



Leveraging Supply Chain for Competitive Retailing

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November 14, 2008



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Indian Retail Industry

Retail

- Consists of a basket of products such as Fruits and vegetables, Apparel, Footwear, personal hygiene products etc.
- Organized as well as unorganized sectors
- 65% of retail is food products
 - 95% are fresh produce
- We consider the Food Industry here.



- **Booming employment opportunities**
 - **rising urban disposable income and credit card ownerships,**
 - **changing lifestyles and demographic profiles**
- are all showing a favorable skew towards a rising consumerism culture, boding well for retail growth**
- **Yet the food retail industry has not made its impact on the country and lot more need to be done before it attains breakout status.**



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The Food Supply Chain In India

Untapped Comparative Advantage



State of Indian Food Sector

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Strengths

1. Vast natural resources (cultivable land, water, seasons)
2. Established farming system
3. Growing economy
4. Supporting government policies (FDI, APEDA, subsidies)
5. Vital outsourcing hub

Weaknesses

1. Small scale conventional farming
2. Primitive harvest methods
3. No farmer & many farmers
4. Many intermediaries
5. Poor processing industry
6. Poor storage & transport infrastructure

Consequences

1. Surplus food
2. Low incomes to farmers
3. Inefficient supply chain
4. Not meeting the young consumer preferences (processed hygienic food)

Opportunities for

1. Cold chain infrastructure builders
2. Processed food manufacturers
3. Food packaging & logistics providers
4. Food retailers and exporters
5. IT and data analysts
6. Research Institutions

Potential to become a leading food supplier for the whole world



Nature of Competition Changes

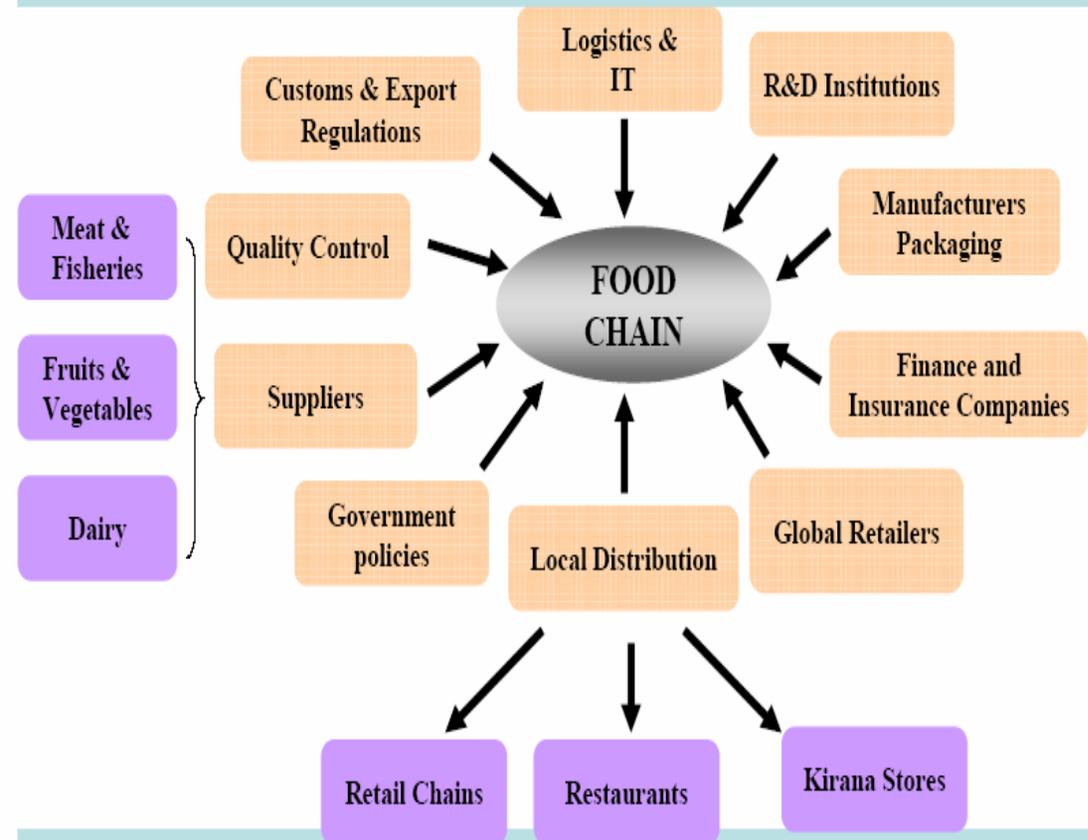
- During 70's : Manufacturing Vs Manufacturing
- During 90's : Supply Chain Vs Supply Chain
- Currently :
Company Ecosystem Vs Company Ecosystem
National ecosystem Vs National ecosystem

