RETAIL SALES ANALYSIS

in excel

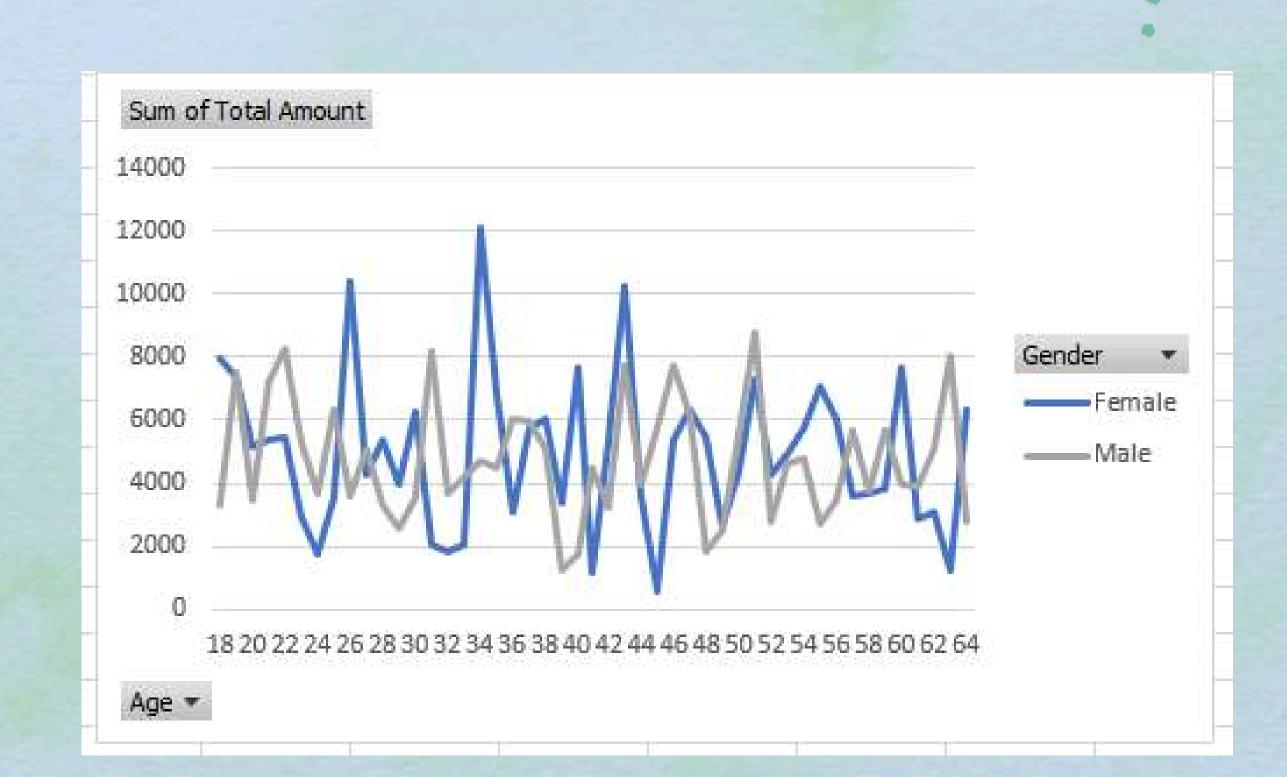
INTRODUCTION

THIS DATASET IS A SNAPSHOT OF A FICTIONAL RETAIL LANDSCAPE, CAPTURING ESSENTIAL ATTRIBUTES THAT DRIVE RETAIL OPERATIONS AND CUSTOMER INTERACTIONS. IT INCLUDES KEY DETAILS SUCH AS TRANSACTION ID, DATE, CUSTOMER ID, GENDER, AGE, PRODUCT CATEGORY, QUANTITY, PRICE PER UNIT, AND TOTAL AMOUNT. THESE ATTRIBUTES ENABLE A MULTIFACETED EXPLORATION OF SALES TRENDS, DEMOGRAPHIC INFLUENCES, AND PURCHASING BEHAVIORS.

