

# BDA Wave 15 Group 1

## Analysis and Recommendations to CS Tay

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# Customer Segmentation

*What are CS Tay's customers like?*

# 81% of customer base are consistent & steady shoppers that make monthly purchases



## Steady Shoppers (81%)

- ✓ Bought recently (R: 32 days)
- ✓ Buy frequently (F: 43 times)
- ✓ Spend moderately (M: 25K\$)



## Dormant Customers (17%)

- Have not bought recently (R: 413 days)
- Do not buy frequently (F: 13 times)
- Do not spend much (M: 10K\$)



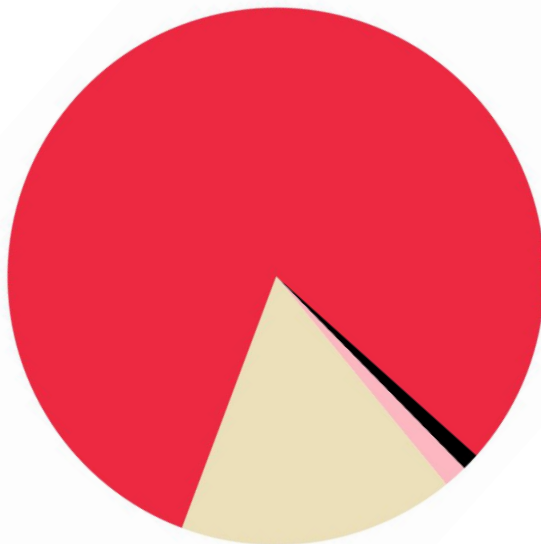
## High Potential Buyers (1%)

- ✓✓ Bought quite recently (R: 17 days)
- ✓✓ Buy quite frequently (F: 203 times)
- ✓✓ Spend quite a lot (M: 1.3 M\$)



## Power Buyers (1.4%)

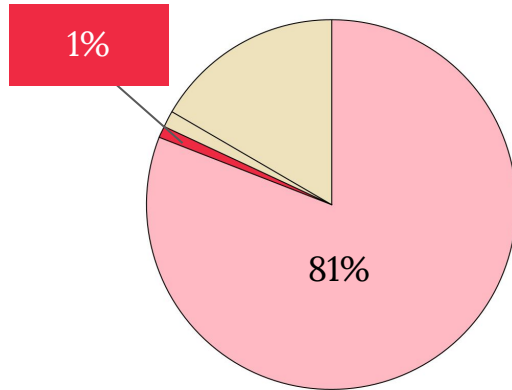
- ✓✓✓ Bought very recently (R: 2 days)
- ✓✓✓ Buy frequently (F: 917 times)
- ✓✓✓ Spend a lot (M: 492 K\$)



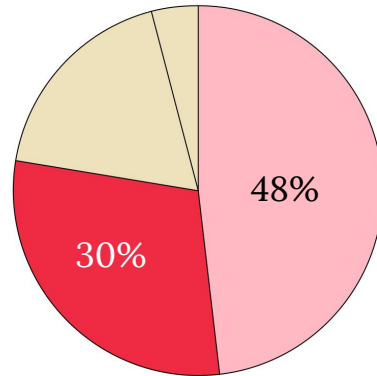
# Harness the power of the 1% High Potential Buyers

Although **High-Potential Buyers** make up only 1% of the customer base, their sum of total sales make up **30% of total sales**.

Second after **Steady Shoppers** (48% of total sales)



Make-Up of Customer Segments

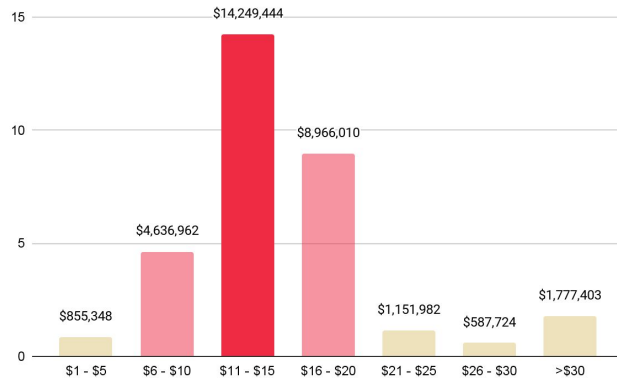


Sum of Total Sales by Customer Segments

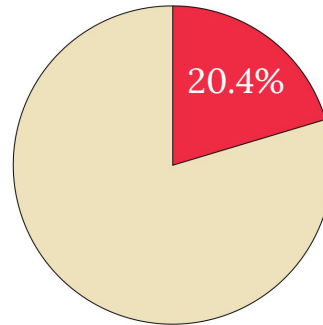
What strategies can we employ to target these segments?

