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Executive Summary

India is increasingly being viewed as a tiger creeping up on the global animal health industry, ready to pounce on a significant financial opportunity.

If the past was not perfect for the Indian animal health industry, the future looks promising after a new federal government at the county's helm for little over two years now.

Steady growth in the economy, further liberalization of markets, and a fairly transparent regulatory framework – India has of late been ticking all the right boxes on international investors' checklist with increased vigour. A favoured destination for international smart money, India has witnessed steady inflows of foreign direct investments in myriad sectors including animal health.

The Indian economy itself has shown resilience in the face of global downturns, and has stood up to be one of the fastest growing economies in the world. The performance of the USD 2 trillion economy (at current prices) is under intense scrutiny as this being a domestic consumption led growth story. During FY2014-15, India's domestic consumption and investment contributed a growth of 57 per cent and 33.1 per cent, respectively, to the Gross Domestic Product (GDP).

With a growth forecast of 7.5 per cent for 2016, India has the potential to be part of a global growth engine and help fill the partial space left by a continuing slowdown in China.

Steady growth – and promise for more – with a conducive business environment will have investors flocking in. This is behind a 13 per cent increase in foreign direct investment at USD 16.63 Billion in the first half of FY 2016. Investments into India are accelerating, demonstrating increased investor confidence in what the country has to offer.

One sector which has yet to reclaim its old glory is agriculture, of which the animal health industry is a part of. Agriculture has traditionally been the bedrock of Indian economy (employing more than 50% of the workforce) but sadly has witnessed a steady decline in its contribution to India's GDP over recent years, now accounting for around 16% of national GDP.

Agriculture and agribusinesses are expected to remain strong levers of the Indian economy – primarily to feed a growing population, as well as to meet the changing dietary habits of the rising affluent middle class.

This is where smart money has already started flowing in and the trend is expected to strengthen further. If the premise of high-risk/high-returns stands true, agriculture and animal health could well be the next red hot sector for investments.

A lack of authenticated and published data – a traditional drawback of emerging economies – is a key factor here. Therefore, this report attempts to highlight the challenges but more importantly investment opportunities in the Indian animal health sector.

On account of higher animal populations and increased demand for animal proteins (milk, meat and eggs), as well as discretionary spending on pets, the Indian animal health industry continues to grow at around 9-10% per cent a year, outpacing current optimistic economic growth forecasts, and future looks equally bright, the report shows.

Disproportionate to the size of industry, a number of M&As, corporate buyouts, private equity investments, venture capital investments and high-risk capital has flowed into a number of start-ups as well as leading and established players in Indian animal health.

This report highlights such opportunities in various sub-segments of the overall industry, chronicles the various investment deals that have shaped Indian animal health so far and also attempts to predict where the smart money could flow in the foreseeable future.

This is an indispensable guide for all those seeking to either invest in or know more about entering the fast-growing Indian animal health market.

"Future belongs to those people who see the possibilities before they become obvious."

Tedd Levitt

American Economist & Professor

At Harvard Business School

4.2 Drugs & Cosmetic Act 1940

The primary statute that regulates the Indian pharmaceutical industry including animal health is the Drugs and Cosmetics Act, 1940 (Drugs Act) and the rules framed thereunder viz. Drugs and Cosmetics Rules, 1945 (Drugs Rules).

The Drugs Act and Drugs Rules seek to:

- Regulate the import, manufacture, distribution and sale of drugs
- Ensure the availability of standard quality drugs and cosmetics to the consumer

Federal Government and the State Governments are responsible for enforcement of the Drugs Act.

The Central Drugs Standard Control Organization (CDSCO), headed by the Drug Controller General of India (DCGI) is primarily responsible for coordinating the activities of the State Drugs Control Organization, formulating policies, and ensuring uniform implementation of the Drugs Act throughout India.

The DCGI is responsible for handling matters of product approval and standards, clinical trials, introduction of new drugs, and import licenses for new drugs.