DATASET:

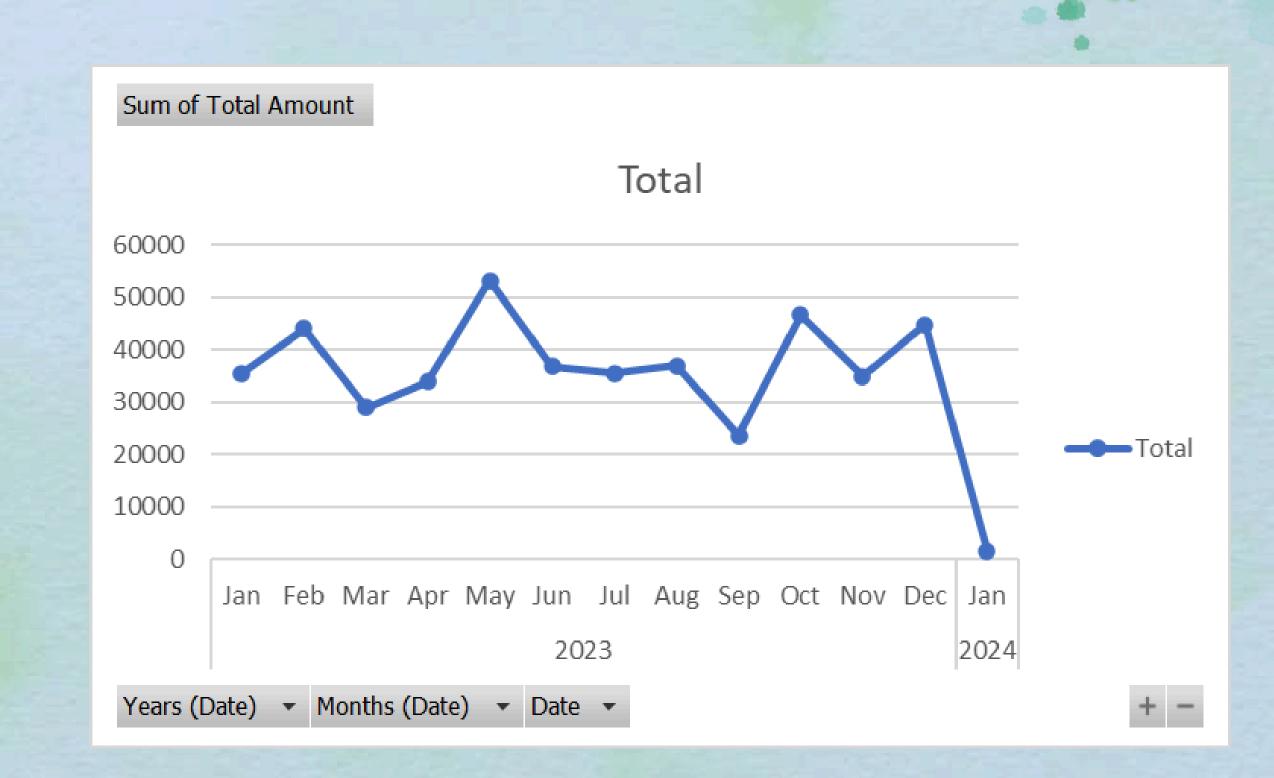
	Transaction ID 💌 Date	e	ıstomer ID 🔻 (Gender 💌	Age 🔽	Product Category 💌	Quantity -	Price per Unit 💌	Total Amount
	1	24-11-2023 CU	JST001 N	Male	34	Beauty	3	50	150
	2	27-02-2023 CU	JST002 F	Female	26	Clothing	2	500	1000
	3	13-01-2023 CU	JST003 N	Male	50	Electronics	1	30	30
Ħ.	4	21-05-2023 CU	JST004	Male	37	Clothing	1	500	500
	5	06-05-2023 CU	JST005 N	Male	30	Beauty	2	50	100
	6	25-04-2023 CU	JST006 F	Female	45	Beauty	1	30	30
	7	13-03-2023 CU	JST007	Male	46	Clothing	2	25	50
	8	22-02-2023 CU	JST008	Male	30	Electronics	4	25	100
)	9	13-12-2023 CU	JST009	Male	63	Electronics	2	300	600
	10	07-10-2023 CU	JST010 F	Female	52	Clothing	4	50	200
	11	14-02-2023 CU	JST011 N	Male	23	Clothing	2	50	100
	12	30-10-2023 CU	JST012	Male	35	Beauty	3	25	75
1	13	05-08-2023 CU	JST013	Male	22	Electronics	3	500	1500
-	14	17-01-2023 CU	JST014	Male	64	Clothing	4	30	120
ij	15	16-01-2023 CU	JST015 F	Female	42	Electronics	4	500	2000
	16	17-02-2023 CU	JST016	Male	19	Clothing	3	500	1500
	17	22-04-2023 CU	JST017 F	Female	27	Clothing	4	25	100
	18	30-04-2023 CU	JST018 F	Female	47	Electronics	2	25	50
)	19	16-09-2023 CU	JST019 F	Female	62	Clothing	2	25	50
	20	05-11-2023 CU	JST020	Male	22	Clothing	3	300	900
	21	14-01-2023 CU	JST021 F	Female	50	Beauty	1	500	500
	22	15-10-2023 CU	JST022	Male	18	Clothing	2	50	100