# Drive sales in Steady Shoppers' favourite price bucket - \$11-\$15

The majority of revenue is concentrated in the **\$11 - \$15 price bucket**, particularly driven by the **Steady Shoppers**.



Sum of Total Sales by Price Buckets

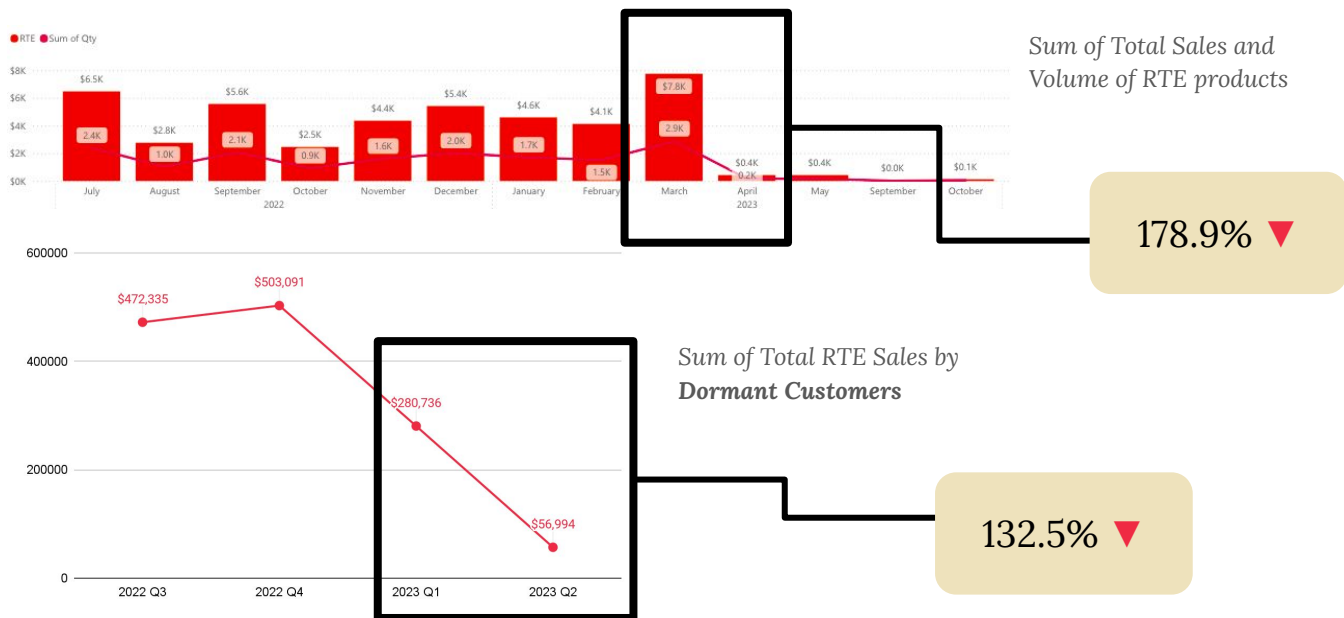


Percentage of Sales (Out of Total Sales) by **Steady Shoppers** in the **\$11-\$15 Price Bucket**

What strategies can we employ to expand this product range or capture more sales?

# Investigate April 2023 changes to reactivate Dormant Customers

On average, **Dormant Customers** last purchased in **Q2 2023**, which was also when sales of **Ready-to-Eat products** dropped significantly (April 2023).



What changed for Ready-to-Eat products in April 2023, and could that be replicated to reactivate Dormant Customers?

