CAPSTONE PROJECT
IDEAS/24/62674
IKWU JOSEPH MARIAM

SECTION 1

Theme	Frequency	percentage
Delivery Issues	152	**12.42%**
Product Quality	323	**26.39%**
Postive Exp With Purchase	263	**21.49%**
Negative Exp With Purchase	164	**13.40%**
Customer Service	135	**11.03%**
Value For Money	114	**9.31%**
Product Desc Accuracy	73	**5.96%**

SECTION 1
Insight Of Customer Feedback
From the data i can see that the most frequent theme is product quality more than other aspect .
There is need to focus more on the poduct quality and timely deliverys.

SECTION 2

Sentiment	Frequency	Percentage
Negative	334	27.29%
Neutral	350	28.59%
Positive	540	44.12%

SECTION 2
The data indicates that while the overall customer satisfaction is positive, there is still room
for improvement. By addressing the areas identified by the neutral and negative sentiments
, the product or service can be further enhanced to meet the needs and expectations of
customers.

SECTION 3

Region	Frequency	Percentage
Asia Pacific	209	17.88%
Europe	204	17.45%
Latin America	269	23.01%
Middle East & Africa	256	21.90%
North America	231	19.76%

Region	Total Amount	Average Amount	Percentage of Total Sales Amount
Asia Pacific	17941.1485	85.84281581	15.76%
Europe	22311.22981	109.3687736	19.60%
Latin America	28408.88522	105.6092387	24.95%
Middle East & Africa	23353.90822	91.22620397	20.51%
North America	21826.23207	94.48585313	19.17%

Identifying Regions with the Highest and Lowest Purchases
Highest Total Amount:
Latin America leads with a total amount of 28,408.88522.
Lowest Total Amount:
Asia Pacific has the lowest total amount at 17,941.1485.
Highest Average Amount:
Europe has the highest average purchase amount per customer at 109.3687736.
Lowest Average Amount:
Asia Pacific also has the lowest average purchase amount per customer at 85.84281581.
Analyzing Regional Trends and Specific Regional Concerns
Regional Trends:
Latin America and Middle East & Africa have consistently higher total amounts and average purchase amounts, suggesting a stronger market presence or higher purchasing power in these regions.
Asia Pacific and North America show more moderate levels of purchasing, indicating potential for growth or market saturation.
Europe has the highest average purchase amount, suggesting a preference for higher-value products or services in this region.
Specific Regional Concerns:
Asia Pacific: While the total amount is lower, the region has a large population and could represent a significant growth opportunity. Understanding cultural preferences and economic factors could help tailor marketing strategies to this region.
North America: Despite being a mature market, identifying niche segments or innovative product offerings could help drive growth and maintain market share.
Latin America: While the region shows strong purchasing power, factors like economic instability or political uncertainties could impact future sales. Monitoring economic indicators and adapting strategies accordingly is crucial.
Recommendations
Based on the analysis, here are some recommendations:
Target Growth Markets: Prioritize efforts in regions with high growth potential, such as Asia Pacific, where the large population and economic development could lead to increased sales.
Enhance Product Offerings: Tailor product offerings to meet the specific needs and preferences of different regions. For example, in regions with higher average purchase amounts, consider introducing premium or luxury products.
Strengthen Market Presence: Increase marketing efforts and expand distribution channels in regions with lower total amounts, such as Asia Pacific, to enhance brand awareness and accessibility.
Monitor Economic Indicators: Keep a close eye on economic conditions in each region to identify potential risks or opportunities. Adjust marketing strategies and pricing accordingly to mitigate risks and capitalize on favorable conditions.
Conduct Further Research: Gather more detailed data on customer demographics, purchasing behavior, and competitive landscape in each region to gain deeper insights and inform decision-making.

decision-making.

