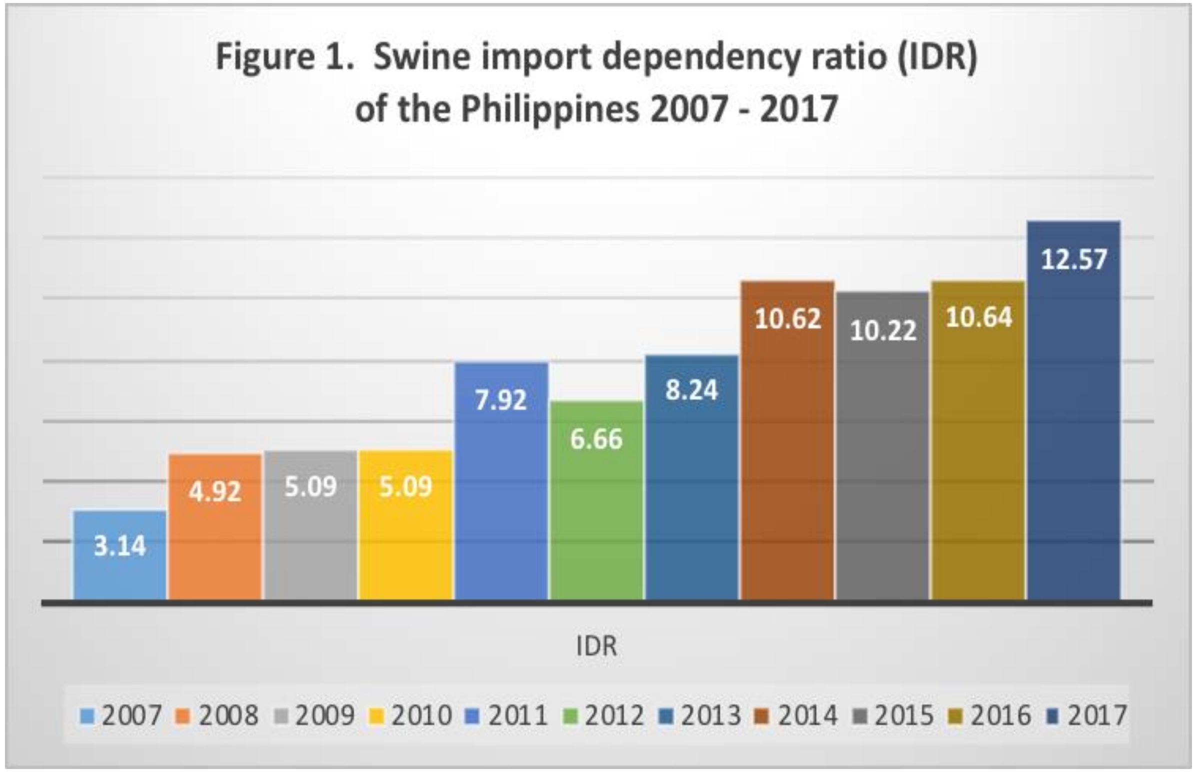
RAPID MARKET ASSESSMENT OF SWINE IN BAYBAY CITY, LEYTE: A MARKET ORIENTATION APPROACH

