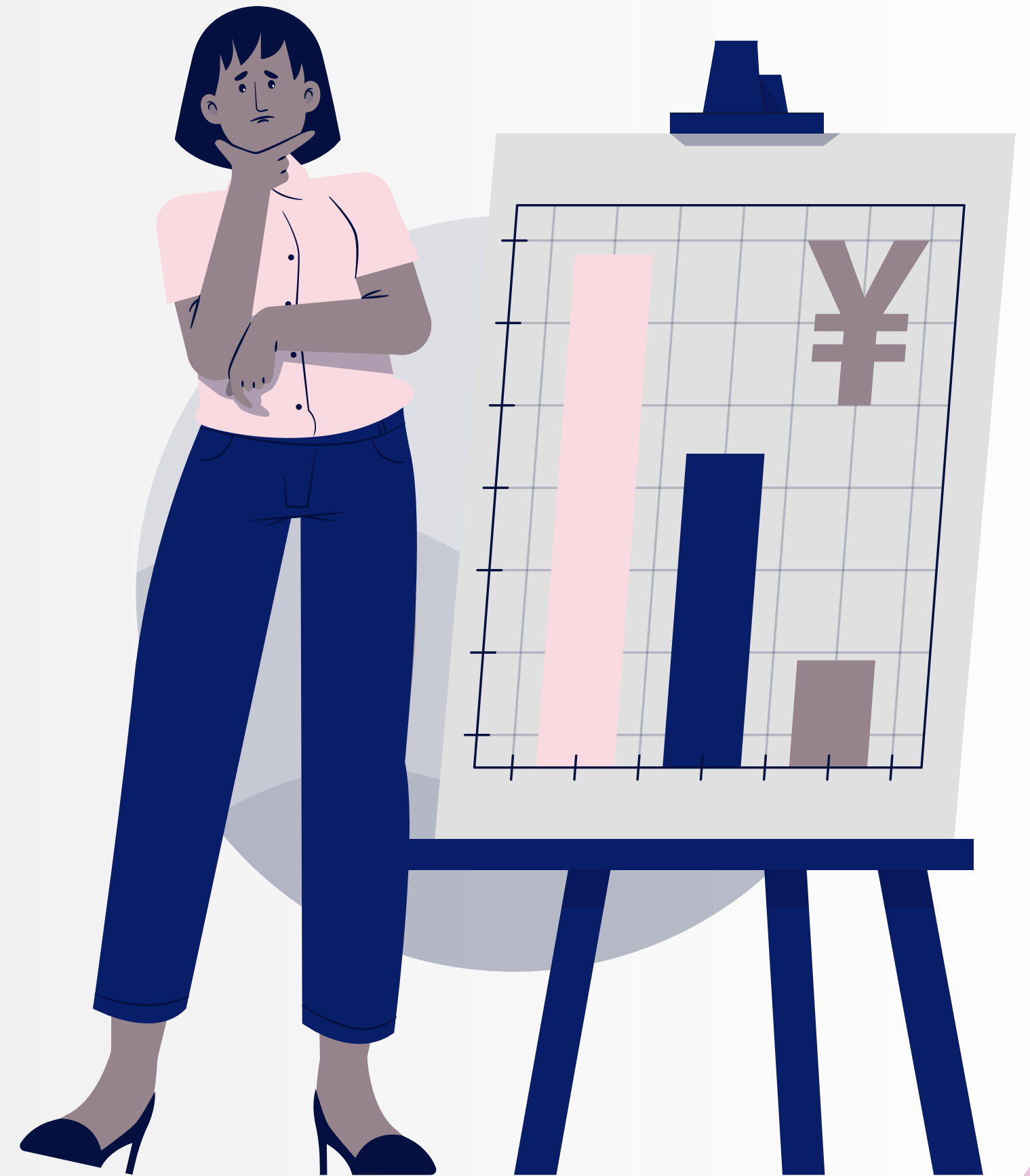


E-COMMERCE SALES STRATEGY Optimization

A Strategic Approach to Boosting Sales Efficiency

BY MAHASWETA BHUNIA



INTRODUCTION

This dashboard analyzes key sales trends to identify opportunities for growth in e-commerce. It highlights month-wise and season-wise sales distribution, top-performing categories, regional trends, and segment-wise performance.

DESCRIPTION OF THE DATASET

Row ID	Unique ID of the row
Order ID	ID of the order (one order can have multiple items)
Order Date	Date when order was made
Customer ID	ID of the customer (one customer can make multiple orders)
Segment	Customer segment
City	Order city
State	Order state (where applicable)
Country	Order country
Country latitude	Geographic coordinates of the order country
Country longitude	Geographic coordinates of the order country
Region	Region to which the order belongs to
Market	Market to which the order belongs to
Subcategory	Product subcategory
Category	Product category
Product	Product name
Quantity	Number of products purchased per order
Sales	Total sales in \$
Discount	Discount applied to the order
Profit	Total profit for each order after discount

