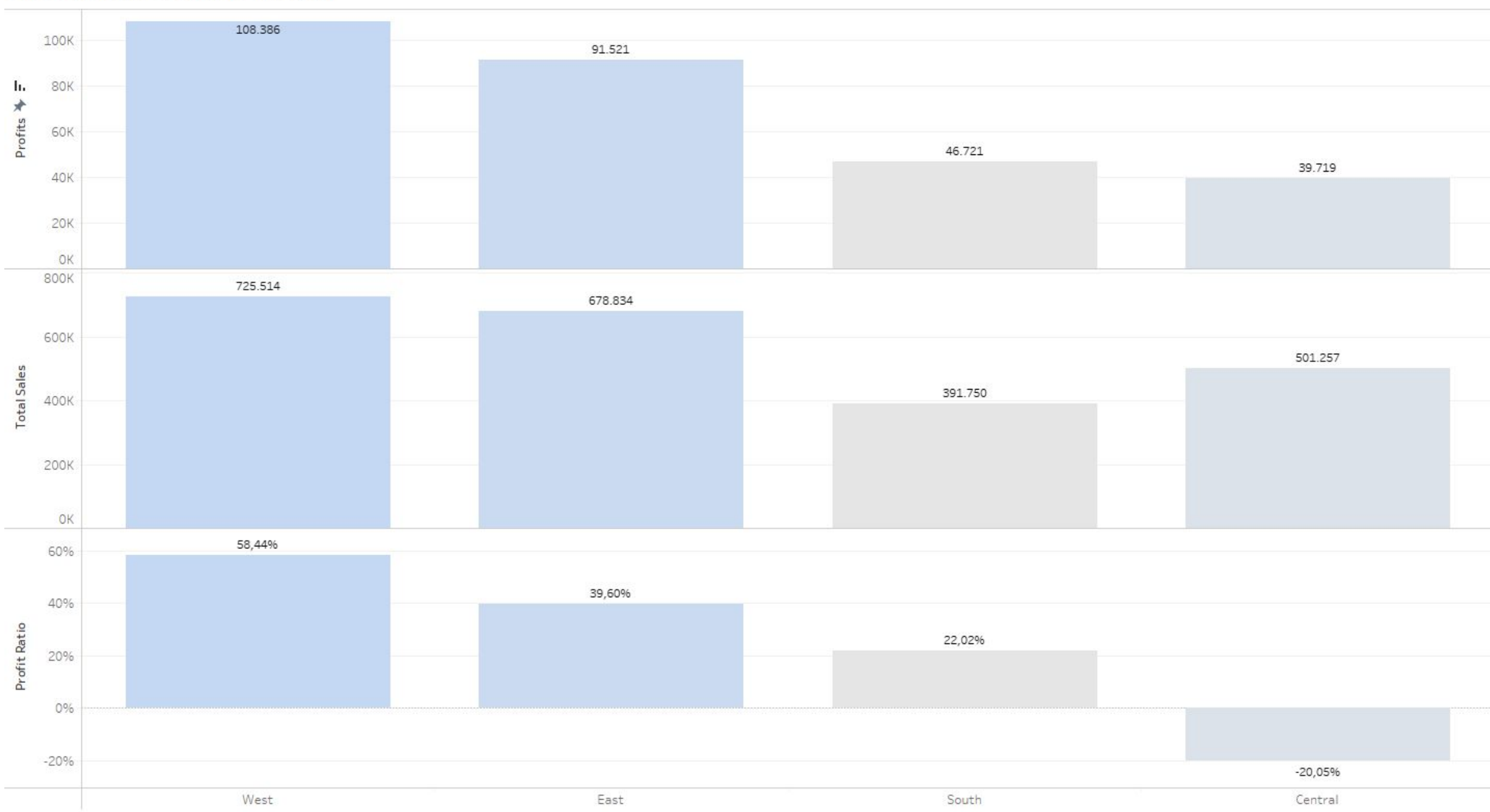# Capstone_Project

Ioulia Kalpakoula
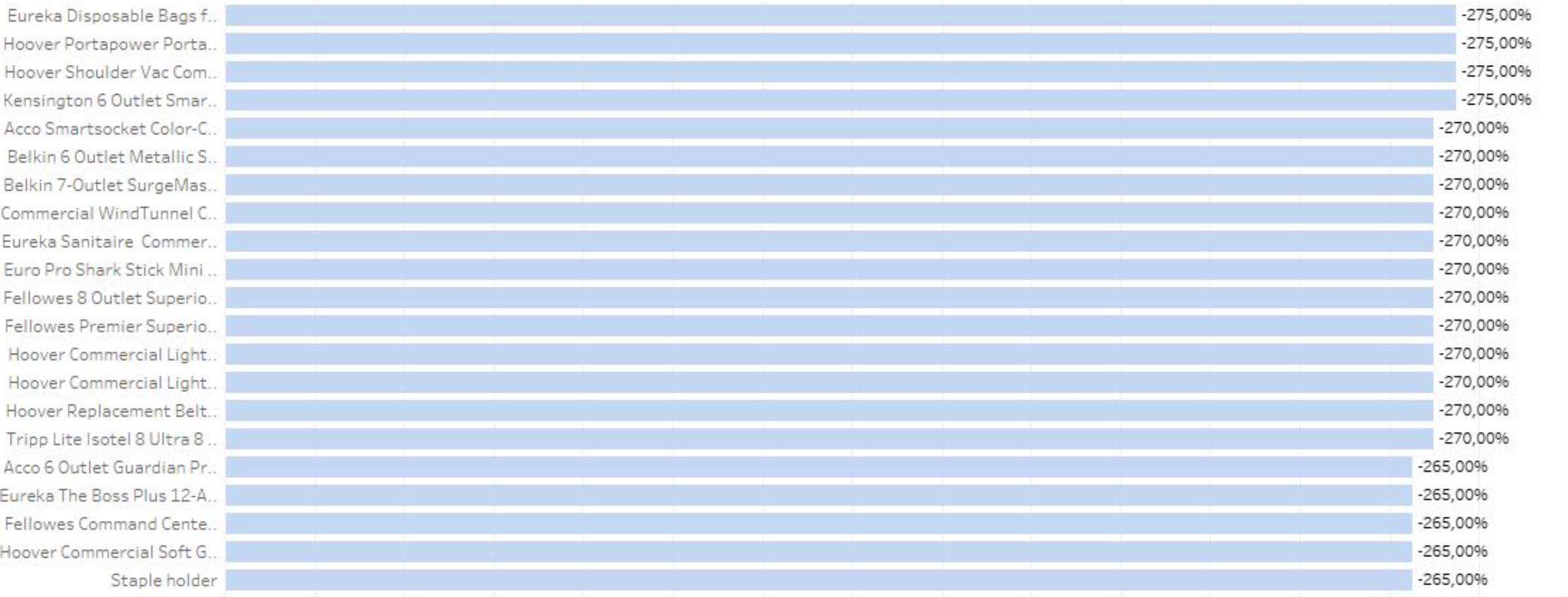
Unicorn - E Commerce

Report - Profit Ratio - Dept. Sales & Performance

Sales & Profits & Ratio per Region

Region Central: Analysis Products - Profit Ratio

Product	Profit Ratio
Eureka Disposable Bags f..	-275,00%
Hoover Portapower Porta..	-275,00%
Hoover Shoulder Vac Com..	-275,00%
Kensington 6 Outlet Smar..	-275,00%
Acco Smartsocket Color-C..	-270,00%
Belkin 6 Outlet Metallic S..	-270,00%
Belkin 7-Outlet SurgeMas..	-270,00%
Commercial WindTunnel C..	-270,00%
Eureka Sanitaire Commer..	-270,00%
Euro Pro Shark Stick Mini ..	-270,00%
Fellowes 8 Outlet Superio..	-270,00%
Fellowes Premier Superio..	-270,00%
Hoover Commercial Light..	-270,00%
Hoover Commercial Light..	-270,00%
Hoover Replacement Belt..	-270,00%
Tripp Lite Isotel 8 Ultra 8 ..	-270,00%
Acco 6 Outlet Guardian Pr..	-265,00%
Eureka The Boss Plus 12-A..	-265,00%
Fellowes Command Cente..	-265,00%
Hoover Commercial Soft G..	-265,00%
Staple holder	-265,00%

Analysis products with lowest profit ratio (-275%)

Profit Ratio ★

Y-axis values
-340,00%
-320,00%
-300,00%
-280,00%
-260,00%
-240,00%
-220,00%
-200,00%
-180,00%
-160,00%
-140,00%
-120,00%
-100,00%
-80,00%
-60,00%
-40,00%
-20,00%

