Industry Overview

The snack food manufacturing industry includes about 400 companies with combined annual revenue of $23 billion. Major companies include PepsiCo's Frito-Lay, Kraft's Nabisco subsidiary, and Kellogg's Retail Snacks business. The industry is concentrated: the top 50 companies account for 75 percent of industry revenue.

The snack food manufacturing industry includes companies that make roasted nuts and nut mixes; potato, tortilla, and corn chips; popped popcorn; and peanut butter. This industry doesn't include companies that make cookies, candy, crackers, pies, or chocolate-covered snacks.

COMPETITIVE LANDSCAPE

Demand is driven by consumer tastes and health considerations. The profitability of individual companies depends on efficient operations, effective marketing, and a strong sales force. Large companies have advantages in raw material purchasing, manufacturing efficiencies, distribution, and marketing budgets. Small operations can compete effectively by self-distributing products, selling online, or marketing snacks as gift items. Average annual revenue per employee is $500,000.

Snack food manufacturing competes against other "impulse" food items, including cookies and crackers, baked goods, fruits and vegetables, and fast food items.

PRODUCTS, OPERATIONS & TECHNOLOGY

Major products are potato chips (30 percent of industry revenue); tortilla chips (20 percent); and bulk nuts (10 percent). Other products include canned nuts, corn chips, peanut butter, popcorn, and hard pretzels.

Salty snack foods are found in 99 percent of all American households. Research from the USDA and the Snack Food Association (SFA) finds that the average American household spends around $80 on 32 pounds of salty snacks each year. Potato chips are the most popular US snack, representing 40 percent of all snack food consumption. Each year, Americans consume 4.6 pounds of potato chips per capita from nearly 20 pounds of farmed potatoes.

To make potato chips, manufacturers receive daily truckloads of fresh potatoes. Sources depend on the season: potatoes come from Florida in April and May, from Virginia and North Carolina in the summer, and the Dakotas in winter. Potatoes are stored in warehouses at 40 to 45°F and warmed to room temperature prior to processing.

A conveyor belt moves the potatoes through the various stages of manufacturing. Vibrating conveyors remove debris and push the potato to an automatic peeling machine. After peeling, potatoes are washed with cold water and enter a revolving impaler. Straight blades produce regular chips; rippled blades make ridged potato chips. A secondary wash rinses off excess starch from the newly sliced potatoes. "Natural" potato chips aren't washed and retain this starch.

The sliced potatoes move through air jets that remove excess water and enter a long trough filled with hot cottonseed, corn, or blended oil. Paddles push the chips along as they fry. Salt and flavorings are added as the chips cool. Cooled chips are conveyed to a packing machine, where computer-aided machines pack the chips and add air and nitrogen to the package prior to sealing. Workers handpack the bags into cartons and place them on pallets for warehousing. Rejected potatoes and peels are sent to farms for animal feed. The starch removed during rinsing is sold to starch processors.
A snack food manufacturer must have advanced **quality control** measures in place at all stages of processing. Optical sensors spot and discard defective chips. Quality control managers inspect incoming ingredients, test the viscosity of oils, and taste-sample every product, typically on the hour.

To reduce product shipping costs, companies typically operate **multiple manufacturing plants** across the US. Most plants are capable of manufacturing a range of products, though each plant usually specializes in one or two popular brands. Large companies manage a network of distribution centers for warehousing products prior to store delivery.

**Common inputs** for snacks include white potatoes; corn and wheat flour; cottonseed, corn, and soybean oil; shelled peanuts; flavorings like herbs, salt, and spices; and packaging materials. Key energy inputs include water, electricity, diesel, and natural gas.

Recent technological advances include automated quality control instrumentation, advancements in creating crunchier chips, baked snacks, and genetically modified (GM) potatoes and corn that result in more uniform chips and snacks. Most large companies manage **real-time sales tracking** using a network of handheld wireless devices and centralized enterprise resource planning (ERP) systems.

**SALES & MARKETING**

**Typical customers** are grocery wholesalers, warehouse club stores, food service distributors, vending machine distributors, and convenience stores ("c-stores"). Depending on the customer's needs, sales can be consumer-sized or in bulk quantities. Supermarket sales account for around 50 percent of all snack sales. Warehouse clubs and mass merchandisers represent around 10 to 15 percent of sales; vending and food service, 5 to 10 percent.