OUTLOOK OF THE DATASET

Order ID	Order Date	Customer	Segment	City	State	Country	Region	Market	Subcategory	Category	Product	Quantity	Sales	Discount	Cost	Profit	Season
AE-2012-PO8865138-41184	02-10-20	PO-8865138	Consumer	Ajman	'Ajman	United Arab Emirates	Western Asia	Asia Pacific	Body soaps and washes	Body care	Gold Whisper Broc	6	108	0.7	129.6	-21.6	Fall
AE-2012-PO8865138-41184	02-10-20	PO-8865138	Consumer	Ajman	'Ajman	United Arab Emirates	Western Asia	Asia Pacific	shampoos and conditioners	Hair care	Tata Harper Smoo	2	28	0.7	43.4	-15.4	Fall
AE-2014-EB4110138-41926	14-10-22	EB-4110138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	body moisturizers	Body care	L'Oréal Paris Everl	1	4	0.7	6.4	-2.4	Fall
AE-2014-EB4110138-41926	14-10-22	EB-4110138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	foundations and concealers	Make up	Schwarzkopf Live	6	54	0.7	64.8	-10.8	Fall
AE-2014-MY7380138-42004	31-12-22	MY-7380138	Corporate	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	face masks and exfoliators	Body care	Clairol Nice'n Easy	13	195	0.7	312	-117	Winter
AE-2014-MY7380138-42004	31-12-22	MY-7380138	Corporate	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	shampoos and conditioners	Hair care	Sephora Collectio	7	77	0.7	119.35	-42.35	Winter
AE-2015-GH4665138-42351	13-12-23	GH-4665138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	Nail care products	Body care	Urban Decay Eyes	1	14	0.7	18.2	-4.2	Winter
AE-2015-GH4665138-42351	13-12-23	GH-4665138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	Nail care products	Body care	Aveeno Positively I	1	46	0.7	59.8	-13.8	Winter
AE-2015-GH4665138-42351	13-12-23	GH-4665138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	shampoos and conditioners	Hair care	Anastasia Beverly	1	12	0.7	18.6	-6.6	Winter
AE-2015-GH4665138-42351	13-12-23	GH-4665138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	shampoos and conditioners	Hair care	Anastasia Beverly	1	17	0.7	26.35	-9.35	Winter
AE-2015-GH4665138-42351	13-12-23	GH-4665138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	brushes and applicators	Home and Acc	Urban Decay Eyes	4	52	0.7	83.2	-31.2	Winter
AE-2015-GH4665138-42351	13-12-23	GH-4665138	Consumer	Ras al Khaymah	Ra's Al Khaymah	United Arab Emirates	Western Asia	Asia Pacific	Eye shadows and pencils	Make up	China Glaze Nail L	8	32	0.7	41.6	-9.6	Winter
AE-2015-JD5790138-42070	07-03-23	JD-5790138	Consumer	Ajman	'Ajman	United Arab Emirates	Western Asia	Asia Pacific	hand creams	Body care	Gold Bond Ultimat	2	80	0.7	104	-24	Spring
AE-2015-PG8820138-42313	05-11-23	PG-8820138	Consumer	Ajman	'Ajman	United Arab Emirates	Western Asia	Asia Pacific	shampoos and conditioners	Hair care	Tata Harper Smoo	1	14	0.7	21.7	-7.7	Fall
AG-2012-AA6453-41020	21-04-20	AA-6453	Consumer	Algiers	Alger	Algeria	North Africa	Africa	vitamins and supplements	Body care	First Aid Beauty Ul	2	28	0	14	14	Spring
AG-2012-AC4203-40915	07-01-20	AC-4203	Corporate	Algiers	Alger	Algeria	North Africa	Africa	Eye shadows and pencils	Make up	L'Oréal Infallible 2	4	52	0	26	26	Winter
AG-2012-AH2103-41133	12-08-20	AH-2103	Consumer	Algiers	Alger	Algeria	North Africa	Africa	brushes and applicators	Home and Acc	CeraVe Diabetics'	2	36	0	32.4	3.6	Summer
AG-2012-AJ7803-40978	10-03-20	AJ-7803	Corporate	Batna	Batna	Algeria	North Africa	Africa	bath oils, bubbles and soaks	Body care	Orly Nail Lacquer	11	88	0	44	44	Spring
AG-2012-AS2853-41235	22-11-20	AS-2853	Corporate	Constantine	Constantine	Algeria	North Africa	Africa	Nail care products	Body care	Make Up For Ever'	12	384	0	192	192	Fall
AG-2012-BC11253-41219	06-11-20	BC-11253	Self-Employed	Algiers	Alger	Algeria	North Africa	Africa	body moisturizers	Body care	Orly Nail Lacquer	3	9	0	8.1	0.9	Fall
AG-2012-BM17853-41052	23-05-20	BM-17853	Consumer	Guelma	Guelma	Algeria	North Africa	Africa	foundations and concealers	Make up	Centrum Calcium	2	52	0	26	26	Spring
AG-2012-BM17853-41085	25-06-20	BM-17853	Consumer	Oran	Oran	Algeria	North Africa	Africa	body moisturizers	Body care	Maybelline Lasting	1	19	0	17.1	1.9	Summer
AG-2012-BM17853-41085	25-06-20	BM-17853	Consumer	Oran	Oran	Algeria	North Africa	Africa	shampoos and conditioners	Hair care	Olay Age Defying I	8	128	0	108.8	19.2	Summer
AG-2012-BM17853-41085	25-06-20	BM-17853	Consumer	Oran	Oran	Algeria	North Africa	Africa	Eye shadows and pencils	Make up	Gold Lustre Hoop	4	496	0	248	248	Summer
AG-2012-CC23703-40970	02-03-20	CC-23703	Consumer	Algiers	Alger	Algeria	North Africa	Africa	hair colors and toners	Hair care	China Glaze Nail L	1	3	0	2.55	0.45	Spring
AG-2012-DB32103-41257	14-12-20	DB-32103	Consumer	Constantine	Constantine	Algeria	North Africa	Africa	Nail care products	Body care	L'Oréal Infallible B	2	20	0	10	10	Winter
AG-2012-DH36753-41136	15-08-20	DH-36753	Self-Employed	Bejaia	Bejaia	Algeria	North Africa	Africa	Nail care products	Body care	Orly Nail Lacquer	2	12	0	6	6	Summer
AG-2012-DH36753-41136	15-08-20	DH-36753	Self-Employed	Bejaia	Bejaia	Algeria	North Africa	Africa	face moisturizing products	Face care	Pure Encapsulatio	3	63	0	31.5	31.5	Summer
AG-2012-DK28353-41264	21-12-20	DK-28353	Corporate	Saida	Saida	Algeria	North Africa	Africa	Body soaps and washes	Body care	Le Petit Marseillai	14	70	0	35	35	Winter
AG-2012-EG39003-41262	19-12-20	EG-39003	Consumer	Annaba	Annaba	Algeria	North Africa	Africa	hair colors and toners	Hair care	L'Oréal Color Rich	2	16	0	13.6	2.4	Winter
AG-2012-EG39003-41262	19-12-20	EG-39003	Consumer	Annaba	Annaba	Algeria	North Africa	Africa	candles, sprays, diffusers	Home and Acc	Estée Lauder Pure	1	11	0	9.9	1.1	Winter
AG-2012-EG39003-41262	19-12-20	EG-39003	Consumer	Annaba	Annaba	Algeria	North Africa	Africa	Lipsticks	Make up	Zoya Nail Polish Cl	4	12	0	6	6	Winter
AG-2012-JH59853-41214	01-11-20	JH-59853	Consumer	Bejaia	Bejaia	Algeria	North Africa	Africa	face moisturizing products	Face care	Hourglass Studio F	1	22	0	11	11	Fall
AG-2012-MW82203-41108	18-07-20	MW-82203	Consumer	Oran	Oran	Algeria	North Africa	Africa	body moisturizers	Body care	Boy Smells Russia	4	40	0	36	4	Summer
AG-2012-MW82203-41268	25-12-20	MW-82203	Consumer	Algiers	Alger	Algeria	North Africa	Africa	vitamins and supplements	Body care	NYX Ultimate Shav	2	20	0	10	10	Winter
AG-2012-OT87303-41262	19-12-20	OT-87303	Consumer	Constantine	Constantine	Algeria	North Africa	Africa	foundations and concealers	Make up	Burt's Bees Laven	1	33	0	16.5	16.5	Winter
AG-2012-RO97803-40964	25-02-20	RO-97803	Consumer	Algiers	Alger	Algeria	North Africa	Africa	body moisturizers	Body care	OPI Nail Lacquer f	4	40	0	36	4	Winter
AG-2012-RO97803-40964	25-02-20	RO-97803	Consumer	Algiers	Alger	Algeria	North Africa	Africa	Body soaps and washes	Body care	Anastasia Beverly	2	30	0	15	15	Winter