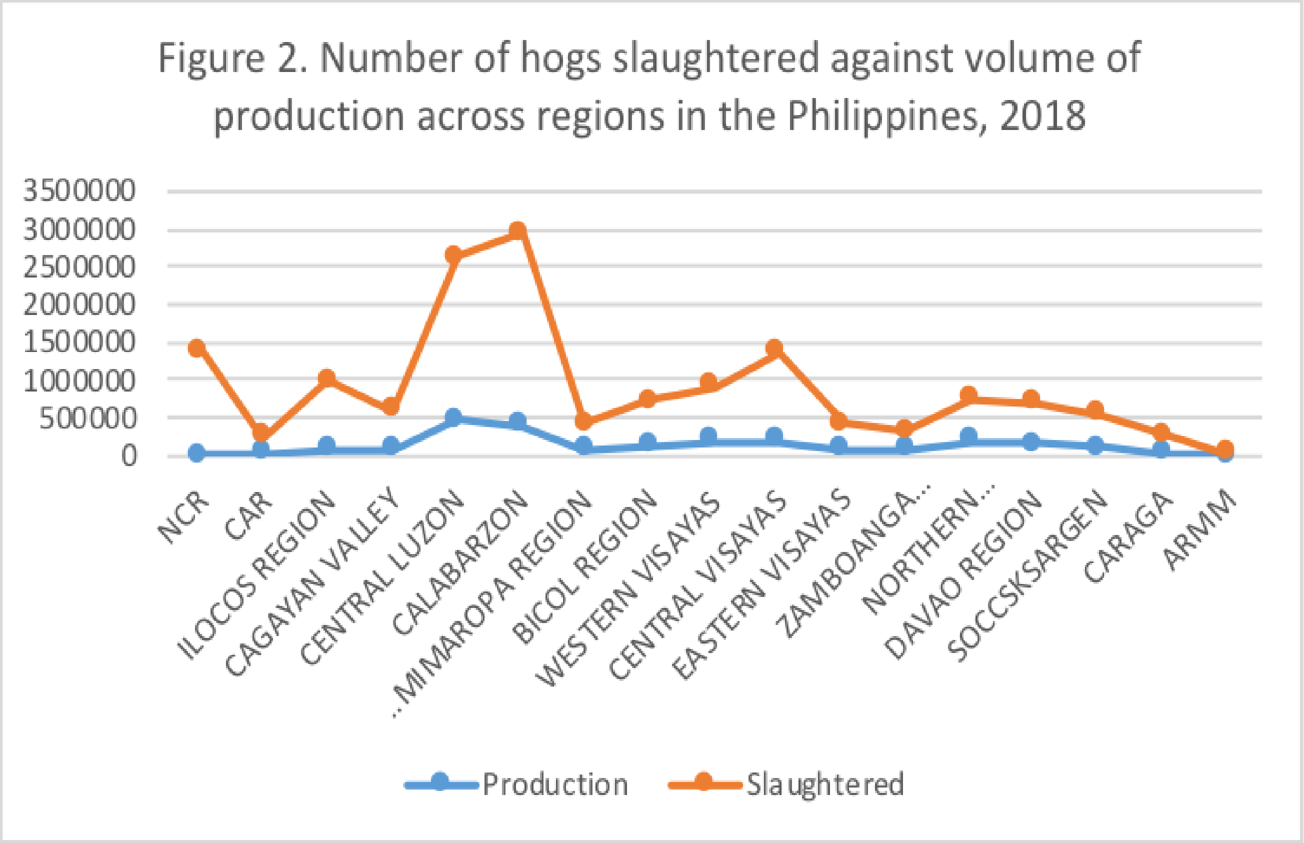
Introduction

- As in many other regions in the Philippines, pork is considered the most consumed food commodity by Filipino household. In fact national production have been far less than total consumption. This is evidenced by the increasing swine import dependency ratio (IDR) during the last 10 years from 2007-2017 (Figure 1)



Introduction

- Also in that same year (2017), the annual pork consumption across regions in the Philippines showed a significant disparity between the volumes of hogs produced with that of the volume slaughtered indicating that, consumption is growing faster than local production.



Introduction

- While this could be an attractive agribusiness opportunity for commercial swine raising in Leyte and other provinces in Region 8, the reverse is almost actually what is happening. The proportion of **commercial against backyard piggery operation in the Region is only about 3 percent of the total hog population** (Table 1).

- **Eastern Visayas remained a net importer of swine/hog from other neighbouring regions.** In fact, it was observed that during the last ten years there has been a continues **influx of truckloads upon truckloads** of live hogs from Mindanao entering Baybay and other major markets in the region.

REGIONS	BACKYARD PIGGERY	COMMERCIAL PIGGERY	PROPORTION OF COMMERCIAL AGAINST BACKYARD
	222,894.00	3,651.00	1.60
CAR	478,118.00	127,202.00	26.60
ILOCOS REGION	421,951.00	40,142.00	9.50
CAGAYAN VALLEY	539,598.00	1,664,059.00	308.40
CENTRAL LUZON	388,021.00	1,190,925.00	306.90
CALABARZON	451,192.00	136,528.00	30.30
MIMAROPA REGION	813,383.00	164,478.00	20.20
BICOL REGION	1,127,029.00	139,717.00	12.40
WESTERN VISAYAS	822,993.00	236,400.00	28.70
CENTRAL VISAYAS	300,317.00	11,523.00	3.80
EASTERN VISAYAS	**538,474.00**	**13,806.00**	**2.60**
ZAMBOANGA PENINSULA	590,695.00	413,681.00	70.00
NORTHERN MINDANAO	756,080.00	156,868.00	20.70
DAVAO REGION	460,058.00	331,042.00	72.00
SOCCSKSARGEN	215,520.00	13,560.00	6.30
CARAGA	46,623.00		-
ARMM	222,894.00	3,651.00	1.60
	478,118.00	127,202.00	26.60

Introduction

- In Baybay City, swine production is an integral part of the livelihood systems of smallholder farmers. However, several constraints affect the production system. Aside from lack of capital and limited technical skills, poor market linkages and related information also affect the productivity and profitability of smallholder swine raisers (Gabunada et al., 2004).

Research questions and study framework

Problem statements

Insufficient information on which to prioritize market chain.

Obtain a broad understanding of the entire market.

Increasing role of supermarket in distribution channel.

Objectives

Generally, this study aims to conduct A Rapid Marketing Assessment for swine/pork in Baybay City.

Specifically, it aims to:

1. Assess the supply of swine/pork in Baybay City;
2. Determine the product flow, information flow and relationship along the chains;
3. Identify key factors for the marketability of swine and pork related products;
4. Generate a distribution channel overview (DCO) indicating the market size, target markets and competitive marketing strategies for various pork products; and
5. Identify the gaps and recommend areas for improvement for swine and pork products.