Ecosystem of Food Industry



Ecosystems comprise of networks of companies, governments, employees & other organizations with talent, connections, knowledge of the industrial environment, etc interacting together with the landscape and Climate

Food Supply Chain Cluster



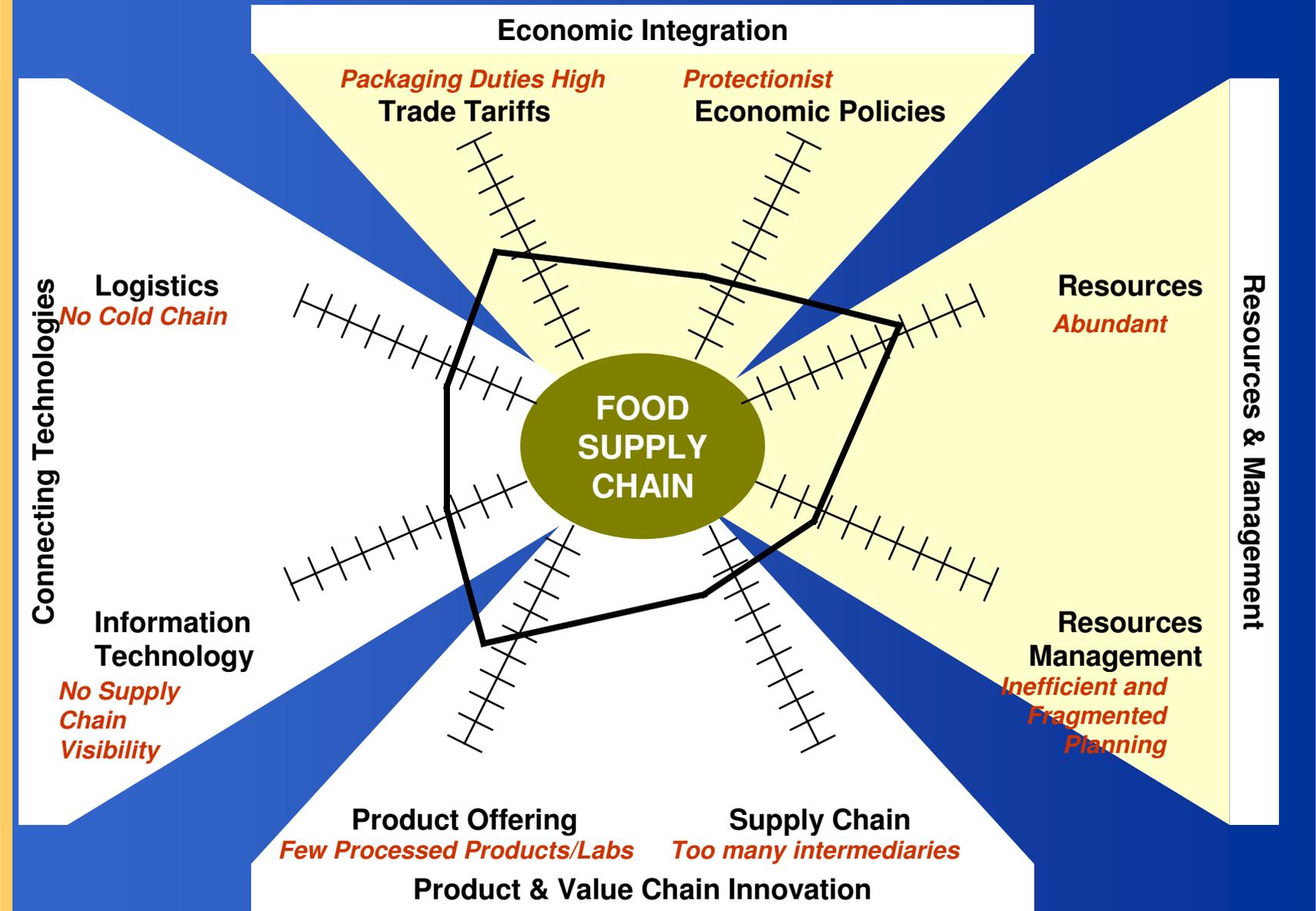
Competitive Indian Food Retail

- Innovations along four dimensions need to converge for Indian Food Retail to turn into a highly competitive vertical
 - **P**roduct and Value Chain Innovation
 - **E**conomic and Trade related Innovations through Government Regulations
 - **R**esources and Resource Management
 - **C**onnecting Technologies: Logistics and IT

We call this the PERC framework for Excellence in Innovation



Benchmarking Food Chain





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Product and Value Chain

Food Manufacturing