Eureka Disposable Bags for Sanitaire Vibra Groomer I Upright Vac

Sold products = 2

Unit Price -80% = 1,00
Unit Price = 5,0

Sales Total -80% = 2
Sales Total =10,0

Hoover Portapower Portable Vacuum

Sold products = 3

Unit Price -80% = 1,00
Unit Price = 5,0

Sales Total -80% = 3
Sales Total =15,0

Hoover Shoulder Vac Commercial Portable Vacuum

Sold products = 2

Unit Price -80% = 71,50
Unit Price = 357,5

Sales Total -80% = 143
Sales Total =715,0

Kensington 6 Outlet SmartSocket Surge Protector

Sold products = 3

Unit Price -80% = 8,33
Unit Price = 41,7

Sales Total -80% = 25
Sales Total =125,0

Approach to Break Even: Price per Unit

	Eureka Disposable Bags for Sanitaire Vibra Groomer I Up..	Hoover Portapower Portable Vacuum	Hoover Shoulder Vac Commercial Portable Vacuum	Kensington 6 Outlet SmartSocket Surge Protector
Sold Products	2	3	2	3
Price per Unit with Discount	$1.00	$1.00	$71.50	$8.33
Total Sales with Discount	$2.00	$3.00	$143.00	$25.00
Profit	$-4.00	$-7.00	$-394.00	$-68.00
Total Sales without Discount	$10.00	$15.00	$715.00	$125.01
Break Even (Profit-Total Sales without Discount)	$6.00	$8.00	$321.00	$57.01
New Price per Unit in Context of Sold Products	$3.00	$2.67	$160.50	$19.00

Approach to Break Even: Minimum sales of Units
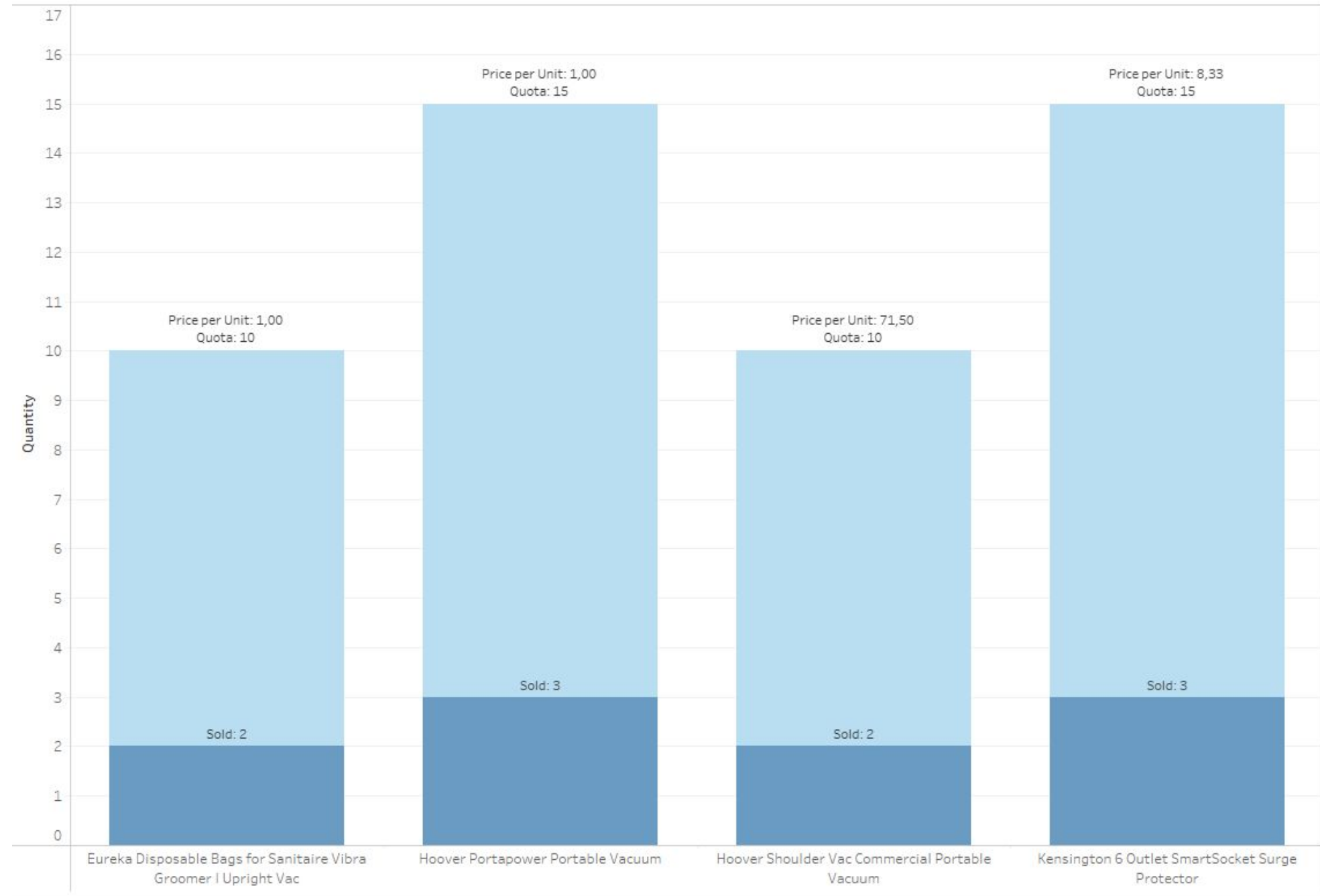
Project Summary