OBJECTIVES

HOW TO INCREASE SALES OF ECOMMERCE

- **ANALYZE SEGMENTWISE SALES BY MONTH**
- **ANALYZE STATEWISE SALES**
- **ANALYZE TOP PERFORMING SUB-CATEGORIES WITHIN EACH CATEGORY**
- **ANALYZE MONTHWISE SALES DISTRIBUTION**
- **ANALYSE SEASONWISE SALES DISTRIBUTION**
- **ANALYZE TOTAL SALES BY EACH YEAR**

OUTLOOK OF THE DASHOARD

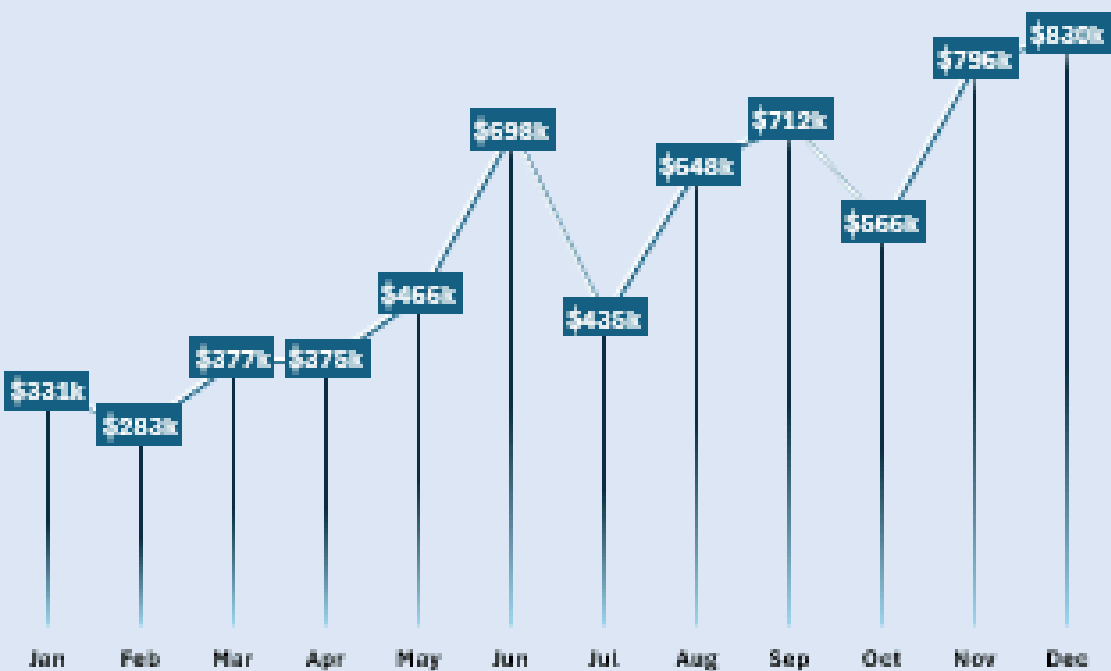
E-COMMERCE SALES STRATEGY OPTIMIZATION DASHBOARD

TOTAL SALES
\$6,517,674.00

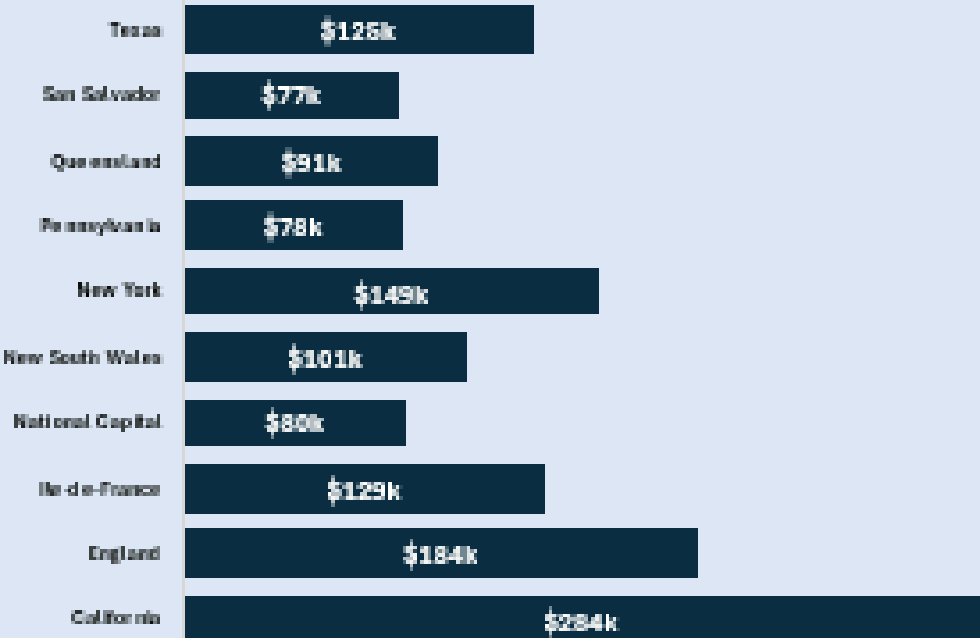
TOTAL PRODUCTS
51290



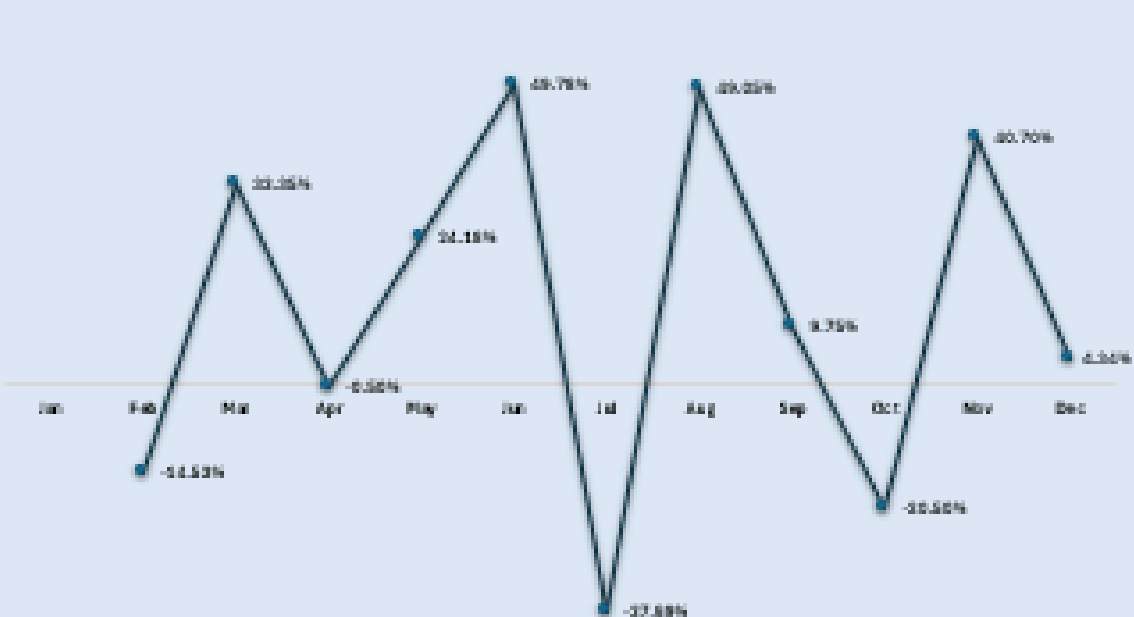
SEGMENTWISE SALES TREND



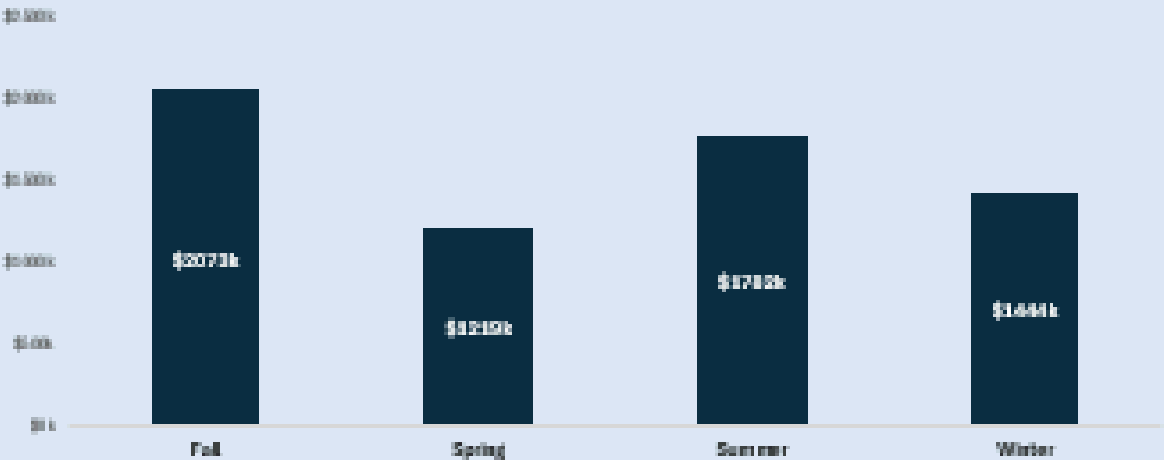
Top 10 StateWise Sales



