

Sales Performance Analysis

Project Based Internship

Presented by
Ragita Anillya Putri P.



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About You

Hi! I'm Ragita Anillya Putri, a Mathematics freshgraduate from Universitas Ahmad Dahlan. Passionate about Data Analysis and Machine learning, with experience in ML modeling, statistical analysis, and data processing using Python, SQL, and data visualization tools.

 [Ragita Anillya](#)

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Experiences

Mentor at Faculty's Pusat Studi Data Science

Taught data processing using Excel, Word, and Python, guiding participants through real examples and making technical topics easier to understand..

Studi Independen Bangkit Academy

Contributed to developing a machine learning-based plant disease detection app with 82.81% validation accuracy, solving ML challenges through data analysis and critical thinking, and presenting the workflow and key results to audiences.

Secretary

Managed documentation and admin work during student elections, coordinating with various parties to keep events organized and running smoothly.

Case Study

PT Sejahtera Bersama faces challenges in managing sales data stored separately in several tables such as Customers, Products, Orders, and ProductCategory. The management needs an integrated analytical system to transform this data into insights that support strategic decisions.

As a Business Intelligence Analyst, I worked on integrating multiple data sources, analyzing sales patterns, and providing data-driven recommendations to improve revenue and profitability through these stages :

1. Database Structure Analysis – Identify primary keys to maintain data integrity
2. Relationship Mapping – Create an ERD to understand how the tables are connected
3. Data Integration – Build a master table with eight analytical dimensions
4. Interactive Dashboard – Visualize seven key metrics in Looker Studio
5. Strategic Recommendations – Present insights and business suggestions to drive company growth

TOOLS



Google
BigQuery



Looker Studio



Excel

Primary Key

- **Customer Table**

Primary key : CustomerID

CustomerID	FirstName	LastName	CustomerEmail
1368	Buck	Meiklam	bmeiklamiv@myspace.com
260	Charlena	Lille	clillea8@nasa.gov#mailto:c
1694	Robinia	Balog	rbalogiw@arstechnica.com
1480	Bryna	Cumberpatch	bcumberpatchjr@auda.org. #mailto:bcumberpatchjr@a a.org.au#
244	Jobie	Pinchen	jpinchen15@behance.net#

- **ProductCategory Table**

Primary key : CategoryID

CategoryID	CategoryName	CategoryAbbreviation
1	Blueprints	BP
2	Drone Kits	DK
3	Drones	DS
4	eBooks	EB
5	Robot Kits	RK