# Pricing Strategy

*How can CS Tay maximise revenue through the top 10 products?*

# Identified complementary and substitute products to enhance pricing strategy

Approach: Analysed **Price Elasticities** of top 10 products\* in the Supermarket and Retail customer categories

\*Raw, Ready-to-Eat (RTE), Ready-to-Cook (RTC)

#1

**Ready-to-Eat products have single fixed pricing.**

*Likely from B2B fixed contracts*

#2

**Raw products are mostly complements with each other.**

*With high cross price elasticity i.e. marginally responsive to price change*

#3

**Ready-to-Cook products can be complements or substitutes of each other.**

*With high cross price elasticity i.e. marginally more responsive to price change*



# Since raw products are mostly complements with each other...

What does that mean to us?

SUPERMARKET RAW ITEMS CROSS PRICE ELASTICITY MATRIX								
Inventory desc	SP01 SKINLESS CHIX BREAST	SP03 CHICKEN FILLET	SP08 CHIX BONLESS LEG	SP07 CHIX BONE IN THIGH	SP04 CHICKEN DRUMSTICK	SP02 CHIX BREAST	SP05 CHIX MIDDLE WING	SP06 CHICKEN WINGSTICK
SP01 SKINLESS CHIX BREAST		C	C	C	C	C	C	C
SP03 CHICKEN FILLET	C		C	C	C	C	C	C
SP08 CHIX BONLESS LEG	C	C		C	C	C	C	C
SP07 CHIX BONE IN THIGH	C	C	C		C	C	C	C
SP04 CHICKEN DRUMSTICK	C	C	C	C		C	C	C
SP02 CHIX BREAST	C	C	C	C	C		C	C
SP05 CHIX MIDDLE WING	C	C	C	C	C	C		C
SP06 CHICKEN WINGSTICK	C	C	C	C	C	C	C	

c Complement s Substitute

As complements

-4.38

When **price** of **SP07 Chicken Bone In Thigh** increases by **1%**,

\$



**demand** for **SP06 Chicken Wingstick** decreases by **4.38%**.



**Reducing prices of Raw Supermarket products by 5% can drive sales growth by 6-12%.**

	-5%		
Product	New Price	Average Projected % Change in Volume (Across Top 10 Raw Products in Supermarket category)	Projected % Change in Sales (Across Top 10 Raw Products in Supermarket category)
SP07 CHIX BONE IN THIGH	\$8.03	▲ 13.75%	▲ 12.46%
SP08 CHIX BONELESS LEG	\$8.01	▲ 13.5%	▲ 12.32%
SP04 CHICKEN DRUMSTICK	\$6.31	▲ 12%	▲ 11.28%

**Reducing prices of Raw Retail products by 1% can drive sales growth by 2-7%.**

	-1%		
Product	New Price	Average Projected % Change in Volume (Across Top 4 Raw Products in Retail category)	Projected % Change in Sales (Across Top 4 Raw Products in Retail category)
SP03 CHICKEN FILLET	\$8.27	▲ 7%	▲ 6.83%
SP07 CHIX BONE IN THIGH	\$9.13	▲ 3.5%	▲ 3.40%
SP01 SKINLESS CHIX BREAST	\$8.23	▲ 3%	▲ 2.58%

Top 3 Biggest % Change in Sales in Raw - Retail Products

# Since Ready-to-Cook products can be complements or substitutes of each other...

What does that mean to us?

RETAIL RTC ITEMS CROSS PRICE ELASTICITY MATRIX								
Inventory desc	(99) S/L CHIX BREAST FILLET 1.15KG	(33) CRISPY CHICKEN SEAWEED 1KG	GRILLED CHIX STEAK (5PKT)	A01 SPICY WINGSTICK	HONEY PORK RIBS	(22) SUPER CRISPY CHICKEN 1KG	(3) CRISPY CHIX S/WEED 400G	GRILLED BONEIN LEG 5PC
(99) S/L CHIX BREAST FILLET 1.15KG		C	C	C	S	S	S	C
(33) CRISPY CHICKEN SEAWEED 1KG	S		S	C	C	S	S	
GRILLED CHIX STEAK (5PKT)	C	S		S	S	C	C	S
A01 SPICY WINGSTICK	C	S	C		S	C	C	
HONEY PORK RIBS	S	S	S	C		C	C	C
(22) SUPER CRISPY CHICKEN 1KG	S	C	S	S	C		S	S
(3) CRISPY CHIX S/WEED 400G	S	C	S	S	S	S		
GRILLED BONEIN LEG 5PC	C	S	C	C	S	C	C	

