Rising to the Occasion: Lender's Bagels and the Frozen Food Revolution, 1927-1985

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Clarence Birdseye developed advanced techniques for freezing food in the 1920s, but it took the pressures of World War II to create national presence for frozen food. Introduction of frozen orange juice concentrate in 1946 fueled rapid expansion in retail frozen food purchases; by the early 1950s a third of American households were buying them. It became a significant consumption item because interdependent improvements in freezing technology, distribution, retail display cases, and home refrigerators created a context that permitted rapid, sustained growth – absolutely and relatively. As originally envisioned, freezing technology developed as a solution for preserving and distributing highly perishable fruits, vegetables, and seafood. But as often happens with new technology, entrepreneurs developed new products to exploit that technology or extended the technology to create new markets for old products.

This essay first outlines the development of frozen foods to about 1965, when its modern configuration was in place. Second, it describes the evolution of Lender's Bagel Bakery from a small family enterprise, selling an archetypal ethnic item typically eaten but once a week, to a market-dominating, national firm; today, as a division of Kraft, Lender's still holds much of the market with annual sales approaching $200 million.

The Emergence of the Frozen Food Industry

The modern frozen food industry traces its principal roots to experimental work with "cold-packing" techniques H. S. Baker carried out in Denver in 1908. Three years later, in Puyallup, Washington, he produced the first successful commercial pack of berries. He then extended packing to a variety of locations in the South and Midwest. 1918 saw the first substantial commercial pack when about 3,000 50-gallon barrels of strawberries were packed in the Pacific Northwest. The technique – simply sorting, washing, immersing in a sugar solution (to check enzyme action), then slow freezing to 15 degrees or less with a salt and ice solution – was soon extended to other fruits [3, p. 3; 5, 12/92, p. 40].

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Efforts to freeze vegetables began by 1917, but they uniformly failed because freezing did not retard deterioration. Then, in 1930, scientists at the USDA's Bureau of Plant Industry first scalded the vegetables, then froze them; this worked, and from 1937 freezing vegetables expanded rapidly. The total fruit and vegetable pack went from 50 million pounds in 1942 to over 1 billion pounds in 1953 [3, p. 3; 15, 1956, p. 4].

While the cold-pack technique worked reasonably well for fruits and, eventually, vegetables, it worked less well with meats, and was especially poor for fish. With slow freezing, large crystals formed, destroying the cellular structure of fish; when thawed, they had lost their flavor and attractiveness. Clarence Birdseye worked in Labrador as an engineer from 1912 to 1915; he loved fishing. When he caught one, he threw it in the snow. Because of the harsh cold and brisk wind, the fish froze quickly; Birdseye noted that, when thawed and cooked, the fish retained virtually all characteristics of fresh fish. When he returned to the United States, he worked to develop techniques for quick freezing.[1]

In 1923 Birdseye created a company in New York, raising $20,000 through a stock subscription. It failed. He tried again, raising $60,000 for his General Seafoods Corp. of Gloucester, Mass. By 1928 he had perfected his double belt freezer, his first commercially successful design. But Birdseye lacked capital to exploit his technology. Fortunately, Postum Company, already successful, was looking to expand. Goldman Sachs brought Postum and General Seafood together; in June 1929, Postum purchased General Seafood for $2 million, the Birdseye patents for $20 million, and changed the corporate name to General Foods [5, 12/92, p. 40; 16, pp. 1-3].

In March 1930, in Springfield, Massachusetts, retail frozen food arrived on the market. The Birds Eye line had 26 frozen items, including vegetables and fruits, oysters, and, of course, fish fillets. To hold the frozen products, General Foods had arranged to have C.V. Hill & Co. (now Hill Refrigeration Corp.) to build a retail case. They were quite expensive: a four-foot unit cost $700, an eight-foot, $1200. To encourage retailers to install units, General Foods in 1931 arranged with Commercial Credit Co. of Baltimore to finance retailer purchases with 25% down and the balance over three years. This was clearly insufficient to secure quick installation of the cases, so in 1934 General Foods turned to American Radiator to make the inexpensive Amerad unit, a closed freezer chest, costing only $260; Birds Eye then rented the Amerad to retailers for $7.50 per month on a three-year contract; American Radiator soon developed a larger model to rent for $10 per month [1, p. 276; 3, pp. 8, 46-7; 5, 12/92, pp. 40-41, 138-44].