Head Office
- New Delhi

Chemai (South Zone)

Kolkata (east Zone)

Chemai (South Zone)

Kolkata (east Zone)

Ahmedabad Zone Hyderabad Zone

Figure 9. Organization structure of CDSCO

4.2.1 State/Provincial FDAs

Approvals required for setting up manufacturing facilities, and obtaining licenses to sell and stock drugs in a particular state / province are provided by the respective state governments.

From a local perspective, livestock includes cattle, buffalo, sheep and goats. An additional responsibility of DADF is to conduct a regular, animal census (every five years) with annual updates. The majority of animal census data quoted in this report is from DADF.

Table 5.	Table 5. Stipulated Timelines for Regulatory Approvals					
Sr. No.	Type of Application	No of days for Approval				
1	New Drug Approval including animal health, pharma, medical devices, biologicals or clinical trials	180 days				
2.	Subsequent new drug	120 days				
3.	Import registration of drugs and medical devices	270 days				
4.	Endorsement of additional product on registration	120 days				
5.	Rule 37 Approval (re-packing in India)	60 days				
6.	Registration of cosmetics	90 days				

Source: www.cdsco.nic.in; These are broad stipulated days for approvals after submission of complete dossiers / documents. AH industry has additional timelines on account of mandatory requirement of NOC (No Objection Certificate from DADF - department of Animal Husbandry Dairying & Fisheries)

Figure 13. Bars - Milk Production (Million MT)





5.3 Opportunities in Dairy Industry

India's dairy industry holds immense potential for growth on account of the fact that demand for milk is growing at an estimated 5% whereas milk production is growing at around 4%. There could be a possibility that by 2021-22, India may need to import milk to meet the domestic demand.

However, a number of initiatives – most importantly National Dairy Plan-1 – were rolled out in 2012 to improve the milk productivity of the animals and ensuring availability of quality feed and fodder.

5.3.1 Rising Incomes

Rising income levels is an emerging markets phenomena, with increased spending observed in food products and in India's case rising incomes are resulting in increased spending on milk and milk products which are considered 'aspirational products'.

A significant percentage of India's population meets its daily proteins partly through milk and milk products, so much so that milk/milk products constitute the second-largest spend in the monthly food basket.

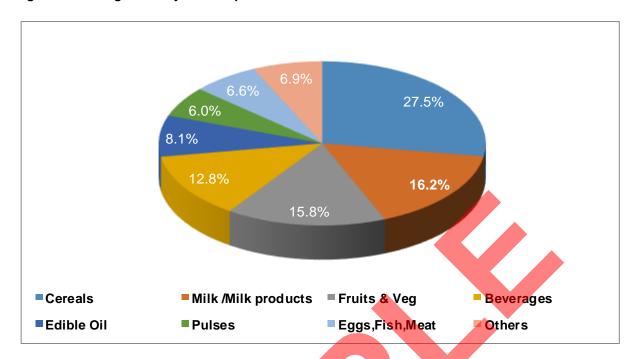


Figure 14. Average Monthly Food Expenditure

5.3.2 Changing Consumer Preferences

As is visible in other markets with the rising incomes, a noticable shift towards processed milk products and 'high value' discretionary spending is at play in India. From a largely unprocessed and liquid milk market, India is gradually graduating towards processed milk products and cheese market.