Several companies specialize in producing **private-label** brands for supermarkets and c-stores. Market share can vary depending on the product: for potato chips, tortilla chips, and pretzels, private-labels account for around 5 percent of sales. Private-label market share for ready-to-eat (RTE) popcorn is 10 percent and 25 percent for mixed nuts.

**Major sales channels** include independent distributors, third-party brokers, internal sales forces, and direct store delivery (DSD) programs, where products are stocked and pulled by the company's own distribution arm. Many companies rely on a combination of these channels.

Major types of **marketing** include TV and radio ads; coupons in newspapers, magazines, and on the Internet; movie, TV, and celebrity tie-ins; "merchandising" through in-store discounts and end-cap promotions; sweepstakes; and product-specific websites. Since most large snack manufacturers are a division of a food conglomerate, end-caps and in-store promotions often feature complementary products (Pepsi and Doritos). Brand extension is common (Planters Peanut Oil, Skippy Snack Bars). Companies seek to maximize merchandising lift, the marginal gain in product sales volume from a price discount, feature in a store advertisement, or in-store promotion.

**Customer service operations** are extensive, as bad publicity can severely damage a brand. Media reports of foreign objects or animals in a snack bag can quickly overwhelm customer service operations. Most companies manage toll-free help lines and web-based email submission forms to address product questions and concerns.

Companies invest heavily in **Internet** promotions, developing interactive web sites around well-known brands. Most large processors manage restricted-access Intranets or electronic data interchange (EDI) systems to facilitate e-commerce transactions and manage inventory. Some small snack companies may specialize in online sales; typically, these sales are marketed as gift tins or baskets.

**Typical product prices** are $0.30 an ounce for potato, tortilla, and flavored corn chips and $0.25 to $0.50 an ounce for roasted nuts, depending on the variety. Private-labels cost 20 to 40 percent less than name brand. New reduced calorie or low-salt offerings are often more expensive per ounce. Distributors typically mark up prices 20 to 30 percent from the manufacturer's price; retailers add another 10 to 20 percent. Retailer consolidation has shifted the buying power from manufacturers to retailers.

**FINANCE & REGULATION**

**Cash flow** is generally steady throughout the year. For snack foods, the primary ingredient (nuts, potatoes, corn) is typically the most expensive input. Tree nuts can represent up to 50 percent of the total cost of goods; potato and corn represent around 20 to 30 percent of the total cost to produce chips. Packaging like foil bags and plastic jars typically account for 20 percent of cost of goods. To limit raw material and energy costs, companies use financial hedging instruments and enter multi-year contracts with key suppliers.
For many large food conglomerates, operating profits in snack foods are the highest in the company. Gross margins range from 30 to 50 percent. Companies warehouse 30 to 45 days of finished product inventory. Receivables range from 30 to 60 days.

Snack food manufacturers typically own their own manufacturing property and processing equipment, although companies large and small may choose to work with a contract manufacturer (co-packer). Contract manufacturers produce products for a number of different companies, following an agreed-upon recipe and cooking process.

The snack industry is highly regulated by federal and state governments. The federal regulatory climate can vary depending on industry business practices and how pressing public health is compared to other national policy matters. The FDA oversees food safety and sets rules regarding health claims on labels. The Food Allergen Labeling and Consumer Protection Act (FALCPA) requires that manufacturers disclose if specific allergens (milk, eggs, peanuts, tree nuts, fish, shellfish, wheat, and soy) might be present in the product or the manufacturing environment. The FDA is researching the possible negative health effects of acrylamide, a carcinogen in food resulting from frying foods at high temperatures.

The OSHA manages workplace safety and works to limit the dangers of combustible flour dust. The EPA, state, and local agencies monitor environmental protections, including wastewater treatment, air quality, and stormwater.

Over the past decade, various state governments have tried to control snack food consumption by enacting state "snack taxes," a special tax on high-fat or salty snack foods. Most of these taxes have been rejected or repealed. The industry closely watches efforts to raise state revenues by taxing the snack food industry.

REGIONAL & INTERNATIONAL ISSUES

California, Florida, Illinois, and Texas are the top states for snack food manufacturing. Large companies typically locate warehouse and distribution networks in or near major urban areas.

The US is a net exporter of snacks, though the import/export market is very small. Exports account for 3 percent of total industry production; imports account for less than 2 percent of the total US market. Large companies can create unique flavors that match regional taste preferences: Frito-Lay promotes sweet snacks in Shanghai and meat-flavored snacks in Beijing.