Birds Eye expanded distribution slowly, methodically, focusing on eastern urban markets with strong demand for high end products. By 1934, its

[1]Birdseye would advertise his fish as "frozen with the wiggle in its tail" emphasizing his technology; Hollywod later capitalized on the concept with the movie "Beast from 20,000 Fathoms," apparently a quick-frozen pre-historic monster quick-thawed by an atomic bomb [5, 12/92, p. 40; 16, p. 2, 101].

retail outlets numbered 532; the largest concentration, 42, was in New York's metropolitan area. Yet only one outlet was making profits on frozen food. Upon investigation, Birds Eye learned that it was doing weekly promotions, using postcards run off on a mimeograph machine. Birds Eye management, impressed with the results, copied the technique. For the next six years, it offered to do an initial mailing for any retailer taking on an Amerad contract [5, 12/92, p. 44].

By 1936, Birds Eye had 1,600 retailers, but most sales were in New York, Philadelphia, and Washington. Moreover, more than half of its sales were to institutional customers, such as railroads and steamships, which were willing to use frozen products for meal service. Though General Foods was making little profit from Birds Eye, it was attracting competitors. The most important was Honor Brand, which Waterman & Company of New York introduced in 1933. Waterman, an established produce distributor, had handled Birds Eye for the institutional market in the early 1930s. Seeing the potential, Waterman dropped Birds Eye and introduced Honor Brand Frosted Foods for the food service industry. In 1937, Waterman decided to go after the retail market. Instead of leasing retail cases, it sold them outright; instead of developing its own distribution system (Birds Eye had five regional centers for distribution), it turned to existing distributors, often dairy product jobbers, who already had freezer capacity. Waterman quickly expanded the Honor brand to 32 fruit and vegetables items; by 1939 it was in stores as far west as Texas, with sales half those of Birds Eye [3, pp. 8-9; 5, 12/92, 44-46, 100-108].

Now new competitors appeared quickly. For example, in 1938, Booth Fisheries, one of the largest seafood packers and distributors, began freezing for retail. In 1939, Lloyd J. Harris in Chicago introduced his frozen fruit pies; among other outlets, they were available at Marshall Field's. Gordon Male established his Frigid-Dough company and began freezing bread dough, plain and sweet rolls, muffins, and coffee cake for retail sale. The competitive pressure led Birds Eye to restructure its marketing efforts, merging retail and institutional sales forces, largely abandoning its own warehouses, and turning over territories to wholesale distributors to open new markets and expand existing ones.

The emerging importance of frozen foods to retailers also showed itself in 1938 when the National Association of Retail Grocers held their first frozen food seminars, the leading industry journal, Food Industries, published its first directory of freezer equipment manufacturers, and frozen foods got its own trade journal, *Quick Frozen Foods* [1, pp. 278; 3, p. 10; 5, 12/92, pp. 44-6; 16, pp. 3-4].

The war years were particularly beneficial to development of frozen food markets. Because of war needs, the government requisitioned much of the output of the canning industry and limited the availability of metal for cans. Because frozen foods used paper packaging, the War Production Board gave it priority for expanding plant capacity. Moreover, because frozen products did not use rationed war materiel, they soon required no ration coupons. For consumers this meant frozen food were easily accessible, unlike canned goods requiring coupons. This led the leading supermarket chains to give serious attention to frozen foods. For instance, Jewel Food in Chicago finally installed frozen food cases in all of its 150 stores; in 1942 it appointed the first full-time frozen food buyer. So pervasive were frozen foods they seemed the wave of the future; several returning veterans opened all-frozen food emporiums. They failed [5, 12/92, pp. 50-2; 16, pp. 20-21, 26-30].

Two other notable developments came out of the war years. First, efforts to create dehydrated foods led to development of an intermediate product – orange juice concentrate – which, when reconstituted, produced a drink vastly better than canned juice, near in taste to fresh juice, and, research showed, actually nutritionally superior because it retained more vitamin C. It was perfect for the consumer market. Second, the demands from the military led to creation of the frozen dinner, which eventually emerged as the ubiquitous TV dinner of the 1950s.