Month-Wise Sales Distribution



Season-Wise Sales Distribution



Top-Performing Subcategories Within Each Category



CUSTOMER SEGMENTS

BY MONTH

KEY OBSERVATIONS

SELF-EMPLOYED:

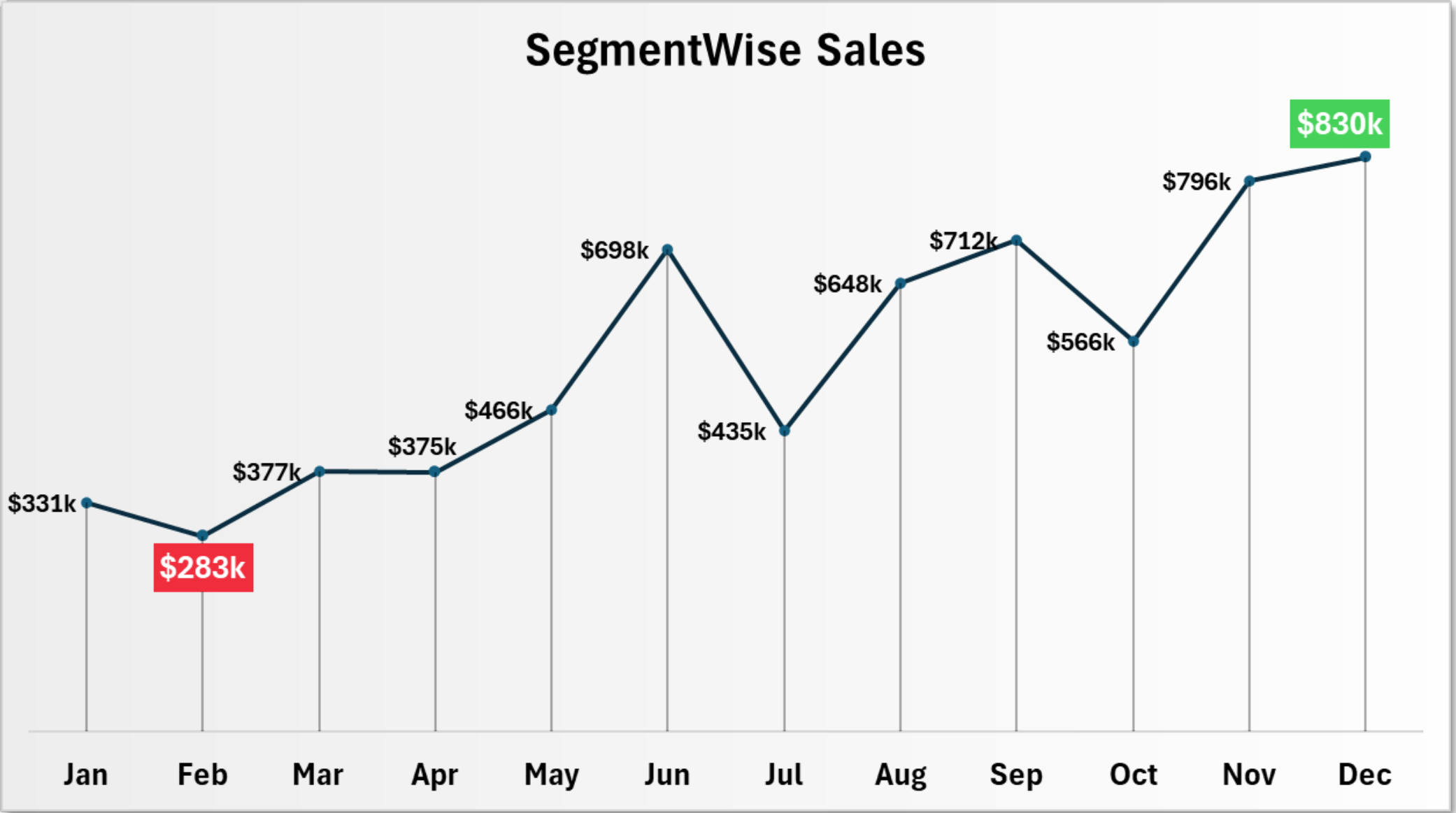
- PEAK SALES IN NOV (\$67K); LOWEST IN FEB (\$26K).
- STEADY GROWTH FROM MAY TO AUGUST; SLIGHT DROP AFTER AUGUST, RECOVERED IN NOVEMBER.

CORPORATE:

- PEAK IN DECEMBER (\$503K); LOWEST IN FEBRUARY (\$170K).
- SHARP RISE FROM MAY TO JUNE; RECOVERY AFTER SEPTEMBER DIP.

CONSUMER:

- PEAK IN DECEMBER (\$273K); LOWEST IN FEBRUARY (\$88K).
- CONSISTENT GROWTH FROM MARCH TO AUGUST; STRONG RISE IN NOVEMBER-DECEMBER.

