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Customer Service and Logistics Internship at Colgate-Palmolive: Project Portfolio

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Introduction

Since December 2021, I've had the privilege of being the Customer Service and Logistics Intern at Colgate-Palmolive supporting Walmart. Colgate-Palmolive is a leading global CPG (Consumer Product Goods) company specializing in items used by ordinary customers every day and sold in retail and grocery stores. CPG's are produced by manufacturers and packaged in quantities that require frequent replenishment. Examples of CPG's include food, beverages, clothing, cosmetics, personal care products, and household items.

During my internship, I gained proficiency in various software programs used for data collection, including Retail Link, Luminate, SAP, Excel, Google Data Studios, and DOMO. By leveraging these tools, I was able to efficiently handle Walmart's daily analytic reporting, track business trends, cost impacts, and performance efficiency. Furthermore, I undertook multiple projects that showcased my expertise in these tools and data analysis.

My experience working as a supplier for Walmart in the CPG supply chain industry has been an invaluable learning opportunity that has equipped me with valuable problem-solving, analytical and communication skills to further advance my career. My thesis project portfolio offers a comprehensive overview of my experience and expertise in the field. It includes detailed accounts of my daily and weekly responsibilities, the project objectives I aimed to achieve, valuable insights I discovered and learning outcomes I gained throughout the course of my internship.

Company Background and Overview

Colgate was founded early in the 19th century by William Colgate in New York City. Originally a starch, soap and candle business, the company quickly expanded and emerged into a much wider market. It wasn't until 70 years later when the company started selling toothpaste. They gained popularity by introducing toothpaste in a collapsible tube, which was a revolutionary innovation. In 1928, Colgate merged with soap manufacturers Palmolive-Peet to create the Colgate-Palmolive Company. Now, more than 200 years and many acquisitions later, the company is a truly global organization serving hundreds of millions consumers worldwide.

Colgate-Palmolive has three main categories:
- Oral Care
- Personal Care
- Home Care

Among these categories are popular brands such as Colgate, Palmolive, Suavitel, Fabuloso, Ajax, Irish Spring, Speed Stick, and Softsoap. Recently, Colgate-Palmolive has extended their oral care and personal care categories into natural brands by acquiring Tom's of Maine and Hello. Additionally, they have expanded into the pet food industry by acquiring Hill's Pet Nutrition as well as the skincare industry with the acquisition of PCA Skin and EltaMD.

Today, Colgate-Palmolive is a Fortune 500 Company with about 18 billion dollars in revenue. This number has been increasing annually due to Colgate's commitment to innovation, their people, and sustainability.

Team Orientation

Our workplace is located in Rogers, Arkansas, where we supply Walmart with high quality products for resale. Our office is comprised of multiple teams, including customer service and logistics (supply chain), customer development (sales), consumer experience and growth (CXG), and category management, all focused on an omni approach.

The Walmart supply chain team represents 7 team members. The Customer Engagement Manager oversees all activities and directly coordinates with the North America supply chain leadership team accountable for leading the end-to-end supply chain for Walmart. There are also store replenishment analysts who have responsibility for each of their own product categories: Oral Care, Home Care, Personal Care, Trial & Travel and Baby. They concentrate on their respective categories and collaborate with the Walmart replenishment team to bolster product performance. They oversee forecasting, monitoring baseline tendencies, feature and promotion support, and store/warehouse analysis, covering instocks, days of supply, and inventory value. Additionally, the team is supported by two interns, including myself, who provide ongoing report updates and work on projects to deliver insights on key performance indicators and cost-to-serve initiatives.

I appreciate the transparency and teamwork culture at Colgate-Palmolive. Our supply chain team holds weekly meetings to share updates, discuss category-specific matters, address problems, and clarify concerns, promoting coherence in our work. During these gatherings, we bond as a unit and brainstorm our objectives and strategies through interactive whiteboard sessions. We streamline our coordinated efforts by utilizing a shared folder, effectively monitoring performance indicators, accountabilities, and programs.

Software

Some software and data sources that are provided to Colgate-Palmolive are Retail Link, Luminate, and SAP. All of these services allow Colgate to make informed decisions and provide business solutions.

