

# MILK SECTOR

October, 2019



## Global Milk Production

- Pakistan is the fourth largest milk producer in the world on the basis of its milk producing animal herd size. However, milk yield per animal in Pakistan is less than one-seventh of the milk yield in North America due to lack of training and awareness about best practices in dairy farming
- As per Food and Agriculture Organization (FAO) projections, milk production in Pakistan is expected to increase at a CAGR of 7.8% in the period from 2019-2021. Growth in herd size will remain the primary driver for growth in milk production. Milk yield is expected to improve but the yield gap between Pakistan and North America is expected to persist.

World Milk Production (000 tonnes)				
	2017	% of world production	2018	% of world production
<b>India</b>	176,272	21%	186,143	22%
<b>EU 28</b>	165,600	20%	167,256	20%
<b>United States</b>	97,735	12%	98,646	12%
<b>Pakistan</b>	44,294	5%	45,623	5%
<b>Brazil</b>	35,257	4%	35,539	4%
<b>China</b>	31,958	4%	31,592	4%
<b>Russian Fed.</b>	31,184	4%	31,527	4%
<b>Turkey</b>	20,700	3%	22,791	3%
<b>New Zealand</b>	21,341	3%	21,372	3%
<b>Total World Production</b>	824,801	100%	842,989	100%

Source: OECD-FAO Agriculture outlook 2019

## Industry economics in Pakistan

**11.2%**

Contribution of livestock sector to Pakistan's GDP

**77th Rank**

Pakistan was ranked 77 out of 113 by GFSI\* 2018, indicating high malnutrition prevalence

**60.5%**

Contribution of livestock sector to overall agricultural sector output

**165.7 kg**

Yearly per capita consumption of milk in Pakistan

**Over 8 million**

No. of rural families which generate approximately their 35-40% income from livestock

**4th Position**

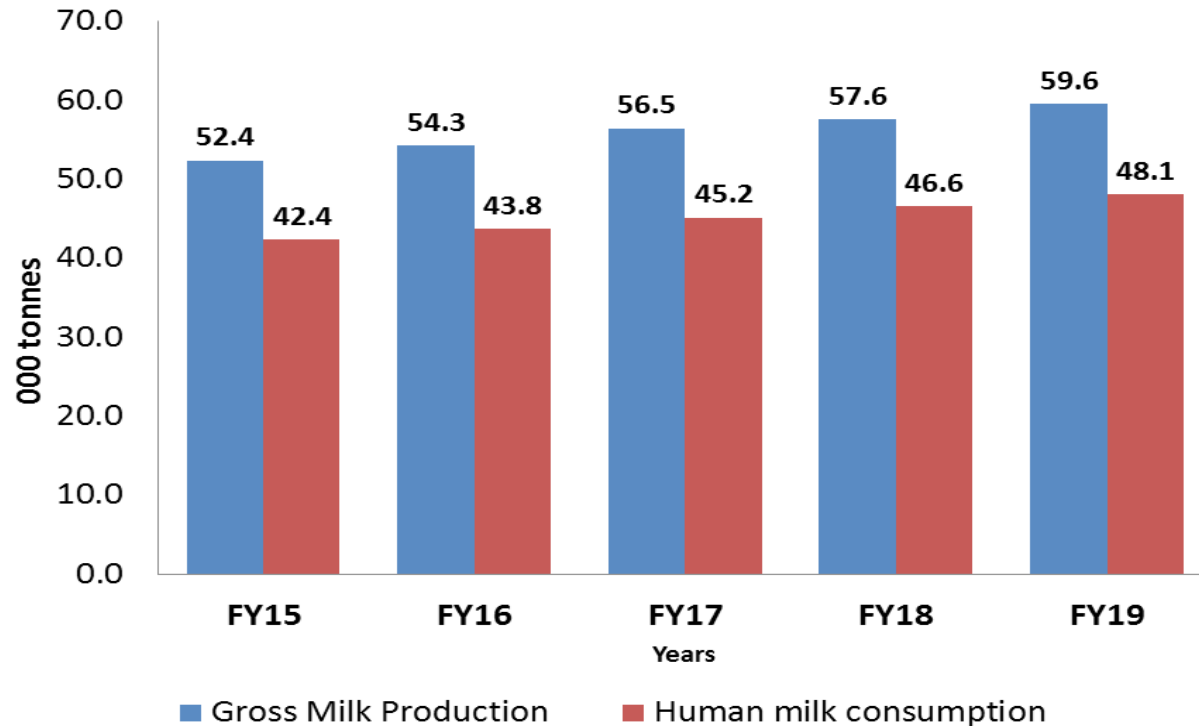
Pakistan is fourth largest milk producer in the world

