



DANIEL ISENBERG

Keggfarms (India) – Which Came First, the Kuroiler™ or the KEGG™?

On the morning of November 23, 2006, Vinod Kapur (72) walked quickly from his home at his 23-acre compound in Gurgaon, India, outside of Delhi, located near newly-constructed glass buildings housing Nokia, Microsoft, Ericsson, Canon, Sapient, and other high-tech powerhouses. However, as he approached his Keggfarms office on the other end of the compound, Kapur was not thinking about business process outsourcing, information technology, software, or the Internet. He was thinking about baby chicks, and how to sell many more of them to the rural village households in India, among the poorest in the world

In founding Keggfarms in 1967, Kapur had set out to realize his life dream of building a profitable company that would also bring income and nutrition to India's huge population of poor, rural villagers. As one of India's most respected pioneers of domestic poultry breeding, Kapur had invested over \$1 million of his own money and many years in breeding what he believed to be a meat- and egg-producing chicken that was specifically adapted to rural conditions in India and which also out-produced traditional backyard chickens: twice the meat, more than five times as many eggs, and which grew without any special care by scavenging on backyard scraps. Along the way, Kapur doubled household income for hundreds of thousands of poor, rural villagers, who sold the surplus meat and eggs, and created a steady income for about 3,000 independent chick distributors and vendors, 1,000 small farms, and 500 chick dealers. For his work, Kapur had won in 2006 India's first "Innovation for India" award.

Yet, although the product was excellent, Kapur had only scratched the surface of the market, penetrating fewer than 3.5% of poultry-producing rural households, with a meager Rs160 million (about \$3.6 million¹) in 2005 revenues; at the present growth rate, significant social change would take decades. This fact deeply disturbed Kapur. It also disturbed him that he had created an industry for imitators who irresponsibly and illegally copied the Keggfarms "Kuroiler™²," one even painting the feathers of chicks to make them look like the colorful, genuine Kuroiler chick. Imitation, which had grown to equal Keggfarms' own sales, ate into its revenues and cheated the poor villagers who bought the bogus chicks.

Not only was growth slow, but profit contribution from the poor, rural village business was very constrained due to the severely limited purchasing power of the customers. As a result, since 2003, Kapur had been developing two new products, a fast-growing meat Kuroiler ("Kuroiler FFG") to be

¹ This case assumes that 45 Indian Rupees (Rs) = 1 \$US.

² The ™ mark is implied in every use of Kuroiler, Kuroiler FFG, and KEGGS.

sold to occupational rural farmers, and KEGGS, a branded premium egg to be sold in upscale urban markets. Ongoing market tests of both of these products were very positive, showing rapid acceptance and high margins. “We are a business after all,” commented Kapur, “and we need to think about our profits as well as doing good for the poor.” Kapur felt that he was on the verge of a major breakthrough, and he needed to decide how to profitably realize all three opportunities while maintaining the social emphasis of the original Kuroiler business.

“And I am not getting any younger,” commented the 72-year-old Kapur.

The Kuroiler™: An Opportunity Is Hatched

In 1991, when India dramatically opened its previously protected economy to foreign competition, Keggfarms was already one of the leading poultry breeders in India’s relatively small poultry market. Kapur, CEO, founder, and owner of Keggfarms, realized that he could either join forces with one of the large international players and thereby lose his identity; compete directly, which he considered foolhardy; or identify a related opportunity that the large players could not address. Kapur realized that the large poultry breeders and producers, with their environmentally insulated and controlled production facilities, ultra-sensitive poultry stocks, and technology-intensive husbandry requirements, would be able to serve the urban markets, which were huge in absolute terms, but they could not serve the 75% of Indians who lived in semi-rural or rural India.

According to Kapur, per capita poultry meat and egg consumption in India had been on the rise for years, in absolute terms and relative to other comparable foods, for several reasons. First, with the increased efficiency of industrial production, the prices of eggs and chickens rose the least compared with prices of other products, like mutton, beef, pork, etc. Second, the mass production of these products, their ready availability in large, urban markets, and decreasing vegetarianism encouraged poultry consumption, particularly in urban areas. Despite these facts, there was no comparable rise in rural India either in production of poultry products or in consumption of poultry meat or eggs. Poultry production in villages remained stagnant, as it depended entirely on nondescript, low-yielding poultry stocks reared in the villages. On the other hand, rural consumption of industrial poultry products remained low because transportation costs rendered poultry products far more expensive than in the urban areas.

Over 70 to 75% of India’s population and nearly 150 million rural households thus represented a potential poultry consumption market that could not be efficiently addressed by the industrial poultry production and distribution network.

India’s Rural Villagers

Kapur saw an opportunity with the poorest of these villagers, the more than 20 million households³ that traditionally raised backyard chickens for eggs and meat. These poor, rural villagers lived so remotely that they could not travel to the urban centers to shop, nor could they afford any

³ It is assumed that each household consists of 6 members, so that in 2006 there were close to 200 million households in India.

