San Jose State University		
Break-Even Point of Kirkland Signature Walkers Shortbread at Costco in San Jose:		
Managing Loss and Profit During Holiday		
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BUS5-140 Sec 02		
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2 Dec. 2024		

Costco Wholesale Corporation is a membership-only chain, a multinational corporation, and one of the largest retailers in the world. It offers high-quality products at affordable prices for customers. The reason why Costco can maintain affordable prices and have so many different products is due to its supply chain management, which also allows for efficient inventory management. Inventory management plays a fundamental role for Costco, especially when managing products sold only for a short time and only in specific periods of the year. Here, knowing how to make the right forecasts plays an essential role in optimizing inventory levels as much as possible and satisfying customer demands. In order to do this, Costco uses different techniques such as analyzing old data and understanding the various annual trends, which allows them never to miss their goals. Failure to do so could lead to significant expenditures on products that will not sell, lost revenue, and excess inventory that will remain unsold.

Costco faces many challenges in managing seasonal inventory for the holiday season due to shifting consumer preferences in various geographical locations. This issue can lead to overstock situations and financial losses if not addressed effectively. According to Dfreight research on Costco's supply chain, its seasonal inventory management for the holiday season presents a complex challenge due to the volatile nature of consumer preferences. In recent years, the company has observed significant fluctuations in demand for holiday-specific items. For instance, during the 2023 holiday season, traditional Kirkland Signature eggnog sales dropped by 15% compared to the previous year, while demand for plant-based alternatives surged unexpectedly by 30%. Similarly, the popularity of pre-cooked turkeys has been increasing, with a 25% year-over-year growth, while sales of whole raw turkeys have declined by 10%. These rapid shifts over the year make it challenging for Costco to forecast the demand accurately and procure the right break-even point for seasonal merchandise.

Costco's inventory risk arises from the challenge of adequately forecasting demand for major holidays like Thanksgiving and Christmas, particularly with seasonal Kirkland products. Overestimating demand can result in overstocking, damaging profit margins by tying up capital in unsold inventory that may eventually need to be discounted or thrown out. However, if demand is underestimated, there is a chance of stockouts, leading to missed sales and possibly disappointing consumers who could shop elsewhere. To manage this risk, it is essential to determine the break-even point, which indicates the sales volume required to pay for all associated inventory expenditures. Even in the event of an unforeseen change in demand, Costco can more accurately calculate the minimum quantity of inventory to sell to prevent losses by knowing the break-even point. This calculation helps balance stock levels to meet demand without over-investing in inventory that could become a financial burden, ultimately supporting smarter decision-making and more stable profitability. By analyzing one specific seasonal product, we can better understand how Costco managed to reduce its losses and generate profit while maintaining low costs for its members. Kirkland Signature Walker shortbread is the product we picked for our analysis to find out the break-even point.

To calculate the contribution margin and break-even point for Kirkland Signature Walker shortbread, we will need to know the fixed cost, the variable cost, and the sales price per unit.

First, we work on fixed costs, which include expenses that do not change regardless of the level of production or sales the company generates. Since we are analyzing a seasonal product sold through a Costco store in San Jose, we'll focus on fixed costs specific to this location for the two-month seasonal period. Examples of fixed costs include warehouse, employee wages, utilities, distribution, and marketing costs. The average Costco store is approximately 150,000 square feet allowing thousands of merchandise to be stored on towering steel shelves (Miller