- **Orders Table**

Primary key : OrderID

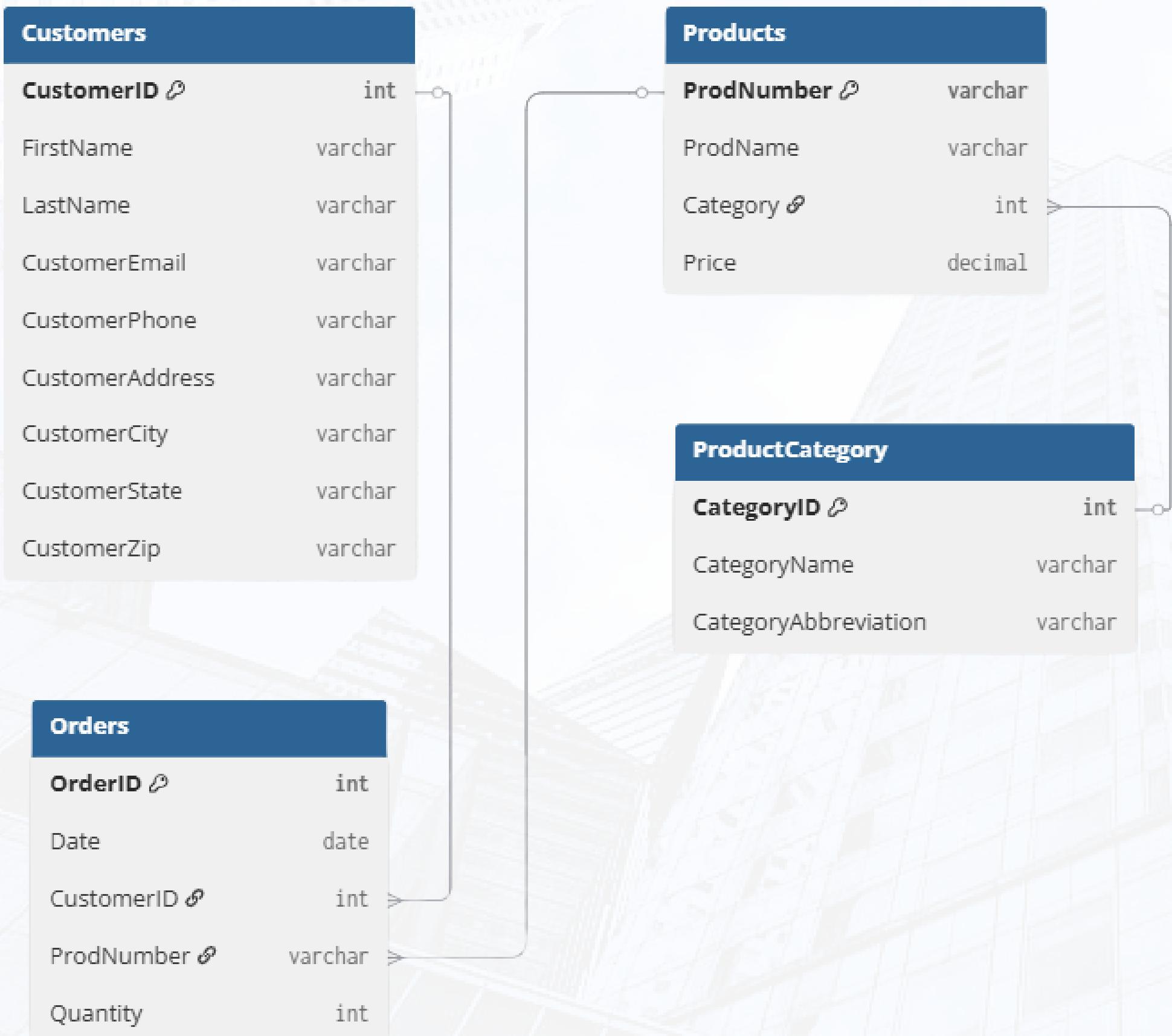
Date	CustomerID	ProdNumber	Quantity
1758	2021-01-15	923	BP101
404	2020-03-26	1256	BP101
575	2020-05-06	635	BP101
1098	2020-08-25	1480	BP101
1320	2020-10-10	534	BP101

- **Products Table**

Primary key : ProdNumber

ProdNumber	ProdName	Category	Price
1	Cat Robot Blueprint	1	
1	Panda Robot Blueprint	1	
1	Bsquare Robot Blueprint	1	
1	Hexacopter Drone Blueprint	1	
1	All Eyes Drone Blueprint	1	

Entity Relationship Diagram (ERD)



- Orders Customers**

Each customer can place multiple orders, but every order belongs to only one customer. (One-to-Many relationship via the CustomerID column).

- Orders Products**

A single product can appear in multiple orders, but each order contains only one specific product. (One-to-Many relationship via the ProdNumber column.)

- Products OrderCategory**

Each product category includes multiple products, while each product belongs to only one category. (One-to-Many relationship via the CategoryID → Category column.)