³ The poverty line is defined differently but many definitions place it between \$300–\$365 per year (between about R13,000 R16,000.) See <http://siteresources.worldbank.org>, accessed December 8, 2006. 80% of the population earned \$2 per day or less in 2005. The Indian government defines poverty quite differently – R10 per day. See Statistical Outline of India 2005–2006. Tata Service Ltd., Bombay, India.

purchases even if they could get there, since over 200 million of these villagers were below the poverty line (BPL), making Rs20,000 or less annually per household.⁴ Conversely, the large urban-oriented industrial producers did not have the distribution wherewithal or the financial incentive to bring their products to these rural villagers, with poor or no road access, no refrigerators, and no purchasing power. The rural villages typically consisted of 100–200 households.⁵ In order to survive, the households grew much of their own food, selling any surplus in local markets, and for cash they depended on limited opportunities for manual labor. Most rural households also kept a small number of farm animals in their backyards for personal consumption, such as chickens (for eggs and meat), goats (for milk products and meat), and ducks (for meat and eggs), while the more affluent normally kept cows and buffalos (for milk and work).

Rural poultry-producing households traditionally raised five to 15 chickens, which roamed the backyards and survived on scavenged seeds, insects, vegetables, and scraps. The birds, uniformly cared for by the women of the household, were exposed to the elements (scorching heat and high humidity in summer and bitter cold in winter), and sometimes fatal encounters with cats, dogs, eagles, or jackals. Therefore, the rural backyard chickens had been naturally selected over the generations for multiple colors (camouflage), disease resistance, and agility needed to hide from predators. The typical rural hen was raised for six months and then laid an average of 35 to 40 eggs in a number of clutches (batches) over the subsequent 12 months; it reached a maximum weight of 1 kilogram (kg) and was finally slaughtered for meat. The typical rural rooster (male chicken) grew to 1.2 kg in 6 months, after which it was slaughtered for meat, with two or three being kept for breeding. Kapur explained:

One of the most important decisions the rural poultry raiser faces is when to convert the mature birds to meat, because the instant they are dead, they cannot be sold or eaten.⁶ The trick is to get as much productivity out of the hens and maximum size from the roosters and then bring them to market for meat. Replenishing the stock is also an uncertain proposition, because you never know the sex of the chicks until you have grown them for several weeks after purchase. So if you want five hens you need to buy 10 chicks.

Kapur estimated that the traditional consumption of eggs in the rural villages was less than five per year per person, compared with a national average of about 35 per person per year, and the traditional consumption of meat by poor, rural villagers was just a few grams per person per year, as compared with a national average of almost 1.6 kg per person. In 2005, national consumption in India of eggs was increasing at an annual rate of 3% to 4% and consumption of meat at about 10%. (See **Exhibit 1** for additional consumption estimates.)

After intensive study of the rural poultry market in the 1990s, Kapur concluded that the only way to significantly penetrate the rural poultry market was to use modern techniques to breed a dual-purpose (meat and eggs) chicken breed, which was specially adapted to village conditions – physical, geographical, social, and agricultural. Furthermore, he would also need to invent a method for physically distributing the chickens from the hatcheries to the often-remote villages, and this would

⁵ Of the approximately 200 million households, approximately 180 million urban or rural households had enough income with which to purchase eggs and meat. The remaining 20 million households were those targeted by Keggfarms and were referred to as “rural village households.” This segment included a large number of Moslems who had no religiously mandated vegetarianism.

⁶ Butchers in India carried live chickens which were individually selected by customers to either take home live, or slaughtered and “dressed” by the butcher.

require unconventional methods that provided incentives for all of the links in a vast distribution network that could eventually sell poultry chicks (at three weeks old) to households dispersed over the entire country, often accessible only by dirt roads or footpaths. Furthermore, the poultry birds were not to be delivered to the villages as baby chicks but only when they attained a weight of about 300 grams, by which time they could fend for themselves in the village environment.

It took Kapur 10 years of experimental breeding at Keggfarms' R&D center and market testing to finally develop a chicken uniquely tailored to Indian rural villages, which he named the "Kuroiler," an acronym derived from the words "Keggfarms," "curry," and "broiler."⁷ Kapur's Kuroiler had the following characteristics (see **Exhibit 2** for photographs):

- It was multicolored for camouflage and because Indian consumers believed that white chickens were intrinsically inferior.
- It thrived on household waste, scraps, bugs, insects, seeds, vegetation, and pulverized sea shells and therefore did not compete with the poor, rural villagers for expensive grain or require any special feeding.
- It required no special animal husbandry methods, protection, medicines, or sheltering that could not be cheaply provided by using scrap materials readily available to poor, rural villagers.
- It was big, aggressive, and wily enough to fend for itself in the open backyard environment.
- It was genetically resistant to disease.

The Kuroiler by comparison with conventional rural chickens, was meatier and more productive. Hens attained 2.5 kg within 12 months, began laying eggs at five to six months of age, and then laid 150–200 eggs during their 12 to 16 month egg-laying period, initially more than 20 eggs per month. The Kuroiler rooster reached 4 kg in 12 months and a weight of at least 1 kg at around three months, at which weight it could be sold for meat if the owner chose. According to Kapur, Kuroiler meat was "vastly more tasty" than both conventional backyard chicken meat and industrial supermarket broiler meat.

As a result, the rural villagers could conveniently, and with a capital investment of about Rs30 per chick, have high-quality, nutritional food that cost almost nothing to produce, and that they could either consume or sell to their wealthier neighbors or in the ubiquitous local markets.