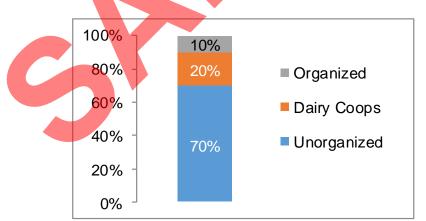


Figure 15. Share of players in milk marketing and processing

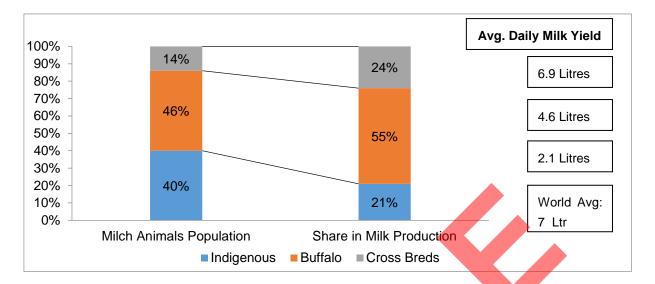


Figure 18. Milk yield of Cattle & Buffalo

5.4.2 Shortage of quality feed and fodder

Dairy animals in India largely feed on crop residues and open, unhealthy pastures, if at all available. Availability of sufficient quantity and quality of green fodder and concentrates remains a major constraint for the development of the dairy industry.

With shrinking land holdings, increasing urbanization resulting in higher costs of land and lack of good quality seeds/inputs – production of green fodder and quality feed ingredients takes a backseat with farmers. Sample this:

Table 6. Feed Demand vs. Availability (Million Tons) – 2020 projected					
Availability	Requirement	Deficit (%)			
Dry Fodder 417	468	11%			
Green Fodder 138	213	35%			
Concentrate 41	81	45%			

5.4.3 Poor credit flows

Lack of timely credit for dairy farmers is yet another impediment. Despite contributing 27% of value to agriculture output, credit to animal husbandry is merely 4% of total agriculture credit.

Improvements in breed and farm infrastructure as well as industrialization in dairy industry could only be speeded with the availability of easy credit facilities which for the moment is yet another stumbling block in the growth of dairy industry.

5.5.2 Layer segment

The country's layer segment growth rate has been slower within poultry, only on account of significantly higher investments needed in the farms but this sub-segment is much more stable than the broiler segment and relatively less impacted by demand and supply challenges. Key facts are:

Layer numbers:	250-260 million
Annual Replacements:	~65% of the population
Egg Production:	75-80 billion eggs (ranked third largest in the world). Over 98% of all eggs produced are white.
Housing System:	Open side houses (California type); birds in cages from birth.
Production Age:	Flocks are retained often more than 78 weeks; some farmers go in for moulting of feathers. Production parameters are among the best in the world.

5.5.3 Breeder segment

The breeder segment growth rate reflects broad trends in the broiler segment. Significantly higher investments are needed in the farms. Key facts include:

Breeder Nos.:	24-25 million
Housing System:	80% of breeders are in cages, artificial insemination is practiced

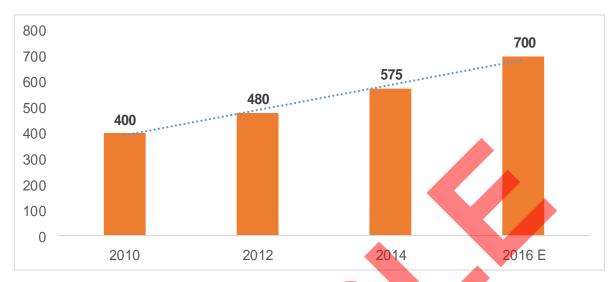
5.6 Opportunities in India's Poultry Industry

India is widely believed to be a vegetarian market and rightfully so. However, a survey from 2006 highlighted that around 60% of population is non-vegetarian with an additional 9% of the population as 'eggetarian'.

Though the numbers look impressive, frequency of animal protein consumption is quite low compared to international standards, owing to the cooking habits of the population. There are significant regional differences in population over animal protein consumption.