Master Table Query

```
CREATE TABLE finaltaskrakamin.master_table AS
WITH master AS (
    SELECT
        o.Date AS order_date,
        pc.CategoryName AS category_name,
        p.ProdName AS product_name,
        p.Price AS product_price,
        o.Quantity AS order_qty,
        (o.Quantity * p.Price) AS total_sales,
        c.CustomerEmail AS cust_email,
        c.CustomerCity AS cust_city
    FROM finaltaskrakamin.Orders AS o
    JOIN finaltaskrakamin.Customers AS c
        ON o.CustomerID = c.CustomerID
    JOIN finaltaskrakamin.Products AS p
        ON o.ProdNumber = p.ProdNumber
    JOIN finaltaskrakamin.ProductCategory AS pc
        ON p.Category = pc.CategoryID
)
SELECT *
FROM master
ORDER BY order_date ASC;
```

Table Contains:

- OrderDate (order_date)
- CategoryName (category_name)
- ProductName (product_name)
- ProductPrice (product_price)
- OrderQty (order_qty)
- TotalSales (total_sales)

Calculated from *OrderQty* ×
ProductPrice

- CustomerEmail (cust_email)
- CustomerCity (cust_city)

All records are sorted by OrderDate.

Master Table Output

order_date	category_name	product_name	product_price	order_qty	total_sales	cust_email	cust_city
2020-01-01	eBooks	Spherical Robots	16.75	5	83.75	lfromonte9@de.vu#mailto:l...	Birmingham
2020-01-01	Drone Kits	BYOD-220	69.0	1	69.0	edew@nba.com#mailto:ede...	Honolulu
2020-01-01	eBooks	SCARA Robots	19.5	5	97.5	llespercx@com.com#mailto...	Des Moines
2020-01-01	eBooks	Polar Robots	23.99	2	47.98	fvaslerqt@comsenz.com#...	Jackson
2020-01-01	Robots	RWW-75 Robot	883.0	3	2649.0	tmckernot@tinyurl.com#ma...	Katy
2020-01-01	Training Videos	Drone Video Techniques	37.99	6	227.94	gstiggersdd@eventbrite.c...om#mailto:gstiggersdd@e...	Saint Petersburg