⁷ "Broiler" is the term used for a chicken raised primarily for meat. An egg-producing chicken is a "layer." According to Wikipedia, <http://en.wikipedia.org/wiki/Broiler>, accessed December 8, 2006, "[T]he broiler is bred in a highly controlled environment along with thousands of other broiler chicks. It is given unrestricted access to a special diet of high protein feed delivered via an automated feeding system. This is combined with artificial lighting conditions to stimulate growth."

The Economics of Kuroiler Production and Distribution – or Why Did the Kuroiler Cross the Distribution Channel?

Overview

Keggfarms developed the genetically selected Kuroiler breeding stock and incubated the eggs in 10 hatcheries (see **Exhibit 3** for the locations). Keggfarms distributed the fertilized eggs to Keggfarms' hatcheries, where they hatched and were, within 24 to 36 hours, delivered to independent dealers, to whom they had been presold. The dealers would immediately distribute the young chicks to rural "mother units" (MUs), which grew the chicks for three weeks, and then in turn sold them to "vendors." The vendors typically would load baskets of chicks on their bicycles and hawk them in the villages. (**Exhibit 2** contains photographs.)

Rural Households

The average poor, rural household's annual cash income in India was less than Rs20,000, and most were considered to be BPL. The little income they had came from the man or woman earning a wage in agriculture and meager supplementary income from domestic livestock and poultry.

A Kuroiler household typically had 10 mature birds at any point in time, about half of which were egg-laying hens. To start as a Kuroiler grower, the villager would purchase 10 chicks or so at about Rs30 per chick. A Kuroiler egg could be sold to end consumers for Rs2.50 or more, depending on market conditions. A hen started laying eggs after five months, after which it laid about 20 eggs per month and a total of about 150 eggs in 12 egg-laying months. Some of the households brought their own eggs to the market, whereas the most remote ones would rely on the Kuroiler dealer who had brought the chicks in their own vehicles to the mother units (see below) for distribution to the villages, for a 10% to 15% margin.

Kuroiler roosters would be slaughtered for the household's own consumption or brought live to market for sale. Most of the meat was sold, and the remainder was consumed by the household. The market price per kg of a mature Kuroiler was about Rs70 but fluctuated according to market conditions. In some households, both Kuroiler males and females were sold as meat, and the hens were not specifically retained for egg production.

Keggfarms estimated that over 700,000 rural households raised Kuroilers as of November 2006. According to Kapur: "

The trick is to get the rural villager to try out the Kuroiler the first time; the reorder rate is very high once the villagers see that they make excellent economic returns. The vendors play a key role in making the economic case for purchasing chicks to start with.

Chick Vendors

Keggfarms-affiliated independent chick vendors typically worked in groups of 10, each purchasing a lot of about 100 chicks from the local mother unit (MU) for Rs20 per chick and selling them to the villagers for about Rs30. It typically took three days to sell a basket of 100 chicks. Vendors worked five days a week, and their primary expenses were the capital outlays for a bicycle and for a special basket to hold the chicks (see the photographs); there was also some chick mortality.

Amortized, total expenses might average Rs500 per month. A single vendor typically covered several villages, and would not compete with other vendors. Vendors were all male, and if married, their wives might bring supplemental income of Rs1000 per month from agricultural work. Chick vendors would often supplement their income by raising Kuroiler chicks as well as distributing them. Vendors were satisfied with the relatively steady income. Keggfarms estimated that there were 1,500 vendors in 2006.

Mother Units

Keggfarms estimated that there were 1,500 MUs for Kuroilers. MUs were set up in the MU owner's own house in an adjacent room, upstairs, or even under the bed. MU owners would buy 500 to 1000 chicks every four weeks from a dealer for Rs9 a chick, and start to sell them to the vendors three weeks later for Rs18 to Rs20 per chick. About Rs6 to Rs8 per chick were allocated to mortality, heating, and feed costs.

The casewriter visited one MU located about two hours by car from Kolkatta in Eastern India. The MU owner lived in a rural village in a simple concrete-block home (see **Exhibit 2**) to which he had added a second storey with the profits from operating the MU, which now occupied the second floor. The MU owner's house was one of the largest houses in the village. Many villagers purchased chicks directly from him.

Dealers

Approximately 500 Keggfarms-affiliated independent dealers periodically purchased one-day-old chicks on dates that were arranged in advance with a Keggfarms distribution center, based on orders they placed with Keggfarms, paying cash on delivery. Quantities ranged from 2,000–5,000 chicks and the unit purchase price was Rs7.5 to Rs8 on average, fluctuating according to market conditions. The dealers delivered 1,000-chick lots to each of the MUs in their territories for about Rs9 per chick. The only expenses incurred by the dealers were transportation costs and the occasional granting of credit to the MUs. Mortality was negligible due to the quick turnaround.

In the larger territories in which the rural villages were far from even the local markets, the dealers would frequently increase their income by also bringing the grown birds and eggs from rural village household to market to be sold.