6.1.1 Size of the Prize (market)

Figure 25. Animal Health Care Market (USD Million) CAGR ~ 10%



Source: Investment Bankers' CIM, Press Reports, Market Intelligence, AHI Analysis

6.2 Advantage India

India has emerged as an attractive and reliable supplier of quality APIs and formulations on account of a number of competitive advantages, as explained below:



- High transportation costs, requiring companies to be closer to customers
- Rising level of integration at least in poultry segment, leaving virtually little space for external players in poultry feed

For the sake of simplicity and better understanding, animal feed companies have been divided into three categories:

- 1. Tier 1 Companies: with an annual feed production and sales of over 150,000 tonnes per annum
- 2. Tier 2 Companies: with annual feed production and sales of between 50,000 to 150,000 tonnes per annum
- 3. Smaller, regional feed companies with <50,000 tonnes per annum are not covered in this report

Table	Table 17. Tier – 1 Animal Feed Companies: Top 12						
Rank	Company	Feed Sales Annual	Region	Notes			
1	Venkys India	~ 2.4Million Tonnes	~ 20 large feed mills across India	Part of the largest integrator, largely in house consumption, largely Poultry Feed			
2	Suguna Feeds	~ 1.8 Million Tonnes	~ 50 Feed Mills Locations across India	2 nd largest integrator, in house feed consumption. Only Poultry Feed			
3	Godrej Agrovet	~ 1.1 Million Tonnes	~ 30 Feed Plants across India	One of the pioneers of Compound Feed in India. Strong brands across Poultry, Dairy Feed, Aqua & Specialty Feed			
4	IB Group (Integrated Broiler Group)	~ 600,000 Tonnes	Largely Central India	Leading integrator in Central part of India. Largely Poultry Feed and extruded aquaculture feed			
5	CP Group	~ 500,000 Tonnes	Largely located out of South India	Compound feed across: Shrimp, Fish and Poultry species			
6	Baramati Agro	~ 250,000 Tonnes	West India	Mix of Poultry & Dairy Animals compound feed			

	1	1	I	T	T	
5.	5.	Intas AH	38.5	Largely Livestock and Companion Animals. Made an entry into Poultry segment with a few specialty feed supplements	Start of operations in so far unrepresented Poultry segment	Largely domestic sales with some exports to semi- regulated markets
6.	7.	Venkys AHP	35.7	Largely poultry but also Livestock & Companion Animals. Portfolio is a mix of vaccines for poultry and animal health products for livestock and companion animals		Domestic sales + some export sales
7.	18.	Alivira Animal Health	30.7	Portfolio across Livestock and Poultry	Spate of international acquisitions to bolsters its plan for breaking into Global Top 10	Reported revenue figures are for stand- alone Alivira Animal Health which includes all its subsidiaries within India and in Europe including 2 acquisitions in Turkey and 3 in Europe + API
8.	8.	Elanco- Novartis Animal Health	24.5	Consolidated business of Elanco and Novartis	In-licensing of old MSD Brands – Calboral etc.	Largely domestic sales

9.6 4th Category - Start Ups in Companion Animal Health:

The companion animals segment in India has witnessed a burgeoning trend of certain general as well as niche start-ups and as well investor interest. Most of these start-ups are stand-alone, companion animals-only focussed companies and a few of these have the potential to break into mainstream ranks, over the next few years.

From pet food to accessories to spas to services (homemade, home delivered pet food), these start-ups cater to all the needs. Sample a select few start-ups:

Table 24.	Table 24. Start Ups in Companion Animals segment				
Sr. No.	Company	Year Estb.	Comments		
1	Vivaldis	2015	Vivaldis is part of the larger ABTL, a poultry and Aqua as well as exports focussed company in animal health. Vivaldis markets unique health products for companion animals through inlicensing and local manufacturing of specialty pet products		
2	Bharat International	2001	Bharat International has transitioned from a pet shop to pet products' distributor to manufacturer of certain pet foods, pet nutritional supplements and accessories, with a number of leading brands, powered by both physical distribution network as well as e-com		
3.	DogSpot.in	2010	DogSpot is more an aggregator of knowledge as well as online marketer of pet products, nutritional supplements to accessories and more. One of the most visited pet portals in India. Raised an undisclosed amount of funds from Mr. Ratan Tata and few other investors. Plans include on-line as well as off-line presence with own stores		
4	Heads Up for Tails	NA	Specialises in personalised, luxury products for pets. Products range from chic collars and leashes to luxury beds. Raised 1 Million \$ in seed funding in Dec 2015		