

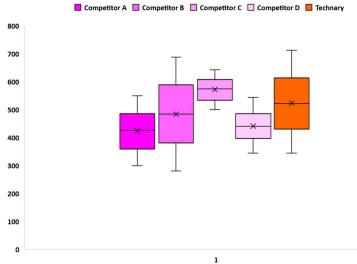
# Activity 1: Gaining a Competitive Edge in the Production of Product X – 3 Ways

Presented by Talisha Thakshana Rajalakshmi

ACTIVITY 1

# Assessing Precision and Accuracy of Machines Through the Production of Product X

## Weight of Product X Across 5 Companies

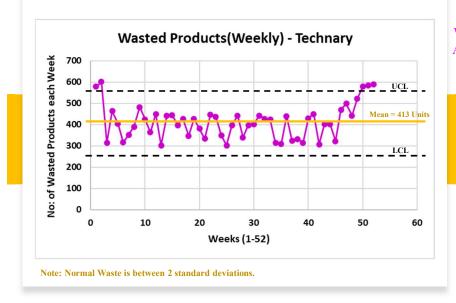


# DISTRIBUTION OF WEIGHT ACROSS COMPANIES

## The ideal weight of Product X is 450 units

- 1. Technary was second to last
  - The mean 523 units during production
- The least amount of precision during the production of product x was held by Technary.
- **2.** The largest amount of accuracy to the products ideal weight was held by Competitor D. The mean was 441 units during the production.
- **3.** The least amount of precision and accuracy to the ideal weight of the product was Competitor C.

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## WASTE CONTROL ON THE ASSEMBLY LINE FOR THE PRODUCTION OF PRODUCT 'X'

- The initial couple of weeks of the year and the last couple of weeks of the year created an excessive quantity of trash.
- The majority of the year was within the company's usual range.

PRESENTATION TITLE

FINESEIVIATION TITLE

## Production of Product X – Usage of Elerium-128

- Usually, companies would try & put atleast 1-3% in every stage of the manufacture.
- From the chart below, it looks like Technary uses less Elerium- 128 in their production while comparing to its competitors.
- In Edging, Refining, Smoothing C, Smoothing B, & Coloring Technary doesn't use much Elerium-128.

Elerium-128 Usage in the Manufacture of Product 'X' 100% Brushing 90% ■ Edging 80% Refining ■ Smoothing C 70% ■ Scraping 60% ■ Sizing 50% ■ Smoothing B Shaping ■ Coloring ■ Smoothing A ■ Formulation 20% ■ Synthesis 10% Raw Materials Prep

Competitor A Competitor B Competitor C Competitor D Competitor E Competitor F

Technary



### **TECHNARY**

- Highest use of Elerium-128 (Brushing - 27%)
- Lowest use of Elerium-128 (Sizing 4%)







Improve their Waste Management & practice sustainable waste management



Upgrading the Machines can help in more Production

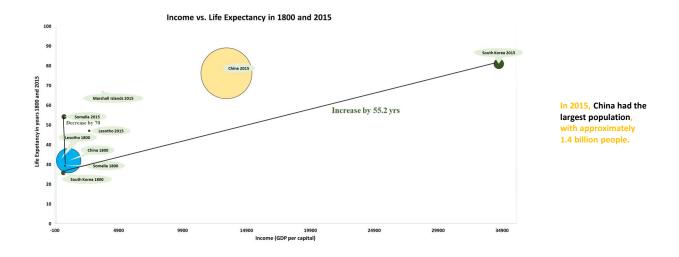


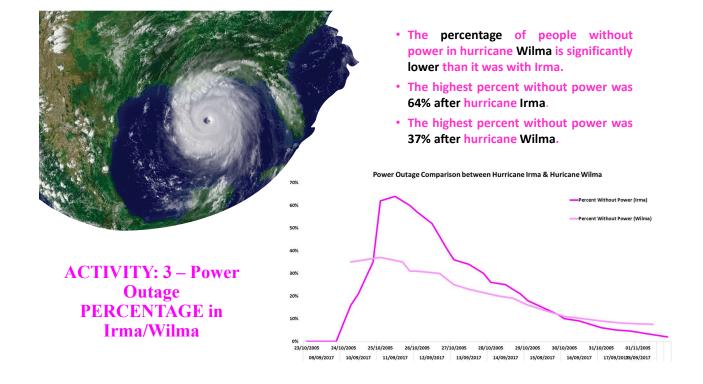
Improving Usage Efficiency of Elerium-128