\* Global Food Safety Initiative

Sources: Economic Survey of Pakistan 2018-2019

Government of Pakistan, Ministry of Planning, Development and Reform Annual Plan 2019-20

## Milk Production and Consumption in Pakistan



\* Milk for human consumption is derived by subtracting 20% (15% wastage in transportation and 5% in calving) of the gross milk production of cows and buffalo.

Buffaloes are the largest source of milk in Pakistan. The buffalo milk is rich in fat content which usually ranges from 6.0 to 9.0%, almost double that of cow milk, and therefore buffalo milk is priced higher than the cow milk. Buffalo milk is more in demand for making ghee and butter.

Source: Economic Survey of Pakistan

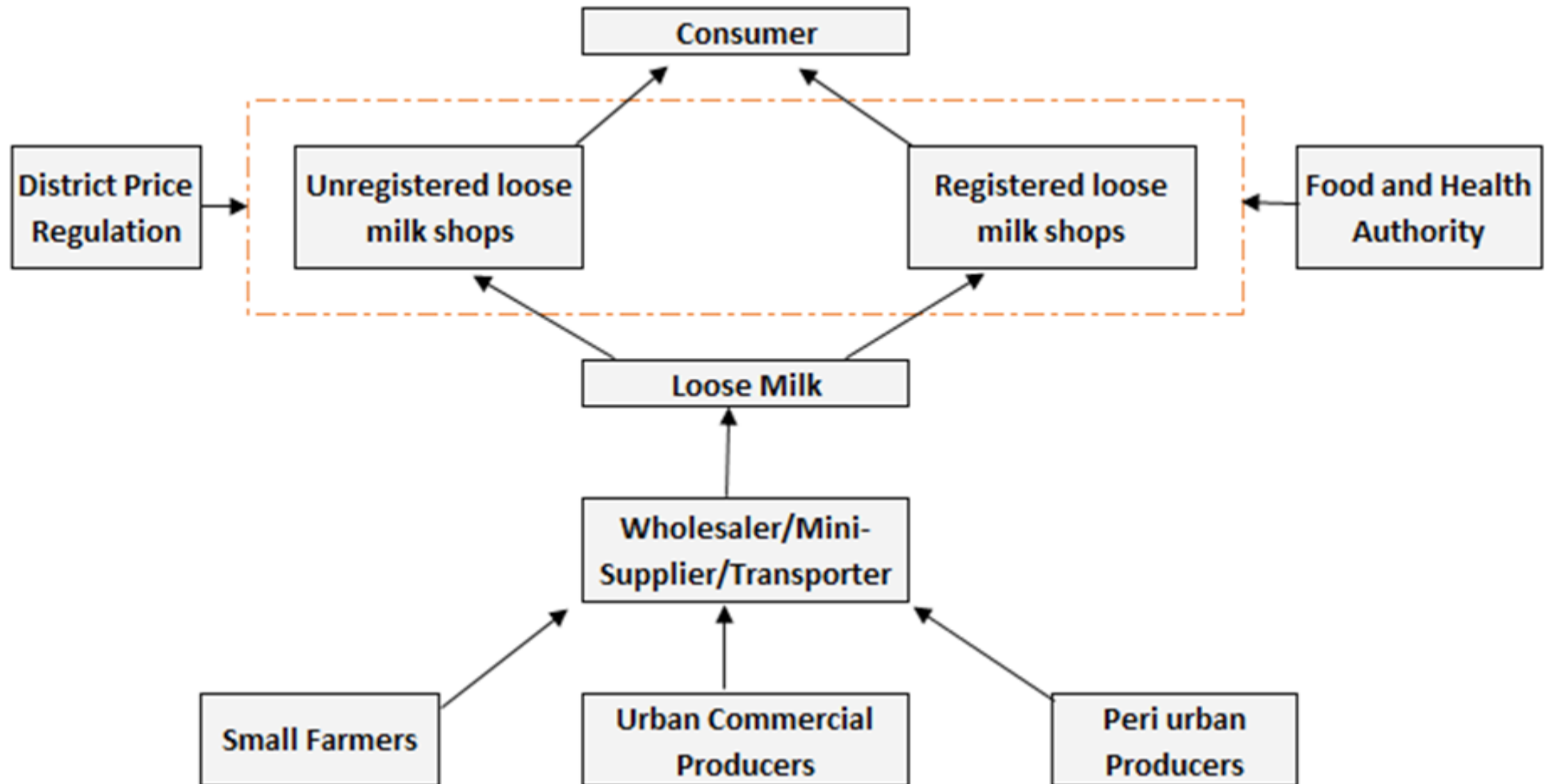
000 tonnes						
Species	FY17	%	FY18	%	FY19	%
Cow	20,143	35.90%	20,903	36.10%	21,691	36.30%
Buffalo	34,122	60.80%	35,136	60.70%	36,180	60.50%
Sheep	39	0.10%	40	0.10%	40	0.10%
Goat	891	1.60%	915	1.60%	940	1.60%
Camel	885	1.60%	896	1.50%	908	1.50%
<b>Gross Milk Production</b>	<b>56,080</b>	<b>100%</b>	<b>57,890</b>	<b>100%</b>	<b>59,759</b>	<b>100%</b>