Keggfarms

R&D Center Keggfarms had an R&D center located in the headquarters compound in Gurgaon, in Northern India, which had traditionally been the poultry breeding capital of India. Keggfarms started the search for the ideal "rural village chicken" with a concept of what traits the chicken should possess (e.g., disease resistance, color, size, egg-laying productivity, etc.). Using knowledge gained over years of poultry breeding, as well as published information about different genetic chicken lines (e.g., "Rhode Island Red," "White Leghorn," "Cornish," "Barred," etc.), Keggfarms began to cross-breed from four different genetic lines to yield the experimental first generation of Kuroilers. It took numerous iterations and several years of informed trial and error by Keggfarms geneticists and breeding specialists to arrive at the current "genetic model" of the Kuroiler. Commented Kapur:

In reality, we would try to sell each successive generation of chickens in order to get feedback from the market. At various times we got lucky. For example, very early on we were selling the first generation of brown male chicks and some discarded brown female chicks. These were being picked up from our hatchery at almost three times the price of our white male chicks. We investigated and found that these small quantities were being raised by purchasers and were being sold by the purchasers at a substantial premium to the villages. From this we confirmed the imperative preference for a colored dual-purpose bird in the villages.

Chick production The genetically selected males and females (those chickens that represented the ideal genetic makeup) were bred in one of 10 centers (see **Exhibit 3** for a map of Keggfarms facilities), with most breeding located in Keggfarms' largest facility, located the more moderate climate of South India. The breeders were to produce fertile hatching eggs. These hatching eggs were then shipped to the 10 Keggfarms hatcheries in locations closer to the end markets, in order to produce Kuroiler chicks. When the eggs were hatched, the resultant chicks were immediately shipped to distribution centers according to the orders placed by the dealers.⁸

Keggfarms' COGS (cost of goods sold) for each egg were about Rs6.25, taking into account the cost of producing the egg, freight, hatching, packing, etc. Commented Kapur:

As at present our costs are fairly inflexible, and there is an upper limit to what we can get, but prices can fluctuate (downward) dramatically, and this is a serious threat to us. Between 2001 and 2006, prices fluctuated from a high of Rs8.75 to a low of Rs4.25 in 2006, when the Avian Flu scare hit India. At other times, there has been a glut in the urban market, causing poultry producers to dump their stock in the rural markets, crashing prices. Since inventory is perishable, we are forced to reduce our prices as well, even to below costs. This uncertainty has made me very cautious.

A few times over the past years, this has created a financial crisis for Keggfarms. During one of the more severe ones, I had the experience of my bankers distrusting Keggfarms' ability to service their loan, and I had to personally provide large amounts of money, both to keep the bankers satisfied and meet the cash deficits. Fortunately, our bankers now have a very good opinion about Keggfarms' account, but I will do everything I can to avoid repeating the experience.

The Imitation Problem

Kapur explained his thinking about imitation of the Kuroiler brand:

Imitation is, as is said, the ultimate form of flattery. It is in a sense also gratifying that our brand name Kuroiler has now acquired a kind of generic usage for village poultry stock. However, as a company we are also confronted with a serious commercial problem. There is no way at present of distinguishing real Kuroilers from the other poor-quality colored chicks which imitators produce. Whilst we send notices to operators who use the term Kuroiler on boxes or invoices, this does not get at the main issue. The bigger problem is the mixing of stock that takes place deliberately by dealers, MUs and vendors. An imitation chick costs *at least* one Rupee less than a Kuroiler to produce. MUs will pay a higher price to the dealer if the chick is

⁸ One factor in distribution of any perishable items in India was the poorly developed roads. As a rule of thumb, intercity driving from point A to point B averaged 50 kilometers per hour (as reported to the casewriter by a professional driver).

supposed to be a Kuroiler. Vendors likewise will pay a higher price to the MU if chicks are claimed to be Kuroilers and there is a premium for Kuroilers at the village household level, too. So it pays to mix and misrepresent. We do not as yet have any answer how to ensure identification of genuine Kuroilers.

Keggfarms' Organization

In 2006, Keggfarms employed fewer than 400 people, and in November 2006 Kapur was in the midst of modifying the top management structure. As he explained:

I currently have too many people directly reporting to me and I am too involved in every little detail of the operations. If something should happen to me that I am unable to manage, the operation will be negatively affected. Furthermore, for the future I will need a successor. And we need greater focus and accountability.

In addition to Kapur, there were six key executives at Keggfarms. V.D. Banati was responsible for all aspects of marketing and selling Kuroiler and Kuroiler FFG chicks. The new organization would have two regional marketing and sales directors reporting to Banati. Milan Biswas was responsible for the eastern region around West Bengal, centered in Kolkatta. A new staff member being brought on would be responsible for the central north of India, centered between Delhi and Kolkatta.

Kapur was also bringing on board a vice president of technical operations who was a “renowned expert in poultry operations, about 60 years old” who would be responsible for all R&D and technical operations. Reporting to him would be the head of the southern operations (C. R. Peck), the poultry geneticist (Dr. H. S. Jeena), and a newly hired manager for planning and production coordination. The new staff would join Keggfarms in early 2007.

The business manager of the KEGGS unit (S. Srivastava) and the general manager of finance and accounting (M. K. Mishra) would continue to report directly to Kapur. All of the investment in new staff would be financed internally. (See **Exhibit 6** for brief sketches of the key executives.)

