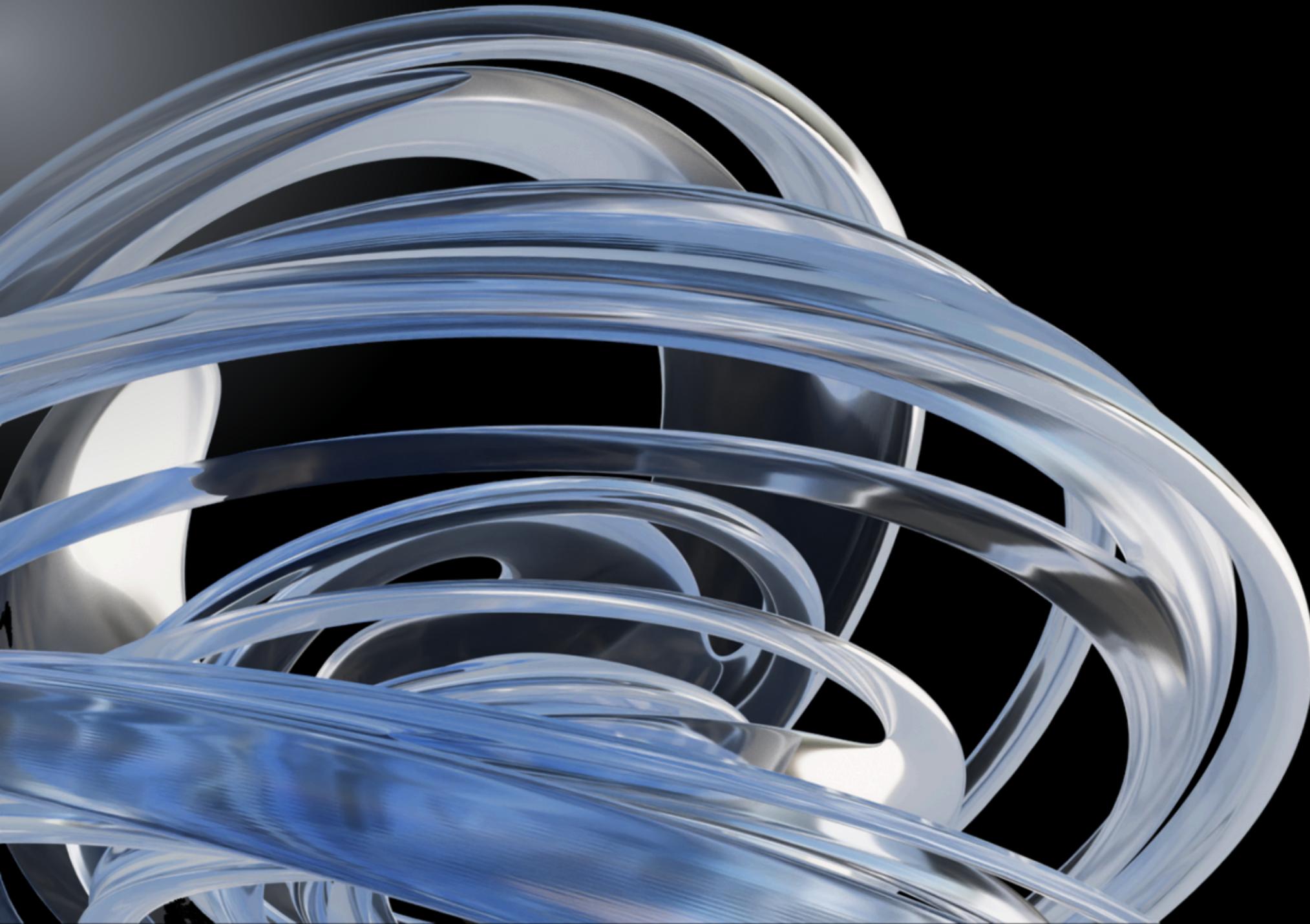


RETAIL INSIGHTS FOR TECHSTYLE RETAIL GROUP

SQL FINDINGS BY
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INTRODUCTION



TechStyle Retail Group is an online retailer which entered the market two years ago. By utilizing SQL, actionable insights to improve customer sales are possible with the data acquired.