SALES PERFORMANCE DASHBOARD

Total Sales in USD

1,755 jt

Total Items Sold

11,654 rb

Average Order Value

526

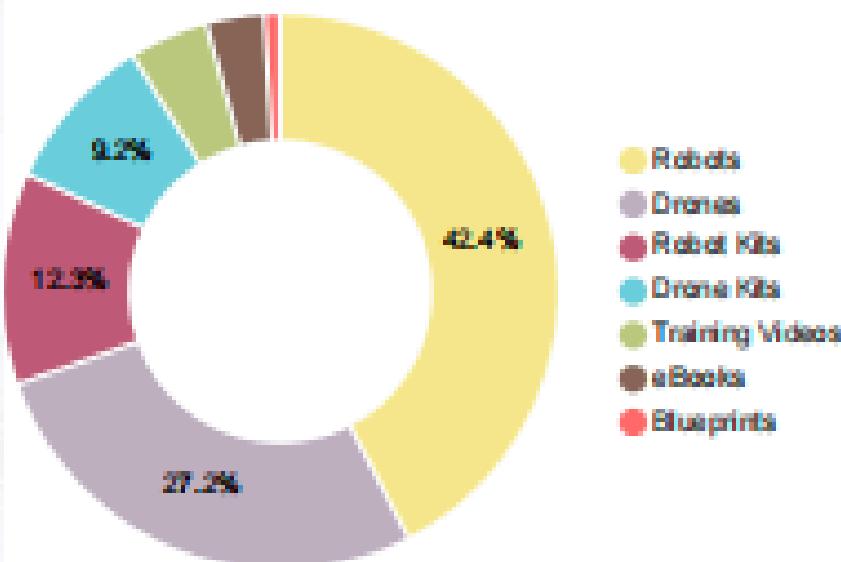
Total Orders

3,3 rb

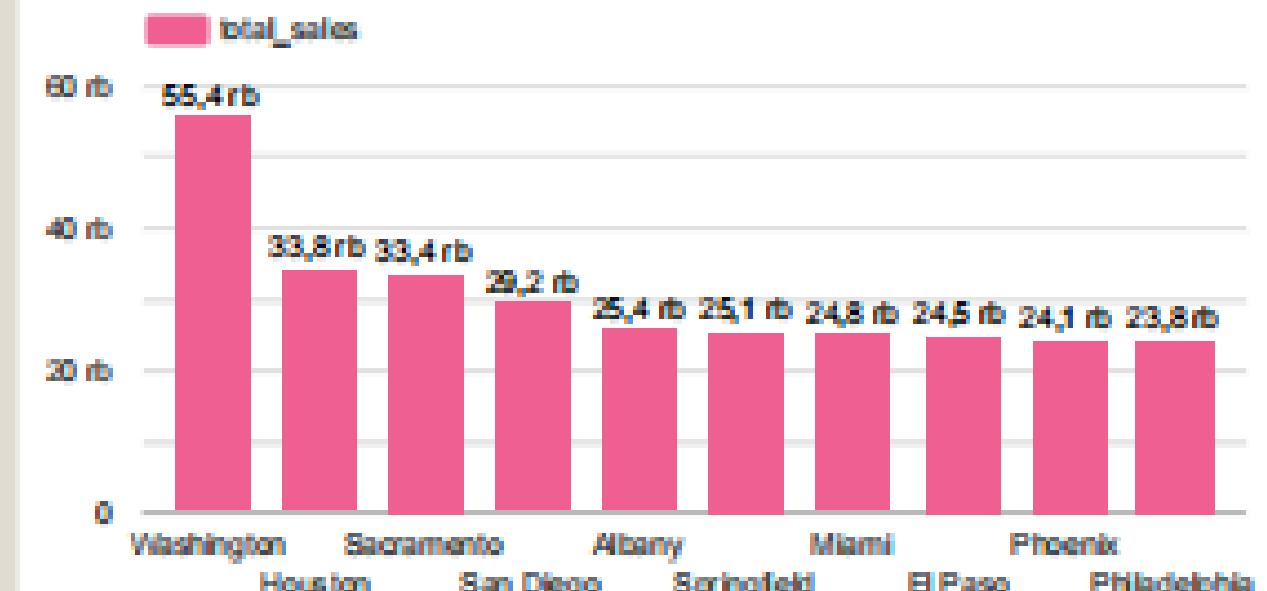
Total Customers