SECTION 4

Customer Segment	Count of Customer	Percentage of Customer Segment
Corporate Clients	6	0.49%
Discount Shoppers	20	1.63%
High Income	31	2.53%
Institutional Customers	4	0.33%
Low Income	19	1.55%
Middle Income	4	0.33%
Online Direct	325	26.55%
Premium Customers	13	1.06%
Retail	364	29.74%
Retail Customers	10	0.82%
Subscription	85	6.94%
Wholesale	329	26.88%
Wholesale Customers	14	1.14%

Retail is most vocal segment.

Corporate Clients: May focus on issues related to pricing, contract terms, and service level agreements.
Discount Shoppers: Could be more concerned with promotions, discounts, and value for money.
High Income: Might have higher expectations for customer service, product quality, and exclusivity

SECTION 5

Sales Representative Id	Frequency	Percentage
REP001	93	7.60%
REP002	84	6.86%
REP003	97	7.92%
REP004	103	8.42%
REP005	89	7.27%
REP006	129	10.54%
REP007	98	8.01%
REP008	98	8.01%
REP009	119	9.72%
REP010	114	9.31%
REP011	31	2.53%
REP012	29	2.37%
REP013	2	0.16%
REP014	2	0.16%
REP015	2	0.16%
REP016	2	0.16%
REP017	41	3.35%
REP018	32	2.61%
REP019	27	2.21%
REP020	32	2.61%

Sale Rep ID	Sales Channel	Frequency	Percentage
REP001	**93**	**93**	**7.60%**
Marketplace	33	33	2.70%
Online Direct	29	29	2.37%
Retail	17	17	1.39%
Wholesale	14	14	1.14%
REP002	**84**	**84**	**6.86%**
REP003	**97**	**97**	**7.92%**
REP004	**103**	**103**	**8.42%**
REP005	**89**	**89**	**7.27%**
REP006	**129**	**129**	**10.54%**
REP007	**98**	**98**	**8.01%**
REP008	**98**	**98**	**8.01%**
REP009	**119**	**119**	**9.72%**
REP010	**114**	**114**	**9.31%**
REP011	**31**	**31**	**2.53%**
REP012	**29**	**29**	**2.37%**
REP013	**2**	**2**	**0.16%**
REP014	**2**	**2**	**0.16%**
REP015	**2**	**2**	**0.16%**
REP016	**2**	**2**	**0.16%**
REP017	**41**	**41**	**3.35%**
REP018	**32**	**32**	**2.61%**
REP019	**27**	**27**	**2.21%**
REP020	**32**	**32**	**2.61%**

Sales representative analysis revealed REP006 as a top performer, while several representatives had low sales activity

SECTION 6

Product Category	Frequency	percentage
Books & Media	118	9.64%
Electronics	272	22.22%
Fashion	235	19.20%
Fitness Equipment	3	0.25%
Groceries	10	0.82%
Health & Beauty	205	16.75%
Home Appliances	77	6.29%
Home Décor	60	4.90%
Home Security	3	0.25%
Jewelry	3	0.25%
Musical Instruments	3	0.25%
Office Supplies	10	0.82%
Sports & Outdoors	197	16.09%
Tools & Home Improvement	10	0.82%
Wearables	18	1.47%

Electronics: This category has the highest percentage (22.22%), indicating strong customer demand.
Fashion: Another popular category, accounting for 19.20% of purchases.
Health & Beauty: This category also has a significant share of 16.75%.
Sports & Outdoors: With 16.09% of purchases, this category is also a notable performer.
Less Popular Product Categories:
Fitness Equipment, Groceries, Home Security, Jewelry, Musical Instruments, Office Supplies, Tools & Home Improvement, and Wearables all have relatively low percentages, suggesting limited customer interest.
Recommendations:
Continue Marketing Popular Categories: Given their high demand, it's recommended to continue marketing efforts for Electronics, Fashion, Health & Beauty, and Sports & Outdoors. Consider introducing new products or promotions within these categories to maintain customer interest.
Re-evaluate Less Popular Categories: For the less popular categories, analyze customer feedback and market trends to determine if there is a need for product adjustments or discontinuation. Consider discontinuing products with consistently low demand or exploring opportunities to revitalize them through product innovation or targeted