Retail Link is a platform provided by Walmart that allows suppliers real-time access to sales data, inventory levels, on-time and in-full details, store and warehouse information, and other critical information. Through the portal, you can forecast and download reports to improve inventory management and increase efficiency and performance across the supply chain and sales team.

Colgate additionally utilizes Walmart Luminate, a cutting-edge platform that features advanced technology such as artificial intelligence, machine learning, and data analytics to enhance supply chain management, customer experience, and operational efficiency. Luminate's comprehensive data is analyzed by all teams and is grouped into three main pillars: Shopper Behavior, Channel Performance, and Customer Perception. Most supply chain reports are derived from Channel Performance, where we can access key metrics such as omni sales, store sales and inventory, DC metrics, modular plan metrics, and order forecasts. The data is designed

to scale innovative solutions to optimize business operations and is more advanced and includes more specific metrics. As early adopters of Luminate, we have worked with their experts to evolve the platform and have been given feedback that we are a best-in-class supplier adopting and leading the change to this program.

Colgate also uses SAP: a robust software that enables automation by gathering information from finance and operations and merging it into a centralized database. The ERP system provides complete access to all the company's data, not just customer information, making it an imperative tool when strategizing. It provides information on shipping, forecasting, finances, DC, item status, and customer data. As an all-inclusive database, it improves process management by providing the entire organization with access to and utilization of the software.

Lastly, Colgate uses SAP Business Intelligence (BI) to utilize advanced features and interactive capabilities by accessing real-time data to drive superior performance. With this tool, the company gains daily insights into product orders, shipments, and cuts - all of which are essential for effectively managing its supply chain. By leveraging these powerful analytics, Colgate can make informed decisions and improve forecasting accuracy. Moreover, the data obtained can be easily shared across the organization, leading to greater visibility and collaboration.

Daily Activities
Daily Instocks

As a Customer Service and Logistics Intern, one of my duties involves generating daily reports and archiving them for reference in analyzing historical and present data with the aim of identifying trends. One such report is the 'Daily Instocks'. This report gauges the extent to which the store's current inventory/orders can meet the predicted demand. It is circulated each day to the Colgate-Palmolive North America supply chain leadership team and to the cross-functional Walmart teams. To compile the report, I source data from Retail Link, using various metrics, including current store on-hand and in-transit quantities, POS quantity, days of supply, average days of supply in 2019 (which serves as our benchmark), and current store on-hand retail. These metrics are essential in monitoring product performance, identifying areas for improvement, and making strategic decisions concerning supply chain optimization to ensure on-shelf availability to support sales.

After loading the raw data from Retail Link, I save it in an Excel-made metrics pivot to upload the data. This pivot generates a comprehensive visual summary of the department category, its instock percentage, the percent difference from the previous day, total days of supply, and store retail on-hand. Walmart's instock percentage expectation is 98%. We use the RAG method in which the goal is color-coded as green. If the percentage falls between 96-97%, the color code changes to yellow/amber, and red is used to highlight categories that fall below 96%, making it easy to identify areas that require attention. See table below:

Dept Category Description	Repl Instock %	Diff vs Yesterday	Total Chain DOS	Avg 2019 DOS	Store Retail On Hand
ADDITIVES					
ALL PURPOSE CLEANERS					
BABY TOILETRIES					
BARSOAP					
BATH TOILET DRAIN					
BODYWASH					
DEODORANT					
DISH CLEANING PRODUCTS					
HAND LIQUIDS					
KIDS ORAL CARE					
MOUTH WASH AND BREATH					
TOOTHBRUSHES					
TOOTHPASTE					
TRIAL TRAVEL					
WET SHAVE					
WHITENING DEVICES					
Oral Care Overall					
Personal Care Overall					
Home Care Overall					
Associate Overall					
Department 2 Overall					
Colgate Overall					

Figure 1: Instock Pivot Table

After I upload the data onto the pivot, I launch the 'Daily Metrics Table' in Excel where I refresh the data. This document encompasses all the past instock data, POS data, and DOS data. The pivot file automatically saves into this sheet; therefore, I must paste it as values to lock its position. Using this table, we can observe graphs spanning over the last four weeks and the previous year to determine instock trends, mitigate any future risk and evaluate the performance of each category separately.