2023). The average rent for retail space in San Jose is about \$37 per square foot per year or about \$6.16 per square foot for 2 months (Commercial Real Estate). With Costco's size, it costs about \$924,000 for 2 months. The store also has to pay the utilities cost. Since the average utility cost per month for a commercial building is \$2.14 per square foot per month (Constellation Community Team 2024), it will be \$321,000 per month for the Costco store, or \$642,000 for 2 months. Then, we also have employee salaries expense, which is calculated by taking the average salary of a Costco employee multiplied by the number of employees in a Costco store. The average salary per Costco employee in San Jose is about \$20.23 per hour (ZipRecruiter), while the average number of employees per store is about 339 employees, some full-time and some part-time (Peysakhovich 2024). After multiplying those 2 numbers together, we can calculate that they have to pay at most 6,857.97 per hour. Since we want to have an approximate calculation, we use the total opening hours as the total of hours for the salaries, which is around 252 hours for 2 months (Costco). In total, they pay at most \$1,728,208.44 for salary expenses for 2 months. Next, we find the distribution cost, which is around 4% of revenue for the big retail stores (HSO 2023). To calculate the distribution cost for one Costco store, we find the total revenue of last year's November and December sales, which was 46.29 billion dollars (Costco Wholesale Corporation 2023). The 4% of that revenue is 1.851 billion, and since that revenue is for all Costco stores, we divide 1.851 billion by the total number of Costco stores which is 804 stores, which results in 2.302 million dollars of distribution cost for one store. Other retail stores also have marketing expenses for their brand, but Costco doesn't rely on heavy advertisements like other stores (Beach 2022). After having all those numbers, we sum them up and find that the total fixed costs for 2 months in one Costco store in San Jose are approximately \$5,596,208.44. However, there are about 4000 distinct product types sold in a Costco store (Costco), so the fixed cost for our specific product will not be a large amount. Without sufficient information on the weight of each product type, we take \$5,596,208.44 and divide it across the 4000 product types (Costco), which gives us approximate fixed costs of \$1,399.05 for our specific product type.

Then, we find the variable costs for Kirkland Signature Walkers Shortbread (Costco) which is the cost that changes with quantity.

Cost Component	Cost Range (per unit)
Cost of Goods Sold per Unit	\$5 - \$8
Manufacturing Cost per Unit	\$4 - \$6
Packaging	\$3
Shipping	\$2 - \$5
Marketing	\$0.50 - \$1
Import Duties	\$1 - \$3
Variable Cost per Unit	\$15.50
Total COGS for 10 Products	\$155
Total COGS for 25 Products	\$387.50

This would be the initial Variable Costs process of Kirkland Signature Walkers Premium Shortbread. Specifically for a product like Signature Walkers, this product would be based out of the UK making the process of this item a more complex process. This item is a seasonal premium product making the step-by-step process to locations near me a bit more costly. Once manufacturing is complete for the product, private labeling them under the purchaser of Kirkland would be done on each bulk. This would then allow Kirkland to have control of the product to then sell it to other corporations and also put it in their locations as well. For the product to be shipped to the U.S., it must be transported in multiple ways. First would be through a dock which then would be dropped off at the Port of LA or Oakland. Which then would be sent through a truck to the location of San Jose. The raw materials which would be used for the goods are sugar,

wheat starch, butter, and salt which are listed with a price per pound in the chart above. The manufacturing process covers the utilization costs of the warehouse based out in the UK. This would cover the labor and utilities of all products used during the process contributing to the variable costs of the product. Additionally, after adding up the COGS, we can get a variable cost price of \$15.50 which contributes to manufacturing a single product of Kirkland Walkers Shortbread.

Costco would sell this price for \$28.99 online with a 2-day shipping period that costs \$3.00 (Costco). If you manually go to the location in San Jose, you can get it for the original listed pricing which is \$28.99. If we would compare this to another store such as Walmart, they would sell it for \$40.00 when purchasing online but it comes with free shipping. Amazon sells it for \$43.25 with free shipping. This aligns with their low-margin strategy because they eliminate the middleman from the business as they own the private label helping them to earn profits from the item. This price would beat the amount it costs to produce the product bringing in a positive income. Being a Kirkland brand, this allows Costco to sell it to other corporations for extra profits, initially forcing those stores to set a higher market price than Costco.

With the information on the fixed and variable costs, and the retail price per product being \$28.99 (Costco), we can calculate the Contribution Margin and Break-Even Point. Starting with the Contribution Margin, we take the price per unit and minus it from the variable cost per unit, which is \$28.99 minus \$15.50, and it equals \$13.49 per unit. Then for the Break-Even calculation, we take the amount of fixed costs and divide it by the contribution margin, which is \$1,399.05 divided by \$13.49, and the result is 104 units. This means that Costco needs to sell 104 units of Kirkland Signature Walker shortbread to cover all the costs and start making profits.