- Only a small percentage of fresh produce or meat are processed.
- Post harvest research and food product testing are at a very nascent stage
- Negatives on Food manufacturing in India
 - Food Packaging is expensive
 - High import duties on Processing and Packaging machinery
 - High sales tax on packaged foods.

**Processed Food more expensive than
freshly cooked food**

Food Product Market Estimation

- *Estimate your market right*
 - How many people will buy orange juice packets if it is as cheap as a coffee or tea on a road side stall and costs only Rs 5
 - Look at the reduction in the disease burden*

How to achieve astounding 'breakout growth'

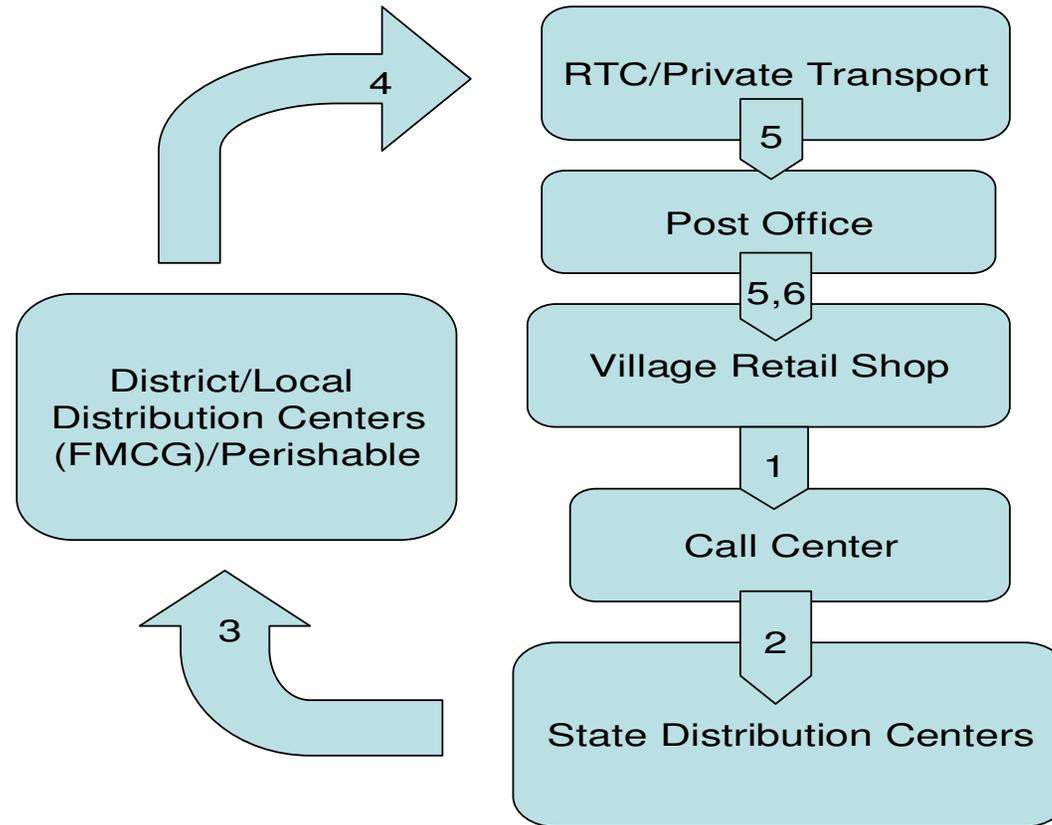
- Sell value chains not products
- Start by asking what should be the scale of operations to support low enough prices required to spur higher penetration and growth in the packaged food market?