# **RESOLUTIONS**

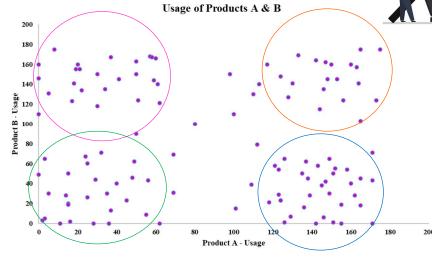
# Activity 2: Change in Life Expectancy & Income (GDP) - 1800 & 2015 for Selected Countries

- South Korea has the largest increase in life expectancy (1800 to 2015), it has a life expectancy increase of 55.2 years.
- Somalia has a decrease in Income (1800 to 2015) 70 Point Decrease, in the country's income.





# Activity 4 - Customer Segmentation based on Ownership and Usage



Pink Circle: Customers use Product A seldom & more of Product B.

Orange Circle: Highest Usage of Product A & Product B

Green Circle: Low Usage of Product A & Product B

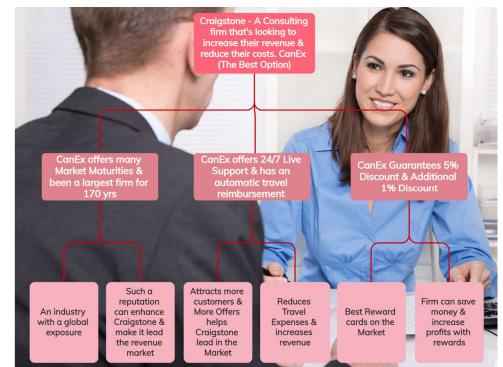
Blue Circle: Customers use more of Product A & seldom uses Product B

# **Opportunities for Revenue Growth**



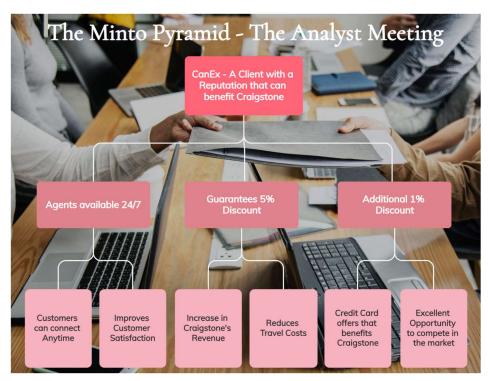


- Usage of Products A & B
- 200
  180
  160
  140
  20
  60
  40
  20
  0
  20
  40
  60
  80
  100
  120
  140
  160
  180
  Product A Usage
- The circle shows that there aren't many customers. They do not cluster with the previous circles.
- This indicates that there is an opportunity for growth in Revenue.
- By marketing the products, we can shift the customers' focus in either of the 4 directions that I previously circled.

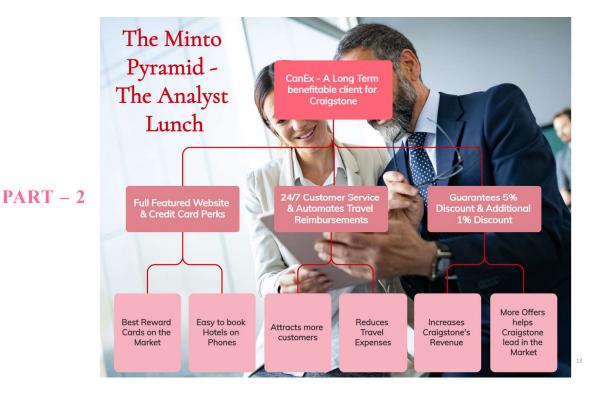


**Activity 5** 

The Minto Pyramid – Part - 1



**PART – 2** 



#### Activity 6: Bogdan's Express - Technical Support Dashboard Critical Issue (Benchmark) **Resolution across Months Average Response across Months** (Average Time) 220 35 Average to Resolution (Minutes) 60 50 171.2 40 160 30 140 120 Resolution across Office (Average No: of Problems Reported 100 Time) by Type of Problem Type of Te.. Office email Bellingh Olympia Seattle 80 20 20 30 Avg. Time to Resolution (Minutes)

Average Response Across Months Resolution across Months (Aver... Resolution across Office (Avera... No: of Problems Reported Critical Issue (Benchamark) ## Technical Support Dashboard