How does customer age and gender influence their purchasing behavior?



- FEMALE CUSTOMERS EXHIBIT A HIGHER FREQUENCY OF PURCHASES COMPARED TO THEIR MALE COUNTERPARTS.
- WOMEN AGED 26 DEMONSTRATE A HIGHER PURCHASING FREQUENCY COMPARED TO MEN OF THE SAME AGE.
- THE AGE GROUP OF 34-36 ALSO SHOWS A HIGHER PURCHASING FREQUENCY AMONG FEMALES COMPARED TO MALES.

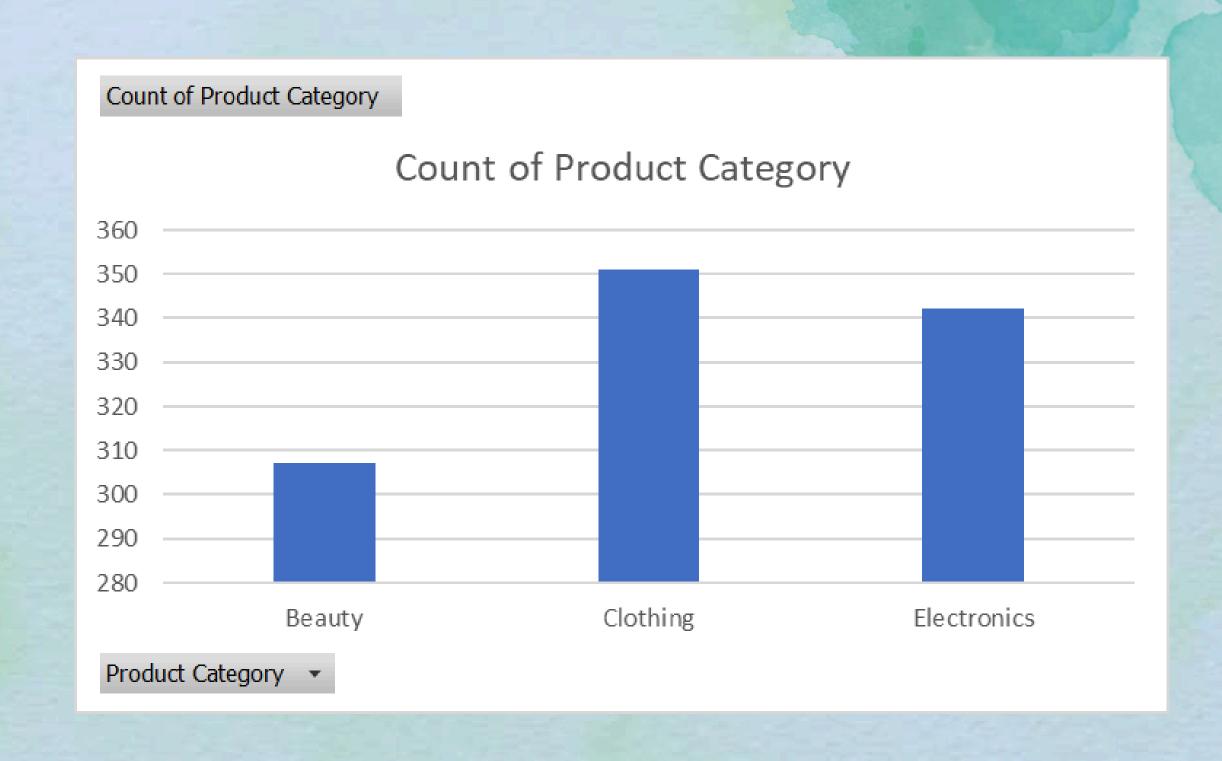
Are there discernible patterns in sales across different time periods?