Take advantage of the vast network and logistical capabilities of the existing institutions such as Post office, Road transport corporations, Banks, etc to bring a host of services to rural populations.

Do not wait for the infrastructure to be available

Rural Retail Flow Chart



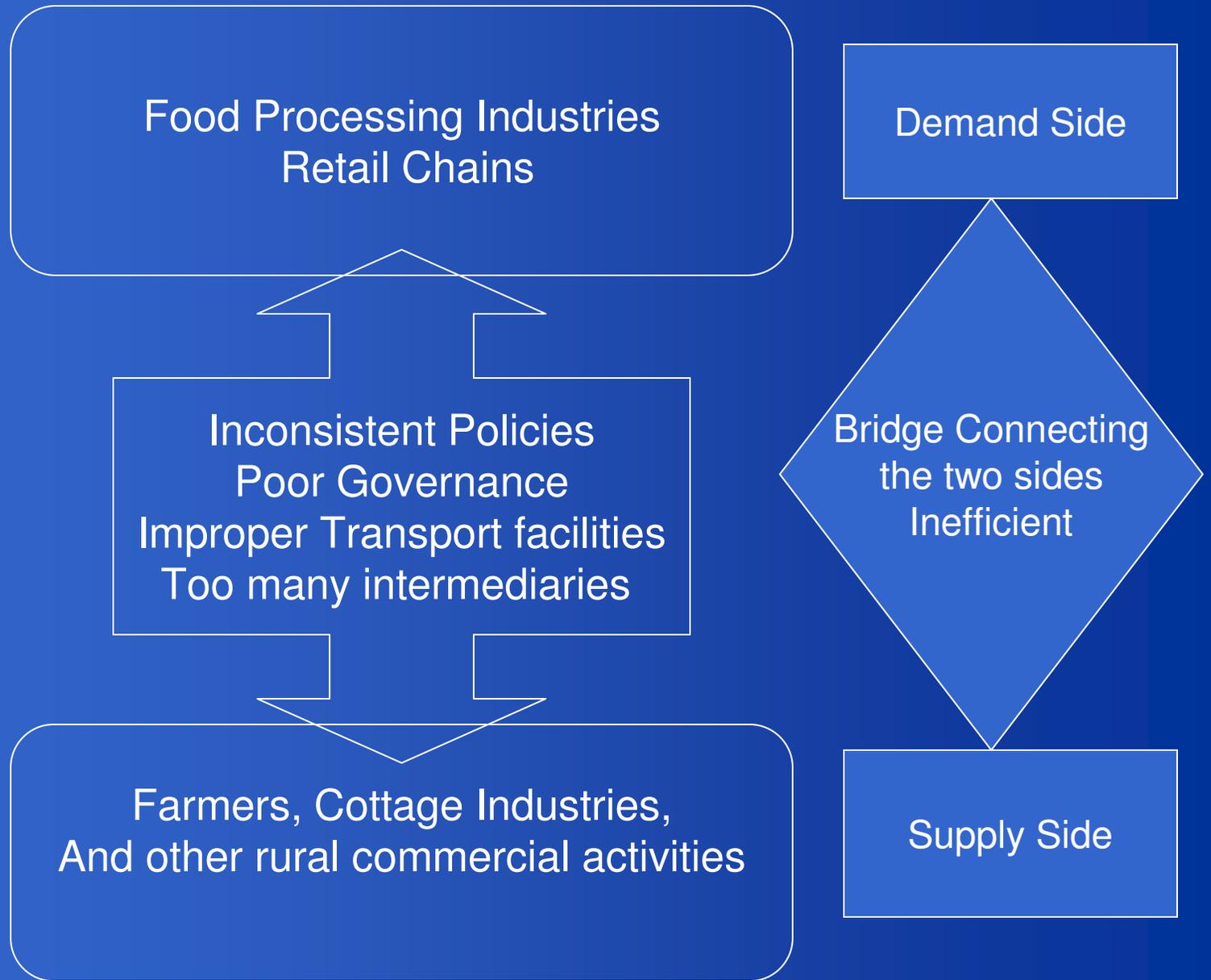
Rural Retail Model : Flow Chart

The Indian retailers can take advantage of the vast network and logistical capabilities of the post office to bring a host of services to rural populations.



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Regulatory Hurdles



Bridge between Supply and Demand Side In Retail Supply Chain

Agricultural Produce Marketing Committee (APMC) Act

- The APMC Act in each state of India requires all agricultural products to be sold only in government - regulated markets.
- These markets impose substantial taxes on buyers, in addition to commissions and fees taken by middlemen
- Under the present Act, the processing industry cannot buy directly from farmers and the farmer is also restricted from entering into direct contract with any manufacturer
- **Result: Disintegrated Supply Chains**



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Resources and Management



The India Advantage

- In India, 52% of land is cultivable & World average is 11%
- All 15 major climates of the World are in India
 - Snow bound Himalayas to hot humid southern peninsula,
 - Thar desert to heavy rain areas
- Has 20 agro-climatic regions & 46 out of 60 in soil types
- Sunshine hours and day length ideally suited for year round crop cultivation.
