connected to the successful implementation of the strategy (S.M.A.R.T.--specific, measured, attainable, relevant to the strategy, timed). These should relate directly to the suggested plan to improve the problems identified and the recommended implementation plan.

1. Open a new Production Facility in the Southeastern U.S. (Kentucky? West Virginia? Tennessee? Georgia?) within two years. This facility would require a paper mill and one or more converting lines.
2. Increase Revenues to \$
3. Add the remaining distributions centers for Family Dollar, Dollar General, Dollar Tree, and Walmart within 4 years.
4. Pursue non-customers such as Costco who fit Orchids' customer profile.

The strategic proposal should 'fit' the firm and its situation. Students often want to create a strategy that is 'cool' but inappropriate to the firm, its industry, or both. This firm is a good example of this phenomenon. While students may be predisposed to pursue some form of differentiation strategy, such a choice would play away from Orchids' strengths and toward its weaknesses. Students can be asked to create realistic financial projections (3-5 years) including the costs and benefits of the proposed plan.

6. Why has Orchids' stock price lagged behind the stock performance of its peers?

The problem is not profitability—Orchids had outperformed most of its peers by most measures of profitability (Gross profit, Operating Profit, Earnings before interest and taxes, Earnings before taxes, Return on Sales). Three factors may be contributing to the stock's performance. First, the firm's reliance on a limited number of product, buyers and suppliers makes this a riskier investment than other firms like Georgia-Pacific or Clearwater. Second, the firm's products are not well branded, meaning many investors would not know about the firm. Finally, the firm's limited scope of operations means its growth potential is limited. Would the strategies suggested above have any impact on these factors?

7. Develop a functional implementation plan that addresses the problems identified.

As a major semester project, students should develop implementation plans in which they explain specifically the role of each function with regard to implementation of the strategic proposal. For

example, if the plan calls for building a new facility, the students should address the role of operations, logistics, procurement, finance, and human resources with regard to opening a new facility. In this case Sales and Marketing may not play a role in the facility expansion, however, they would be responsible for expanding sales into the new territory through existing relationships or by developing new customers.

**IM Appendix A: Comparative Financial Ratios and Production Figures  
Available in the Case**

| <b>RATIOS</b>   | <b>Orchids, 2014</b> | <b>Clearwater, 2014</b> | <b>Industry Averages</b> |
|---|----------------------|-------------------------|--------------------------|
| <b>Expense Ratios</b>   |                      |                         |                          |
| COGS / NS   | .813                 | .868                    | .79                      |
| Gross Profit / NS   | .187                 | .131                    | .21                      |
| Operating Expenses / NS   | .092                 | .070                    | .156                     |
| Operating Profit / NS   | .100                 | .041                    | .053                     |
| All Other Expenses (net) / NS   | 0                    | 0                       | .014                     |
| Interest Expense / NS   | .003                 | .018                    |                          |
| Profit Before Taxes / NS  | .097                 | .008                    | .039                     |
| <b>Liquidity Ratios</b>   |                      |                         |                          |
| Current = CA / CL   | 1.24                 | 2.35                    | 1.6                      |
| Quick = (CA-Inventory) / CL   | .75                  | 2.22                    | .9                       |
| <b>Activity Ratios</b>  |                      |                         |                          |
| Sales / Receivables   | 12.47                | 12.53                   | 9.6                      |
| Sales / Inventory   | 12.47                | 6.85                    |                          |
| Cost of Sales / Inventory   | 12.01                | 5.98                    | 6.7                      |
| EBIT / Interest   | 52.14                | 1.41                    | 5.6                      |
| Fixed / Worth   | 1.19                 | 1.62                    | 1.5                      |
| Debt / Worth  | .336                 | 1.14                    | 2.7                      |
| Sales / Net Fixed Assets  | 1.20                 | 2.42                    | 4.9                      |
| Sales / Total Assets  | 0.83                 | 1.25                    | 1.8                      |
| <b>Production Figures</b>   |                      |                         |                          |
| 70,000 tons = 11.5 million Cases = 164 Cases/ton  |                      |                         |                          |
| 51,000 tons = 8.0 million Cases = 156 Cases/ton   |                      |                         |                          |
| Converted Price (produced) = \$138 million/63,593 tons = \$2170.05 per ton                                  |                      |                         |                          |
| Converted Price (shipped) = \$138 million/67,870 tons = \$2038.93 per ton                                   |                      |                         |                          |
| Parent Roll Price = \$4.34 million/4,922 tons = \$882.16 per ton  |                      |                         |                          |
| Price per Converted Case = \$2,100/160 cases per ton = \$13.125 per case                                    |                      |                         |                          |
| Price per Truckload = \$13.125 per case X 560 cases per truckload = \$7,350.00 per truckload                |                      |                         |                          |
| Shipping cost per case (1,000 miles) at \$2.50 per mile = \$2,500/560 cases per truckload = \$4.46 per case |                      |                         |                          |