## Milk Categories

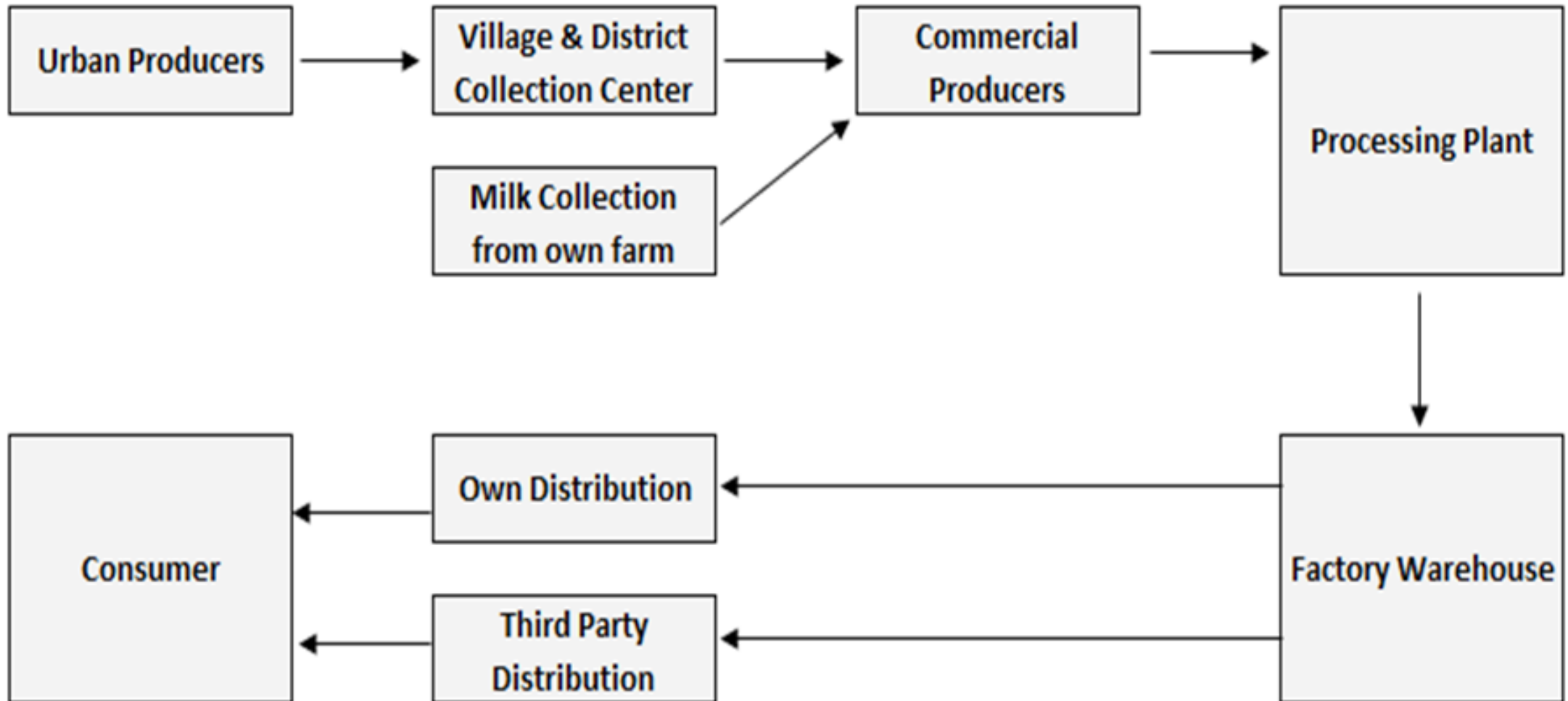
- Milk can be broadly segregated into two segments: loose milk and processed or packaged milk (pasteurized milk, UHT milk)
- Loose milk is the raw milk collected from the animals without any further processing or testing and is considered to be contaminated with bacteria.
- Pasteurization is the process of heating milk up and then quickly cooling it down to eliminate certain bacteria.
  - Most common method across the world is to heat the milk up to at least 72 degrees Celsius for 15 seconds, which is known as High-Temperature Short-Time (HTST) pasteurization.
  - In Ultra-Heat Treatment (UHT), milk is heated at 138 degree Celsius for two seconds