- Mega centre for biodiversity in plants, animals, insects, microorganism and accounts for 17% animal, 12% plants and 10% fish genetic resources of the globe.
- Live stock sector: India has 16% of cattle, 57% of buffalos, 17% of goats and 5 % of sheep population of the world.

Seed-Feed: Value Driven Agriculture

- **Current Scenario, Supply driven** : The farmer is unaware of the market, Crops something and tries to sell in a mandi or to an agent and expects a fair price & immediate payment.
- **Desirable Scenario**: The farmer crops to market demand the right (Optimal) grade of produce and sells to right customers to get maximum income
- **Need to transform the way agriculture works, create business orientation among the farming community**



Resource Shortage

Talent for
governance of dispersed (rural and
urban) & independently (small
stake holders) controlled
agriculture, manufacturing &
service chains
to make them globally competitive



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Connecting Technologies



There is no well designed hub-and-spoke distribution network in India and partly the taxation barriers between states act as barriers to efficient regional distribution.

The Path of goods movement

- Distribution Centers be located on the path of flow of goods from sources (manufacturers) to destinations (population centers) determined by rail, road, water connectivity and the infrastructure
- Finding the best Distribution Center Locations along the POGM where shipments can “break bulk” and stored is an important problem.



All Highways
Type 1 cities
Type 2 cities
Type 3 cities
Type 4 cities
Potential cities

	North South Corridor
	East west corridor
	Golden quadrilateral
	Dedicated freight corridor