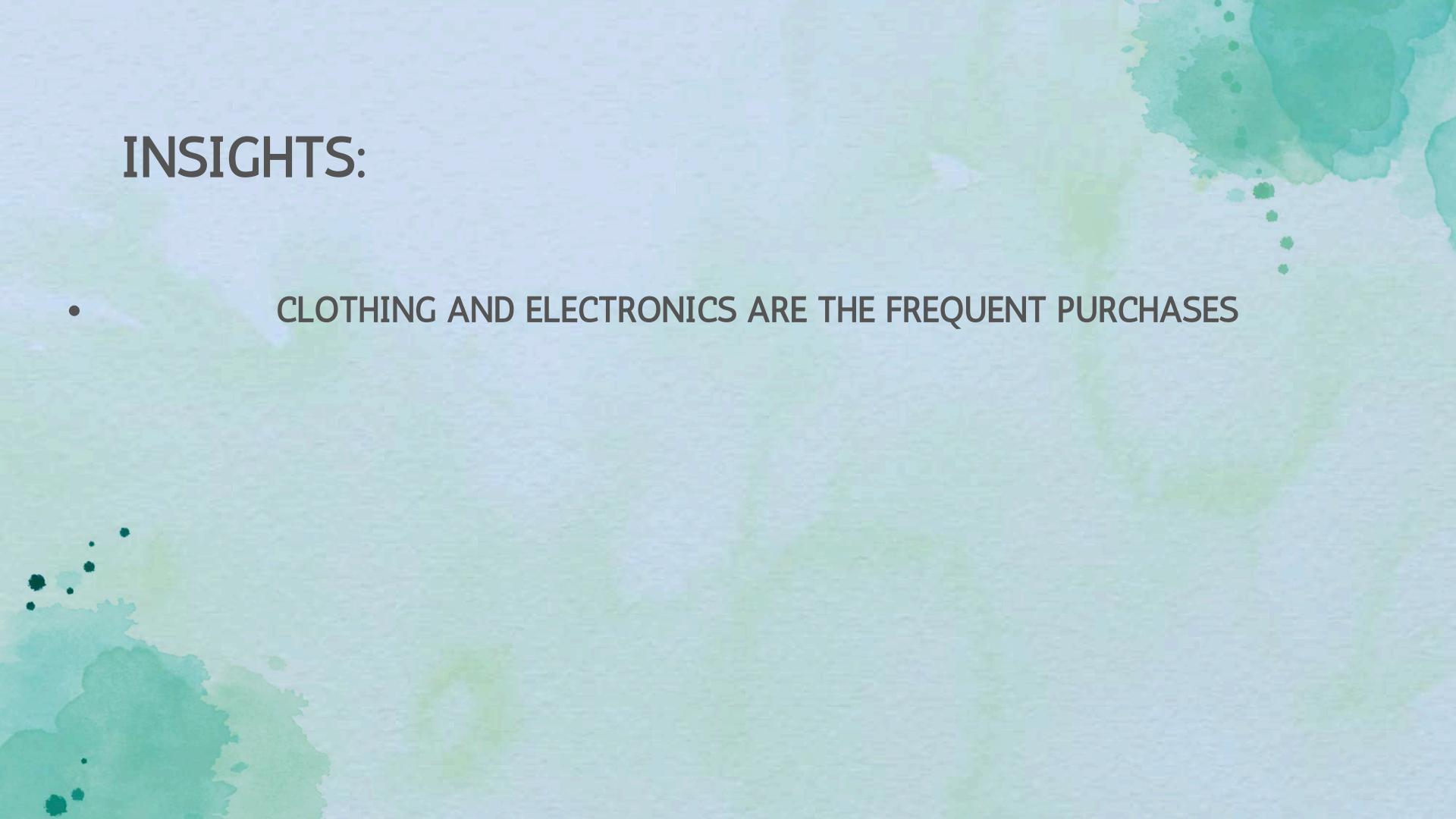




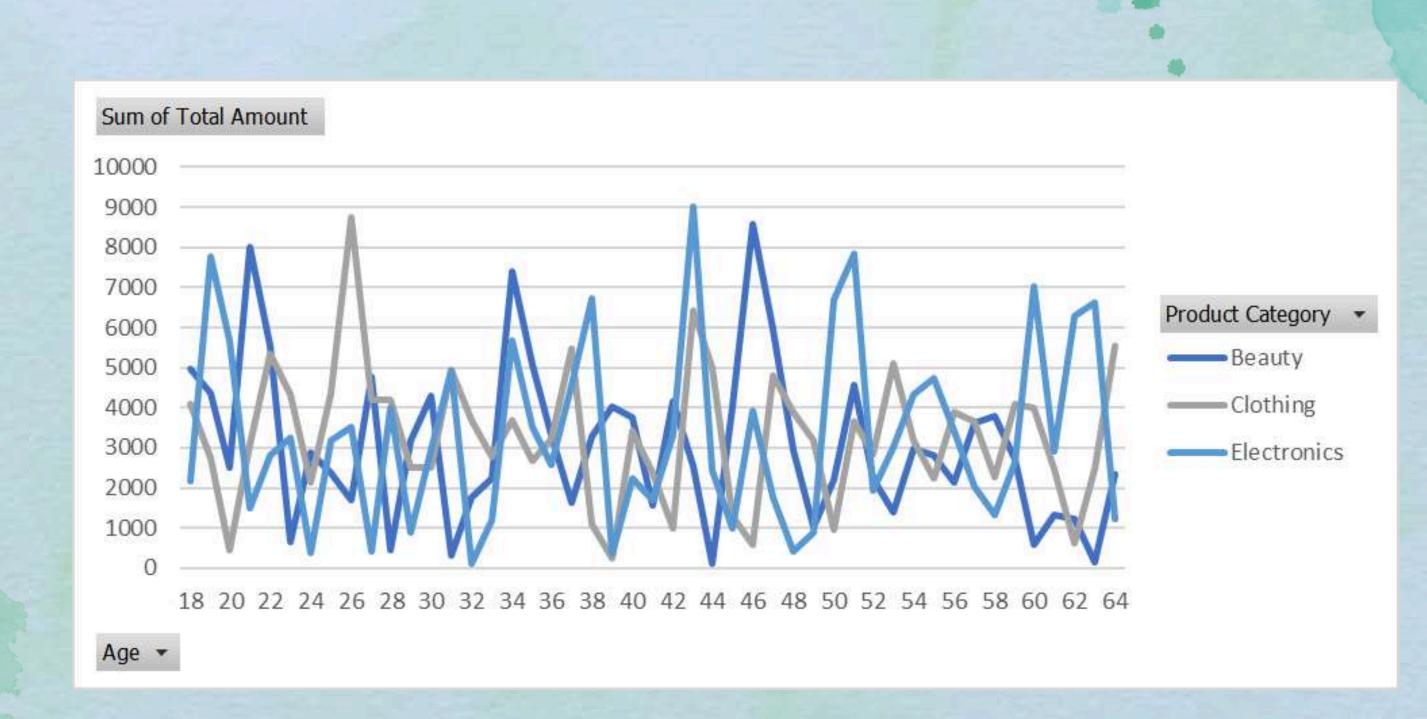
- MAY EXHIBITS THE HIGHEST PEAK IN PURCHASING ACTIVITY.
- SEPTEMBER SHOWS A SIGNIFICANT DECLINE IN PURCHASING ACTIVITY.
- JANUARY 2024 ALSO EXPERIENCED A NOTABLE DECLINE IN PURCHASING COMPARED TO JANUARY 2023.