C Complement S Substitute

+4.19 As substitutes

When price of **Grilled Chix Steak (5pkt)** increases by **1%**,

\$



demand for **Honey Pork Ribs** increases by **4.19%.**



# Increasing prices of most Ready-To-Cook Supermarket products by 2% can drive sales growth by 11-25%.

	+2%		
Product	New Price	Average Projected % Change in Volume (Across Top 10 RTC Products in Supermarket category)	Projected % Change in Sales (Across Top 10 RTC Products in Supermarket category)
(9) SKINLESS CHIX BREAST 345G	\$8.44	▲ 30%	▲ 25.15%
(3) CRISPY CHIX S/WEED 400G	\$8.37	▲ 29%	▲ 21.42%
(2) SUPER CRISPY CHIX 400G	\$8.40	▲ 27%	▲ 20.84%

# Increasing prices of most Ready-To-Cook Retail products by 1% can drive sales growth by 2-7%.

	+1% or -1%		
Product	New Price	Average Projected % Change in Volume (Across Top 10 RTC Products in Retail category)	Projected % Change in Sales (Across Top 10 RTC Products in Retail category)
GRILLED CHIX STEAK (5PKT)	\$28.94	▲ 13%	▲ 7.70%
(3) CRISPY CHIX S/WEED 400G	\$7.73	▲ 14%	▲ 6.04%
(33) CRISPY CHICKEN SEAWEEED 1KG	\$17.14	▲ 14%	▲ 5.40%

# Recommendations

*What can CS Tay do next?*

# #1 Increase prices of **Ready-to-Cook products by 1-2%** in contracts with High Potential Buyers to grow sales by **4 - 20%**

Inventory Desc	Customer Category	Current Unit Price	Proposed Unit Price (▲ 1 - 2%)	Projected Increase in Sales (Across Top 10 RTC Products in respective customer categories)
(1) CRISPY CHIX ORIGINAL 400G	Supermarket	\$8.23	<b>\$8.40</b>	20.84%
(3) CRISPY CHIX S/WEED 400G	Retail	\$7.65	<b>\$7.73</b>	6.04%
(22) SUPER CRISPY CHICKEN 1KG	Retail	\$13.30	<b>\$13.43</b>	4.07%
(99) S/L CHIX BREAST FILLET 1.15KG	Retail	\$17.46	<b>\$17.64</b>	3.38%

List of overlapping RTC products in (i) Top 10 Products Purchased by High Potential Buyers (Retail / Supermarket) and (i) Top 10 RTC Products



## #2 Reduce Prices of **Raw Products by 1%** in contracts with High Potential Buyers to grow sales by **2-5%**

Inventory Desc	Customer Category	Current Unit Price	Proposed Unit Price (▼ 1%)	Projected Increase in Sales (Across Top 4 Raw Products in Retail category)
SP07 CHIX BONE IN THIGH	Retail	\$9.23	<b>\$9.13</b>	3.40%
SP01 SKINLESS CHIX BREAST	Retail	\$8.31	<b>\$8.23</b>	2.58%
SP02 CHIX BREAST	Retail	\$8.28	<b>\$8.20</b>	1.86%

List of overlapping Raw products in (i) Top 10 Products Purchased by High Potential Buyers (Retail) and (i) Top 4 Raw Products. There are no overlapping products with Top 10 Products Purchased by High Potential Buyers (Supermarket).