Subsequently, we examine the Walmart daily cuts by accessing an Excel file referred to as the 'Walmart Daily Cut Report' which interfaces with SAP BI. This report displays the total number of ordered items in each category, the quantity delivered, the number cut and the corresponding cut percentage. Cuts may result due to various reasons such as pricing issues, discontinued items, forecast variances, phantom inventory, or product damages. Cuts create various supply chain inefficiencies, so they are to be mitigated and avoided. The table provides daily, week-to-date and month-to-date cut insights, and better percentages appear in green, followed by yellow and finally red for the worst performers. See table below:

Time Frame		CW				LW				Walmart MTD		
Sub Category	Cases Cut	Cases Delivered	Cases Ordered	Fill Rate	Cases Cut	Cases Delivered	Cases Ordered	Fill Rate	Cases Cut	Cases Delivered	Cases Ordered	Fill Rate
Home Care												
Cleaners Liquid / Ge												
Cleaners Spray												
Dish Hand												
FC Liquids												
FC Sheets												
Scourers												
HC Total												
Oral Care												
Battery TB												
Manual TB												
Toothpaste												
Mouthwash												
On The Go												
OC Total												
Personal Care												
AP/Deo												
Liquid Hand Wash												
Bar Soap												
Body Wash												
Shave Prep												
PC Total												
Colgate Overall												

Figure 2: Cut Report Table

After I update and save the instocks and cut reports daily, I share them with the Colgate-Palmolive North America supply chain leadership team and the Roger's office via email. Each report has snips of its respective graph to provide a comprehensive snapshot of the inventory records, which is critical to ensuring visibility and coordination among all departments.

Daily MABD Adjustments

Research indicates that at least 52% of PO's may require changes, and many may need to be edited multiple times (SourceDay). Failure to update PO's in our system can lead to scheduling issues that may impact our ability to deliver products to customers on time, resulting in potential fines. Therefore, updating PO's is a crucial task that ensures accuracy in our system and prevents supply chain disruptions.

On a daily basis, I receive an email containing an Excel file from Transplace (UberFreight Company), our transportation provider, named 'Delivery Appointment After Requested Delivery Date'. This file indicates that the MABD (must arrive by date) needs to be updated in our internal system. To accomplish this, I filter the file to display only Walmart stores. If the edit reason for a given PO (purchase order) on the sheet states "Customer Requested Future Delivery," then I must make the appropriate adjustments in NOVA.

NOVA is an application within Retail Link that allows suppliers to manually create and edit purchase orders. After accessing NOVA, I select "Order Maintenance" then "Header Update" to change the PO's. A table will appear where I can manually input the updated MABD along with the PO number provided in the Excel file from Transplace. I also need to include the edit reason, which in this case would be DC (Distribution Center)/FC (Fulfillment Center) Capacity Related (On Time Impact). Once I have filled out the necessary information, I submit it to the system for approval.

Weekly Activities
Supply Plan

The Supply Plan is a type of Retail Link query that uses the future forecast to project future orders at an item-DC level. Our team then consolidates this data into a truck projection for future weeks, with the total order cost, the Colgate-Palmolive DC, warehouse number, and the destination location of each truckload.

The process starts with three separate reports downloaded from Retail Link for the upcoming three months that highlight the expected unit sales for each DC and item costs. The template created also incorporates figures from SAP regarding the quantity of cases, pallets, eaches, weight of each truckload, and other various data points.

Once the data has been compiled into the designated template, I proceed to incorporate the incremental promotional trucks with the data provided by SAP Event Manager. The ship-to ID numbers along with the timeline of the data are inputted, and the export process begins. The export includes the trucks for features which are then copied and pasted into another template. This second template organizes the data by week and distribution center by which the features

are being shipped out to. Finally, the Supply Plan Rollup needs to be opened that amalgamates all the pertinent information into a longer-term projection of forthcoming shipments through the respective lanes. There are three tabs in this section, each containing information on replenishment trucks, feature trucks, and total trucks. After verifying the accuracy of the data, the file is saved onto a team drive, providing clear visibility to the order-to-invoice team and the transportation team concerning the required number of trucks required for servicing Walmart.