Orange juice was the most spectacular addition to commercially frozen foods, whose success helped legitimate other frozen foods. Orange juice had long been popular; efforts to produce a frozen product began in the 1930s. Both Borden and National Dairies tried marketing frozen juice from their door-to-door milk routes; California Consumers Corporation introduced a frozen juice under the Trujuis label in 1936. Scores of others also tried, including Citra-Frost of La Habra, under the leadership of a young lawyer, Richard M. Nixon. None were really successful [5, 12/92, p. 46; 16, pp. 10-11].

With development of the concentrating technology during World War II, frozen orange juice became an attractive product. John I. Moone, who began with Birds Eye, took the lead, founding Snow Crop Marketers in 1945 to sell a range of frozen vegetables and fruits. Snow Crop owned no facilities; it contracted with packers to supply frozen goods, including orange juice concentrate. Moone introduced Snow Crop concentrate in 1946 in New York and Philadelphia. To make it more attractive to homemakers, Moone used a 12-ounce can. It was hugely successful, quickly accounting for half Snow Crop's sales. To establish quickly extensive retail presence, Moone put 8,000 six-cubic-foot spot display units, custom-made by Amana and holding only Snow Crop labeled items, in supermarkets. He also introduced an orange juice dispenser that reconstituted the concentrate for sale at lunch counters, soda foundations, and other food outlets. Soon, there were 15,000 dispensers in place [5, 12/92, pp. 56-60, 96D-100; 16, pp. 46-51].

Moone gave unprecedented attention to marketing, budgeting one sixth of his gross commissions for it; from Spring, 1949, Snow Crop sponsored Sid Caesar's Show of Shows. Among the first Snow Crop contractors was Vacuum Foods; in 1947 Vacuum introduced Minute Maid. It matched Snow Crop's aggressive advertising, sponsoring both Kate Smith and Bing Crosby. The impact was staggering: concentrate sales exploded from a quarter million gallons in 1946 to over 25 million by 1950. By 1952, a third of all American households bought frozen orange juice concentrate; its sales surpassed those of fresh oranges [5, 12/92, pp. F3-4, 96D-100].

The other major frozen product to emerge from the war was the frozen dinner. In 1944 W. L. Maxson began producing a frozen dinner – an entree and two vegetables – for the U.S. Navy. With the end of the war, he developed a special oven to reheat the dinners, then sold ovens and dinners to the airlines. In 1949, Morton Packing Co. introduced an 11-ounce frozen chicken pie to its Louisville market. In 1951, C.A. Swanson & Sons of Omaha, which had handled Birds Eye in the 1930s and begun freezing poultry parts for it in the 1940s, released its line of frozen meat pies. It was a smash success; on June 30, 1954, less than three years later, it produced its one hundred millionth meat pie. In the meantime, at the end of 1953, Swanson introduced a frozen dinner: the Swanson TV Dinner [5, 8/54, p. 7, 12/92, pp. 83-88; 16, 90-94].

Introductions proliferated rapidly. In 1953, Kitchens of Sara Lee began freezing its high-end products in order to expand marketing beyond a one-day truck drive from its Deerfield, Illinois base. Stouffer's, which began selling frozen entrees for take out from its flagship Cleveland restaurant just after the war, established a frozen food division. In 1957, Howard Johnson, which had begun using freezing to distribute centrally prepared foods in the 1940s, introduced retail packages. In 1958, Pepperidge Farm introduced frozen pastry turnovers and strudels [5, 12/92, 85-92; 16].

The clear success of frozen foods led the largest food processing companies to enter the industry through buyouts. First ITT Continental Baking purchased Morton in 1955; Campbell Soup then bought Swanson. Consolidated Food acquired Sara Lee in 1956; Campbell Soup took over Pepperidge Farm in 1958 [16, pp. 107ff].