## Supply Chain of Loose Milk

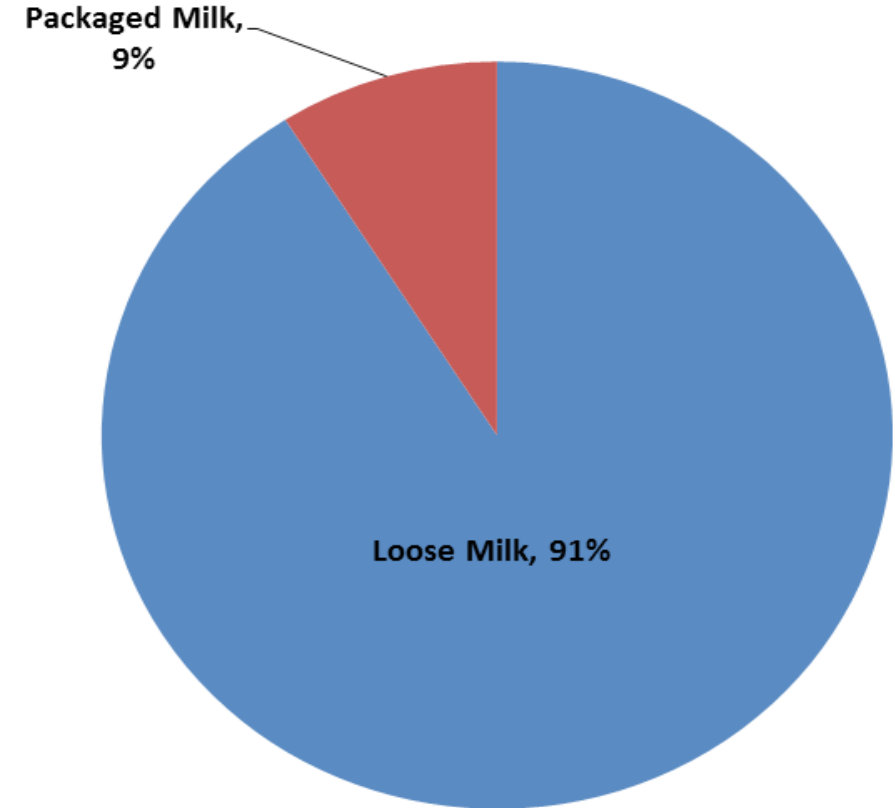


## Supply Chain of Packaged Milk



## Milk Penetration in Pakistan

- Penetration of packaged milk in Pakistan is low as majority of the consumers prefer 'loose' or 'open' milk.
- Processed milk penetration in Pakistan is considered to be lower side compared to the regional peers such as India (14%) and Bangladesh (20%).
- Reasons for low penetration of packaged milk:
  - People perceive consumer milk packaged milk to be of inferior quality and contaminated with chemicals and preservatives.
  - Price of packaged milk is approximately 20-25% higher than the loose milk due to additional cost of transportation, processing and distributor margin.



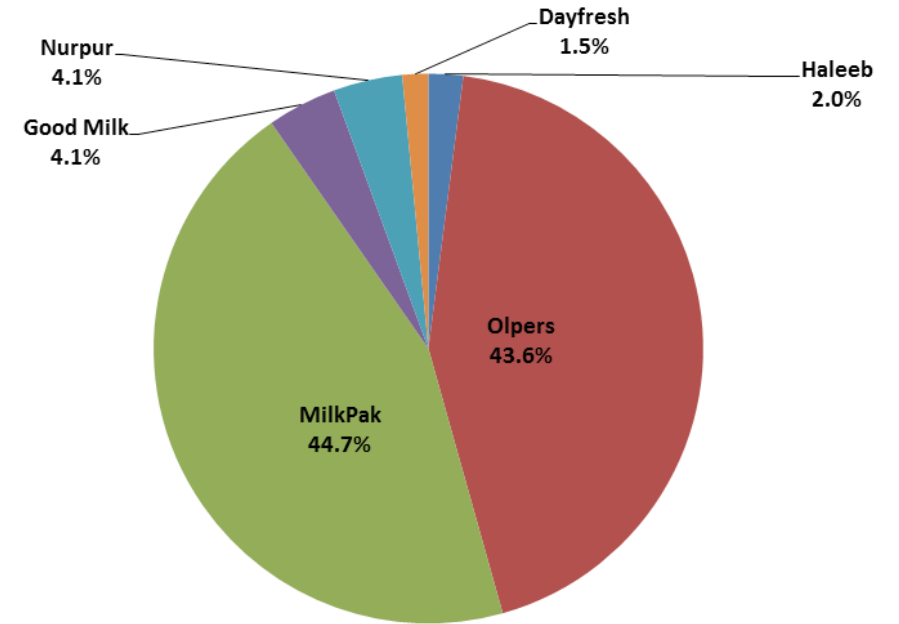


## Competition in Plain Packaged Milk

- Nestle Pakistan and FrieslandCampina Engro Pakistan have the largest presence in the packaged milk segment through their brands MilkPak and Olper's, respectively. Both players command approximately 90% market share in packaged milk
- Remaining market share is divided among Dayfresh, Haleeb, Good Milk and Nurpur