The Supply Plan is important for several reasons. By having an efficient supply plan, businesses can save on costs associated with excess or lack of inventory, last-minute rush orders, and transportation expenses when planning for labor and capacity. This can lead to increased profitability and improved operational efficiency. It also allows for better decision making. With a clear understanding of the demand and supply chain, businesses are able to make informed and timely decisions about production, inventory, and delivery. This helps the company to adapt to changing market conditions and to stay ahead of the competition. Overall, the supply plan is a critical tool that ensures we can provide reliable and timely service to customers.

Instock Maps

The category analysts rely heavily on the instock maps to monitor inventory levels across all U.S. Walmart stores at a macro-level. This comprehensive tool enables them to evaluate the performance of their respective categories. To update the map, I am required to retrieve a Retail Link report weekly for each category, containing information on category and subcategory description, store location and replenishment instock percentage. Once I have collated these reports, I use a template that automatically attaches the store location coordinates, and I transfer this information to a Google sheet. Finally, I integrate the newly updated data into a reimagined DOMO dashboard that I have developed.

The DOMO Instock Map dashboard is an easy and accessible way to visualize the data to understand context and make informed business decisions. It displays a U.S map and has Walmart store circles with various colors indicating their respective performance levels. The dashboard also allows for a more detailed perspective of instock levels with the use of filters based on category, subcategory, or store number. Additionally, it supports the zoom-in function, enabling users to focus on a certain area, make assumptions, and report back to replenishment managers for areas of opportunity. Below is a snip from the dashboard of what the instock maps look like:
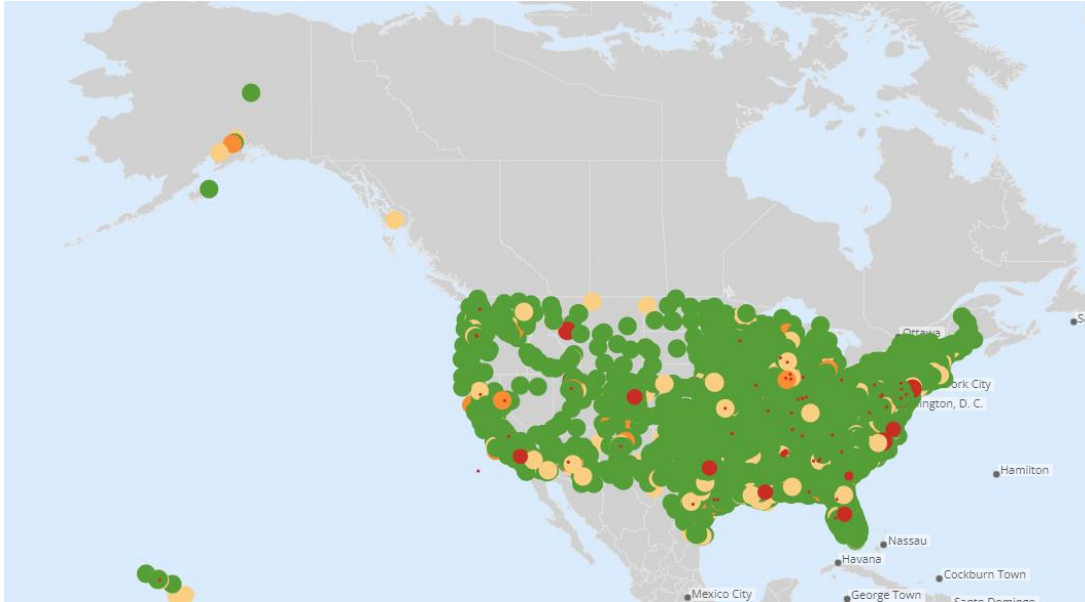
Figure 3: Instock Map

Problem Freight

When the Walmart Business Services team (BSM) contacts us regarding DC problem freight, it implies that there has been a mistake in the shipment of a purchase order. This may occur when an item not intended for Walmart is delivered to them, rendering it unsuitable for sale in their system. Other reasons include incorrect packaging or shipment, surplus items, quality concerns, or a missing label. Our responsibility is to determine whether to donate, dispose of or retrieve the products.