Vinod Kapur – Makings of an Entrepreneur in India

Vinod Kapur was born in 1934 in Lahore, which subsequently became part of Pakistan during the partition of India, and his father was a government engineer. After Pakistan was formed, the parents and their four boys moved to Simla in the north of India, where Kapur went to high school and college. Kapur recalled:

My father was strongly nationalistic, with strong family, cultural, and religious values, and he instilled in me a sense of pride in being Indian, as well as a desire to prove, as an Indian, that we can be independent and accomplish great things by ourselves. I was also seriously bothered by the gross inequities in Indian society, and although I did not have the view that everything could be equal, I believed that this must be our direction.

At college I became the head of the communist-influenced Students Union, which was a great embarrassment to my father, and he sent me to the U.K. to an engineering college to abort my political involvement. However, I remained committed to communist ideology during my earlier years in the U.K. My great disillusionment with communism came when

Stalinism was exposed for what it was, but although I moved away from communism as a political ideology, my concern for those at the bottom of the ladder stayed with me.

My first real job was at Western Indian Match Company (WIMCO). I did well at WIMCO, and by 30 years of age, I was already the head of a very large factory for making matches. In WIMCO I had numerous experiences trying out various management innovations and confronting old-fashioned labor and union practices. In one crisis, I settled a strike that had gone on for 365 hours by cutting a deal [that] would lead to recovery of wage loss for workers and income loss for the factory alike. The government of the State of Uttar Pradesh even intervened and passed a special law to allow the deal to be ratified.

Kapur had starting dreaming about establishing a poultry breeding farm ever since he had a chance conversation with his father in 1963. The facts that poultry breeding was then a sunrise activity in India and related to social concerns were major motivational factors. In 1967, Kapur established Keggfarms with a Rs70,000 loan from his wife, who came from an established family, although he kept his WIMCO job for several years. In 1973, he quit his position at WIMCO to create India's first genetic poultry breeding farm, using the germ plasm (pure breeding stock) that he had purchased from Parks Poultry Farm in the United States. Keggfarms' successful experience at genetically breeding poultry in India eventually led the still-protectionist Indian government to mandate that all poultry breeding stocks be bred in India.

Some Lessons Learned

Coming from a civil servant family, Kapur learned about business and entrepreneurship through personal experiences:

At WIMCO I learned that in traditional corporate culture there are few incentives for innovating, and that the best I could hope for would be a comfortable lifestyle and some social glamour. But it was not for me. I believed and knew by experience that often the most effective solutions lay beyond the conventional methodologies. And I recognized that in a conventional environment my unconventional ways would increasingly make others uncomfortable, and equally it would constrain my creative urges.

I have also learned that the biggest barrier to success is often one's mindset. To find appropriate answers, we need to tune into the realities of the environment we are seeking to address and in particular to look at matters from the standpoint and attitudes of the beneficiaries, the consumer, and not from preconceived notions that spring from one's own life situations. There are many instances in my life which highlighted these attitudinal differences and their impact. Very many years ago, when I had just given up my lucrative job at WIMCO to concentrate on building Keggfarms, I was heavily weighed down by the pressures of having to look after my wife and three children and the need to sustain the standard of living we were accustomed to, in the face of an uncertain income situation. Weighed down in my mind when I used to come home in the evening from my office, I would regularly come across several groups of women construction laborers who would also be returning to their hovels after the day's work. They would be carrying their work tools on their heads and their babies in their arms and they would invariably be singing happily, with not a care in the world. One day I could not but ask my driver a rhetorical question, "Do you think they are happier with their lives, or am I happier with mine?" I realized that happiness is not necessarily a derivative of material wealth; it comes from one's attitude towards one's own life and circumstances.

A related lesson is that truly sustainable change needs to be incremental and gradual, not revolutionary. It must be within the attitudinal, intellectual and financial reach of the beneficiaries. It must represent a tangible and achievable benefit to them.

A fourth lesson is the need for focus – preferably quantifiable focus, and an accountable operational team committed exclusively to the focus. For instance, if I want to develop KEGGS (see below), I need to have a separate operational head and team to achieve that. Each distinct activity needs a focused and accountable team.

And finally, in order to persevere with an endeavor, it always helps to believe totally in it and lift it to the level of a cause.

Incubating New Products

“One of my ongoing big frustrations,” lamented Kapur, “is that I have not been able to grow the Kuroiler business very fast, neither on the top line nor on the bottom line.” Few or no scale economies, price inelasticity, long distribution channels – all of these factors constrained Keggfarms’ growth. “Some of my top managers are pushing me to invest to expand the market, but having personally bailed the company out of several financial crises that were due to causes we could not control, I am reluctant to incur losses again.”

In the early 2000s, Kapur began to develop two new products that evolved from Keggfarms’ special expertise in developing and producing the Kuroiler. These were the KEGG and the Kuroiler FFG.