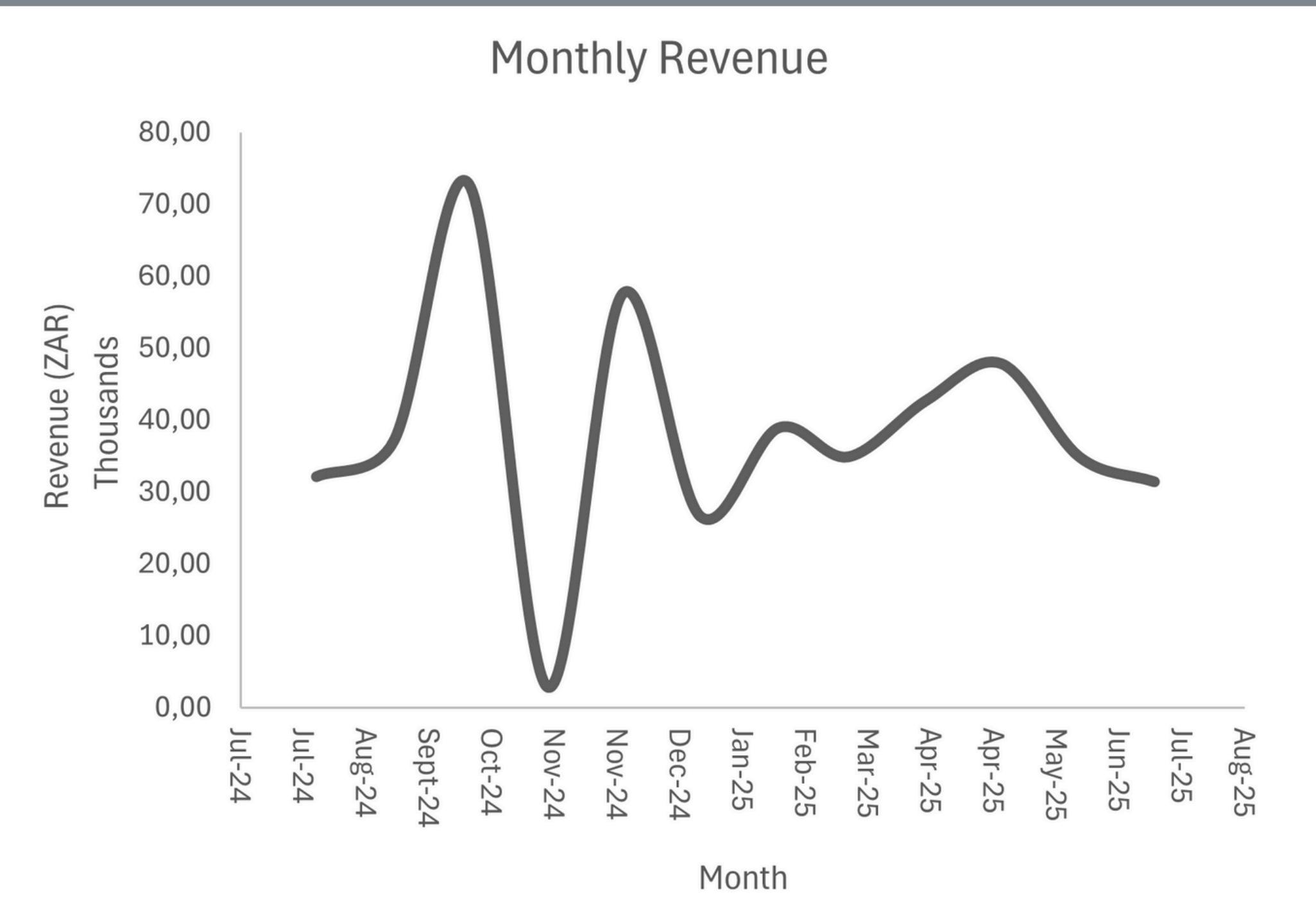
HIGHLIGHTS

- October and December were some of the Best Performing Months
- The Top Grossing Category was Kitchen Products
- 96 Products had Almost no Sales but are High in Stock

REVENUE

The following SQL query were used to find the monthly revenue of TechStyle Group during the past year in figure 1 (appendix).

Monthly Revenue Trend of the Past Year



Insights:

- October of 2024 had the highest revenue and November of 2024 had the lowest. The dramatic change in revenue could be due to various factors including:
 - Specials which took place during the month of October
 - Black Friday specials in November could have decreased online sales and increase in-store sales.
- Sales increased again in December of 2024 which could be influenced due to the holiday season.