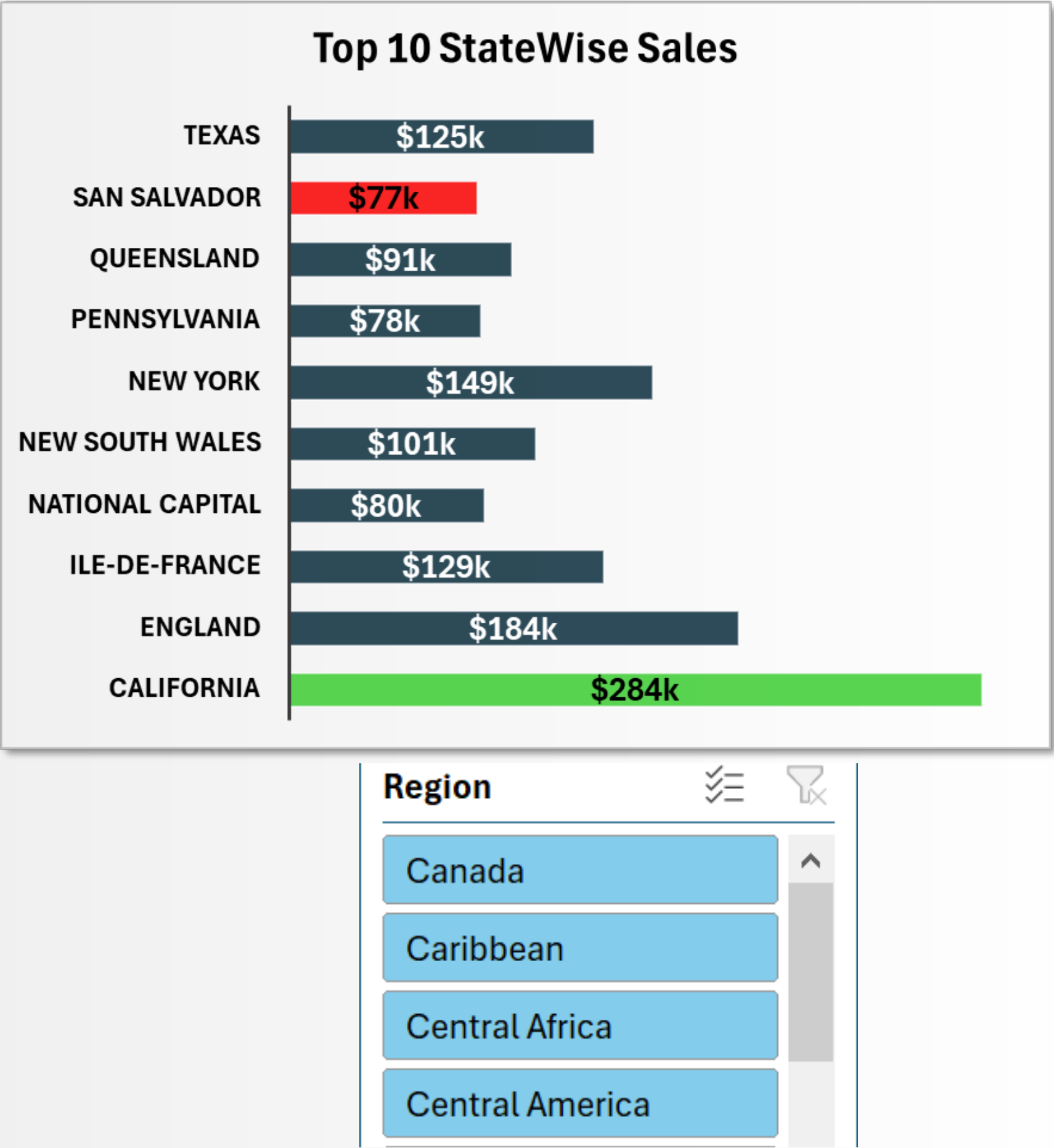


Region
Canada
Caribbean
Central Africa
Central America

TOP 10 STATEWISE SALES

KEY OBSERVATIONS

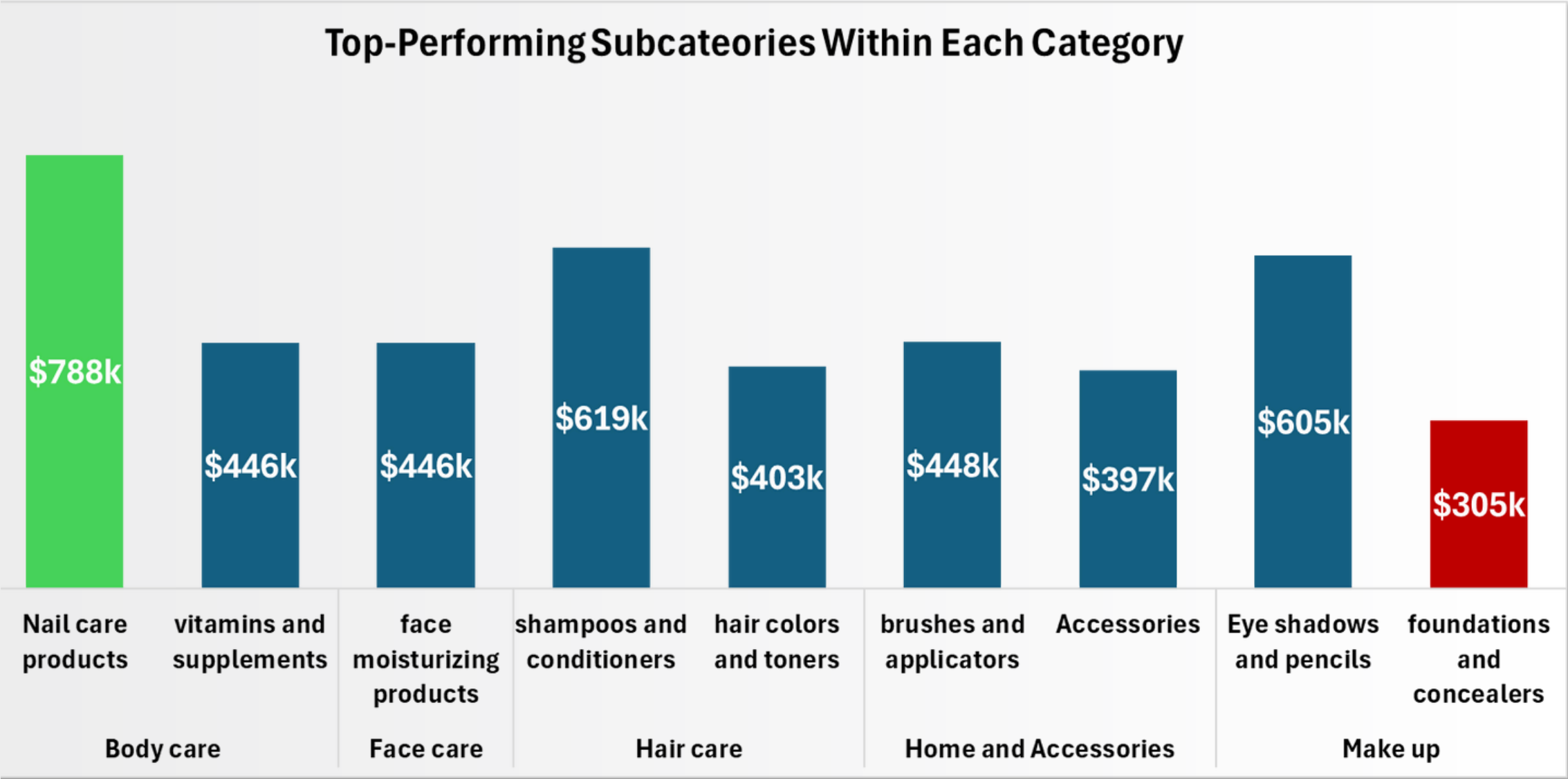
- CALIFORNIA LEADS WITH THE HIGHEST SALES AT \$284K.
- ENGLAND FOLLOWS WITH SIGNIFICANT SALES OF \$184K.
- NEW YORK CONTRIBUTES \$149K.
- TEXAS AND ILE-DE-FRANCE SHOW STRONG SALES AT \$125K AND \$129K RESPECTIVELY.
- NEW SOUTH WALES AND QUEENSLAND REPORT SALES OF \$101K AND \$91K.
- PENNSYLVANIA AND NATIONAL CAPITAL HAVE SALES OF \$78K AND \$80K.
- SAN SALVADOR RECORDS LOWEST SALES OF \$77K.
- THE DATA HIGHLIGHTS REGIONAL SALES VARIATIONS, WITH THE CENTRAL US AND EASTERN EUROPE PERFORMING WELL.
- USING REGION AS A SLICER PROVIDES CLEAR INSIGHTS INTO GEOGRAPHICAL SALES DISTRIBUTION.