Methodology

Data Collection

- ❑Primary data

Semi-structured interviews

Provides more control than unstructured interviews and allowed the respondents to provide a wide range of responses than using closed-ended questions (Given 2008; Minichiello et al. 2008)

- ❑ Secondary data

Lists of vegetable retailers from Economic Enterprise Management Office (EEMO)

Volume Price monitoring from City Veterinary Office (CVO)

PSA and BAI for inbound and outbound data.

Methodology

Data Analysis

❑Exploratory research approach

Includes qualitative and quantitative data that enable to identify new business models of intermediaries. This is to capture the rapid changing of potential commodity distribution channel.

❑ Snowball sampling

A non-probability sampling technique which a researcher begins with a small population of known individuals and expands the sample by asking those initial participants to identify others that should participate in the study (A. Crossman, 2017).

Methodology

Data Analysis

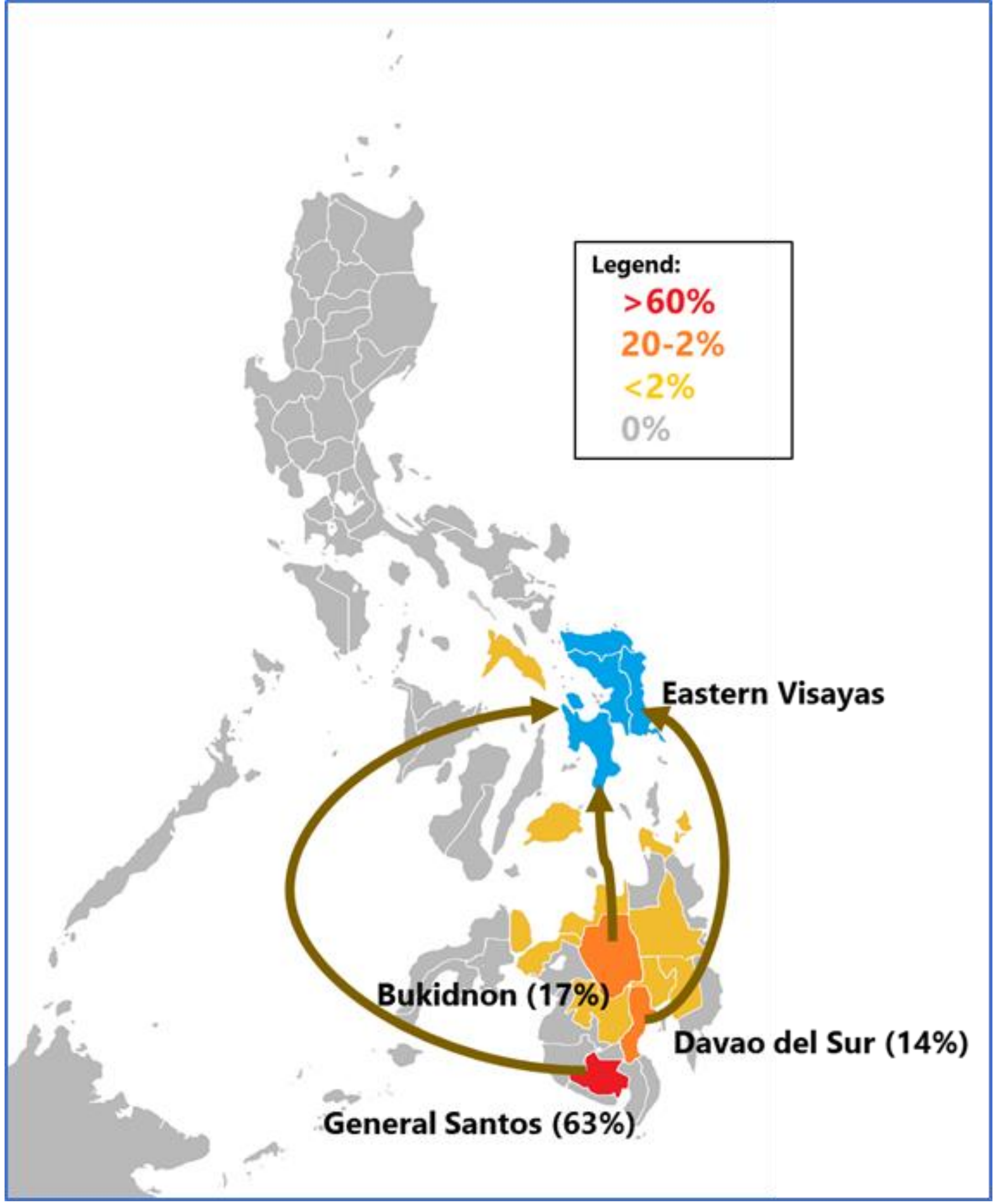
❑Porter’s five forces model

Evaluate the strategic position of an organization using the five forces (competitive rivalry, threat of new entrant, threat of substitute, bargaining power of suppliers and bargaining power of customer) that determine the attractiveness of the market by analyzing the competitive intensity.