Which product categories hold the highest appeal among customers?



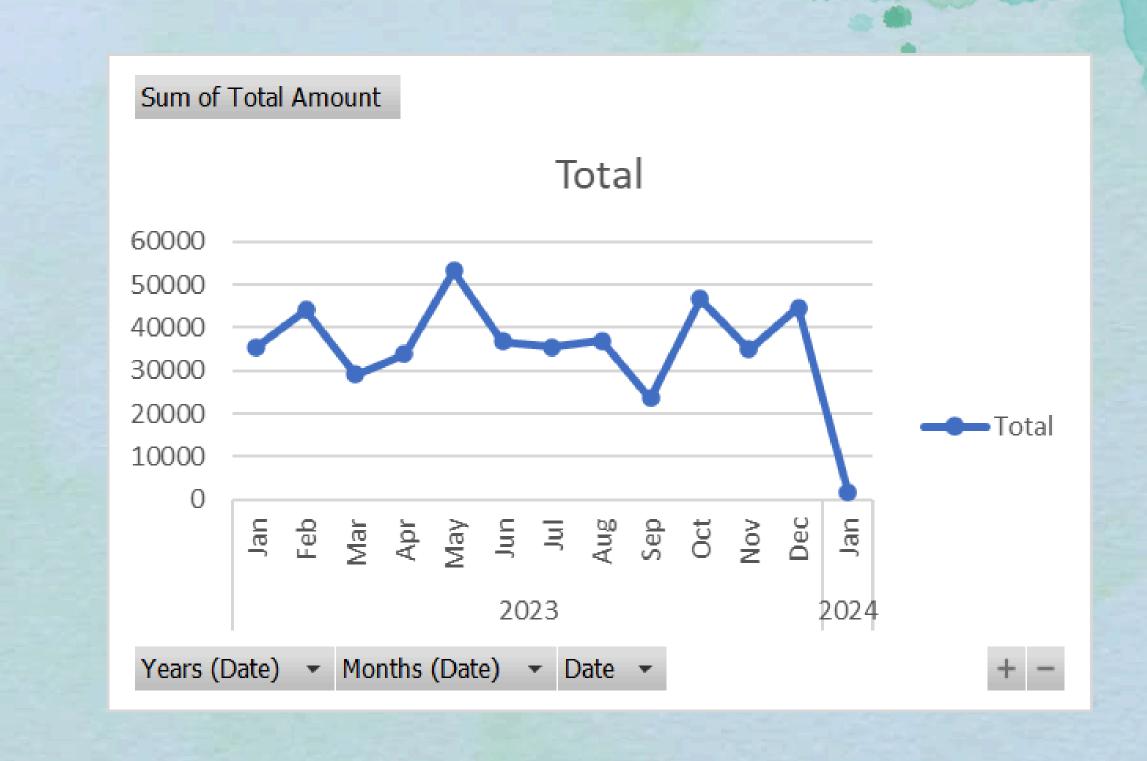


What are the relationships between age, spending, and product preferences?



- CUSTOMERS AGED 20-22 AND 40-42 SHOW SIGNIFICANT PURCHASING ACTIVITY
 IN BOTH THE CLOTHING AND BEAUTY CATEGORIES.
- CUSTOMERS AGED 50 AND ABOVE SHOW MINIMAL OR NO PURCHASES IN THE CLOTHING AND BEAUTY CATEGORIES.
- BOTH THE 18-20 AGE GROUP AND CUSTOMERS AGED 55-60 ARE ACTIVELY
 PURCHASING ELECTRONICS.