When Birds Eye introduced its line, it relied entirely on its own distribution centers. Then competition from Honor led the industry to move to reliance on exclusive wholesalers. This in turn broke down after World War II when Minute Maid shifted to direct selling in conjunction with the use of brokers. During the 1950s, brokers, who worked on commission and knew their markets far better than the national food companies, became increasingly important for introducing new items. As brokers their income came from comissions on sales; they were eager to handle and promote products from a variety of (usually non-competing) producers. (Wholesalers, who purchase goods outright, typically are reluctant to assume the risk of buying a product for which a market has not been established, thus limiting introductions.) This also meant new product introductions were comparatively inexpensive. Partly as a result, in 1975, for example, with virtually all distribution in the hands of brokers, manufacturers offered 1,282 new frozen food products [3, pp. 12-6; 5, 12/92, pp. 138-44, 148-58; 7, 14].

This structure of distribution, critical to Lender's success in pushing frozen bagels into national distribution, was re-enforced by a rapidly increasing investment by food retailers in frozen food display cases. In 1957, supermarket linear footage of such units surpassed for the first time footage devoted to fresh meats, 90 to 80. In 1961, the USDA found that nation's freezer warehouse capacity overtook cooler capacity. By 1972, supermarkets had doubled retailer freezer capacity, to 185 feet; by 1982, it reached 358; by 1987, 413. Similar developments took place in trucking – Fruehauf introduced refrigerated units in 1926 – and on railroads, creating a vast and readily available specialized transportation capacity to handle frozen products. Finally, in the mid-1950s, Minute Maid evaluated systematically the quality control of all elements in the distribution system. It discovered frozen foods were often exposed to unacceptably high temperatures (i.e., above zero). This led directly to development of uniform industry standards; by 1960 America had consistently high quality distribution for frozen foods [3, p. 5; 6, 10/86, pp. 65-80; 5, 12/92, pp. 60, 160, 175-78; 14; 16, pp. 92-3].

By the early 1960s, Americans were willingly consuming goods that offered convenience, whether fast food at McDonalds or White Castle, or TV dinners and frozen orange juice; they were thoroughly familiar with frozen foods and were rapidly diversifying their cuisine. This cultural evolution, combined with the presence of a national network of independent frozen food brokers, brokers willing to handle and promote new products, and substantial capacity of high quality freezer cabinets in food retailers nationwide, created a perfect environment for the introduction of a new frozen product, one that, unlike virtually every other successful frozen food introduction, had no significant pre-existing market, the bagel.

The Rise of Lender's Bagel Bakery

It seems remarkable that a small family enterprise, begun as a little bakery in New Haven, Connecticut, would have such an impact on American eating habits, transforming an ethnic item typically eaten once a week into a ubiquitous food, creating a market for specialty bagel shops across the country – perhaps the only time a product in the freezer case created a significant demand for the "fresh" product. Even more striking is that, having created the market, Lender's, now part of Kraft, has retained a remarkable market share: Lender's plain bagel is, and has been for years, number two in the freezer case, behind only long-time leader Minute Maid concentrate; Lender's has two additional bagel flavors in the top fifteen retail freezer items. As a result, Lender's still holds close to an 80% market share, with sales approaching $200 million.

In 1927 Harry Lender, age 31, left Lublin, Poland, for America. An experienced baker, he soon found a baking job in Passaic, New Jersey. Living frugally, he quickly saved $600 needed to bring his wife and two children from Poland. But before he could arrange their passage, he learned of a bakery for sale in New Haven, Connecticut. The price: $600. After learning neighboring bakers did not make bagels and would sell his if he concentrated on that product, Lender bought the 800 square-foot bakery on Oak Street. Living in a cold-water flat, it took him two years to earn enough to bring his family over [except as noted, the following is based on 5, 6/92, pp. 33-45; 8, 9, 10, 11, 12].

The Lender family was the work force. Harry hand-mixed the heavy, thick bagel dough – bagels are made from a high gluten flour milled from winter wheat, mixed with about a third less water than bread dough, plus malt, sugar, salt and yeast. Sam shaped them, wife Rosie boiled them, Harry baked them, and Hymie delivered them, using a push cart. When big enough, Murray counted bagels and strung six to a dozen on twine so Hymie, delivering in the early hours, could hang them on the shop doors.