Initially, I collect all the pertinent information from the email and consolidate it into a tracking system that provides a comprehensive overview of the issues encountered by various DC's, mis-shipped items, and their corresponding reason codes. Subsequently, I investigate each item to determine whether it exceeds or falls below the $200 threshold. If an item costs over $200, the mis-shipped products must be returned to Walmart's DC, while items valued below this threshold are donated since it does not justify the cost of return shipping. My investigation involves taking the UPC of each item on the tickets and entering it into SAP to identify its SKU, whether it is an active item, if it is a Walmart item, and its case cost. Once I determine the SKU and case cost, I multiply the cost by the number of mis-shipped cases for each item to ascertain if it exceeds the threshold. If it does not, I inform BSM to donate the products. If it does, I initiate a return authorization (RA) request from the CBS team by copying the PO from the email and pasting it into another SAP system to obtain the delivery information. I then provide the CBS team and DC with the delivery document number, shipment document number, total number of cases, and their respective costs to request an RA. Upon receiving a response, I relay the information to Walmart and the DC address so they can schedule a pick-up.

Upon identifying a viable solution, I record it in the tracker to ensure transparency and facilitate easy reference for our team members in case similar issues arise in the future.

Throughout this process, I have come to understand the critical value of effective communication. When we initially began receiving problem freight emails, there were several miscommunications between our team, the CBS team, OS&D and the logistics company. To overcome this challenge, I took the initiative to liaise with the logistics team to gain a comprehensive understanding of the process and streamline our ticket submission process. As a result, our investigation and RA request processes have become more efficient, and we have eliminated any confusion among the various teams involved.

Projects
Damages

        As part of my internship, I got the opportunity to reimagine the damages dashboard. Damages are items that are either defective, returned to the store, recalled, or items with claims. They are calculated at a store level by dividing the total POS cost by the total store return center cost. Examining damages is crucial as there could be substantial financial implications and tarnish the company's reputation if the proportion of damages is high. My motivation for initiating this project stemmed from the excessive charges the company incurred due to alterations in product codes and size changes resulting in increased damages. I sought to investigate whether damages were a recurring issue across all products. To achieve this, I commenced by retrieving numerous months of past data from Retail Link, which provided insights into the point of sale and return cost and quantity. This allowed me to identify trends and establish a benchmark of the desired outcome.

        Now, each month I pull the same report, clean the data, and upload the report to a Google sheet to append it to the Google Data Studios dashboard. Once uploaded, I am able to investigate SKU's with a high number of damages and find the root cause. I collaborate with each replenishment analyst to see if they have insights on why their category items may be underperforming. After gaining insights, it's important to send the information to the CDO team as returns impact their P&L's. When necessary, we also send to the supply-demand synchronization manager to address root causes before damages become a trend or customer perception is impacted.

        In the Google Data Studios dashboard, I created a concise and comprehensible summary of all the data on a single sheet. It features filters for category, subcategory, month, year, SKU, and item status. The item status filter explicitly indicates if the item is active, inactive, or discontinued. This addition ensures that Walmart does not consider our outdated inventory as damages, as doing so would result in additional charges.

        Within the dashboard, there is a subcategory bar graph that presents the primary sources of damages. Moreover, a trend line displays the past four years of data for comparison purposes (see Figure 4). Finally, a table categorizes the items based on the highest percentage of damages to the least, accompanied by all relevant store information to investigate the noted item further.
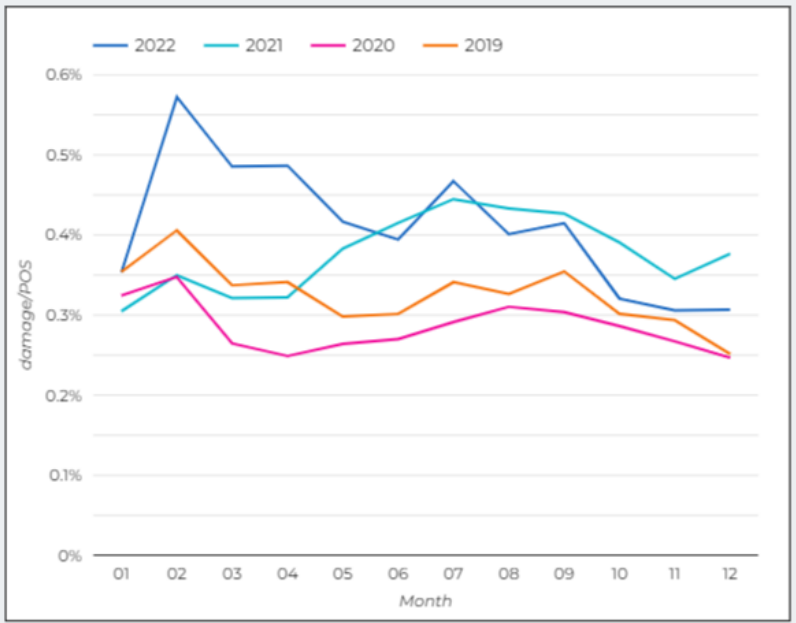
Figure 4: Damages Trendline Graph