KEGG™

As he pondered how Keggfarms could diversify to more profitable businesses with sustainable advantages, Kapur realized that he might be able to develop a branded egg for the high end of the urban market:

It is widely accepted that eggs from barnyard hens are tastier than industrial eggs, and city dwellers who like eggs will pay a premium for them. They are colorful and have bright yellow yolks from eating green vegetation in the backyard. But in India, rural backyard eggs, produced in small quantities by rural villagers, cannot make it to market – it is too far, and too expensive, and the availability is very low and dispersed. So in the large urban centers eggs are white and bland, and competition is for price alone – eggs are an undifferentiated commodity. And the consumer is largely uninformed: eggs may be stale, have dirt on them, or be kept in the hot sun during distribution or even come from flocks that are diseased or are on antibiotics or the like.

In 2002, Kapur took up the challenge: develop an exceptionally tasty egg that had a bright yellow yolk, had no contaminants or antibiotics, and would reach retail stores in no later than 48 hours, having been kept in a refrigerated storage. The eggs would reach the retail stores in such quantities that they would be picked up by the consumer within three to four days of production and thus arrive fresh in the consumer’s refrigerator. The challenge included that the color of this egg be a distinct shade of brown (tan) so that it could be readily identified with Keggfarms. Finally, in the packaging, the eggs were required to be visible to the consumers so that they could be certain of their appearance. Keggfarms would then build the market and charge a premium for the unique eggs.

Keggfarms test-marketed the KEGGS in South Delhi for over two years. Kapur was satisfied with the results and began to scale up the production rapidly:

We fix the end-user price at Rs30 for a carton of six eggs – which is *double* the price for regular eggs, whose retail prices fluctuate, whereas KEGGS prices do not. We are initially only selling to higher-end retailers in Southern Delhi and neighboring Gurgaon, which are among the wealthiest areas in India. We sell a six-egg carton to the store for Rs25.75, and our direct production costs are around Rs13. So our margins are excellent, and we offer no credit. Using only two three-wheelers with the Keggfarms sign on them, we currently deliver 1,400 cartons per working day to 70 major retailers; consumers flock to the stores, and we cannot supply all the demand. By March 2007 we hope to go up to 2,000 cartons per working day.

Kapur estimated the Delhi market of 10 million people to be 3.5 million eggs per day, and in three years he intended KEGGS to account for not less than 1% of that total, supplying a total of 12.5 million eggs in all of its markets. Kapur was proud of this beginning, but reported with irritation:

Here also we are facing imitation. Other small suppliers are trying to sell eggs in copycat boxes – same font and slightly different name. Some small parties even go to the extent of dipping eggs in tea to give them the distinct tanned color of KEGGS. In principle, I could get court injunctions against these imitators, as we have trademarked everything. But how enforceable would an injunction be? And how costly? The only truly effective way is to beat them in the marketplace.

Kuroiler FFG™

As the Kuroiler business gradually grew, Kapur began to pay attention to the fact that in the vicinities of the poor, rural villages, there existed a population of village farmers who were actually growing chickens for meat, with 500 to 1,000 chickens per farm. These small-scale, professional farmers were more quality conscious and would actually purchase feed for their stock. Although they lived in or near the villages, they were relatively prosperous, with annual incomes of Rs50,000 and above. Kapur believed that these rural farmers represented a lucrative potential market for Keggfarms, since the Kuroiler possessed traits that were appropriate for professional growing in rural settings:

In about a year and a half we developed a meat chicken that simply grew faster, thus decreasing time to market and time to revenues. These chickens reached a saleable weight of one kg in six weeks instead of eight weeks, which represented a significant improvement in time scale and many more cycles of meat. Additionally, these chickens required less feed per kg weight attained. Not the least, these chickens sell at a much higher premium over normal broilers. It is a win-win situation for the small farmers and we are gaining a huge demand for this product. We call this product Kuroiler FFG – for faster growth!

Keggfarms extracted a premium for the Kuroiler FFG chicks, selling them at Rs9 or slightly more. Costs for the farmer for a 1.3 kg chicken included feed costs of Rs23, and medicine and other input costs of about Rs6. Transportation costs added a few Rupees more. Selling price was Rs42 per kg. In 2005, Keggfarms sold 12.6 million Kuroilers and another 2.4 million FFG. In 2009, Kapur plans to sell 15.8 million Kuroilers and 11.7 million FFGs.

Growing the Kuroiler Business

Kapur intended to continue to grow the rural village market for Kuroilers—the questions were where and how fast? Two options for doing so were to increase penetration in currently established markets. (Exhibit 5 shows three-year unit sales forecasts, assuming that no new geographical markets would be opened up.) Kapur assumed that the current Kuroiler markets would grow at a rate of 10% for the coming years, and that investment in marketing and infrastructure would continue to be minimal and would be funded from the cash flow of the business.

Kapur was considering opening up entirely new territories in the central and south of India. The first step would be to conduct a survey to ascertain which areas were already growing backyard chickens and where an MU could be located within 50 kilometers of any targeted village. There also had to be a dense enough concentration of villages so that vendor distribution would be efficient. A territory needed to be able to absorb 200,000 chicks per month in order to be financially sustainable.