HUMAN RESOURCES

Snack food manufacturing wages average $15 per hour, 15 percent lower than the national average. Production workers must have basic mechanical and technical skills to operate machinery and the physical strength to lift heavy objects. The Snack Food Association (SFA) has partnered with several universities, providing online education for managers. Courses include new product development, business plan writing, and international trade.

The annual injury rate in snack food manufacturing is nearly 20 percent higher than the national average. Common injuries are sprains and strains, cuts, and fractures. Injuries can be severe: twice as many cases last more than a month compared to the national average, and amputations are five times higher than the national average.

Industry Employment Growth

Bureau of Labor Statistics
Recent Developments

MONTHLY NEWS

The SunChip also rises
Strategy, 01 July, 2008, 1091 words
It's not every day a snack food brand signs on to help rebuild a city. But SunChips isn't your average snack food. Nor is it being led by your average marketer. Since moving stateside in 2005, Gannon Jones, VP marketing for Dallas-based ...

Summer Snacking Gets Sensible With Innovative 8 Grain Crisps; Manufacturer Announces Distribution into Major Retail Locations
PR Newswire (U.S.), 30 June, 2008, 493 words
BUTLER, N.J., June 30 /PRNewswire/ -- World Gourmet Marketing, LLC, a New Jersey-based food manufacturer, announces the addition of 8 Grain Crisps to its Sensible Portions(R) brand of healthy and delicious all natural snacks. The product ...

Nuts for Boomers
Brandweek, 20 June, 2008, 403 words
The snack food category is known for being several things, but inspirational? Frito-Lay thinks it can be and is positioning its new nut-based, Boomer-targeted snack line, True North as "a truly inspired natural nut snack."

QUARTERLY INDUSTRY UPDATE

Industry Criticizes Food-to-Fuel Mandates - The Snack Food Association (SFA), a trade group representing snack food companies, wants the EPA to revise the food-to-fuel mandates of the Energy Independence and Security Act of 2007. The SFA regards the federal government's program to increase biofuel production a leading cause of recent price increases in grains and oil, and the one variable completely within the government's control. The SFA joins six other national industry associations in calling for the EPA to freeze federal food-to-fuel mandates.

Pringles Exempt from UK Food Tax - Procter & Gamble (P&G), parent company of snack food manufacturer Pringles, successfully defended its argument that the company should be exempt from a British food tax on potato crisps. Most food isn't taxed in the UK, but potato crisps are subject to Britain's 17.5 percent food tax. P&G's lawyers successfully argued that Pringles are baked, not fried, and contain a mix of potatoes and rice designed to "melt on the tongue." The British High Court on taxes agreed, and the snack food was granted an exemption from the food tax.

Wages Rise, Slight Gain in Employment - Average US wages in the snack food manufacturing industry increased 10 percent in April 2008 compared to year-ago levels; overall employment rose 2 percent. Snack food wages have increased 45 percent over the past four years but remain 15 percent lower than the national average.
CRITICAL ISSUES

Volatile Ingredient Prices - The price of critical commodity inputs such as corn, tree nuts, soybean and cottonseed oil, and potatoes can increase significantly due to poor farm yields, unpredictable weather patterns, and market reactions to government farm subsidies. Tree nuts can represent up to 50 percent of the total cost of goods sold. While potatoes are a less expensive input, the price of white potatoes has fluctuated 20 percent or more in seven of the past eight years.

- The cost of corn, a major ingredient in snack food manufacturing, increased 60 percent in May 2008 compared to a year ago; cooking oils like soybean and cottonseed increased 65 percent.

Highly Competitive Industry - The snack food industry competes with a number of other impulse purchases and snacking options, including cookies, crackers, candy, energy bars, in-store bakery items, fast food, and baking at home. Salty snacks are among the first foods eliminated or restricted for those on a weight-management plan. Snack food brands face growing competition from private label offerings, which offer comparable value at a lower price.

- Prices received by roasted nuts and peanut butter manufacturers fell 4 percent in May 2008 compared to year-ago levels; chip and other snack food manufacturers increased prices 12 percent.