Market Shares in Packaged Milk – FY19

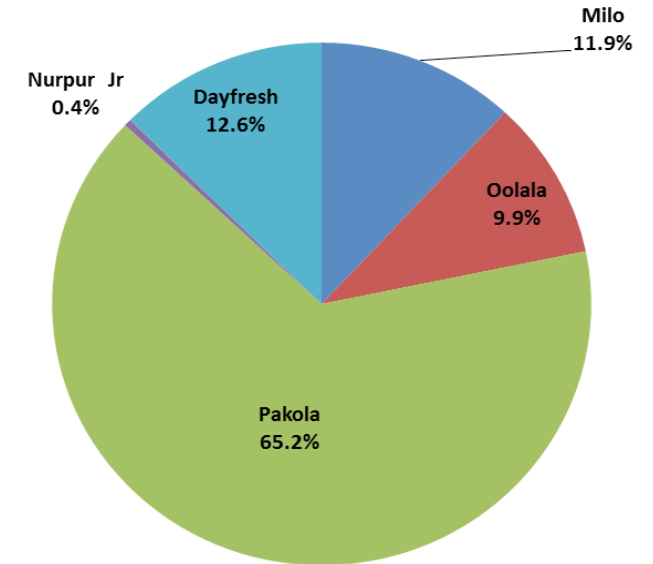


- Given the sound sponsor profile and strong brand equity of the largest two brands, growth in market shares remains a challenge for the remaining market players

## Flavored Milk Dynamics

- Due to sizeable young population, flavored milk segment has gained significant traction during the past few years.
- As per industry sources, existing flavored milk consumption in Pakistan is approximately 70 million liters per annum.
- Pakola Milk is the market leader with over 60% share in the flavored milk category

Market Shares in Flavored Milk – FY19



## Business Risks

- **Significant growth potential exists due to favorable demographics**
  - With sizeable population and growing population of 217 million\*, Pakistan represents significant growth potential for the milk industry. Population of Pakistan is increasing at a higher average rate of 2.0% vis-à-vis the world average growth rate of 1.08%.
  - Pakistan was ranked 77 out of 113 by Global Food Safety Initiative 2018, indicating high malnutrition prevalence. Per capita consumption of milk can be enhanced to fill this gap.
- **Barriers to entry characterized by significant investment requirements**
  - As two largest packaged milk market players are backed by sound sponsors, significant outlay will be required by small market players and new entrants for marketing activities in order to create brand equity and capture market share
  - Expenditure will also be required to counter the negative perception of packaged milk and educate consumers about benefits of pasteurization
- **Limited pricing power**
  - Regulation of loose milk price by the district government and no additional processing costs make loose milk a cheaper alternative to packaged milk. Hence, limited room exists in increasing the prices of packaged milk
  - Larger packaged milk industry market play a significant role in determining prices of the packaged milk, indicating further challenges for smaller players
- **Seasonal but Non-cyclical demand**
  - Demand for milk is seasonal, with the flush and the lean period, which occur in the first and second half of the year, respectively. However, due to low elasticity of demand, the demand for milk is non-cyclical

Source: \* As at October 14, 2019 according to United Nations data



- **Regulatory risks**

- Processed milk industry has to comply with national regulations, which mandate different requirements of Milk Fat and Non-Fat Milk Solids for different types of liquid packaged milk. Such regulations are not followed by loose milk producers.
- In 2018, the Pakistan Council of Scientific and Industrial Research tested 53 packaged milk brands out of which 4 were not fit for consumption. Subsequently, Chief Justice of Pakistan (CJP) banned the sale of packaged milk from four companies in Sindh. Similar instances have been reported in the past as well, which tarnish the image of the overall packaged milk sector
- Implementation of the minimum pasteurization law is the key to increasing penetration of packaged milk among consumers. As per industry experts, a staggered implementation of this law would be beneficial for the entire industry

## Four milk brands sold in Sindh declared 'unsafe for human consumption' by SC

Shafi Baloch | Updated January 27, 2018

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## CJP terms packaged milk a fraud with masses

THE EXPRESS TRIBUNE · BUSINESS

Packaged milk business struggles to retain customers

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