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TOPIC	Airline Traffic in Asia is expected to expand fast between 2015 & 2035, whereas it is expected to decline in North America & Europe.
ORIENT	RPK is measured in trillions of dollars. From 2015 through 2035, the data displays the predicted rise of worldwide airline activity in revenue passenger kilometers (RPK). The highest is in South Asia, while the lowest is in North America. The vertical dotted lines represent the average worldwide GDP and traffic that has risen between the years. According to the figures, global GDP growth is 2.9%, while global traffic increase is 4.8%. The x axis depicts the various worldwide areas of airline activity, with the top ten regional flows of RPK highlighted. The level of RPK is shown on the y-axis. The graph is projected from left to right, from highest to lowest RPK. In 2035, RPK is calculated as X flights multiplied by Y kilometers multiplied by z passengers.
POINT	Airline traffic in Asia has steadily risen, but North and Central America, as well as Europe, have struggled to stay up. Between 2015 and 2035, South China has the largest anticipated growth, while North America has the lowest.
TRANSITION	After going through the data, I have forecasted that the global traffic growth will exceed the global GDP growth. Based on the RPK (every area), I can forecast that the cost of travel will rise as well. Now that we've seen the global patterns in aircraft traffic, let's take a closer look at some of the reasons that have led to these outcomes.

Activity 7 - AIRLINE TRAFFIC (TOP T)



## Activity 8 - Audience Confusion Matrix: Demand for Elerium- 128

### How would you frame the situation?

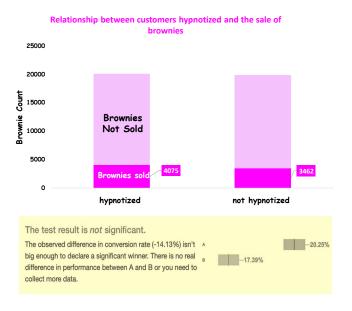
Our company predicted a market of new entrants that would increase demand for its products. Unfortunately, the newcomer went bankrupt due to unrelated financial troubles. We spent a lot of money on product inventory over the past few years, which has ultimately led to lower product prices. We believe that this is the current situation.

## What next steps would you propose?

I think that our company should either use the product to manufacture other products within the company itself. Otherwise, we could sell some of the inventory to older buyers at a relatively low price. Before doing so, we will conduct a proper market analysis prior to mass-producing products.

### Audience expectation No change (in ratio) Change (in ratio) Change (in ratio) No change (in ratio) What did you miss? What's next? No change expected No change observed Change expected No change observed Data observation What just happened? What do we do now? No change expected Change expected Change observed Change observed

# **Activity 9: Does Hypnosis Affect Brownie Sales?**



### A/B testing:

- · The results are not significant enough
- The correlation between the two is 0.036
- Difference in conversion rate: -14.13%

### **Recommendations:**

- Don't do hypnotized-based marketing.
- Profits will decrease if you pay a hypnotist to hypnotize customers





2/26/2023

## Possible Scenarios Tested to Increase Gross Profit







(2) Increase Advertising



(4) Change Manufacturing Locations



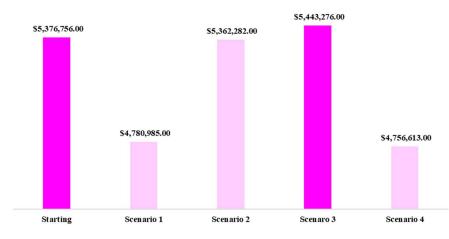
(4) Increase Subscription Cost

TIONTITLE



# For Company's Long-Term Growth, shifting to New Manufacturing Locations to will Save Money

## Avg Gross Profit (5 yrs)



- 1. Scenarios 1,2 & 4 cannot be considered as their Gross Profit is quite low compared to the others.
- 2. By choosing that, the sales are going to decrease, revenue is going to dip & the cost of production is going to increase.
- 3. The Scenarios 1 & 4 shows that the increasing prices would end up in a increase of revenue close to \$600k.
- 4. These Scenarios end up in a less than 1% anticipated Gross Profit in the next 5 years of the Company's Long Term Growth.

## What Should the Company Do Now?

- ✓ Consider these long-term benefits of Detroit's locations.
- Delegate the company's direction to switching to this new Detroit factory.
- ✓ Conduct an evaluation and pre-test the location to see how this change will affect the company in the long run (5 or 10 years)
- ✓ Check whether the environmental factors would affect the location at any cost, so that we can work on the manufacturing of the products.

This Decision offers
Amazing Long – Term
Capacity of Production



- An estimated 1.2% peak in Revenue for the next 5 yrs.
- Shifting to new manufacturing locations to Detroit can Stabilize Long-Term Growth in the capacity of Productions
- For manufacturing products, Detroit Locations are the Best as they have a Better Long-Term Capacity.

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