❑ Node life cycle

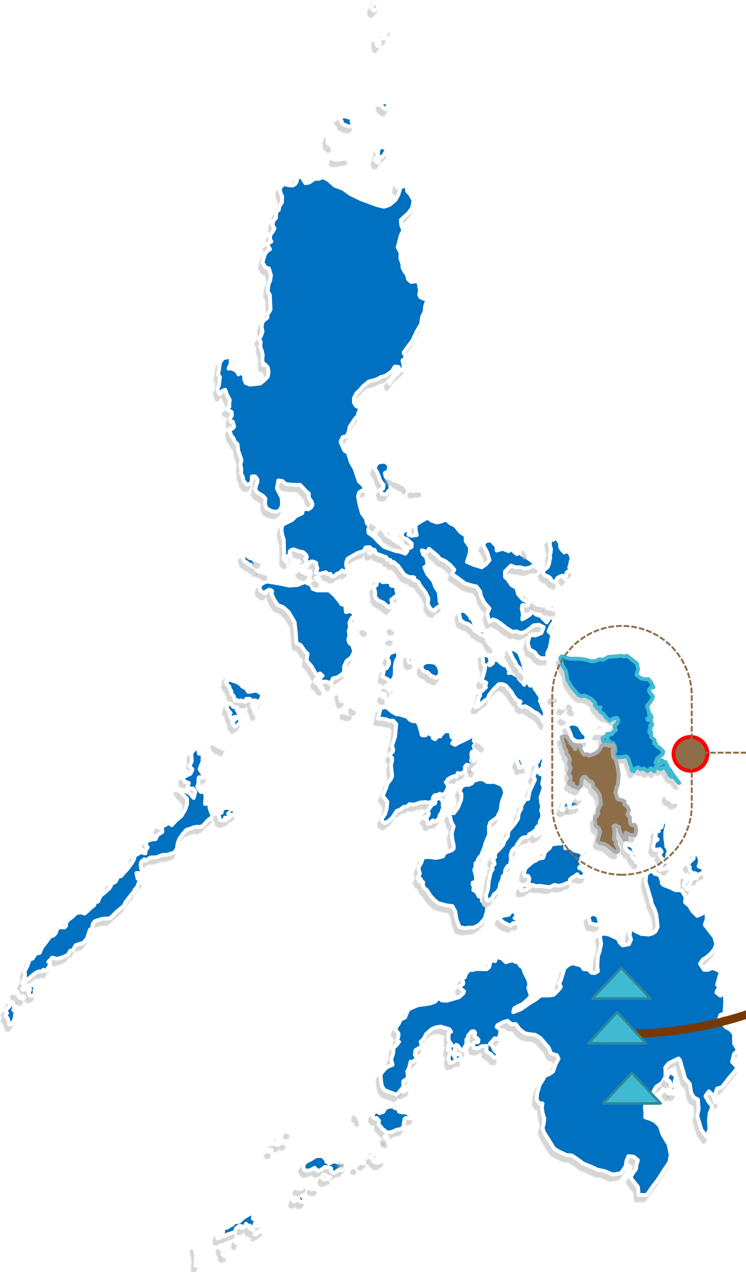
Traces the evolution of a given industry based on the business characteristics commonly displayed in each phase.

The inbound-outbound flow of swine/pork in Eastern Visayas



Origin of Swine for slaughter shipped to Eastern Visayas (Average of 2016-2018; source: BAI, 2019)

The inbound-flow of swine/pork in Baybay, Leyte



45-120 heads – Bukidnon
120-150 heads- Davao Del Sur
50-60 heads- Misamis Oriental