By 1934, Harry was doing well enough to buy a two-family house on Baldwin Street, converting its garage into his bagel bakery. A few years later, as the business slowly expanded – Lender's was the only bagel bakery between New York and Boston – he bought the adjacent home. Sam and his bride moved in; the bakery expanded into the garage behind that house.

The bakery worked seven days a week, building from a small production on Sunday night – perhaps 300 dozen – to a non-stop 24-hour run from Saturday morning to Sunday morning when the Lender family baked and delivered 6,000 dozen bagels. They had to produce as close to market demand as possible, because bagels, with low moisture content, had a shelf-life of about seven hours.

In 1954 Harry decided to install a walk-in freezer. Frozen foods had already begun appearing in supermarkets and some traditional bakers were freezing their products, later selling them as "fresh." At least one other bagel maker was already using freezing to match production and demand. The Lenders now worked just six days a week, producing a steady stream of bagels, holding bagels in the freezer until needed. It was two years before any retailers knew – they learned when Lender's accidentally delivered still frozen bagels. It fell to Murray to go to every outlet, apologize, and explain that Lenders had been freezing their product for some time, demonstrating thereby that the frozen product was indistinguishable from the fresh baked. If Murray was not already a persuasive and earnest sales representative for bagels, this experience made him into one. He persuaded all the retailers to retain Lender's bagels [9].

Murray, after finishing college and serving an army hitch, joined the family enterprise full-time in 1955. It was then making so little money that he took no salary for two years. It was clear that, to support the family, Lender's bagels had to find new, larger markets. Indeed, Murray believed Lender's bagels could command regular patronage from any group; he knew this because in the Lenders' multi-ethnic neighborhood, everyone – Jew, Italian, Irish, Russian, old-line WASP – enjoyed their bagels. The challenge was to expand the availability and appreciation of the bagel.

The first opportunity for expansion emerged when a friend of the family who sold polyethylene bags to bakeries suggested that Lender's use the bags to put bagels on the bread shelf of area markets. The bags would extend the shelf life of the bagels from seven to seventy-two hours, and expand distribution from traditional small bake shops to increasingly important full-line food stores. The Lenders persuaded the local distributor for Pechter's Breads to put their bagels into the stores on routes in Connecticut and western New York; Sam's wife Lee began going to each market, demonstrating the bagel to the largely uninitiated shoppers.

Looking for other opportunities for expansion, Murray hit on the idea of selling to the grand Concord Hotel in the Catskills. The Concord bought indifferent bagels locally, primarily for Sunday morning. Given their experience with freezing, Murray knew that if the hotel would take Lender's bagels, holding an inventory in its freezer, it could then offer patrons a vastly better product, every day. To make delivering bagels from New Haven in his half-ton truck cost-effective, Murray wanted to deliver a thousand dozen at a time; the Concord would not take so many. But Concord's manager suggested talking with local Kraft distributor Ben Graubard, who had a large freezer. If Graubard would take half, the Concord would take half. Murray sold Graubard on the idea; soon the bakery was producing a thousand dozen bagels that Murray delivered directly to Graubard's freezer.

Then a problem emerged, the solution to which fundamentally changed the product. The Concord got whole bagels; when the kitchen help took bagels to slice, the bagels would have a little condensation on them, making them slippery. The Concord management began calling New Haven, complaining, "We lost a piece of a finger this week"; "the union is starting to give us a bad time" over digital losses. Murray decided to pre-slice bagels at the bakery. That simple solution made thick, cumbersome bagels into a convenient toaster item for American households looking for more and more convenience.

In 1956, largely at Murray's urging, the bakery replaced its traditional brick hearth oven, used since 1927, with a revolving tray oven, a step thought "a radical departure." More shocking to traditionalists, Murray began experimenting with flavored bagels, adding, among other items, raisins, cinnamon, and onions to the mix. The benefits were obvious: with flavored bagels in the mix, total sales grew rapidly, and in 1957 Murray began to take his pay. Supermarket sales hit $150,000 in 1959.