# #3 Personalise Bundles of **Complementary Products** for Steady Shoppers for **Continuous Engagement**

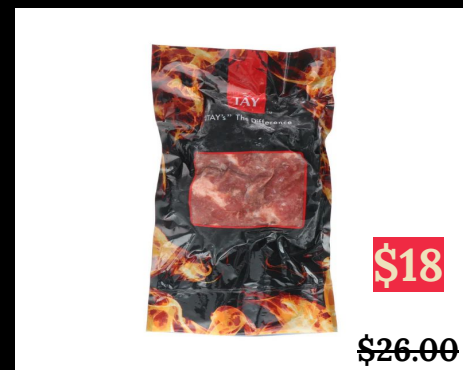
Top Products within the \$11-\$15 Price Bucket Purchased by Steady Shoppers (Supermarket / Retail)

Inventory Desc	Customer Category	Current Unit Price
FS01 FRIED 2 JOINT WING	Supermarket	\$14.25
(66) IKEDA CHICKEN CUTLET 1.1KG	Supermarket	\$14.70
FS07 FRIED CRISPY DRUM	Retail	\$14.20
(22) SUPER CRISPY CHICKEN 1KG	Retail	\$13.30

For e.g. (22) SUPER CRISPY CHICKEN is

Highly complementary with:

1. (33) CRISPY CHICKEN SEAWEED 1KG
2. HONEY PORK RIBS



# Prioritise the first 3 customer segments who are 82% of customer base & contribute to 97% of total sales



## High Potential Buyers

1. **Increase** prices of most RTC by 1-2% to **grow sales by 4-20%**
2. **Reduce** prices of Raw products by 1% to **grow sales by 2-5%**
3. **Offer targeted discounts on Raw** products such as SP02 Chix Breast & SP01 Skinless Chix Breast **when they purchase premium products such as Crispy Chicken Seaweed**
4. **Upsell premium products** when they purchase regular products of RAW



## Steady Shoppers

1. **Offer personalised bundles of Complementary** products e.g. bundle Super Crispy Chicken with Crispy Chicken Seaweed or Honey Pork Ribs
2. **Offering Promotional discounts of 25% e.g. School Holiday Sales** on Chix Breast, Super Crispy Chicken
3. Constantly monitor main customer base and observe popular items or seasonal trends for potential **promotional offers**



## Power Buyers

1. **Have** dedicated Account Managers for top 3 customers **ANG Mo Supermarket, Advance Food Systems, Pan Pacific Retail Mgmt**
2. Give **tiered volume discounts of 10%** when they buy any 5 of favourite RTC products
3. **Cross Promotions between RAW and RTC such as A01** Spicy Wingstick with S/L Chix Breast Fillet



## Dormant Customers

1. Relaunch Ready-to-Eat products and launch a marketing campaign Online, Paper and TV depending on budget
2. **Start re-engagement campaigns by offering aggressive discounts of 25% & loyalty rewards on every 1\$ spent on popular items such as Crispy Chicken Seaweed & Skinless Chicken Breast**
3. **Personalised promotion offerings**

By targeting the 3 main customer segments, the potential revenue growth is projected to be up to 6% in the next 6 months.

cost

<ul style="list-style-type: none"> <li>Dedicate account managers to understand their business goals and develop tailored growth plans for <b>Power Buyers and High Potential Customers</b></li> </ul>	<ul style="list-style-type: none"> <li>Offer <b>customized products or packaging solutions</b> tailored to the business needs of <b>Power Buyers and High Potential Customers</b> to consolidate more of their share of wallet with CS Tay</li> <li>Explore <b>partnership opportunities</b> in product development</li> </ul>
<ul style="list-style-type: none"> <li>Increase prices of most Ready-to-Cook products for <b>High Potential Customers</b></li> <li>Reduce prices of Raw products for <b>High Potential Customers</b></li> <li>Offer bundles for complementary Raw and Ready-to-Cook products for <b>Steady Shoppers</b></li> </ul>	<ul style="list-style-type: none"> <li>Look at what changed for Ready-to-Eat products in April 2023 to replicate and re-engage <b>Dormant Customers</b></li> <li><b>Personalised promotion offerings</b> to re-engage with Dormant Customers</li> </ul>

difficulty

Thank you.