Our breakeven analysis for the Kirkland Signature Walkers Premium Shortbread Selection at Costco's San Jose location highlights the significant role of fixed and variable costs in determining profitability during the holiday season. For every good type, fixed costs like utilities, employee salaries, and warehouse rent add about \$1,399.05, while variable costs, which are influenced by things like raw materials, packaging, and shipping, range from \$11 to \$19 per box. The contribution margin ranges from \$6 to \$14 per box, assuming a selling price of \$25 per box. To cover fixed costs, 100 to 234 units must be sold. In order to prevent expenses, this breakeven point must be reached because poor performance may lead to markdowns and unsold inventory after the holiday. Additionally, due to its unique no-advertising approach, Costco is able to drastically cut marketing costs and focus on improving its business performance. Because Kirkland Signature products are a house brand, they are excluded from listing fees, which further improves cost control and profitability. To maximize profitability, Costco needs to improve demand forecasting in order to match inventory to customer preferences, cut expenses through effective transportation, and possibly increase sales through product bundling or in-store promotions. Costco can reduce risks and take advantage of the product's seasonal demand by striking a balance between costs and sales.

With the Kirkland shortbread being a holiday seasonal item, Costco has to utilize effective and efficient strategies to sell seasonal inventory and lessen the risk of overstocking or stockouts. Variable costs for the product, including raw materials, packaging, shipping, and marketing, amount to \$15.50 per unit, while the selling price of \$28.99 yields a contribution margin of \$13.49 per unit. This margin showcases Costco's ability to cover its variable costs and use it towards its fixed costs, which include construction, building leases, and operational activities. With seasonal products, there is fluctuating demand every year for items such as

shortbread. The contribution margin of \$13.49 per unit highlights the importance of setting optimal prices for profitability that cover variable costs and bring in profits. The contribution margin also demonstrates that Costco can remain competitive, offering high-quality products at affordable prices while also minimizing inventory risks. The company should use past sales data, and monitor external factors such as looking at competitor sales, holiday trends, and economic conditions to predict their customer demand.

The break-even quantity for Costco which is 104 units acts as a decision-making tool to help predict volume with demand. This data allows Costco to optimize inventory management and by calculating the minimum sales volume needed to cover fixed and variable costs, Costco can balance inventory more effectively helping in reducing unsold goods while ensuring enough inventory for consumer demand. Using predicted costs and consumer demand allows Costco to reduce financial losses. Efficient cost management and a low-margin strategy will ensure profitability as well as high customer satisfaction.

Costco avoids investing in TV or social media commercials, so its marketing strategy is essentially nonexistent in a traditional way. Rather, the company makes use of the recurring nature of its membership subscriptions and the power of word-of-mouth advertising. This tactic guarantees a consistent flow of loyal customers who renew their memberships without the need for advertising campaigns, in addition to reducing marketing costs. However, failing to meet the breakeven point risks markdowns or unsold inventory, particularly in a season with fluctuating demand. Some Future ideas for maximizing sales can be incorporating in-store promotions or product bundling with other holiday items could also help drive sales and increase the average transaction value. For example, bundling the shortbread with complementary items like hot chocolate or tea could appeal to holiday shoppers and boost the perceived value of the product.

Effective inventory and cost strategies for seasonal products are crucial, as demonstrated by Costco's management of the Kirkland Signature Walkers Premium Shortbread Selection at the San Jose store. Costco maintains an ideal contribution margin of \$13.49 per unit by striking a balance between variable expenses like raw materials and packaging and fixed costs like warehouse rent and personnel salaries. To reduce the risks associated with shifting consumer preferences during the Christmas season and avoid overstocking or stockouts, precise demand projections are essential. With its private-label branding, low-margin strategy, and no-advertising approach, Costco keeps costs down while keeping competitive prices that draw in a devoted following of customers. By guaranteeing sufficient supplies without undue overinvestment, break-even analysis also helps with inventory level control. Costco might use in-store promotions and product bundling to increase profitability while improving the value offered for holiday shoppers. Together, these tactics allow Costco to maintain steady financial performance and customer happiness while providing high-quality, reasonably priced goods.

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