TOP PERFORMING SUB-CATEGORIES WITHIN EACH CATEGORY

KEY OBSERVATIONS

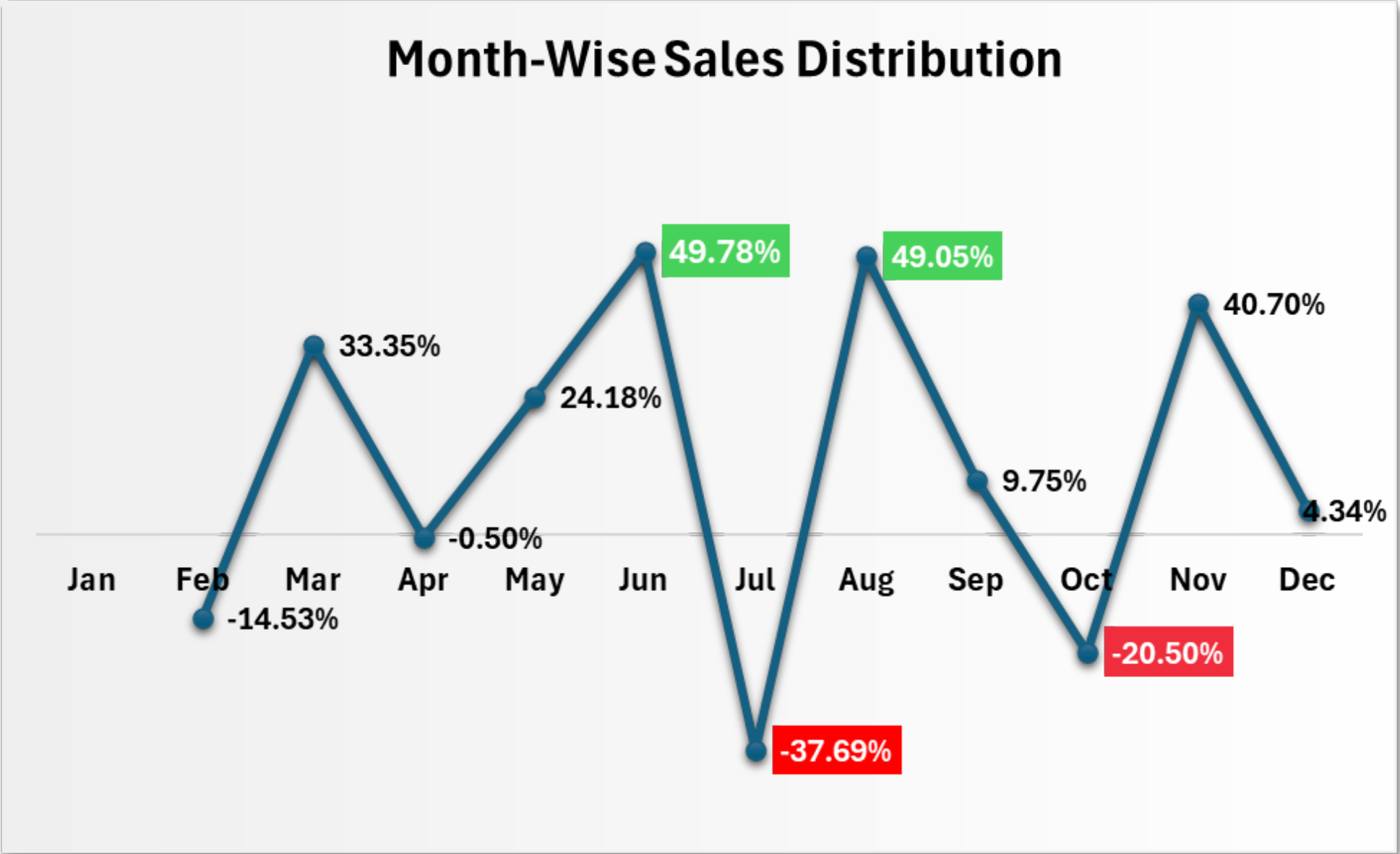
- NAIL CARE PRODUCTS LEAD IN REVENUE GENERATION WITH \$788K.
- VITAMINS AND SUPPLEMENTS, FACE MOISTURIZING PRODUCTS, AND SHAMPOOS AND CONDITIONERS EACH CONTRIBUTE \$446K.
- HAIR COLORS AND TONERS GENERATE \$448K, WHILE BRUSHES AND APPLICATORS BRING IN \$397K.
- ACCESSORIES CONTRIBUTE \$605K, AND EYESHADOW AND PENCILS* ADD \$305K TO REVENUE.
- FOUNDATIONS AND CONCEALERS, BODY CARE, AND FACE CARE ARE SIGNIFICANT CONTRIBUTORS TO OVERALL SALES.
- HAIR CARE, HOME AND ACCESSORIES, AND MAKEUP CATEGORIES ALSO DEMONSTRATE STRONG PERFORMANCE.
- THE DATA HIGHLIGHTS DIVERSE REVENUE STREAMS ACROSS VARIOUS SUBCATEGORIES IN THE E-COMMERCE PLATFORM.