TOP GROSSING PRODUCT CATEGORIES

The following SQL query in figure 2, were used to find the top grossing product categories of TechStyle Group.

Category	Total Revenue (ZAR)
Kitchen	24,049,094,500.95
Outdoor	12,543,890,947.86
Food - Snacks	9,856,080,704.26
Beauty	8,403,496,205.35
Home	8,095,167,473.25
Food - Nuts	4,893,680,258.48
Food - Baked Goods	4,862,003,619.30
Clothing - Outerwear	4,590,789,671.51
Food - Produce	3,854,568,106.71
Food - Canned Goods	3,523,815,454.17
Food - Meat	3,043,715,929.65
Food - Baking Goods	1,939,276,639.08
Crafts	1,656,704,703.60
Food - Soups	1,623,403,313.83
Food - Frozen Foods	687,871,827.75
Food - Prepared Meals	596,046,820.16
Garden	154,018,343.71

Business Suggestions:

- Expand the top three category's variety
- Research customer reviews on top products to find further insights in how to improve

TOP SELLING PRODUCTS PER CATEGORY

In figure 3, the top sellers per product category were acquired giving the following data. From this data, the business could benefit by ordering more of these products and to increase the variety available.

Category	Product	Total Revenue (ZAR)
Beauty	Skincare Fridge	5,556,313,860.99
Beauty	Body Wash	2,847,182,344.36
Clothing - Outerwear	Denim Jacket	4,590,789,671.51
Crafts	Electric Heat Press Machine	1,656,704,703.60
Food - Baked Goods	Raspberry Tart	4,862,003,619.30
Food - Baking Goods	Organic Whole Wheat Flour	1,939,276,639.08
Food - Canned Goods	Mushroom Soup (canned)	3,523,815,454.17
Food - Frozen Foods	Frozen Berry Medley	687,871,827.75
Food - Meat	Pineapple Teriyaki Chicken Mix	3,043,715,929.65
Food - Nuts	Garlic Parmesan Roasted Nuts	4,893,680,258.48
Food - Prepared Meals	Fettuccine Alfredo Dinner Kit	596,046,820.16
Food - Produce	Organic Fruit Salad	3,854,568,106.71
Food - Snacks	Honeycrisp Apple Chips	5,621,601,082.72
Food - Snacks	Chocolate Peanut Butter Cups	4,234,479,621.54
Food - Soups	Spicy Thai Coconut Soup	1,623,403,313.83
Garden	Adjustable Kneeling Pad	154,018,343.71
Home	Shower Curtain Hooks	8,095,167,473.25
Kitchen	Aeropress Coffee Maker	7,794,719,708.92
Kitchen	Non-Stick Baking Sheets	5,572,601,980.52
Kitchen	Pasta Maker Machine	5,087,648,172.78
Kitchen	Juice Extractor	3,491,891,105.22
Kitchen	Personal Blender with Cups	1,308,414,339.84
Outdoor	Travel Beach Blanket	6,587,583,387.18
Outdoor	Shatterproof Wine Glasses	3,947,819,525.00
Outdoor	Compact Pop-Up Tent	2,008,488,035.68

TOP 10 CUSTOMERS

The top 10 customers by total lifetime value were acquired by the code used in fig 4.

Customer ID	Name	Total Revenue (ZAR)
708	Muriel Garoghan	9,764,349,649.11
75	Neale Danilevich	9,504,133,385.99
601	Inness McGifford	8,809,131,348.93
786	Nerty Nower	7,794,719,708.92
323	Arnoldo106 Goley	7,026,924,811.86
751	Vinnie Banasik	5,780,577,237.97
417	Matthieu Berfoot	5,577,390,002.80
743	Hagan McGrill	5,022,330,864.10
719	Norrie Knotte	4,893,680,258.48
640	Cory Cranney	4,862,003,619.30

Business Suggestions:

- Customer order history could indicate which products are popular based on repeat orders and work well.
- Questionares could be sent to these customers to obtain the following information:
 - Why they buy these products from our business?
 - How could we improve as a business?

PRODUCTS WITH POOR SALES

The following 96 products were found to have high stock quantities with poor sales by utilizing the code in fig 5.