OTHER BUSINESS CHALLENGES

Vulnerability to Litigation, Regulation - Increased awareness of obesity has made snack food manufacturers much more vulnerable to litigation and federal regulation. Manufacturers routinely face lawsuits from individuals who blame them for manufacturing addictive, unhealthy products. Olestra, a fat substitute used to make "light" chips, was once regarded as a revolutionary breakthrough, but manufacturers now face lawsuits over its potential digestive effects. Companies emphasize the importance of industry self-regulation and try to stay one step ahead of potential lawsuits and federal clampdowns on advertising, ingredients, and labeling claims.

Dependence on Large Customers - Retail consolidation has put buying power in the hands of large supermarkets and warehouse clubs. Most large manufacturers note that their top five customers represent 30 to 50 percent of total revenues. Retailers maximize profits by tightly managing shelf space and requiring manufacturers to spend on costly advertising, promotion, and merchandising programs. Manufacturers tend to be wary of over-reliance on merchandise discounts, as overuse can lead to consumers expecting lower product prices.

Dependence on Consumer Tastes - Companies often spend millions to reformulate products or develop new brands to capitalize on changing demographics, taste trends, and dietary fads. Brands that don't keep up with changing consumer tastes can quickly fall by the wayside. Promising trends may already be passé by the time a product has passed through R&D, prototyping, test manufacturing, and consumer taste tests.

Cost of Product Innovation - Launching a truly new, exciting snack food product can be difficult and expensive; most new products fail to become profitable. Rather than offer new products, companies are often content to create new line extensions of proven brands. This strategy of product proliferation often erodes brand loyalty, particularly when snack food brands are regularly extended into products ranging from breakfast cereal to candy bars.

Trends & Opportunities

BUSINESS TRENDS

Chip Revenues Rise, Volume Flat - Overall revenues in the snack food industry are rising slightly, but most of this growth is from product price increases due to rising commodity costs. Sales volume is flat or declining for most product categories. Potato, corn, and tortilla chips all have had flat or increasing revenues in recent years, with declining sales volume. Pork rinds, pretzels, and ready-to-eat popcorn have all dropped in both revenue and volume sales.

Shrinking Display Space - To brighten and de-clutter the retail shopping experience, supermarkets are reducing the number of merchandising displays. Open space and freedom of movement are replacing cumbersome pyramid stacks and end-caps. Snack food manufacturers have less opportunity to promote products, making the snack aisle of the grocery store once again the primary arena for product competition.

Private-Label Category Grows - Market share for private-label snacks has increased despite overall category stagnation. Private-label products account for around 5 percent of total potato and tortilla chip sales, 10 percent of pretzel sales, and over 25 percent of snack nuts. Private-labels tend to do better in segments with lower sales volume
and brand dominance (nuts, pretzels) than in the highly competitive chip industry. Private-labels have benefited by going upscale, blurring the traditional distinction between them and branded products.

**Productivity Rises, Employment Flat** - Fully integrated inventory systems, direct store delivery programs, and rapid prototyping have helped increase productivity of snack food manufacturers. Industry productivity has increased 25 percent over the past decade; output per worker has risen over 40 percent. Total industry employment has remained steady at around 42,000 employees.

**Healthier Products** - Manufacturers are creating new snack products that include healthier ingredients. The industry’s fastest-growing category is chips made with blended fruits and vegetables. Flat Earth chips are made with a half a serving of fruit or vegetables in every serving, no trans fats, and low sodium. Other new products include low-sodium chips, baked chips, and oat bran pretzels.

**INDUSTRY OPPORTUNITIES**

**Boosting Convenience Store Sales** - Manufacturers have paid too little attention to maximizing the sales potential of snack foods at convenience stores (c-stores) and drugstores. As grocery stores consolidate and reduce merchandising space, snack makers are revisiting their c-store sales strategy. C-stores and gas station markets make their money on impulse purchases like snacks, candy, and soda. Companies that can figure out how to promote and sell to c-stores may find that this sales channel can help boost sagging sales. Salty snacks account for only 3 percent of in-store c-store revenues.

**Reinventing Nuts** - High in Omega-3s, tree nuts are one of the few true healthy snacks; however, the product category has lacked innovation for many years. Planters has extended its brand into new candy bars and chocolate-covered products, potentially eroding the message that tree nuts have nutritional value. Frito-Lay may be well-positioned to capitalize on the stagnant nut category: its new TrueNorth line includes all-natural mixed nuts and sweet nut crisps and clusters.