MONTHWISE SALES DISTRIBUTION

KEY OBSERVATIONS

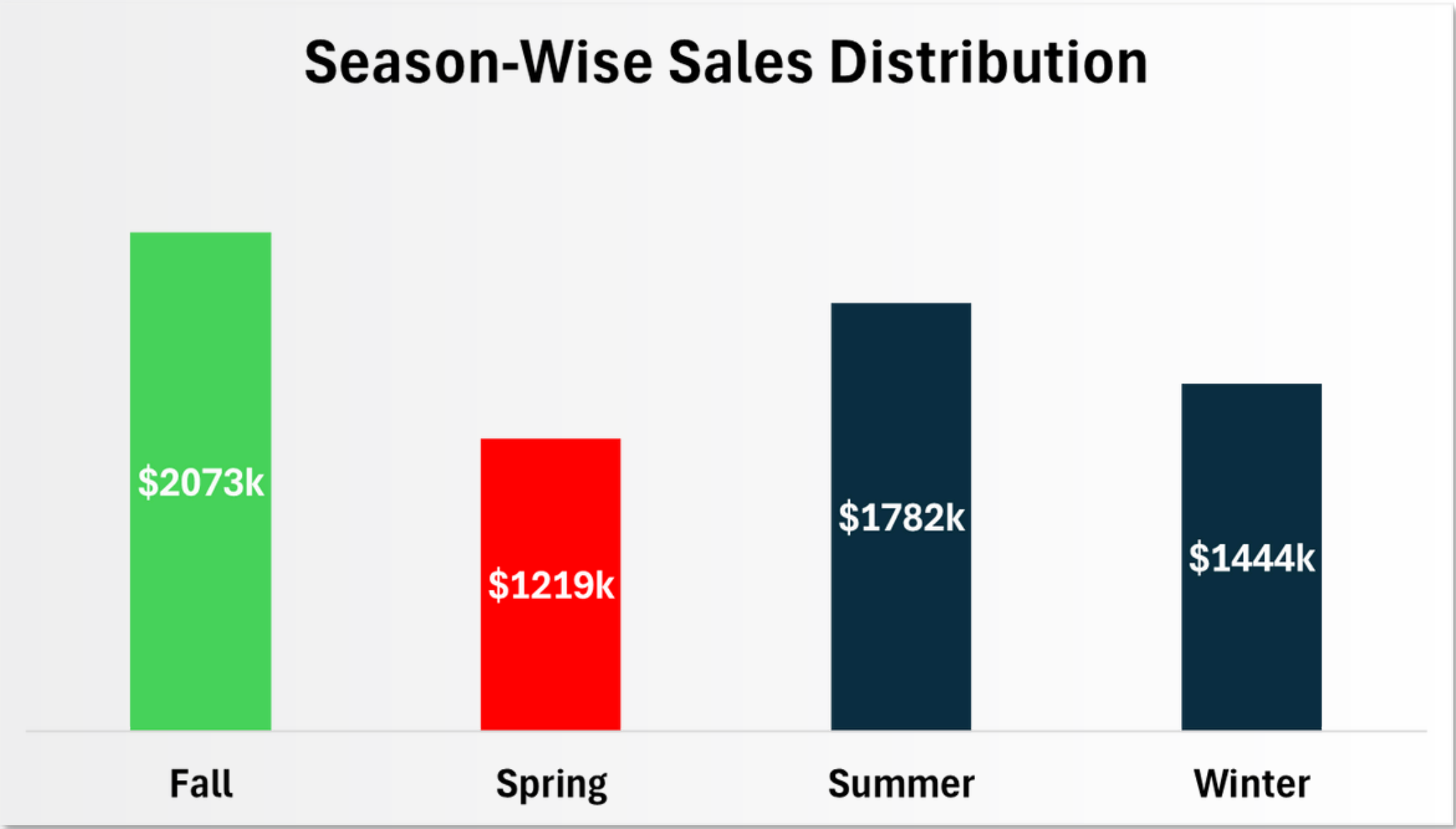
- SALES SHOW A SEASONAL PATTERN WITH PEAKS IN JUNE - AUGUST AND TROUGHS IN FERUARY - APRIL. THIS IDENTIFIES A RECURRING TREND.
- THE VOLATILITY OF SALES IS HIGH WITH LARGE SWINGS BETWEEN CONSECUTIVE MONTHS. THIS POINTS OUT THE INSTABILITY IN SALES PERFORMANCE.
- WHILE JUNE AND AUGUST ARE SIMILAR IN PEAK HEIGHT, THE DROP OFF AFTER AUGUST IS LESS STEEP THEN AFTER JUNE. THIS COMPARES THE TWO PEAK PERIODS AND THEIR SUBSEQUENT DECLINES.
- DESPITE THE OVERALL FLUCTUATING TREND, THE YEAR END SALES HAS A RELATIVELY STRONG POSITION, SUGGESTING A POTENTIAL UPWAR TREND INTO THE NEXT YEAR.



SEASON-WISE SALES DISTRIBUTION

KEY OBSERVATIONS

- FALL IS THE HIGHEST PERFORMING SEASON FOR E-COMMERCE SALES, GENERATING \$2073K.
- SPRING SHOWS THE LOWEST E-COMMERCE SALES AT \$1219K, INDICATING A POTENTIAL AREA FOR IMPROVEMENT.
- SUMMER AND WINTER DEMONSTRATE MODERATE E-COMMERCE SALES, WITH SUMMER SLIGHTLY OUTPERFORMING WINTER AT \$1782K AND \$1444K RESPECTIVELY.
- THE SIGNIFICANT VARIATION IN E-COMMERCE SALES ACROSS SEASONS HIGHLIGHTS THE IMPORTANCE OF SEASONAL STRATEGIES FOR E-COMMERCE BUSINESSES.