The dashboard proved its usefulness in a significant instance, where I monitored a body wash that suffered considerable damages after implementing new caps that leaked. Over a span of several months, I tracked the most affected SKU's and presented this data to the team, providing concrete proof that the damage was the result of the new cap design. This allowed the team to develop solutions for the design and manufacturing team to rectify the problem. See graph below:
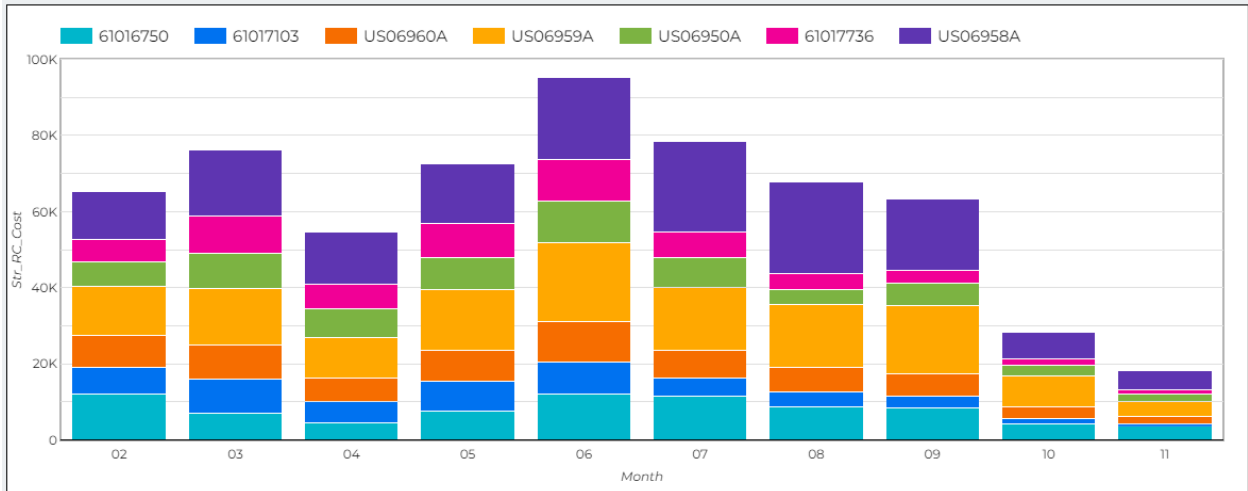

Figure 5: Body Wash Damages Graph

Through this project, my understanding of the causes of damages has improved, and I have acquired the ability to detect early patterns in data. I have examined numerous metrics to

uncover their impact on the extent of damages. Furthermore, this project has enhanced my collaboration with analysts and the sales team, enabling me to comprehend the broader context and acquire valuable insights. I have learned to present the data proactively rather than reactively.

CIIR Data Loader

The Customer Instock Inventory Report is a bi-weekly report, also known as the CIIR Data Loader, which is utilized by supply chain leadership to monitor the performance of various customer accounts. This report provides comprehensive information on POS, warehouse, store, and instock data for the previous four weeks. These metrics play a crucial role in evaluating inventory levels and associated costs. The report offers a granular view of the data by breaking it down at the SKU level, providing a more precise representation of the inventory and its associated costs.