**Promoting Sustainability** - Even though snacks are an indulgence, companies can capitalize on the growing interest in sustainability and reduced carbon footprints. Manufacturers can highlight “green” manufacturing processes, domestically sourced raw materials, and other sustainable business endeavors. Some brands are better suited to project a sustainable image: a veggie chip line is more likely to convey this message than a bag of nacho cheese corn chips.

**Spicier Flavorings** - Manufacturers are creating new spicy snacks, responding to consumer interest in spicy and ethnic flavors and a growing Hispanic and Asian population. Hispanics comprise 15 percent of the US population, one-third of whom are under 18 - a key demographic for snack food manufacturers. Popular chip flavors include chipotle, habanero, wasabi, and tequila and lime.

**Executive Insight**

**CHIEF EXECUTIVE OFFICER** - CEO

**Identifying Optimal Product Mix**
Profits in the snack food manufacturing industry depend on the right product mix, with one or two powerhouse snack brands typically leading. Most large snack food companies are divisions of large food conglomerates that depend on its snack division to produce high returns. CEOs must identify what brands can deliver solid profits, and which products are susceptible to changing consumer tastes.

**Fighting Regulations and Lawsuits**
Snack companies regularly face federal and state regulations and lawsuits from consumers. Profitability and future growth depend on the outcome of obesity and Olestra lawsuits, state snack taxes, and restrictions on snack foods in public schools. Companies must actively promote the benefits of a strong snack food industry and the importance of consumer choice.

**CHIEF FINANCIAL OFFICER** - CFO

**Managing Commodity Purchases**
Ingredient costs are unstable, often rising or falling 20 percent or more from year to year. Finance executives must know
when to secure long-term agricultural commodity contracts and when to hedge against rising prices. Energy purchases are just as critical to profitability: escalating natural gas and electricity prices can erode a company's bottom line.

Maximizing Retail Contracts
Snack food companies depend highly on large retailers like Wal-Mart. Companies must secure profitable long-term contracts with major retailers, and carefully consider the commitments required to support the needs of large buyers. A CFO must work in tandem with the company's head of sales to establish wholesale prices, set marketing budgets, and determine the optimal size and structure of the company's sales force.

CHIEF INFORMATION OFFICER - CIO

Fully Integrating Operations
Most snack companies are divisions of highly diversified, vertically integrated corporations. CIOs must be able to integrate snack operations with the corporation's many sales, operations, marketing, and accounting departments. Successful technology departments know how to prioritize, set realistic timelines, and work within a budget.

Modifying Products to Match Health Trends
Modern food technology allows companies to quickly test and prototype new formulations and ingredients. R&D teams can respond to emerging health and diet trends by developing new products that come close to the taste and quality of more decadent offerings. Companies must be able to roll out new products before health trends become passé.

HUMAN RESOURCES - HR

Hiring Qualified Workers
Overall industry employment is flat, but the need to secure and retain qualified employees remains strong. Because of technological advances and improvements in workplace productivity, hiring managers generally look for workers with a technical or college degree. HR professionals recruit MBAs and graduates with advanced science and technology skills to fill management positions.

Training Workers on Safety
Snack manufacturers rely on fast-moving, complex machinery that must be operated with caution. Companies instruct employees how to operate equipment safely to comply with federal and state regulations and to minimize worker injuries. Most accidents can be avoided if workers follow appropriate safety procedures.

VP SALES/MARKETING - SALES

Implementing Sales Strategy
Snack food manufacturers build and manage a complex network of salespeople. Companies invest heavily in technology to optimize the sales force, including route planning software, sales force automation, and inventory systems. Some manufacturers commit to direct store delivery and stock store shelves using a team of salespeople; others rely on a third-party distributor. Most companies use a mix of internal salespeople and a national broker network to support the team.

Increasing Marketing Effectiveness
Traditional consumer packaged goods' advertising is increasingly ineffective. Marketing leaders are looking for new ways to capture the attention of consumers overwhelmed by advertising. Companies may transition marketing dollars from traditional advertising and merchandising in favor of in-store videos, YouTube and Facebook ads, creative promotions, and innovative packaging.

Call Preparation Questions

CONVERSATION STARTERS

How does the company limit the risk of volatile commodity prices?
The price of critical commodity inputs such as corn, tree nuts, soybean and cottonseed oil, and potatoes can increase significantly due to poor farm yields, unpredictable weather patterns, and market reactions to government farm subsidies.