SECTION 7

7a

Product Name	Frequency	Percentage
4K Monitor	3	0.25%
4K Ultra HD TV	3	0.25%
Action Camera	7	0.57%
Activity Tracker	3	0.25%
Air Conditioner	2	0.16%
Air Fryer	1	0.08%
Air Purifier	7	0.57%
AirPods	1	0.08%
Anthology	2	0.16%
Anti-Aging Cream	3	0.25%
Area Rug	1	0.08%
Art Print	1	0.08%
Athletic Shoes	1	0.08%

7b

Sales channel	Frequency	Percentage
Marketplace	**334**	**27.29%**
Online Direct	**309**	**25.25%**
Retail	**306**	**25.00%**
Wholesale	**275**	**22.47%**

Art prints with least and smart watch most purchases
air purifer shoud be kept on the selves

SECTION 8

8A

Sales channel	Count of Sales C	Count of Sales Channel2
Marketplace	334	27.29%
Online Direct	309	25.25%
Retail	306	25.00%
Wholesale	275	22.47%

8b

Sales channel	feedback	fre.of feedback	Percentage
Marketplace	334	334	27.29%
Online Direct	309	309	25.25%
Retail	306	306	25.00%
Wholesale	275	275	22.47%

Channels with Higher Levels of Analysis:
Marketplace: With 334 sales and 27.29% of the total, Marketplace appears to be the most active channel, indicating a potentially higher level of analysis due to the larger volume of transactions.
Online Direct: This channel also has a significant share of 25.25% and could benefit from detailed analysis to understand customer behavior and preferences.
Channels with Lower Levels of Analysis:
Retail: While Retail accounts for 25.00% of sales, it might benefit from more in-depth analysis to identify opportunities for growth or address potential issues.
Wholesale: At 22.47%, Wholesale might have a lower level of analysis due to its focus on bulk sales and potentially different customer dynamics.
Identifying Trends or Possible Issues Specific to Different Sales Channels
Marketplace: While Marketplace is the most active channel, it's essential to monitor for any potential issues related to competition, pricing pressures, or customer acquisition costs.
Online Direct: Analyze customer behavior and preferences to identify opportunities for personalization, upselling, or cross-selling.
Retail: Evaluate in-store experiences, product availability, and customer satisfaction to identify areas for improvement.
Wholesale: Monitor customer loyalty, order fulfillment efficiency, and pricing strategies to optimize the wholesale channel.
Recommendations for Improving Certain Channels
Marketplace: Consider exploring new marketplaces or expanding your product offerings to increase visibility and reach a wider customer base.
Online Direct: Invest in customer relationship management tools to personalize interactions and improve customer loyalty.
Retail: Enhance in-store experiences through improved product displays, knowledgeable staff, and convenient checkout options.
Wholesale: Offer competitive pricing, flexible payment terms, and reliable order fulfillment to strengthen relationships with wholesale customers.

SECTION 9

Row Labels	Frequencyy	Percentage	Highest Sales rep feedback
No Return	385	31.45%	385
Pending Return	414	33.82%	414
Returned	425	34.72%	425

Percentage out of all feedback
31.45%
33.82%
34.72%

No Return: 385 orders (30%) were not returned.
Pending Return: 414 orders (29%) are awaiting return.
Returned: 425 orders (29%) have been returned.
Key Insights:
High Return Rate: The overall return rate of 58% is relatively high, suggesting potential issues with product quality, customer satisfaction, or operational efficiency.
Pending Returns: The significant number of pending returns (29%) indicates a need for efficient handling of return requests to minimize customer frustration and potential returns.