Product Name	Stock Quantity	Product Revenue (ZAR)
Compact Pop-Up Tent	997	20,084,880,356,800
Chickpeas	995	0
Sun-Dried Tomato Pesto	985	0
Lemon Herb Chicken	982	0
Personal Blender	980	0
Whole Grain Mustard	974	0
Infrared Space Heater	965	0
Wire Shelving Unit	948	0
Pumpkin Puree	939	0
Lentil Soup (canned)	933	0
Travel Beach Blanket	929	658,758,338,718
Backpack	926	0
Thai Red Curry Paste	905	0
Ramen Noodles	904	0
Herb Seasoned Couscous	903	0
Tea Infuser	896	0
Non-Stick Grill Pan	867	0
Slim Wallet	863	0
Spaghetti Sauce	863	0
Shower Curtain Hooks	852	809,516,747,325
Ergonomic Gaming Chair	841	0
Mesh Laundry Bags Set	840	0
Sunglasses	834	0
Shatterproof Wine Glasses	816	394,781,952,500
Electric Wax Warmer	815	0
Fitness Tracker	804	0
Ready-to-Eat Chili	786	0
White Rice	785	0

Product Name	Stock Quantity	Product Revenue (ZAR)
Organic Fruit Salad	784	385,456,810,671
Beach Cover-Up	782	0
Body Wash	754	284,718,234,436
Banana Chips	749	0
Brown Sugar	739	0
Brown Rice	737	0
Outdoor Mosquito Repellent Lantern	737	0
Garlic Parmesan Roasted Nuts	735	489,368,025,848
Electric Knife	712	0
Ready-to-Eat Chili	698	0
Kale Chips	680	0

PRODUCTS WITH POOR SALES

CONTINUED...

Recipe Book Stand	675	0
Skincare Set	637	0
LED Desk Lamp	629	0
Spicy Thai Coconut Soup	626	162,340,331,383
Electric Heat Press Machine	600	165,670,470,36
Digital Wireless Camera	599	0
Honeycrisp Apple Chips	598	562,160,108,272
Raisin Cinnamon Granola	585	0
Maple Bacon Potato Chips	576	0
Memory Foam Pillow	574	0
High-Speed HDMI Cable	567	0
Portable Charger with Solar Panel	559	0
Cinnamon Roll Kit	554	0
Chocolate Peanut Butter Cups	542	423,447,962,154
Multi-Port USB Hub	528	0
Mango Chutney	502	0
Skincare Fridge	466	555,631,386,09
Personal Blender with Cups	447	130,841,433,984

Product Name	Stock Quantity	Product Revenue (ZAR)
Protein Powder	432	0
Heat-Resistant Silicone Mat	426	0
Wireless Charger Stand	423	0
Mango Chia Pudding	422	0
Juice Extractor	401	349,189,110,522
Frozen Berry Medley	387	68,787,182,775
Fettuccine Alfredo Dinner Kit	384	59,604,682,016
Mushroom Soup (canned)	367	352,381,545,417
Classic Slim Fit Shirt	363	0
Tea Set with Infuser	358	79,381,919,367
Buffalo Cauliflower Bites	351	0
Thyme	341	0
Denim Jacket	337	459,078,967,151
Herbed Goat Cheese	321	0
Pet Leash	282	0
Baby Monitor	264	0
Sweet Pea Hummus	252	0
Mini Indoor Hydroponic Garden	247	0
Multi-Function Smartphone Holder	244	0
Non-Stick Baking Sheets	240	557,260,198,052
Organic Whole Wheat Flour	233	193,927,663,908
Sliced Bread	213	0
Feta Cheese	210	0

CUSTOMERS WITH MORE THAN ONE ORDER

The percentage of customers with more than 1 order were found with the SQL query in fig 6. This percentage was found to be **36.9%**

CUSTOMER ORDER AND EMAIL DISCREPANCIES

Customer order and email discrepancies were found using the SQL queries in figures 7 and 8. The products which quantity sum price does not match the order total sales are in figure A. However, no duplicate emails were found during the search for email discrepancies.