The second step would be to establish the distribution infrastructure in the territory, including the first MUs and an initial vendor network. The most effective way to accomplish that, based on Keggfarms' experience so far, was to seed the market with demonstration Kuroiler chicks, a certain percentage of which would be loss leaders or heavily discounted. Ramping up activities to cover virgin markets for village poultry stocks was both a potential opportunity and a major operational challenge. Development cost would depend on how many territories were addressed, with a likely one-time investment of Rs1,000,000. Kapur believed that initial operating costs for each territory could be in the range of Rs120,000 to Rs150,000 per month, and it might take up to 18 months before the activity became cash-flow positive. There would be additional variable costs related to procuring Kuroiler chicks, MUs, vendors, demonstrations, etc., but Kapur expected that these would be mainly met by correspondingly earlier revenues. Cumulative negative cash flow might reach Rs2,000,000.⁹

Commented Kapur:

I do not need to look for external financing to cover our overhead or ongoing operations because those are internally funded. I am only interested in immediate returns. But if I had the bandwidth now, I would create a new business development function and a separate business division that was independent and would look for “patient” outside funding for expansion.

Looking to the Future

On November 23, 2006, Kapur reflected:

I feel that we have come a very long way, but there is so much more to accomplish. Efficiencies of our ongoing operations can be significantly improved through genetic, husbandry, and logistical modifications; this we are pursuing. I believe that operations can grow much more if we can find the resources necessary to do so. In respect of Kuroilers and FFG, we can leapfrog into virgin markets, where village poultry is widely practiced, such as the states Madhya Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh, and Tamil Nadu.

There are two constraints to ambitious expansion. First, expansion requires a completely separate developmental team, and to that extent a separate business unit with its own

⁹ The investment amounts are very rough approximations.

operational leader and field organization. Second, we need developmental funds. The difference between these funds and our normal working funds is that in respect of our normal working funds we can expect or at least hope to get an immediate return. Whereas, in respect of developmental funds, the returns may take longer time. The latter involves a measure of higher risk. Though I am confident that additional funding will eventually lead to both good returns to the company and great benefit to society, I do not as an individual have the means to mount the financial effort on my own or from within the existing funds of Keggfarms.

But I will never sacrifice our dual focus on profitability and addressing the needs of the poor, rural villagers whom society forgets so easily – the key question will be how to strike the right balance between profit and society.

Exhibit 1 Poultry Meat and Egg Consumption in India, 2005

Category	Annual Consumption
Per capita availability of chicken meat	1.6 kg
Per capita availability of eggs (number of eggs)	42
Average egg consumption in major cities (number of eggs)	170
Average egg consumption in smaller cities	40
Average egg consumption in developed rural areas	20
Average egg consumption in undeveloped rural areas	5
Vegetarianism	20%

Source: Company documents.

Note: The company comments that although these represent official government statistics, they should be taken as approximate indications.

Exhibit 2 Photographs



Kuroiler™ Chickens



A Kuroiler™



2 Kuroilers™ (sides) vs. 2 Broilers (center)



Typical Rural Household



Vinod Kapur and Rural Villager



Mother Unit (2nd story)