The outbound-flow of swine/pork in Baybay, Leyte

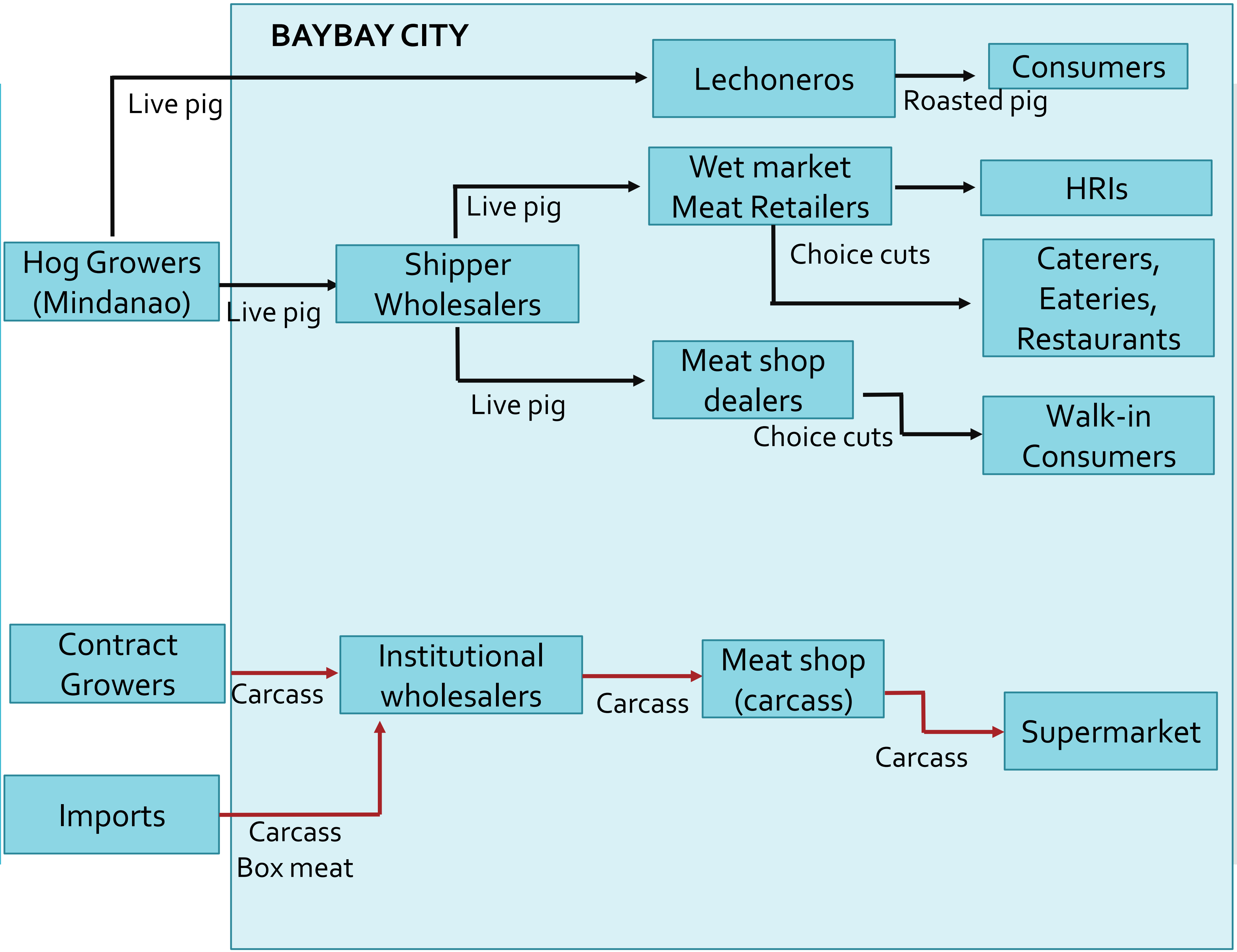

DISTANCE

Key market players and their roles, schematic diagram of swine supply chain :

LEGEND:

Regular chain

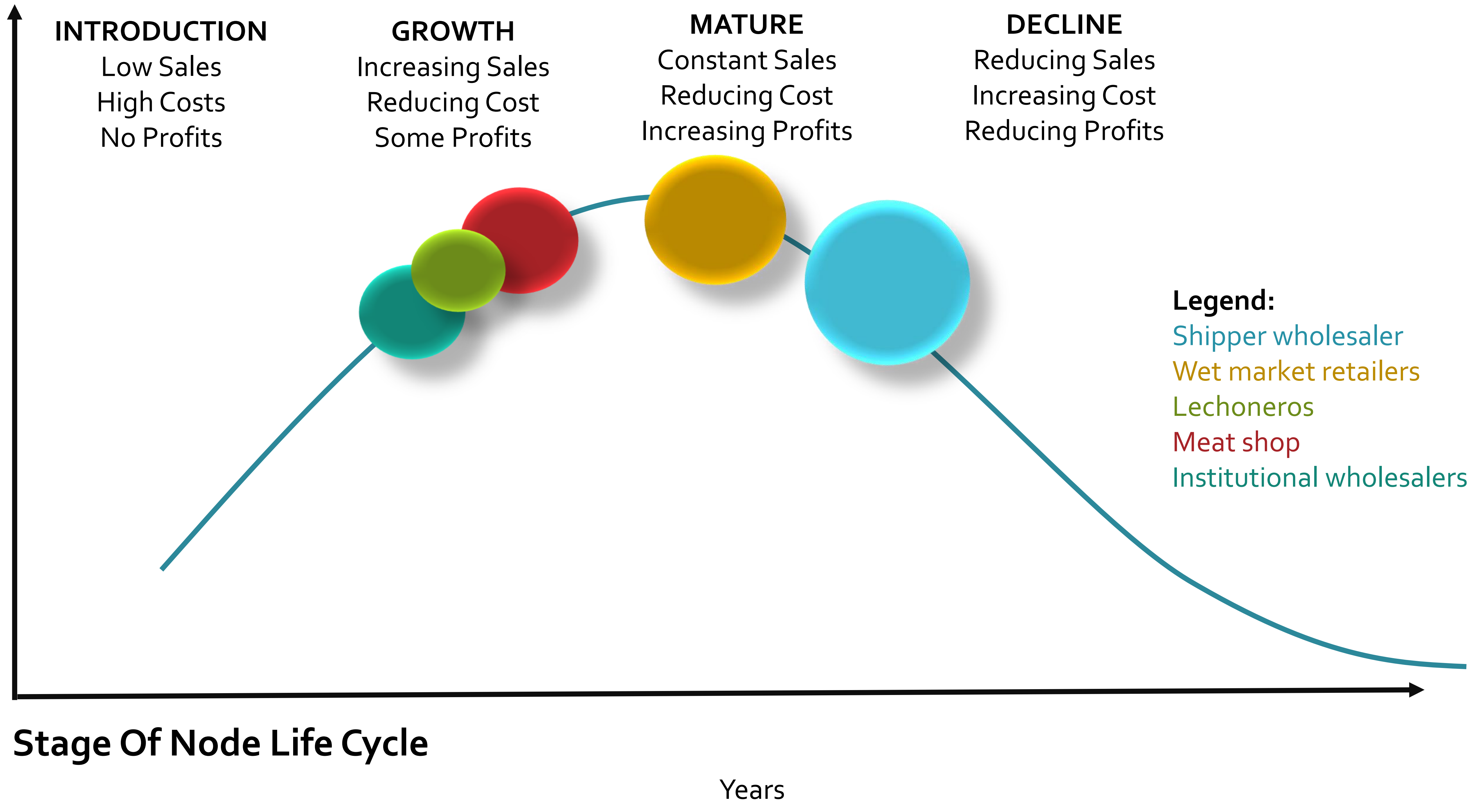
Cold chain



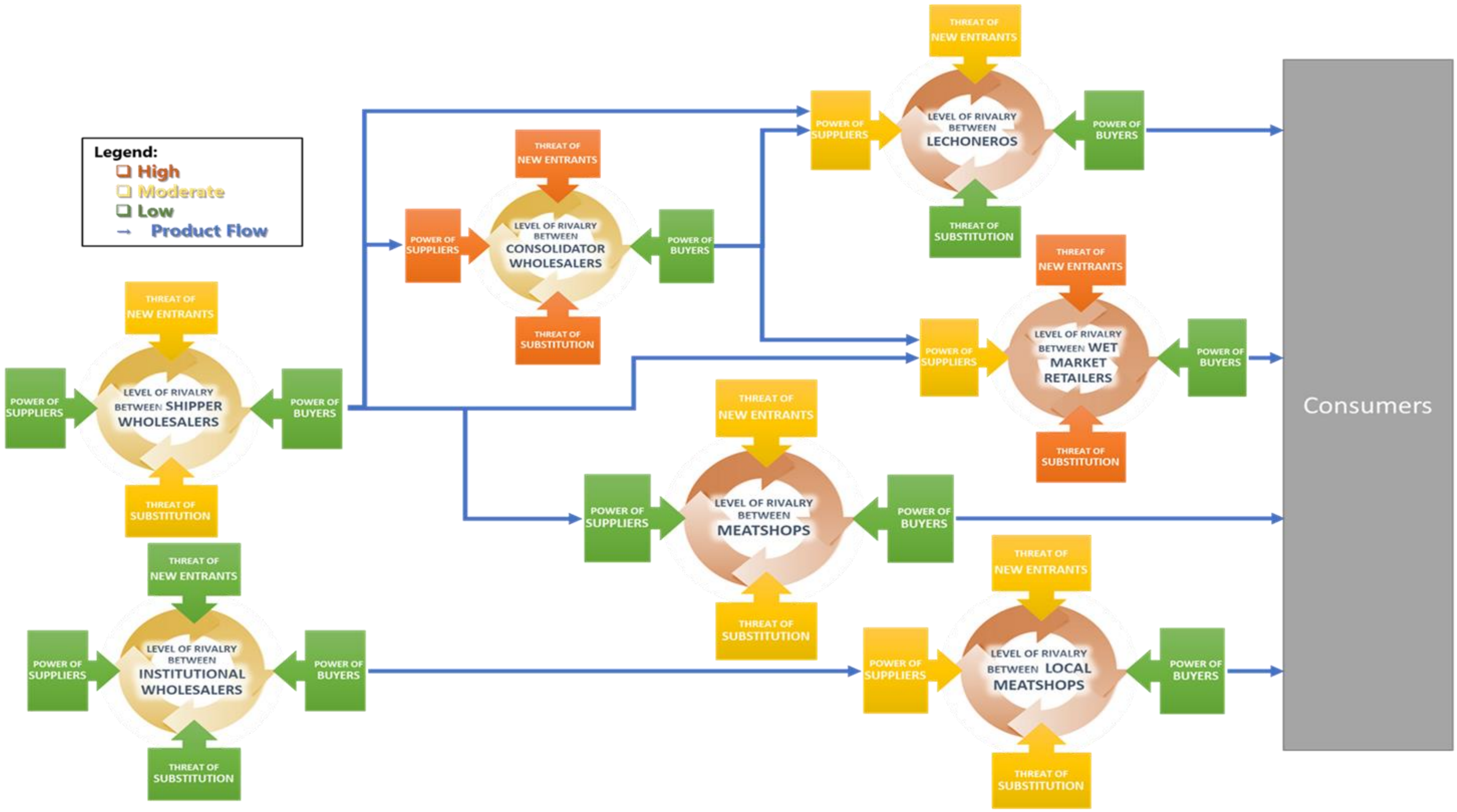
MARKET NODES	ESTIMATED VOLUME TRADED PER MONTH	
	LIVE SWINE STOCK	**PORK CARCASS (CHILLED/ FROZEN)**
Shipper – wholesaler	Large Scale: > 1,626 Heads/Mo; Average/ Shipper: 43.6; 407 Heads Range: 28 tons- 40 tons/mo 45 heads-150 heads; N-8	
Institutional wholesaler		Average (tons/mo)= 16-20 Ave. No.of Carcass/day: 50;N=2
Wet market retailers	**Large scale:** Average (tons/mo)= 20.22 Range (tons/mo): 18.07-22.87; N=6 Medium scale: Average (tons/mo)= 22.33 Range (tons/mo): 19.89-27.56; N=12 **Small scale:** Average (tons/mo)= 0.94 Range (tons/mo): 0.56-1.49; N-8	
Meat shop	Average (tons/mo)= 12.31 Range (tons/mo): 11.05-14.66, N-4	
“Lechoneros”	Range (tons/mo): 13.6-4.7; N=13	