**How difficult is raising prices to consumers?**
The snack food industry competes with a number of other impulse purchases and snacking options, including cookies, crackers, candy, energy bars, in-store bakery items, fast food, and baking at home.

**How challenging are the risks of increased litigation and regulation?**
Increased awareness of obesity has made snack food manufacturers much more vulnerable to litigation and federal regulation.

**What is the company's convenience store sales strategy?**
Manufacturers have paid too little attention to maximizing the sales potential of snack foods at convenience stores (c-stores) and drugstores.

**How can the company capitalize on the health benefits of tree nuts?**
High in Omega-3s, tree nuts are one of the few true healthy snacks; however, the product category has lacked innovation for many years.

**What opportunities does the company see in "green" marketing?**
Even though snacks are an indulgence, companies can capitalize on the growing interest in sustainability and reduced carbon footprints.

**QUARTERLY INDUSTRY UPDATE**

**What effect has biofuel production had on the company's raw material purchases?**
Snack food manufacturers regard the federal government's program to increase biofuel production as a leading cause of recent price increases in grains and oil, and the one variable completely within the government's control.

**What are the company's trends in hiring and wages?**
Average wages in the snack food manufacturing industry increased 10 percent in April 2008 compared to year-ago levels; overall employment rose 2 percent.

**OPERATIONS, PRODUCTS, AND FACILITIES**

**What is the company's main product?**
The industry's main products are potato chips (30 percent of total revenue); tortilla chips (20 percent); and bulk nuts (10 percent). Other products include canned nuts, peanut butter, popcorn, and hard pretzels.

**What key raw materials does the company depend on?**
Key ingredients include white potatoes, corn and wheat flour, and cooking oils.

**What additional ingredients does the company use for production?**
Hot cottonseed, corn, or blended oil are used for frying potato chips. Salt and flavoring are added.

**What does the company do with byproducts?**
Rejected potatoes and peels are sent to farms to be used for animal feed. The starch removed during rinsing is sold to starch processors.

**What are the company's quality control measures?**
Optical sensors spot and discard defective chips. Quality control managers inspect incoming ingredients, test the viscosity of oils, and taste-sample every product, typically on the hour.

**How many manufacturing plants does the company operate?**
To reduce product shipping costs, companies typically operate multiple manufacturing plants across the US.

**What are the company's major operating expenses?**
Major expenses include the primary ingredients (tree nuts, potatoes). Other expenses include diesel, natural gas, and packaging materials.

**CUSTOMERS, MARKETING, PRICING, COMPETITION**

**Who are the company's customers?**
Typical customers are grocery wholesalers, warehouse club stores, food service distributors, vending machine distributors, and convenience stores.

**How much does the company rely on key accounts for sales?**
Supermarket sales account for around 50 percent of all snack sales. Warehouse clubs and mass merchandisers represent around 10 to 15 percent.

**Does the company produce private-label brands?**
Private-labels account for around 5 percent of sales for potato chips, tortilla chips, and pretzels. Private-label market share for ready-to-eat popcorn is 10 percent and 25 percent for mixed nuts.

**What are the company's sales channels?**
Major sales channels include independent distributors, third-party brokers, internal sales forces, and direct store delivery programs.

**How does the company track sales?**
Most large companies manage real-time sales tracking using a network of handheld wireless devices and centralized enterprise resource planning (ERP) systems.

**How does the company market its products?**
Major types of marketing include TV and radio ads; coupon offers; movie, TV, and celebrity tie-ins; in-store discounts and end-cap promotions; sweepstakes; and product-specific websites.

**How does the company respond to customer needs and inquiries?**
Customer service operations are extensive, as bad publicity can severely damage a brand. Most companies manage toll-free help lines and web-based email submission forms to address product questions and concerns.

**What are the typical prices received by the company?**
Typical product prices are $0.30 an ounce for potato, tortilla, and flavored corn chips, and $0.25 to $0.50 an ounce for roasted nuts, depending on the variety. Private-label brands cost 20 to 40 percent less than name brand.

**REGULATIONS, R&D, IMPORTS AND EXPORTS**

**How does the company ensure safety in food allergen labeling?**
The Food Allergen Labeling and Consumer Protection Act (FALCPA) requires that manufacturers disclose if specific allergens are in the product.

**How has the company responded to health risks associated with fried foods?**
The FDA is researching the possible negative health effects of acrylamide, a carcinogen in food resulting from frying foods at high temperatures.