Initially, we sourced our data from Atlas as it could store historical data. However, once we went live with Luminate, we terminated our Atlas contract. As an early adopter of Luminate, we soon discovered that there were significant discrepancies between Atlas, Retail Link, and Luminate. In particular, Luminate had different aliases than Atlas, leading to significant confusion. Upon comparing multiple Luminate reports with the data we had from Atlas, we found that they were not aligned. Recognizing that accurate data is critical to the success of the CIIR as a key tool for leadership, I proactively investigated this issue. I reached out to Luminate Walmart data analysts to gain a better understanding of the data we received and why we were encountering major discrepancies. They helped me identify the gaps and guided me towards the appropriate metrics to be used. This presented an opportunity not only to resolve the report issues but also to understand useful supply chain metrics that we could leverage to optimize our findings. The Walmart Luminate liaison was incredibly helpful and answered all my inquiries. They also acknowledged that my proactive approach to understanding the issues and seeking solutions was instrumental in improving their understanding of the data and how to leverage it more effectively.

Following the feedback from the Luminate team, I conducted a comprehensive analysis to ensure that the data we were now retrieving was consistent with our previous records. I meticulously reviewed every item to confirm its accuracy. Subsequently, I developed a new template to streamline the data collection process. This template was designed to automatically generate formulas to obtain the data required for the CIIR, ensuring a straightforward and efficient data gathering process.

In conclusion, the process of data analysis is a critical component of supply chain management. Throughout the process of analyzing data and streamlining the data collection process, I learned the importance of proactive communication, asking questions and being curious, problem-solving, and attention to detail. Furthermore, I gained valuable experience in utilizing data analysis tools, and leveraging insights to optimize supply chain operations.

Supply Plan Accuracy.

       The supply plan accuracy project I started during the summer has become a major key performance indicator for our department. It closely monitors Walmart's projected forecasts vs. their actual orders based on the 60-day supply plan. Our aim is to pinpoint differences in forecasts and orders, show data to the customer when inventory adjustment swings are made, identify item gaps that can cause data discrepancies, and enhance Walmart and Colgate's alignment for better visibility. The project has proven invaluable in our demand planning, wherein Colgate bases their forecasts and orders on Walmart's supply plan, by being able to analyze individual items to detect potential discrepancies in forecasts.

       To start this project, I collected data from three different outlets: the Walmart Supply Plan sourced from Retail Link, the Walmart cut report, and SAP APO. APO supplies our demand planning book and includes analysis of trends, seasonality, and outliers. This data source also reveals inventory levels, production capacity, and any supply chain disruptions that could impact demand. Once I gathered all the data, I consolidated it onto a template I constructed, which rolls together every necessary metric: item number, category, subcategory, supply plan forecasts, frozen demand plan forecasts, shipments, actual cases ordered, and the net errors determining the supply plan accuracy percentage.

       After combining the data within the template, I integrate it with my customized Google Data Studios dashboard. This dashboard is designed to dissect the supply and demand plan accuracy in distinct categories, subcategories, and months to identify patterns. See below graph:
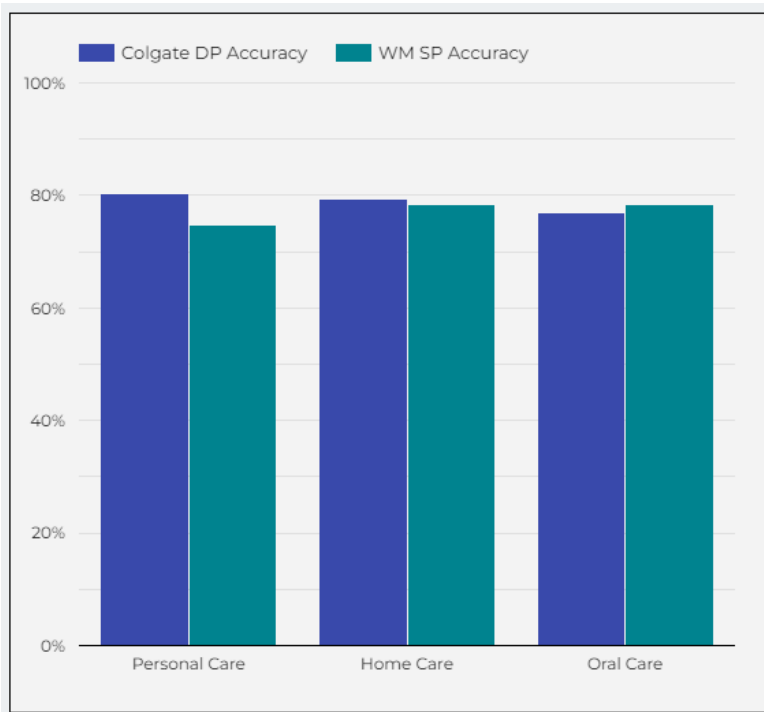