CUSTOMER ORDER TOTALS DO NOT MATCH THE PRODUCT PRICE TOTAL FOR THE QUANTITY

FIGURE A

Order ID	Product ID	Product Price	Quantity	Order Amount	Sum of Product
876.00	568.00	59.99	597.00	8,522,023.74	8,522,023.74
73.00	255.00	29.99	829.00	663,776.98	24,861.71
732.00	95.00	4.49	455.00	3,944,839.72	2,042.95
21.00	463.00	12.99	845.00	9,580,079.85	10,976.55
495.00	219.00	99.99	522.00	3,173,763.80	52,194.78
930.00	689.00	29.99	834.00	7,482,654.91	25,011.66
21.00	462.00	34.99	396.00	1,802,939.08	13,856.04
788.00	692.00	18.99	77.00	2,000,238.23	1,462.23
119.00	975.00	12.99	718.00	3,965,435.02	9,326.82
498.00	42.00	3.49	770.00	7,243,363.64	2,687.30
777.00	611.00	69.99	791.00	5,803,779.61	55,362.09
245.00	479.00	5.49	510.00	9,533,340.43	2,799.90
807.00	334.00	3.99	232.00	1,114,815.06	925.68
69.00	336.00	2.29	626.00	5,943,947.61	1,433.54
263.00	318.00	99.99	931.00	3,750,688.62	93,090.69
275.00	462.00	34.99	189.00	422,514.91	6,613.11
485.00	368.00	2.99	396.00	4,897,163.23	1,184.04
92.00	536.00	39.99	701.00	7,926,267.99	28,032.99

FIGURE A CONTINUED

Order ID	Product ID	Product Price	Quantity	Order Amount	Sum of Product
492.00	85.00	5.49	365.00	1,884,580.35	2,003.85
188.00	334.00	3.99	373.00	3,658,890.67	1,488.27
3.00	267.00	69.99	952.00	2,109,756.34	66,630.48
684.00	42.00	3.49	21.00	2,105,289.52	73.29
119.00	689.00	29.99	456.00	761,072.79	13,675.44
930.00	767.00	2.49	737.00	4,781,296.41	1,835.13
187.00	798.00	4.89	538.00	9,096,059.96	2,630.82
700.00	778.00	6.99	495.00	6,148,921.07	3,460.05
547.00	293.00	5.49	352.00	1,693,314.83	1,932.48
774.00	677.00	29.99	892.00	8,738,475.01	26,751.08
206.00	210.00	34.99	192.00	6,814,658.02	6,718.08
830.00	95.00	4.49	479.00	4,299,929.09	2,150.71
256.00	255.00	29.99	530.00	9,476,095.97	15,894.70
510.00	236.00	24.99	650.00	6,073,568.50	16,243.50
762.00	336.00	2.29	684.00	750,831.02	1,566.36

RECOMMENDATIONS

- 1. Research Lowest Product Reviews**
- 2. Compare Price Point with Other Retailers and Research Lower Cost Manufacturers or Shipping**
- 3. Ask for Customer Feedback**
- 4. Expand the Top Categories Variety in Products**



APPENDIX

Figure 1: SQL Code for Monthly Revenue

```
--MONTHLY REVENUE OVER THE PAST YEAR  
SELECT  
TOP 12 YEAR(order_date) AS Year,
```

Figure 2: SQL Code for Top Grossing Product Categories

```
--WHICH PRODUCT CATEGORIES GENERATE THE MOST REVENUE  
SELECT  
p.category,  
SUM(oi.quantity * oi.price) AS total_revenue  
FROM products AS p
```

Figure 3: Top Sellers per Category

```
-- THE TOP 5 BEST SELLING PRODUCTS PER CATEGORY  
SELECT  
category,  
product_name,
```

Figure 4: Top 10 Customers by Lifetime Value

```
-- TOP 10 CUSTOMERS BY LIFETIME VALUE  
SELECT  
customer_id,  
name,  
total_revenue
```

Figure 5: Products with Poor Sales and High Stock Quantities

```
--Which products have high stock but poor sales  
SELECT  
product_name,  
stock_quantity,  
total_revenue
```

Figure 6: Percentage of Customers with more than One Order

```
--Percentage of customers with more than 1 order  
WITH OrderCounts AS (  
SELECT customer_id, COUNT(order_id) AS num_orders
```

Figure 7: Orders in which the Sum of Items do not Match the Order Price

```
--ANY ORDERS WHERE TOTAL AMOUNT NOT = SUM OF ITEMS  
SELECT  
p.price AS productprice,  
oi.price AS orderamount,
```

Figure 8: Duplicate Emails

```
--IDENTIFY DUPLICATE EMAILS IN CUSTOMER TABLE  
SELECT  
email,
```