MARKET NODES	QUALITY CHARACTER SOUGHT
Shipper- Wholesalers	• Preferred weight ranges from 90-130 kg per swine • Good vitality, firm and free from illness and diseases.
Institutional Wholesalers	• Carcass should be delivered "frozen" following standard temp. • Stressed the importance of regulatory documents such as registration, licensing, accreditation and laboratory examination (if deemed necessary) to support meat inspection clearance (inspected and passed) • Conform standards weight (halves) of 35 kg per halves • Should indicate production code, batch code, carcass number • Dealer/ shipper should secure delivery receipts and shipping permits.
Meat Shop	• Secured documents to prove that it has go through appropriate inspection, with appropriate markings and labelling • Pork carcass have bright appearance and slaughtered only on registered abattoir or slaughtering facilities. • Free from bruises, discoloration and foul odor.
Wet Market Wholesaler- Retailer	Pork carcasses shall be delivered in good condition and shall show no evidence of deterioration at the time of delivery. Preferred "Mindanao-an" rather than local backyard supply. Generally fresh in appearance; more lean meat, less fat, preferred weight ranges from 90 to 120 kg/ hogs. Acceptable quality requirements: • Pork meat: light pink meat, firm, white fat and relatively thin • Texture: firm and springs back when touched; Odor: No odor Rejection criteria (considered poor quality): • Fat: generally soft and oily weighing in excess of 120 kg • Color of the muscle: soft pale gray to pinkish; Odor: impulsive urine ordor

MARKET NODES	PRICE PAID AND ESTIMATED MARGINS EARNED			VALUE CREATED
	Buying Price	Selling Price	Margins Earned	
Shipper-Wholesalers	₱90.00-115.00/kg	₱105.00-130.00/kg	₱15.00-20.00/kg	• Provide financing to growers (contract growing, buyback) • Provides transportation facilities and covers shipment cost. • Maintains stockyards for access and space utility • Maintains bulk supply of inventory
Institutional Wholesalers	Live weight: ₱110.00-115.00/kg Carcass: ₱168.00-175.00/kg	Primal cuts: ₱215.00-300.00/kg	Live weight: ₱40.00-185.00/kg	• Engaged in contract- growing/marketing • Finance growers, provides feeds and other inputs • Provides transportation facilities & covers shipment cost • Carries cold storage expenditures, and cutting plants • Processed meat into different cuts to suit customers preference
Meat Shop	Live weight: ₱115.00-120.00/kg	₱160.0-220.00/kg	₱45.00-100.00/kg*	• Owns or rent market stall/ space • Expend for cold facilities • Offers ready to cook (RTC) product formats
Wet Market Wholesaler/ Retailer	(Source: Davao) ₱125.00-147.00/kg (Source: Local) ₱105.00-110.00/kg	PhP210.00-230.00/kg	₱30.00-72.00/kg*	• Adds value through minimal processing and classifying primal and minor cuts. • Owns or rent market stall/ space • Provides refrigerators and other storage facilities • Secure business permits, covers slaughtering and marketing fees
"Lechoneros"	Live weight: ₱115.00-120.00/kg	PhP400/kg	₱185-280.00/kg	• Offers pork dish menu • Offers delivery and catering services
Supermarket		See Institutional Wholesalers		• Prepares and processed meat into different cuts, slices and added flavorings. • Carries cold storage expenditures, and cutting equipment • Also provides packing and labelling.
Small Eateries, Fast food chains and Restaurants	Margins earned on the average are above per unit cost of producing one serving for eateries and small restaurants.			• Adds value by preparing different pork menu, proportion and presentation to its customers.