Data Cleaning

In order to prepare the data for the analysis I took the following steps

- checking for empty rows and delete
- correcting formatting
- checking for empty cells
- checking for cells with missing data
- checking for redundancies

Approach

- Choosing a persona, in this case, the Sales & Performance Team. Based on that, evaluation of possible questions that might be of interest to this group.
- Documenting the questions and preparing the data set Slide 9: Data Cleaning
- After the data cleaning preparation of the documentation of files for questions, SQL Queries and analyzing the data via pivot tables.
- While doing so, I noticed the negative profit ratio from the Central region so I decided to continue further investigating that, by evaluating consecutive queries and pivot tables.
- After I imported the file into Tableau again, I verified the imported data regarding correctness in formatting, first-row names, and completeness.
- In Tableau, I visualized the Sales & Profits & Ration per Region and, from there, picked the region central for further Analysis and evaluating possible approaches to reduce the profit loss as well as visualizing these in Tableau (see next slide)
- Creating Dashboard with main focus on worksheet (Sales & Profits & Ration per Region)

Break Even Point Calculation

product_name	quantity	discount	profit	profit_ratio	sales_without_discount	unit_price_without_discount	sales_with_discount	unit_price_with_discount	break even	min_price_per_unit	min_sell_units_break_even
Kensington 6 Outlet SmartSocket Surge Protector	3	80.00%	-$68.00	-275.00%	$125.01	$41.67	$25.00	$8.33	$57.01	$19.00	15
Hoover Shoulder Vac Commercial Portable Vacuum	2	80.00%	-$394.00	-275.00%	$715.00	$357.50	$143.00	$71.50	$321.00	$160.50	10
Hoover Portapower Portable Vacuum	3	80.00%	-$7.00	-275.00%	$15.00	$5.00	$3.00	$1.00	$8.00	$2.67	15
Eureka Disposable Bags for Sanitaire Vibra Groomer I Upright Vac	2	80.00%	-$4.00	-275.00%	$10.00	$5.00	$2.00	$1.00	$6.00	$3.00	10
bue fields are added											

Evaluation - negative profit ratio

Key points and findings were:

If profits are significantly lower than the sales, which points to the issue that the business's expenses are higher than the revenue, and the business suffers substantial losses.

Various causes can be underlying and have to be addressed immediately by changes in operations, pricing strategies or cost structure, in general, to increase the profitability of the products and reduce expenses.

One finding or reason might be the discount of 80% on certain products. To keep it compact for the presentation, I focused exemplary on the four products with the lowest profit ratio of -275%.

I considered two possible strategies to eliminate the loss. The first was on the condition to maintain the same quantity and compute how much the product should cost to break even.

The second is on what quota per product has to be acquired per product while keeping the exact pricing to break even and how we can achieve this quota.

Further questions could be; What are the profiles of the customers who bought the products? Are they long-term customers? With what strategy are the discounts applied? In which year and month were those sales? It could be a possible result of removing the product from the assortment.