Sales had reached a point where it was clear traditional production would not suffice if the enterprise was to grow. Yet mechanizing and automating bagel production was a serious challenge. Bagel dough is very thick; it can not be mixed or poured like bread dough. Standard bakery equipment burned out when confronted with bagel dough. Yet the bagel industry was too small to attract the attention of equipment manufacturers; Lender's would have to develop its own machinery. Equally important, it would have to address the problem of proofing; because bagel dough uses less yeast, it rises only slowly at room temperature. Over the next several years, helped by the remarkable mechanical ability of John Lugo, a skilled Puerto Rican baker who came to work for Lender's while still a teenager, Lender's successfully addressed each of these problems, ultimately producing a highly sophisticated, largely automated, fast production technology that yielded a product probably superior to the original bagel produced in Harry's brick hearth oven. Murray and Marvin would not have had it any other way; they were obsessive about product quality and consistency [2, pp. 104-108]. (In this, as in their insistence that production be designed to meet the demands of the product, not the other way around, the Lender brothers shared some of the distinctive traits of Ray Kroc of McDonald's) [13]. The critical first step came when the Lenders discovered a Los Angeles teacher had designed a mechanical device for forming bagels. If successful, such a design would break the most obvious bottleneck in production. Shaping had always been done by hand. It typically took months for a baker to learn to work quickly while producing consistent bagels. But no matter how skilled, hand shaping could never achieve real volume. By 1962, Lender's had translated the design into a working machine; that year the bakery got its first automatic bagel molder. The new production line could produce perhaps 300 dozen bagels per hour. Perhaps because of the significant improvement in output that this created, 1962 also saw the first placement of bagels in supermarket frozen food sections. Lender's bagels took their place next to Minute Maid and other market leaders. Sales passed $200,000 [2, 8/83, p. 103; 5, 12/83, p. 17].

In 1964 Murray decided to begin advertising, setting aside a small budget for that purpose. His first ads were, by his own admission, utterly ineffective. Yet his focus on marketing – his younger brother Marvin, having finished college in 1962, had joined Lender's full time, taking responsibility for administration and production – led to a critical new initiative. A friend got Murray an appointment with the marketing manager for Dannon Yogurt, the leading brand in the critical New York market. Murray negotiated a tie-in sales promotion. It did little for Lender's sales. Critically, Murray recognized that tie-ins were a good idea – but the tie-in had to have a clear link to bagels. "It was the first and last time we did a tie-in with a product that really had no special relationship with our bagels." Murray turned instead to Borden, which sold cream cheese. That tie-in worked well, giving Murray courage to tackle the dominant brand, Philadelphia Cream Cheese, produced by Kraft. In 1965 Murray went to Chicago to meet John Camp, sales promotion director for Kraft's cheese division. Remarkably, Murray, from a tiny bagel bakery, employing fewer than a dozen people, got the deal. Soon Lender's was running cross-coupon campaigns with Fleischmann's, Dole, Sara Lee, Parkay, Ore-Ida, Coffee Rich, Minute Maid, Welch's, Smucker's, Mazola, Maxwell House, and others. The impact was dramatic: from 1965, Lender's has grown at double-digit rates every year.

As critical as cross-promotions for the long-term development of Lender's was the relationship with Kraft which gave Murray access to the entire Kraft marketing organization in New York and the Northeast; he began attending their regional sales meetings. This gave him a quick, thorough education in food distribution and marketing, an education he used with remarkable effectiveness over the next two decades.

Lender's expanded capacity rapidly. In 1965, the family and six employees moved to a new 12,000 square-foot bakery in West Haven. The new facility, largely automated, incorporated the improvements that the Lenders, Lugo, and other employees had developed. Soon they doubled capacity to accommodate exploding demand, again incorporating more improvements in production. In 1975, Lender's added another plant, a 17,000 square foot facility in New Haven. Then, in 1976, it bought its only significant competitor, Abel's Bakery, in Buffalo, New York, when Abel's long-time owner and leader, Abe Lippus, died. They soon opened what was then the largest bagel bakery in the world, a 32,000 square foot facility in West Seneca, New York. In 1982 they expanded it to 75,000 square feet. Lender's four plants and 600 employees were then producing 1.75 million bagels a day, 1.5 billion annually, generating sales of about $50 million – and did not have enough capacity to meet demand for its eleven varieties [4, 10/83, p. 14A].