Figure 6: Supply Plan Accuracy Category Graph

It also contains a table that highlights the products with the lowest accuracy rates, presenting valuable prospects for growth. This project has permitted me to explore new or discontinued items and determine the inventory adjustments that impact the accuracy percentage. As a result, we have significantly enhanced our forecasting capabilities from 60 days to 158 days. Below is a comparison trend graph of the supply plan vs. the demand plan accuracy:
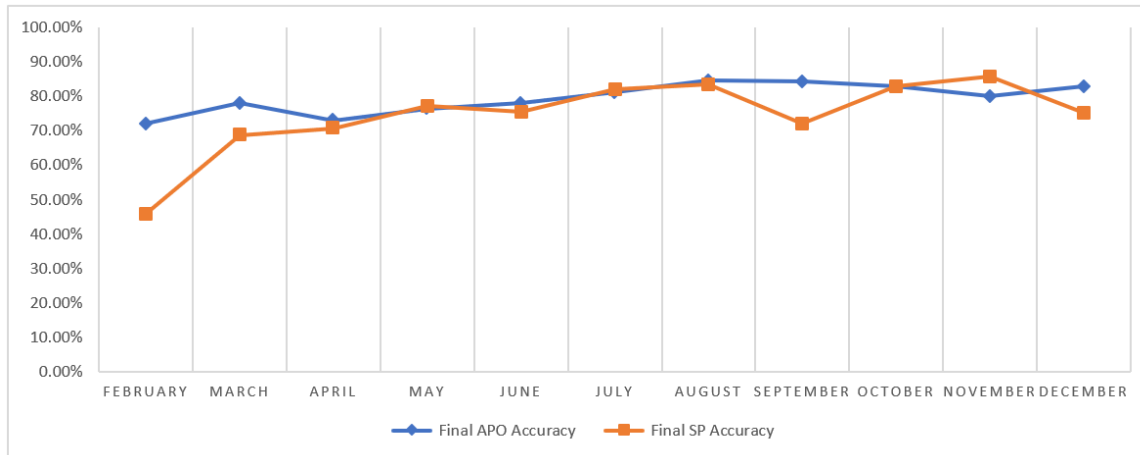

Figure 7: Supply Plan Accuracy Graph

Over the course of my project and subsequent updates, I gained valuable problem-solving and critical thinking skills that helped me overcome forecast discrepancies between Walmart and Colgate. My approach involved trial and error and thorough exploration of various data sources, allowing me to gain a comprehensive understanding of the data and identify key issues.

Conclusion and Personal Evaluation

During my internship at Colgate, I experienced considerable personal and professional growth. From my involvement in several impactful projects, I garnered crucial lessons in communication, curiosity, effective obstacle-management, and the value of mistakes. Specifically, taking charge of tasks and presenting my findings to both the team and leadership strengthened my communication skills, while collaborating with Walmart to verify data bolstered my proficiency in this area. I also discovered that satisfying my curiosity and asking questions enabled a deeper understanding of the business and uncovered potential opportunities for providing insightful recommendations. I learned that asking questions is not a weakness but facilitates active learning and allows for quick problem-solving through feedback from knowledgeable individuals. This enhanced my ability to manage obstacles more effectively and learn from my mistakes. Previously, I scrutinized every report and insight before conveying them. Over time I became more confident in my abilities and viewed failure as a learning experience to aid in future improvements. The skillset I gained from working at Colgate will undoubtedly prove invaluable in my future endeavors.

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