Mother Unit



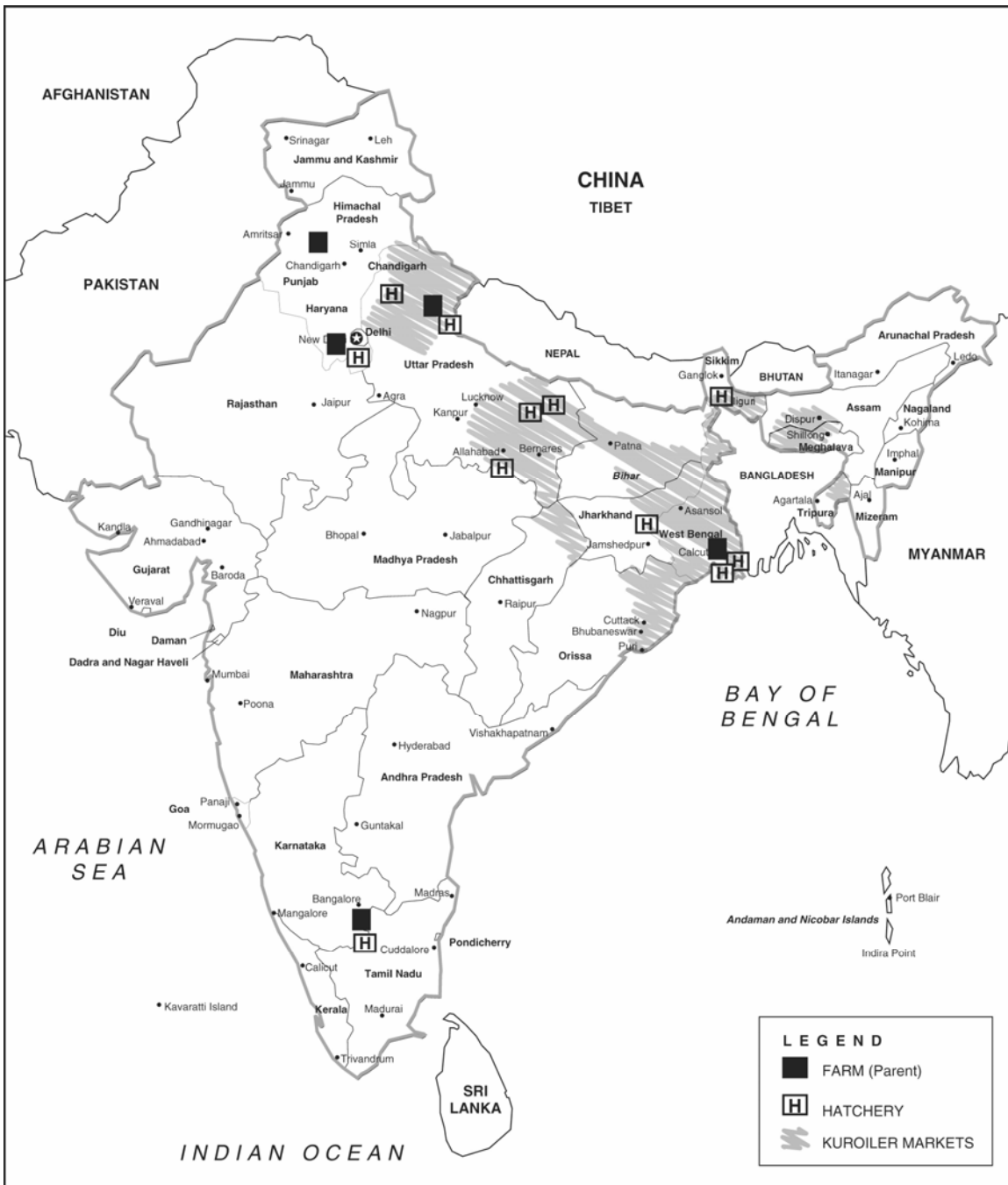
Vendor



Dealer

Source: Casewriter.

Exhibit 3 Locations of Keggfarms Facilities



Source: Company documents.

Exhibit 4 Keggfarms Profit and Loss Statement^a

FINANCIAL RESULTS FROM POULTRY OPERATIONS						
Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-2007
(figures in millions of rupees)						
<u>Total Income—Poultry Operations</u>						
Total Billing	130.84	136.19	125.07	129.17	154.02	166.83
Stock Change	3.35	0.99	(2.86)	0.12	5.19	3.28
Total Income	134.18	137.18	122.21	129.30	159.20	170.11
Manufacturing Expenses	110.03	117.65	103.04	98.20	116.53	135.28
Chick Freight	5.16	7.28	6.54	6.57	8.60	9.74
Marketing Expenses	8.92	10.75	9.20	8.09	8.75	9.09
Operational Contribution	10.07	1.50	3.43	16.44	25.32	16.00
<u>Less Corporate Overheads</u>	5.95	5.78	4.54	6.92	7.38	7.99
Contribution after Corporate Overheads	4.12	(4.28)	(1.11)	9.52	17.94	8.01
<u>Less Financial Costs</u>						
Bank Interest/Other Charges	4.25	4.43	4.10	4.50	4.54	3.22
Leasing Charges	0.81	0.13	-	-	-	-
Total Financial Costs	5.06	4.55	4.10	4.50	4.54	3.22
Net Contribution (after financial costs)	(0.94)	(8.83)	(5.20)	5.03	13.40	4.79

Source: Company documents.

^aThe fiscal year ran from April 1 to March 31.

Exhibit 5 Kuroiler Unit Forecast (numbers in millions of units)

Year	Kuroiler	Kuroiler FFG	Total Units
2006–2007			
2007–2008	13.5	7.5	21.0
2008–2009	14.0	9.6	23.6
2009–2010	15.8	11.7	27.5

Source: Company documents.

Exhibit 6 Executive Team (with Kapur's Comments)

Mr. V. D. Banati (73), B.A, Vice President Sales. Joined Sales Team in 1979. Assumed the responsibility for Company Sales function in 1994. Involved in building Kuroiler market from its very concept. Most comprehensive knowledge of our Kuroiler market and relevant factors.

Mr. Milan Biswas (52), Deputy General Manager, Eastern Zone. Master's degree in Agriculture. Responsible for Eastern Zone operations since 1996. Earlier professional experience includes extensive development work in agriculture related activities. Ten years of working experience relating to Kuroilers in the Eastern Zone; this makes him an exceedingly relevant leader of this activity in his area.

C. R. Peck (46), B.A. Chief Manager, South Operation. Has been with the company since 1988. Extensive knowledge and experience of poultry production and hatchery operations. This makes him an effective leader of our South Indian poultry operation.

H. S. Jeena (39), Ph.D., Poultry Genetics. Responsible for R & D and company's production and hatchery operations in Gurgaon. His extensive experience since 1996 and knowledge of our genetic lines make him an extremely relevant member of our breeding programme.

M. K. Mishra (42), Chartered Accountant, General Manager Finance & Accounting. Joined in 1994. Long experience starting with responsibilities for production division accounts has enabled him to gain a deep insight into the working of our company's operations.

Sanjay Srivastava (42), B.A. Joined 2002. Earlier experience of 16 years in fertilizer sales. Three years in Kuroiler Sales. Recently assigned responsibility for building the branded egg market.

Shankar Ghosh (63), Professional Forester. Long experience relating to agro forestry and stint at developmental work with World Bank, etc., together with six years of experience on Kuroiler developmental matters enable him to contribute to conceptual development of our work. Heads SNK Sammaraka Charitable Trust, a vehicle for our philanthropic activities.

Source: Company documents.