INTRODUCTION
Low Sales
High Costs
No Profits
GROWTH
Increasing Sales
Reducing Cost
Some Profits
MATURE
Constant Sales
Reducing Cost
Increasing Profits
DECLINE
Reducing Sales
Increasing Cost
Reducing Profits
Legend:
Shipper wholesaler
Wet market retailers
Lechoneros
Meat shop
Institutional wholesalers
Stage Of Node Life Cycle
Years

Supply Chain	Nodal Player	Life Cycle Assessment	Description
Live Pig Supply Chain	Shipper wholesaler	Early Decline	Shipper wholesalers have been in the industry for a time now and they are enjoying the benefits being the main market player in delivering hogs to the city but is now experiencing decreasing sales.
	Wet market retailers	Mature	This market players captures a significant portion of the market share. They remain in number but increase in sales.
	Lechoneros	Growth	The trend for having a customized and readily available meat products drives the growth of this segment.
	Meatshop	Growth	As consumers now look for quality pork and different retail experience, meat shops have well-positioned themselves in the market and is enjoying growing sales
Frozen Carcass Supply Chain	Institutional wholesalers	Growth	This node ensures a stable supply for the meat shops who are experiencing growth.



Legend:
High
Moderate
Low
Product Flow
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN SHIPPER WHOLESALERS
POWER OF BUYERS
THREAT OF SUBSTITUTION
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN INSTITUTIONAL WHOLESALERS
POWER OF BUYERS
THREAT OF SUBSTITUTION
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN CONSOLIDATOR WHOLESALERS
POWER OF BUYERS
THREAT OF SUBSTITUTION
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN LECHONEROS
POWER OF BUYERS
THREAT OF SUBSTITUTION
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN WET MARKET RETAILERS
POWER OF BUYERS
THREAT OF SUBSTITUTION
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN MEATSHOPS
POWER OF BUYERS
THREAT OF SUBSTITUTION
THREAT OF NEW ENTRANTS
POWER OF SUPPLIERS
LEVEL OF RIVALRY BETWEEN LOCAL MEATSHOPS
POWER OF BUYERS
THREAT OF SUBSTITUTION
Consumers

Willingness to source directly from farmers

YES	Shipper wholesaler	Shipper wholesaler
YES	Wet Market Retailers	Wet Market Retailers
YES	Meat shop	Meat shop
YES	Institutional Wholesalers (w/ pre-conditions)	Institutional Wholesalers (w/ pre-conditions)
YES	Supermarket (w/ pre-conditions)	Supermarket (w/ pre-conditions)
NO	Small restaurants and eateries	Small restaurants and eateries

Legends: High, Moderate, Low

Conclusions

- Backyard swine raising dominates the hog industry in Eastern Visayas. It account for about 96 percent of the total population. From a total recorded hog population of about 300 thousand in 2018, only about 4 percent or roughly 11 thousand heads were commercially raised.

- The swine market in Baybay City is served by two types of supply chains; live hogs and frozen carcass supply chains. Supplies from Bukidnon, Davao del Sur, Misamis Oriental are essentially live hogs while those that originate from Cagayan de Oro are frozen Swine Carcass.

- A total of 56,062 heads of live hogs (City Vet Office, 2019) and 30 metric tons of frozen swine carcass (NMIS, 2019) are regularly shipped to Baybay City market every month.

Conclusions

- There were about 4-5 intermediary players in the live pig supply chain. The shipper-wholesalers, who is the dominant firm in the chain, bring live animals to Baybay City via Southern Leyte thru truck carrying ferry. This is then bought by the local players for further trading or directly for slaughter for retail.

- Closer look at the situation we found out during the interview that wet market retailers are relying less and less from walk-in customers but rather from a contacted customer arrangement or “suki” who were either restaurants, eateries, hotels and even hospitals in the city. There is an obvious trend that pork consumers are buying meat more at the supermarkets or meatshops. In fact, the number of meatshops operating in a city the size of Tacloban has been increasing during the last 10 years (City Vet interview, 2019).

Conclusions

- There is an increasing trend number of meat shops in Baybay City and neighboriing areas. In fact during the last 4-5 years, there was a 20 percent increase in the volume of frozen carcass handled by meat shops inbounding to Tacloban city. Compared to wet market retailers, meat shops offered a much wider options/selections of product formats from pork e.g. flavoured pork format etc. than retailers at the wet market. This has become an obvious consumer's trend to patronize more often pork sold at the meat shops.

- In terms of quality characteristics sought by buyers; there were two possible points of reference for quality standard for swine in the market; live animals and dress animals or carcass. For live hogs, dealers, preferred weight ranges from 90kg to 120kg. Meat dealers in Tacloban Market also expressed strong preferences on pork meat supplies from Mindanao areas rather than from local backyard stocks because of observed uniformity in weight, better feeding and management system and just at the right age, which is less than 6 months.