The expansion in production was of course matched with expansion in marketing and distribution. What had been a tiny company in 1965 was rapidly expanding beyond Murray's and Marvin's ability to manage. In 1971, they hired a sales manager for the New York metropolitan area, their largest market, and began holding annual meetings for their brokers. Two years later, when the New York manager resigned to form a food brokerage company, they hired their first national marketing manager, Barry Ansel, a skilled marketer who had worked for the Morton Foods division of Consolidated Foods. He and Murray built a national broker network. Murray later declared, "I love those brokers. They busted their humps working for us for years and years with very modest sales. They really pioneered Lender's. And they were quality brokers – they needed me like a hole in the head." This is a declaration typical of Murray, who appreciated more than anyone how critical good relations with brokers and distributors were for Lender's success.

In 1977, Lender's achieved full national distribution, with 70 brokers serving the retail trade, 50 handling institutional accounts. It sold 30 million packages of bagels – 180 million total – for revenues of $10 million. It had added national advertising in women's service magazines the previous year. And it had sought new avenues for sales of the bagel; it offered the newly emergent in-store bakeries of supermarkets "Bake-n-Sell" bagels. Murray hoped to see "a hot bagel department in every store" [2, 8/83, p. 103; 4, 10/83, p. 14A].

In 1979, the Lenders recognized it was critical to bring some order to their company, to try to plan orderly growth, and to bring computer capability into the company. They turned to Doris Zelinsky. With an MBA and an admitted fascination for computers, she tried. It took four years to create a business plan. It was hard to do when planning sessions were canceled – as one was – so that the management team could practice in their tutus for a performance of "Song of the Bagel" at the annual national meeting of frozen food producers. Choreographed by the director of the Connecticut ballet, the dance, recounting the Lenders' history, came off magnificently. Besides, growth was so robust a plan hardly seemed needed.

Lender's did make a few mis-steps. In 1979, it built a New Haven plant to make pizza bagels. The product failed; the plant was converted to bake bagels. It also tried a frozen bread dough and a couple other non-bagel products; all failed. Its core capability lay in making and marketing bagels; in that it seemed it could make no mistakes.

By 1983 Lender's, approaching $50 million in annual sales, was clearly growing beyond the managerial ability and energy of Murray and Marvin. After careful consideration, they solicited offers from five leading food companies. Of two acceptable bids, they chose Kraft. Murray had worked with Kraft people for nearly 20 years and attended their eastern marketing meetings. More important, Kraft did not have, Murray observed, "an oven in the system. As big as they were, they had no baking technology whatsoever." Moreover, they had no "frozen products. They won't upset the Lender's product, plants, marketing, strategies or its people." Indeed, Kraft had had two previous experiences with frozen food, both unsuccessful. In 1966 it had launched a 50-item line of poultry, seafood and prepared vegetables for the food service trade; in 1970 it introduced retail line of pizza, ravioli, cream pies and other items. Both failed quickly.

The success of Lender's has a variety of sources. First, Murray and Marvin Lender had a total devotion to their business and to their product, willing to work seven days a week, and a strong commitment to their employees and distributors. Lender's had virtually no employee turnover under their leadership, and until they left management, every broker had their personal phone numbers to use if there was a problem. Second, they began their expansion at a critical juncture in the development of the frozen food industry. Its channels of distribution, in the hands of independent brokers, gave them entry without having to build their own distribution system. Moreover, those brokers had acquired a very substantial knowledge of markets in their service areas, knowledge which the Lenders effectively exploited to the mutual benefit of themselves and the brokers. Third, their obsession with quality and uniformity produced a consistently tasty, "natural" low-calorie, low-fat product just as American consumers became both more willing to try new "ethnic" foods and became more sensitive to nutritional concerns. Fourth, they managed to match their enormous success in marketing with a successful search for improved production technology, transforming the way bagels were produced without degradation to product quality. They ultimately were able to develop high speed, continuous production capabilities comparable to the best Chandlerian firm. The Lenders thus successfully articulated those three critical capabilities of the modern managerial firm – production, distribution, and management – on which they built a remarkable record of success.

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