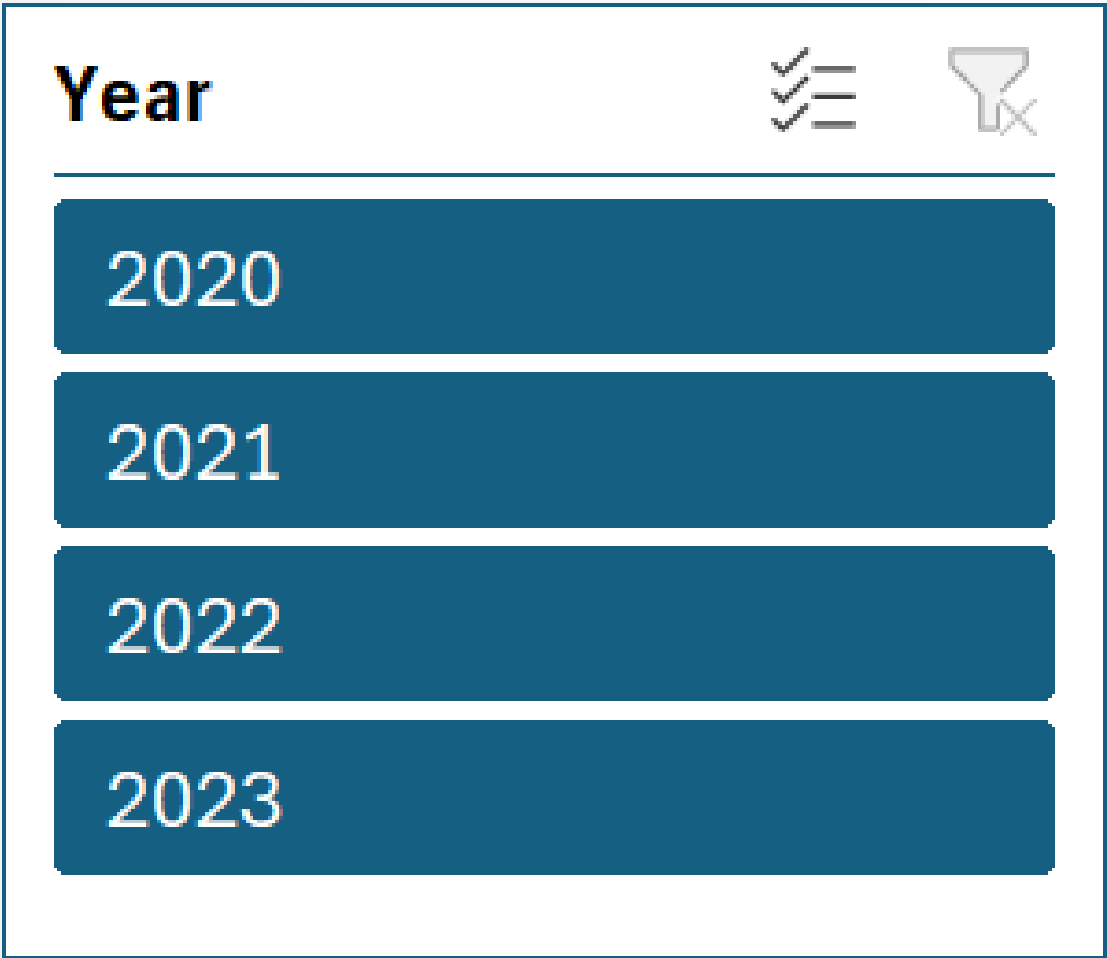


TOTAL PRODUCTS BY YEAR

KEY OBSERVATIONS

- THERE IS A CONSISTENT YEAR-OVER-YEAR INCREASE IN TOTAL PRODUCTS FROM 2020 TO 2023.
- THE TOTAL NUMBER OF PRODUCTS HAS ALMOST DOUBLED FROM 8998 IN 2020 TO 17531 IN 2023.
- THIS GROWTH INDICATES A SIGNIFICANT EXPANSION OF PRODUCT OFFERINGS OVER THE FOUR-YEAR PERIOD.
- THE STEADY INCREASE SUGGESTS A SUCCESSFUL STRATEGY OF PRODUCT LINE EXPANSION OR MARKET PENETRATION.
- THIS DATA CAN BE USED TO HIGHLIGHT GROWTH AND POTENTIAL FOR FUTURE EXPANSION IN THE E-COMMERCE BUSINESS.

Year	Total Products
2020	8998
2021	10962
2022	13799
2023	17531
Total Proucts	51290



INSIGHTS

- **SEASONALITY IS A KEY DRIVER:** SALES ARE SIGNIFICANTLY INFLUENCED BY SEASONALITY, WITH PEAKS GENERALLY OCCURRING IN LATE FALL AND EARLY WINTER (NOVEMBER/DECEMBER) AND LOWS IN LATE WINTER/EARLY SPRING (FEBRUARY). THIS PATTERN IS OBSERVED ACROSS DIFFERENT CUSTOMER SEGMENTS AND PRODUCT CATEGORIES.
- **PRODUCT PORTFOLIO EXPANSION:** THE COMPANY HAS DEMONSTRATED CONSISTENT GROWTH IN ITS PRODUCT OFFERINGS, ALMOST DOUBLING THE NUMBER OF PRODUCTS FROM 2020 TO 2023. THIS EXPANSION INDICATES 20,000 PRODUCTS BY 2024.
- **SEGMENT PERFORMANCE:** VARIATIONS ACROSS SEGMENTS (CUSTOMER, PRODUCT, REGION) NEED TARGETED APPROACHES,
- **BALANCING GROWTH/VOLATILITY:** GROWTH IS POSITIVE, BUT MONTHLY VOLATILITY EXISTS ALONGSIDE STRONG YEAR-END SALES.
- **DATA-DRIVEN DECISIONS:** THE COMPANY SHOULD CONTINUE TO LEVERAGE DATA ANALYTICS TO GAIN INSIGHTS INTO CUSTOMER BEHAVIOR, MARKET TRENDS, AND SALES PERFORMANCE FOR PRODUCT DEVELOPMENT, MARKETING, RESOURCE ALLOCATION.
- **OPTIMIZATION OPPORTUNITIES:** THE DATA REVEALS SEVERAL AREAS FOR POTENTIAL OPTIMIZATION, INCLUDING ADDRESSING THE LOW SALES PERIODS IN SPRING, LEVERAGE STRONG CATEGORIES/REGIONS.

GROWTH PROJECTIONS

- **CONTINUED PRODUCT LINE EXPANSION:** GIVEN THE CONSISTENT YEAR-OVER-YEAR GROWTH IN PRODUCT OFFERINGS, I PROJECT A CONTINUATION OF THIS TREND, WITH THE TOTAL NUMBER OF PRODUCTS LIKELY EXCEEDING 20,000 BY 2024..
- **INCREASED MARKET SHARE:** BROADER PRODUCT RANGE CAN ATTRACT MORE CUSTOMERS.
- **REVENUE GROWTH (CONTINGENT):** WHILE PRODUCT EXPANSION SUGGESTS REVENUE GROWTH, ACTUAL REVENUE WILL DEPEND ON FACTORS SUCH AS PRICING STRATEGY, MARKET DEMAND, AND COMPETITIVE LANDSCAPE. I ANTICIPATE REVENUE GROWTH IF NEW PRODUCTS ARE SUCCESSFULLY MARKETED AND WELL-RECEIVED.
- **INFRASTRUCTURE INVESTMENT:** TO SUPPORT THIS CONTINUED GROWTH, THE COMPANY WILL NEED TO INVEST IN ITS INFRASTRUCTURE, INCLUDING INVENTORY MANAGEMENT, WAREHOUSING, AND LOGISTICS, TO ENSURE SMOOTH OPERATIONS.
- **POTENTIAL CHALLENGES:** WHILE THE TREND IS POSITIVE, THE COMPANY MUST BE PREPARED FOR POTENTIAL CHALLENGES SUCH AS INCREASED COMPETITION, MARKET SATURATION, AND ECONOMIC DOWNTURNS, WHICH COULD IMPACT GROWTH PROJECTIONS.

THANK YOU

BY MAHASWETA BHUNIA