The return status was linked with the sales rep feedback

SECTION 10

Product Name	Average price	lowest price	Highest price
4K Monitor	300	6	72
4K Ultra HD TV	500	4	79
Action Camera	192.8571429	8	76
Activity Tracker	80	14	42
Air Conditioner	400	5	70
Air Fryer	100	12	25

Higher-priced products generally have higher ratings: The 4K Ultra HD TV and Air Conditioner, priced at 500 and 400 respectively, have higher ratings than the lower-priced products. **Price is not the sole determinant:** While there's a general trend of higher-priced products having higher ratings, other factors like brand reputation, features, and customer expectations also influence feedback.

SECTION 11

Row Labels	Sum of Discount Applied
4K Monitor	0.15
4K Ultra HD TV	0.2
Action Camera	0.37
Activity Tracker	0.1
Air Conditioner	0
Air Fryer	0
Air Purifier	0.13
AirPods	0
Anthology	0
Anti-Aging Cream	0.18
Area Rug	0
Art Print	0
Athletic Shoes	0
Backpack	0
Base Layer	0
Baseball Bat	0

Baseball Cap	0
Baseball Glove	0.45
Basketball	0
Bath Salts	0
Bath Towel	0
Bathrobe	0.25
Beach Chair	0
Beach Hat	0
Beachwear	0
Beanie	0
Belt	0.1
Bicycle Helmet	0
Biography	0
Biography Book	0
Blazer	0.05
Blender	0
Bluetooth Earbuds	0
Bluetooth Earphones	0
Bluetooth Headphones	0.22
Bluetooth Speaker	0.7
Body Lotion	0.13
Body Oil	0
Body Scrub	0
Body Wash	0
Book Set	0
Bookcase	0
Booklight	0.05
Business Suit	0
Camera Lens	0
Camping Chair	0
Camping Lantern	0
Camping Stove	0
Camping Tent	0.23
Candle Set	0.15
Cap	0
Car Air Purifier	0
Car Charger	0
Cardigan	0.1
Cashmere Sweater	0.05
Casual Jacket	0.05
Casual Shoes	0
Casual Sneakers	0
Children's Book	0.05
Children's Book	0.17
Children's Encyclopedia	0
Chinos	0
Classic Literature	0

Classic Novel	0
Climbing Gear	0
Climbing Harness	0.05
Climbing Rope	0
Clock	0.1
Coffee Grinder	0.05
Coffee Maker	0.22
Comic Book	0
Conditioner	0
Cookbook	0.1
Cookware Book	0
Cordless Drill	0.25
Cotton T-Shirt	0.17
Crossfit Equipment	0.05
Crossfit Gear	0.05
Curtain Rod	0
Curtain Set	0
Cushion	0.05
Cycling Helmet	0
Dash Cam	0
Decorative Vase	0
Deep Freezer	0
Deep Fryer	0
Denim Jacket	1.33
Denim Skirt	0
Deodorant	0
Designer Handbag	0.27
Designer Jeans	0.22
Desk Lamp	0
Diamond Necklace	0.32
Digital Camera	0.65
Digital Photo Frame	0
Digital Thermometer	0
Digital Watch	0
Dish Rack	0
Dishwasher	0
Dress	0.1
Dress Shirt	0
Dress Shoes	0
Drone	0
DSLR Camera	0.18
eBook Reader	0.22
Educational Book	0
Educational Game	0
Electric Fan	0
Electric Grill	0
Electric Guitar	0.2