**How does the company monitor efforts to raise state taxes on snack foods?**
Over the past decade, various state governments have tried to control snack food consumption by taxing high-fat or salty snack foods. Most of these taxes have been rejected or repealed.

**How does the company attract new export markets?**
The US is a net exporter of snacks, though the import/export market is very small - only 3 percent of total industry production. Large companies can create unique flavors that match regional taste preferences.

**ORGANIZATION AND MANAGEMENT**

**What is the company's average hourly wage?**
Snack food manufacturing wages average $15 per hour, 15 percent lower than the national average.

**What skills or training does the company require of its workers?**
Production workers must have basic mechanical and technical skills to operate machinery and the physical strength to lift heavy objects.

**What are the company's most common worker injuries?**
The annual injury rate in snack food manufacturing is nearly 20 percent higher than the national average. Common injuries are sprains, strains, cuts, and fractures; amputations are five times higher than the national average.

**FINANCIAL ANALYSIS**
How does seasonality affect company cash flow?
Cash flow is generally steady throughout the year.

What percent of gross sales does the company spend on food ingredients?
Primary ingredients (nuts, potatoes, corn) are typically the most expensive input.

What percentage of gross sales does the company commit to packaging and freight?
Packaging typically accounts for 20 percent of cost of goods. Freight costs generally represent around 10 percent of the total cost of production. Most sales are free on board (FOB), requiring that the manufacturer pay for all freight and transportation expenses.

What is the company's average inventory?
Companies warehouse 30 to 45 days of finished product inventory.

On average, how long does it take the company to collect from buyers?
Receivables range from 30 to 60 days.

Does the company own its plant and equipment?
Snack food makers typically own their manufacturing property and processing equipment, although some companies may choose to work with a contract manufacturer (co-packer).

What are the company's gross margins?
Gross margins can be high, ranging 30 to 50 percent.

What is the average annual revenue per employee?
Average annual revenue per employee is $500,000.

BUSINESS AND TECHNOLOGY STRATEGIES

What new technologies has the company invested in?
Recent advances include automated quality control instrumentation, advancements in creating crunchier chips, baked snacks, and genetically modified (GM) potatoes and corn that result in more uniform chips and snacks.

What new snack trend is the company exploring?
New snack trends include spicy snacks, healthier offerings, and nut chips.

How invested is the company in Internet marketing?
Interactive websites promote brand awareness. Most large processors manage restricted-access Intranets or electronic data interchange (EDI) systems for e-commerce transactions and inventory management. Smaller companies may specialize in online sales.

How challenging is retailer consolidation to the company's buying power?
Retailer consolidation has shifted the buying power from manufacturers to retailers.

If a small company, how can it effectively compete against larger operations?
Small operations can compete effectively by self-distributing products, selling online, or marketing snacks as gift items.

Financial Information

COMPANY BENCHMARK INFORMATION

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US Private Company Data
### Aggregate vs. Small Company

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### Income Statement

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<td><strong>Net Sales</strong></td>
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<td><strong>Operating Income</strong></td>
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<td><strong>Net Profit After Tax</strong></td>
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### Balance Sheet

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</tr>
<tr>
<td><strong>Other Non-Current Assets</strong></td>
<td>27.2%</td>
<td>35.6%</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Accounts Payable</strong></td>
<td>7.1%</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>16.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td><strong>Total Long-Term Liabilities</strong></td>
<td>11.4%</td>
<td>3.2%</td>
</tr>
<tr>
<td><strong>Net Worth</strong></td>
<td>72.0%</td>
<td>88.3%</td>
</tr>
</tbody>
</table>

### Financial Ratios

(Click on any ratio for comprehensive definitions)