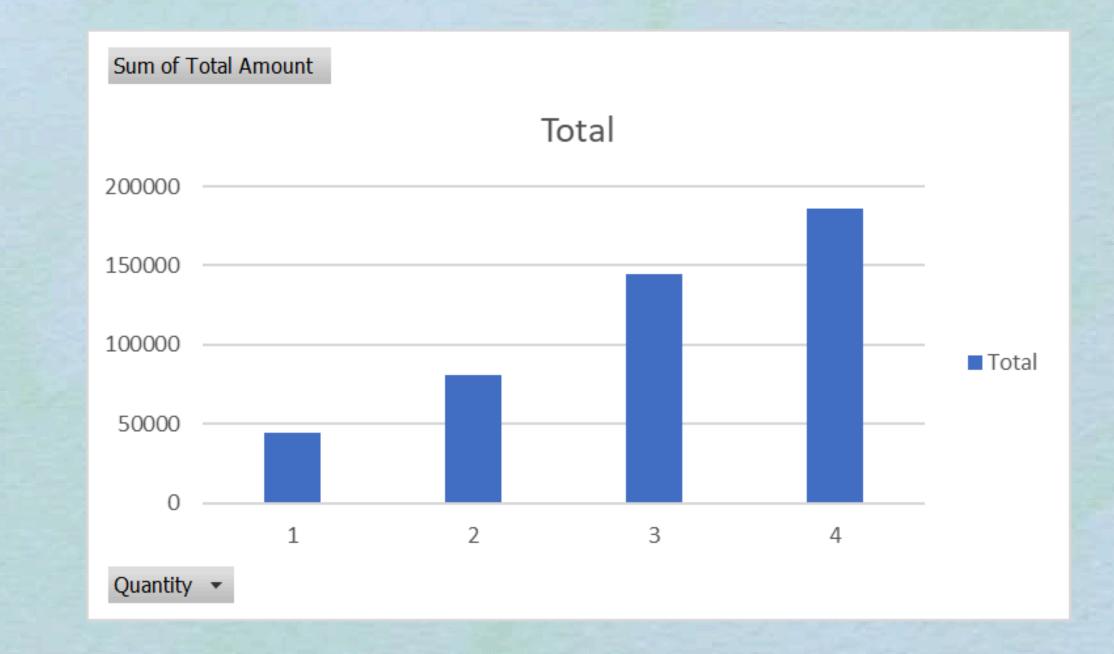
How do customers adapt their shopping habits during seasonal trends?