**BACKUP**

# Methodology in Forecasting Sales Increase (1/3)

Taking the example of SP01 Skinless Chicken Breast, these are the steps to calculate the impact of its price change on sales of top 10 Raw Supermarket products

1. Obtain own price elasticity<sup>1</sup> of SP01 Skinless Chicken Breast
2. Obtain cross price elasticities<sup>2</sup> for top 10 Raw Supermarket products

1% increase in price of SP01 Skinless Chix Breast will lead to 1.45% decrease in volume of SP03 chicken fillet

	SP01 SKINLESS CHIX BREAST	SP03 CHICKEN FILLET	SP08 CHIX BONLESS LEG	SP07 CHIX BONE IN THIGH	SP04 CHICKEN DRUMSTICK	SP02 CHIX BREAST	SP05 CHIX MIDDLE WING	SP06 CHICKEN WINGSTICK
Inventory desc	Inventory desc							
SP01 SKINLESS CHIX BREAST	NaN	(1.63)	(2.23)	(1.70)	(1.70)	(0.89)	(0.49)	(1.69)
SP03 CHICKEN FILLET	(1.45)	NaN	(1.85)	(1.65)	(1.71)	(0.88)	(0.18)	(1.37)
SP08 CHIX BONLESS LEG	(2.03)	(2.04)	NaN	(2.97)	(2.21)	(1.66)	(0.16)	(1.94)
SP07 CHIX BONE IN THIGH	(1.91)	(1.92)	(3.00)	NaN	(2.19)	(1.57)	(0.23)	(2.16)
SP04 CHICKEN DRUMSTICK	(1.79)	(2.22)	(2.76)	(2.58)	NaN	(1.60)	(1.43)	(2.22)
SP02 CHIX BREAST	(3.04)	(3.22)	(4.16)	(4.21)	(3.40)	NaN	(0.97)	(3.16)
SP05 CHIX MIDDLE WING	(2.25)	(2.64)	(3.73)	(3.50)	(2.97)	(2.14)	NaN	(2.93)
SP06 CHICKEN WINGSTICK	(3.56)	(4.27)	(4.86)	(5.41)	(4.38)	(3.35)	(3.91)	NaN

1: Run linear regression where independent variable = log(qty SKU1) and dependent variable = log(qty SKU1), OPE is coefficient

2: Run linear regression where independent variable = log(qty SKU2) and dependent variable = log(qty SKU1), CPE is coefficient

## Methodology in Forecasting Sales Increase (2/3)

3. Obtain the % change in total sales of top raw supermarket products for -5% change in price of SP01 Skinless Chix Breast:

SKU1 = SP01 SKINLESS CHIX BREAST	SKU	old price	old volume	old sales	new price	new volume	new sales	Change in sales		Change in price of SKU1
SP01 SKINLESS CHIX BREAST	SKU1	\$ 7.77	1	\$ 7.77	\$ 7.38	1.09	\$ 8.06	\$ 0.29		-5%
SP03 CHICKEN FILLET	SKU2	\$ 7.82	1	\$ 7.82	\$ 7.82	1.07	\$ 8.38	\$ 0.56		
SP08 CHIX BONLESS LEG	SKU2	\$ 8.43	1	\$ 8.43	\$ 8.43	1.10	\$ 9.28	\$ 0.85		Total change in sales
SP07 CHIX BONE IN THIGH	SKU2	\$ 8.46	1	\$ 8.46	\$ 8.46	1.10	\$ 9.27	\$ 0.81		\$ 6.23
SP04 CHICKEN DRUMSTICK	SKU2	\$ 6.64	1	\$ 6.64	\$ 6.64	1.09	\$ 7.23	\$ 0.60		
SP02 CHIX BREAST	SKU2	\$ 7.75	1	\$ 7.75	\$ 7.75	1.15	\$ 8.93	\$ 1.18		% change in sales
SP05 CHIX MIDDLE WING	SKU2	\$ 6.74	1	\$ 6.74	\$ 6.74	1.11	\$ 7.50	\$ 0.76		10.34%
SP06 CHICKEN WINGSTICK	SKU2	\$ 6.63	1	\$ 6.63	\$ 6.63	1.18	\$ 7.81	\$ 1.18		

Change in volume of SP01 Skinless Chix Breast determined using own price elasticity coefficient

Change in volume of remaining Raw supermarket products determined using cross price elasticity coefficients with SP01 Skinless Chix Breast

% change in sales  
= (new sales - old sales) / (old sales)



## **Methodology in Forecasting Sales Increase (3/3)**

4. Repeat step 1-3 for remaining top raw supermarket products to determine the range of % change in total sales for 5% change in price of each product
5. Repeat steps 1-4 for top Raw Retail, Ready-to-Cook Supermarket, and Ready-to-Cook Retail products