<table>
<thead>
<tr>
<th></th>
<th>Aggregate</th>
<th>Small Company</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quick Ratio</strong></td>
<td>0.82</td>
<td>2.39</td>
</tr>
<tr>
<td><strong>Current Ratio</strong></td>
<td>1.68</td>
<td>5.76</td>
</tr>
<tr>
<td><strong>Current Liabilities to Net Worth</strong></td>
<td>36.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td><strong>Current Liabilities to Inventory</strong></td>
<td>156.0%</td>
<td>89.5%</td>
</tr>
<tr>
<td><strong>Total Liabilities to Net Worth</strong></td>
<td>103.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td><strong>Fixed Assets to Net Worth</strong></td>
<td>72.0%</td>
<td>47.0%</td>
</tr>
<tr>
<td><strong>Collection Period</strong></td>
<td>26.3</td>
<td>89.7</td>
</tr>
<tr>
<td><strong>Inventory Turnover</strong></td>
<td>15.7</td>
<td>10.7</td>
</tr>
<tr>
<td><strong>Assets to Sales</strong></td>
<td>64.0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Sales to Working Capital</strong></td>
<td>5.1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Accounts Payable to Sales</strong></td>
<td>4.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Return on Sales</strong></td>
<td>2.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td><strong>Return on Assets</strong></td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td><strong>Return on Investment</strong></td>
<td>13.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td><strong>Interest Coverage</strong></td>
<td>4.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>
Financial industry data provided by Fintel -- offering leading benchmarking with a database of over 900 industries. Utilize financial analysis through profitability, liquidity, sustainable growth rate, business valuation, custom research, and other tools. Visit us on the web at www.fintel.us/firstresearch to find out how we can help you.

ECONOMIC STATISTICS AND INFORMATION

Change in Producer Prices - Bureau of Labor Statistics

Change in Consumer Prices - Bureau of Labor Statistics

VALUATION MULTIPLES

Snack Foods Manufacturing

Acquisition multiples below are calculated using at least 3 middle-market (valued at less than $1 billion) industry transactions completed between 10/2002 and 5/2006. Last update: May 2008.

<table>
<thead>
<tr>
<th>Valuation Multiple</th>
<th>MVIC/Net Sales</th>
<th>MVIC/Gross Profit</th>
<th>MVIC/EBIT</th>
<th>MVIC/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Value</td>
<td>0.7</td>
<td>2.7</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**MVIC (Market Value of Invested Capital)** = Also known as the selling price, the MVIC is the total consideration paid to the seller and includes any cash, notes and/or securities that were used as a form of payment plus any interest-bearing liabilities assumed by the buyer.

**Net Sales** = Annual Gross sales, net of returns and discounts allowed, if any.

**Gross Profit** = Net Sales minus Cost of Goods Sold.

**EBIT** = Operating Profit

**EBITDA** = Operating Profit + Noncash Charges.

SOURCE: Pratt's Stats™ (Portland, OR: Business Valuation Resources, LLC) To purchase more detailed information, please either visit www.BVMarketData.com™ or call Business Valuation Resources.
Industry Forecast

The output of US other food manufacturing, including snacks, coffee, condiments, and nuts, is forecast to grow at an annual compounded rate of 4.1 percent between 2007 and 2012.

Snack Production Growth Steady

First Research forecasts are based on INFORUM forecasts that are licensed from the Interindustry Economic Research Fund, Inc. (IERF) in College Park, MD. INFORUM's "interindustry-macro" approach to modeling the economy captures the links between industries and the aggregate economy.

First Research Industry Growth Rating

The First Research Industry Growth Rating reflects the expected industry growth relative to other industries, based on INFORUM's forecasted average annual growth for the combined years of 2008 and 2009.

- Risk: Concerns over obesity reduce demand
- Must manage volatile commodity prices
- Demand: Driven by consumer tastes and health trends

First Research Industry Drivers

Changes in the economic environment that may positively or negatively affect industry growth.

- **Consumer Spending:** Change in overall level of consumer spending on goods and services
- **Government Regulations:** Changes in federal, state, or local government regulations or business-related policies
- **Commodity Prices:** Changes in prices for commodities, such as crops, metals, and other raw materials

Web Links & Acronyms

INDUSTRY WEBSITES

**American Bakers Association (ABA)**
Trade association for bakeries and snack manufacturers.

**American Institute of Baking (AIB)**
Broad industry association that includes packaging companies and food suppliers.
Private Label Magazine
News and insights into private label manufacturing.

Snack Food and Wholesale Bakery
News, interviews, and features on salty and sweet snacks.

Snack Food Association
International trade association for the snack food industry.

Tortilla Industry Association
Industry association for tortilla and tortilla products.

TrueNorth Snacks
All-natural snack line from Frito-Lay.

GLOSSARY OF ACRONYMS

DSD - direct store delivery
EDI - electronic data interchange
ERP - enterprise resource planning
FALCPA - Food Allergen Labeling and Consumer Protection Act
GM - genetically modified
SFA - Snack Food Association
TIA - Tortilla Industry Association
USPB - United States Potato Board

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