Electric Kettle	0.05
Electric Scooter	0
Electric Shaver	0.22
Electric Toothbrush	0.17
E-Reader	0
Ergonomic Chair	0.19
Essential Oils	0
Evening Dress	0
Evening Gown	0.1
Extension Cord	0
External Hard Drive	0.55
Eye Cream	0.05
Eye Mask	0.05
Face Cream	0.05
Face Mask	0.1
Face Moisturizer	0.1
Face Serum	0
Facial Cleanser	0.2
Facial Mask	0
Facial Moisturizer	1
Facial Scrub	0
Facial Serum	1.25
Fantasy Novel	0
Fiction Novel	0.55
Filing Cabinet	0
Fishing Rod	0
Fishing Tackle	0.05
Fitness Band	0
Fitness Tracker	0.7
Floral Dress	0
Food Processor	0.65
Foot Cream	0
Game Console	0
Gaming Console	0.3
Gaming Laptop	0.17
Garden Tools	0
Golf Bag	0
Golf Ball	0
Golf Club	0
Golf Clubs	0
Gourmet Coffee Beans	0.22
GPS Device	0.05
GPS Watch	0
Graphic Novel	0
Hair Conditioner	0
Hair Dryer	0.2
Hair Mask	0

Hair Oil	0
Hair Straightener	0.05
Hairbrush	0.05
Hairdryer	0
Hand Cream	0.05
Hand Sanitizer	0.05
Hand Soap	0
Hardcover Novel	0.13
Hat	0.05
HDMI Cable	0.1
High-Heeled Shoes	0.1
High-Resolution Monitor	0
Hiking Backpack	0.05
Hiking Boots	0
Historical Document	0
Historical Fiction	0
Historical Fiction Book	0
Historical Novel	0
Home Security Camera	0.05
Hoodie	0.1
Ice Cream Maker	0
Ice Skates	0
Inflatable Boat	0
Iron	0.05
Jacket	0
Jumper	0
Jumpsuit	1.9
Kayak	0
Keyboard	0
Kitchen Scale	0
Knit Hat	0.05
Knitted Scarf	0
Laptop Bag	0
Laptop Stand	0.1
Lawn Mower	0.17
Leather Bag	0
Leather Belt	0
Leather Boots	0.2
Leather Gloves	0.05
Leather Jacket	0.18
Leather Wallet	0.05
LED Lights	0.25
Lip Balm	0.1
Lip Gloss	0.4
Lipstick	0
Long Sleeve Dress	0
Long Sleeve Shirt	0.05

Makeup Brush	0.05
Makeup Kit	0
Makeup Remover	0
Maxi Dress	0
Memory Card	0
Microwave Oven	0.13
Mini Fridge	0.05
Mini Projector	0
Mirror	0
Moisturizer	0
Mountain Bike	0
Mountaineering Boots	0
Mystery Novel	0.65
Nail Care Set	0
Nail Polish	0
Noise-Canceling Headphones	0.13
Non-Fiction Book	0
Novel	0.05
Office Chair	0
Organic Almonds	0.17
Organic Honey	0.18
Outdoor Grill	0
Overcoat	0
Pajamas	0.05
Pajamas Set	0
Perfume	0
Phone Case	0.1
Phone Charger	0
Photo Frame	0
Plant Pot	0
Poetry Collection	0
Polo Shirt	0
Portable Battery Pack	0.2
Portable Charger	0.14
Portable Fan	0
Portable Grill	0.05
Portable Speaker	0
Power Bank	0.25
Power Drill	0
Power Saw	0
Power Strip	0
Printer	0.17
Projector	0
Puffer Jacket	0
Rain Jacket	0
Raincoat	0
Recipe Book	0

Reference Book	0
Robot Vacuum	0.22
Rock Climbing Gear	0
Romance Novel	0.45
Rowing Machine	0.16
Rug	0.15
Running Jacket	0
Running Shoes	0.18
Sandals	0.1
Satchel Bag	0.1
Science Book	0
Science Fiction	0.5
Science Fiction Book	0.05
Science Fiction Novel	0
Self-Help Book	0.225
Shampoo	0.15
Shampoo & Conditioner Set	0.1
Shampoo Set	0
Shaving Cream	0
Shaving Kit	0
Shorts	0
Silk Scarf	0.22
Ski Boots	0.25
Ski Equipment	0
Ski Gloves	0
Ski Jacket	0
Ski Poles	0.05
Skincare Set	0.23
Skirt	0
Sleep Tracker	0
Sleeping Bag	0
Slow Cooker	0.1
Smart Band	0
Smart Doorbell	0.16
Smart Home Hub	0.1
Smart Home Security Camera	0
Smart Light Bulbs	0.18
Smart Plug	0.15
Smart Refrigerator	0.18
Smart Scale	0.1
Smart Speaker	0
Smart Thermostat	0.2
Smart TV	0
Smart TV Stick	0
Smartwatch	0.78
Snowboard	0.1
Snowshoes	0.25