## IM Appendix B: Logistics and Transportation-related information

### CURRENT Customer Access

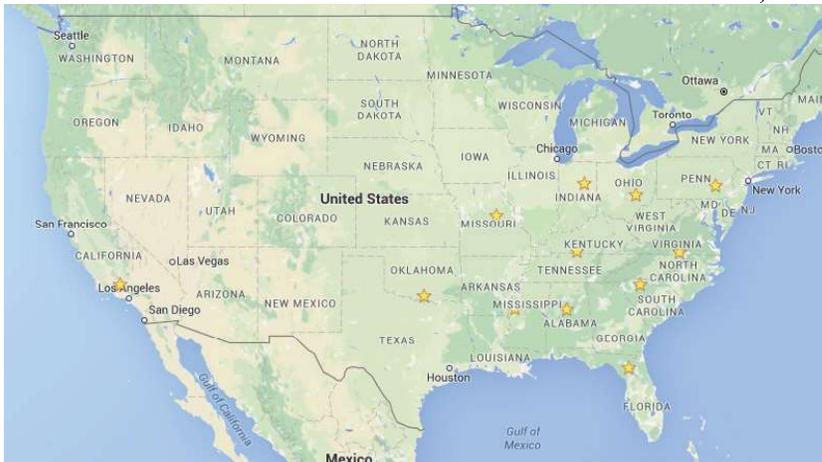
#### H.E.B. Distribution Centers - Currently serve all



#### Family Dollar Distribution Centers – serve 6 DCs value tier; 5 DCs premium tier



#### Dollar General Distribution Centers – serve >50% value tier; <50% premium tier



## POTENTIAL New Customer Access

### Dollar Tree Distribution Centers – acquired Family Dollar



### Publix Distribution Centers



### Costco Distribution Centers



## POTENTIAL New Customer Access (continued)

### Aldi Distribution Centers



## POTENTIAL New Production Facility



## Supplier Access: Dixie Pulp & Paper plants



# Transportation Options: Truck vs. Rail

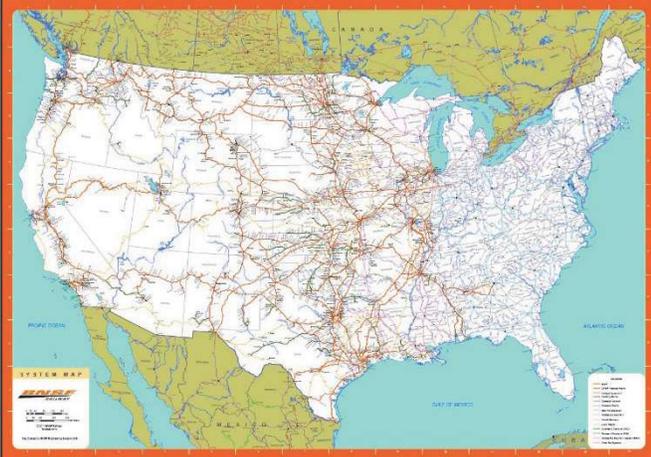
## CSX Railway system



## Union Pacific Railway system



## BNSF Railway system



## Transportation Options: Truck vs. Rail (continued)

### BNSF Intermodal system