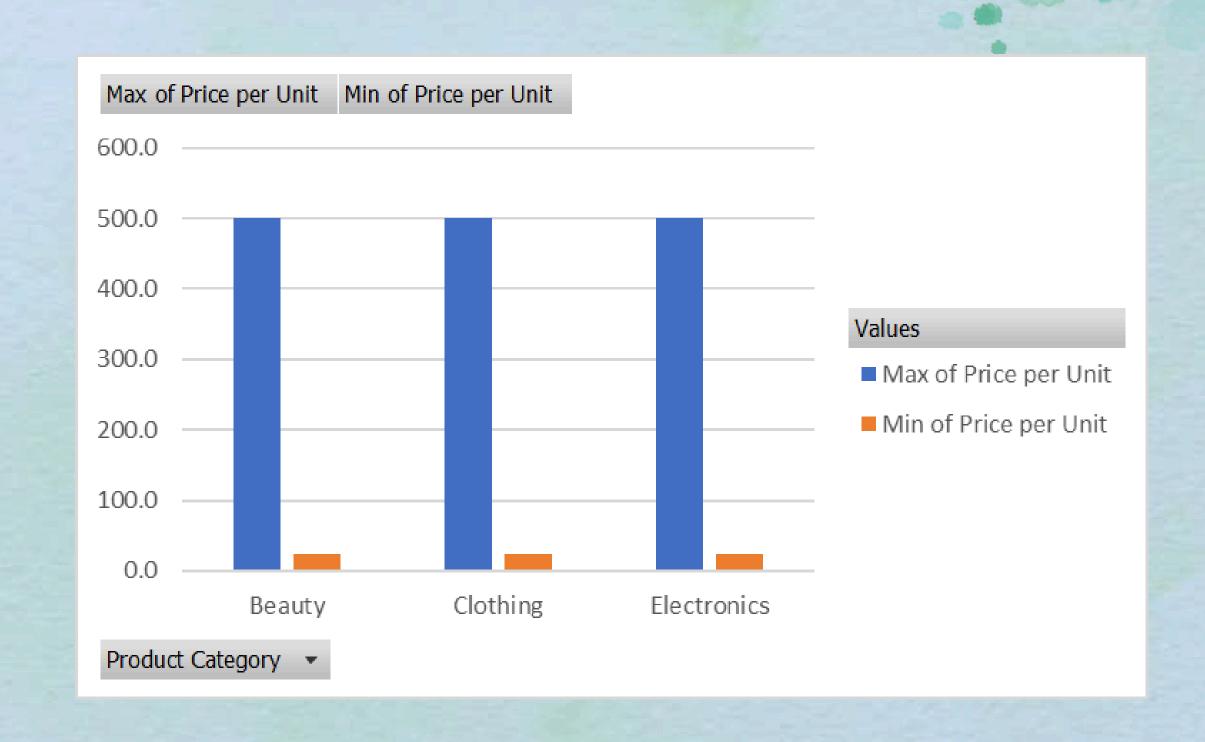
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Are there distinct purchasing behaviors based on the number of items bought per transaction?



• AS THE QUANTITY OF ITEMS PURCHASED IN A TRANSACTION INCREASES, THE TOTAL SALES VALUE TENDS TO RISE. THIS IS DUE TO THE STRAIGHTFORWARD RELATIONSHIP BETWEEN QUANTITY AND TOTAL AMOUNT SPENT.

What insights can be gleaned from the distribution of product prices within each category?



BEAUTY CATEGORY

- PRICE RANGE: THE PRICES FOR BEAUTY PRODUCTS RANGE FROM \$25 TO \$500. CLOTHING CATEGORY
- PRICE RANGE: CLOTHING PRICES VARY FROM \$25 TO \$500.

 ELECTRONICS CATEGORY
- PRICE RANGE: PRICES FOR ELECTRONICS SPAN FROM \$25 TO \$500.

RECOMMENDATIONS

- TARGETED MARKETING: FOCUS PROMOTIONS ON KEY DEMOGRAPHICS, SUCH AS WOMEN IN THE 20-22 AND 40-42 AGE BRACKETS FOR CLOTHING AND BEAUTY, AND BOTH YOUNGER AND OLDER ADULTS FOR ELECTRONICS.
- <u>SEASONAL PROMOTIONS:</u> DEVELOP TARGETED CAMPAIGNS TO CAPITALIZE ON PEAK PURCHASING PERIODS AND ADDRESS DECLINES DURING SLOWER MONTHS.
- <u>BULK BUYING INCENTIVES:</u> IMPLEMENT STRATEGIES TO ENCOURAGE LARGER PURCHASES, SUCH AS VOLUME DISCOUNTS OR BUNDLED OFFERS.
- INVENTORY MANAGEMENT: OPTIMIZE INVENTORY LEVELS TO MATCH PURCHASING TRENDS AND AVOID STOCKOUTS OR OVERSTOCK SITUATIONS.
- PRICE STRATEGY ADJUSTMENTS: MAINTAIN CONSISTENT PRICING IN BEAUTY FOR AFFORDABILITY, OFFER A WIDE RANGE IN CLOTHING TO SUIT VARIOUS BUDGETS, AND ENSURE ELECTRONICS PRICING REFLECTS THE DIVERSE PRODUCT LINE.