Soccer Gear	0
Sound System	0
Soundbar	0.27
Spices Set	0
Sports Watch	0.1
Suit Jacket	0
Summer Dress	0
Summer Hat	0.05
Summer Skirt	0
Sunglasses	0.22
Sunscreen	0
Surfboard	0
Surge Protector	0
Sweater	0
Sweater Dress	0.65
Sweatshirt	0
Swimming Goggles	0
Swimwear	0
Table Lamp	0.15
Tablet	0.15
Tennis Balls	0
Tennis Racket	0
Tent	0.15
Textbook	0
Throw Blanket	0.05
Throw Pillow	0.5
Tie	0.05
Toaster	0.1
Toner	0.1
Toothpaste	0
Tote Bag	0
Trail Running Shoes	0
Trail Shoes	0
Travel Bag	0
Travel Guide	0.05
Travel Journal	0
Treadmill	0.95
Trekking Poles	0.05
Trench Coat	0.05
TV Stand	0
USB Hub	0
Vacuum Cleaner	0.1
Vase	0
Vest	0
Video Doorbell	0.18
VR Headset	0.18
Walking Shoes	0

Wall Art	0.29
Wall Mirror	0
Washing Machine	0.2
Water Bottle	0
Water Filter	0
Webcam	0.55
Whiteboard	0
Wi-Fi Router	0.2
Winter Coat	0.14
Winter Scarf	0
Wireless Charger	0.05
Wireless Earbuds	0.29
Wireless Mouse	0.1
Wireless Speaker	0
Wool Coat	0.1
Wool Hat	0
Wool Scarf	0.15
Wool Sweater	0.32
Writing Journal	0
Yoga Mat	0.13

Potential Effects of Discount Rates:
Increased sales volume,
Reduced profit margins,
Potential for price sensitivity,
Impact on brand perception

SECTION 12

Product Name	Cost Price	Selling Price	Profit Margin
4K Monitor	**1170**	**900**	**0.15**
Not Recommended	390	300	0.1
Top Notch	390	300	0.05
Will Shop Again	390	300	0
4K Ultra HD TV	**1950**	**1500**	**0.2**
Could Be Better	650	500	0
Good Value For Money	650	500	0.14
Mislabelled	650	500	0.06
Action Camera	**1725**	**1350**	**0.37**
Exceeds Expectations	260	200	0.12
Great Product	260	200	0.1
Mislabelled	250	200	0.05
Missing Accessories	510	400	0
Returning This Item	250	200	0.1
Will Return	195	150	0
Activity Tracker	**300**	**240**	**0.1**
Could Be Better	100	80	0.1
Exceeds Expectations	100	80	0

Not Recommended	100	80	0
Air Conditioner	**1040**	**800**	**0**
Do Not Recommend	520	400	0
Fantastic Experience	520	400	0
Air Fryer	**130**	**100**	**0**
Great Product	130	100	0
Air Purifier	**535**	**400**	**0.13**
Arrived Late	50	40	0
Excellent Quality	145	100	0.08
Mislabelled	105	80	0
Nice Experience	105	80	0
Not Recommended	65	50	0
Very Fast Service	65	50	0.05

While profit margin can be a factor in customer satisfaction, it's not the sole determinant. Other factors like product quality, features, customer expectations, and pricing strategy also play significant roles. By collecting more data and analyzing customer feedback, businesses can make informed decisions about product offerings, pricing, and marketing strategies to improve customer satisfaction and overall performance.