	Type 1 cities
	Type 2 cities
	Type 3 cities
	Type 4 cities

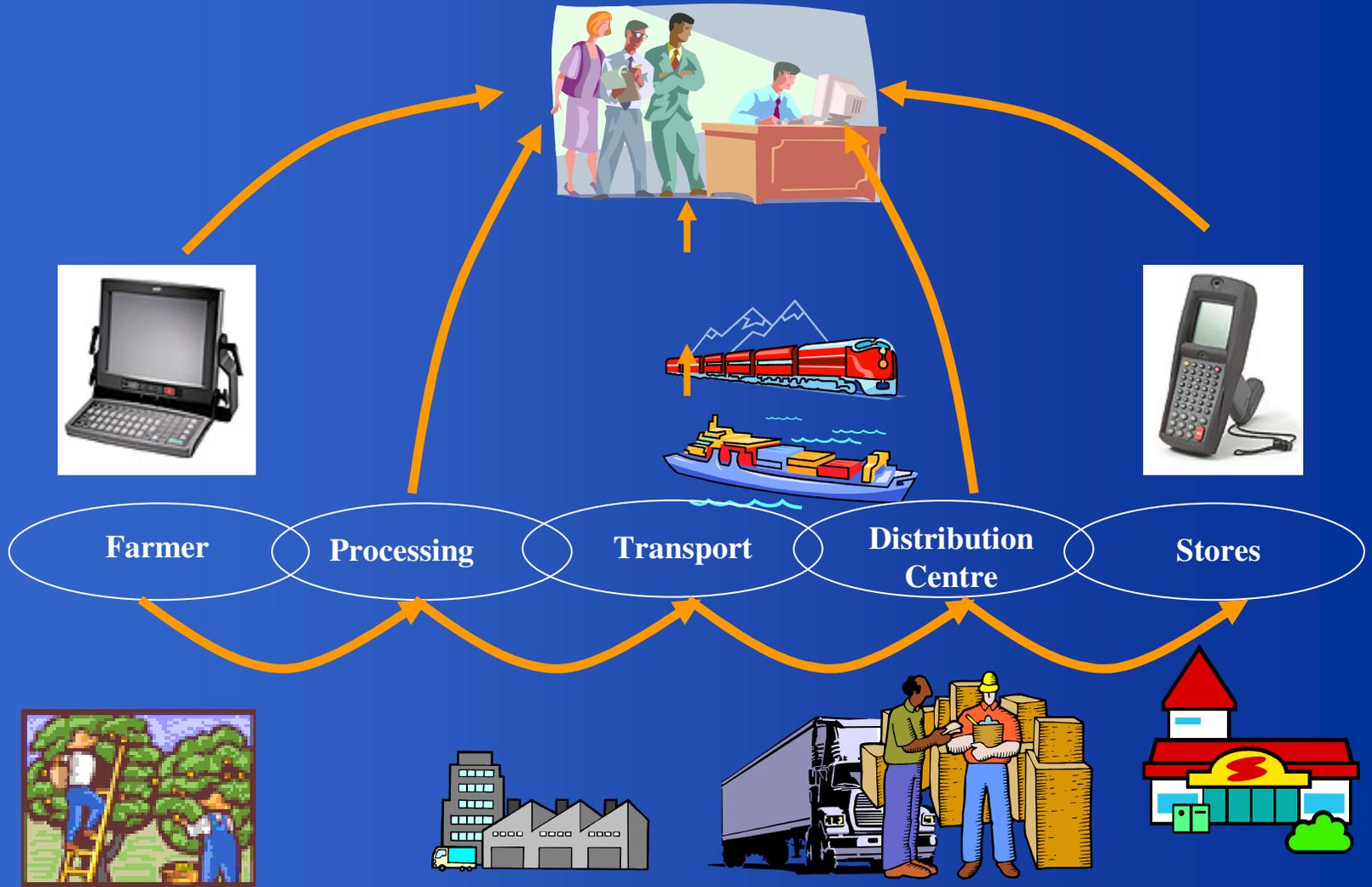


Green, Lean, and Integrated DCs: *How to make logistics infrastructure work?*

- Need: Logistics backbone Network
- Distribution center location, design and operation
 - Distribution center architecture and warehouse design
 - Transportation scheduling from DC to consumption
 - Transportation scheduling from Plants to DCs
 - Green Shared IT and Logistic Resources
 - Built under PPP
- Manufacture of Trucks and other moving equipment

Remember \$ One Trillion is at Stake

IT in Food Supply Chains





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In Summary



Truly breakout food industry is possible

- Creating awareness among farmers
 - Demand driven agri production
 - Seed to feed culture
- Relaxing regulatory hurdles
 - On sale of agri produces
 - Reducing taxes on processed food items
- Creating of laboratories for nutritious food product development and testing, encouraging growth of strong food processing industry
- Developing talent for rural supply chain management
- Developing an IT enabled distribution backbone