1,7 rb

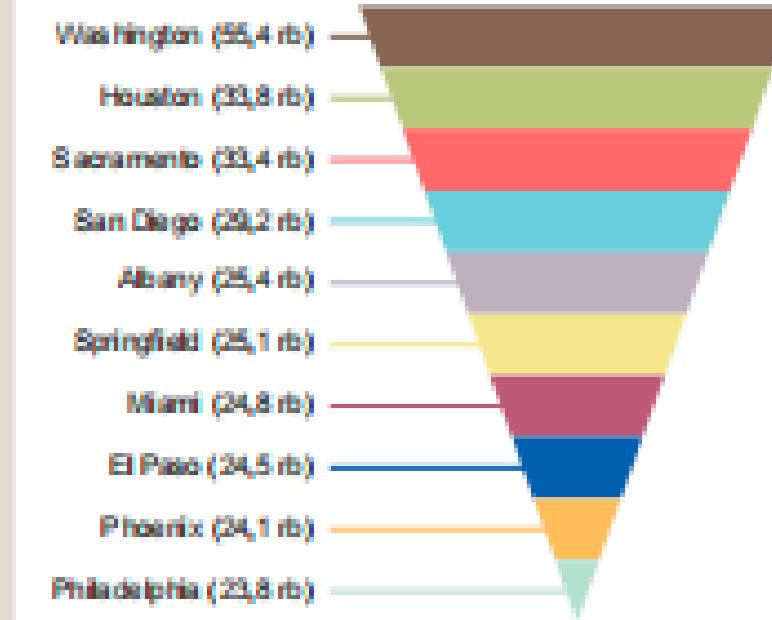
Total Sales by Product Category



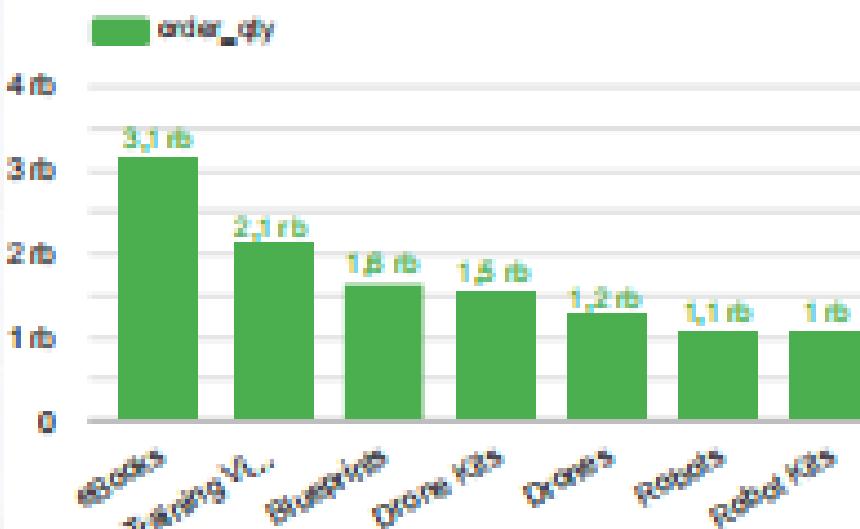
Total Sales by City



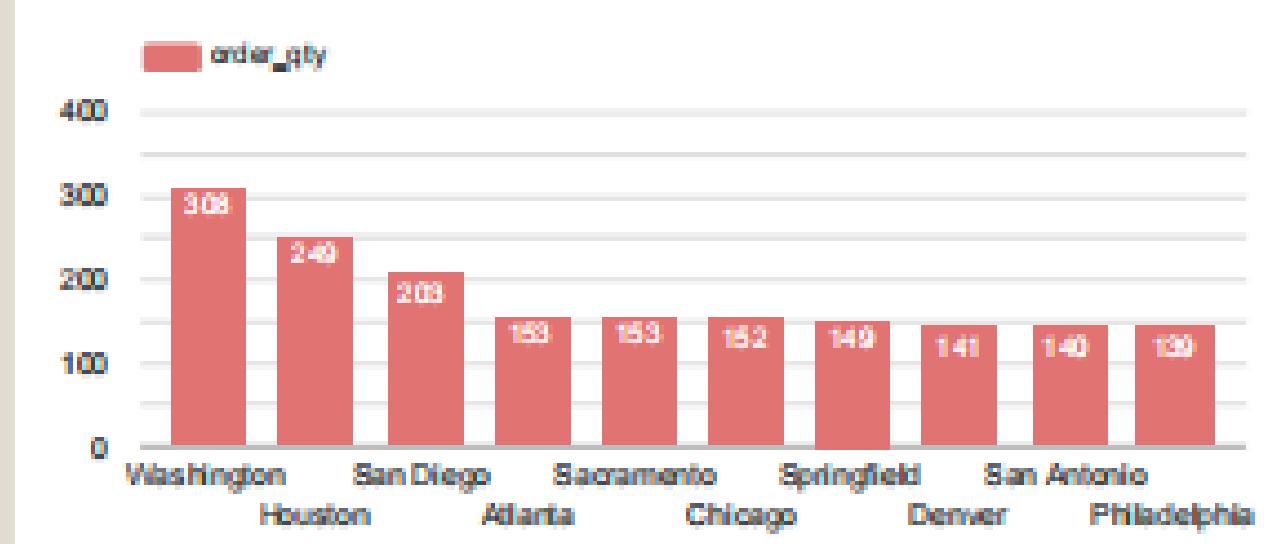
Top 5 Categories by Revenue



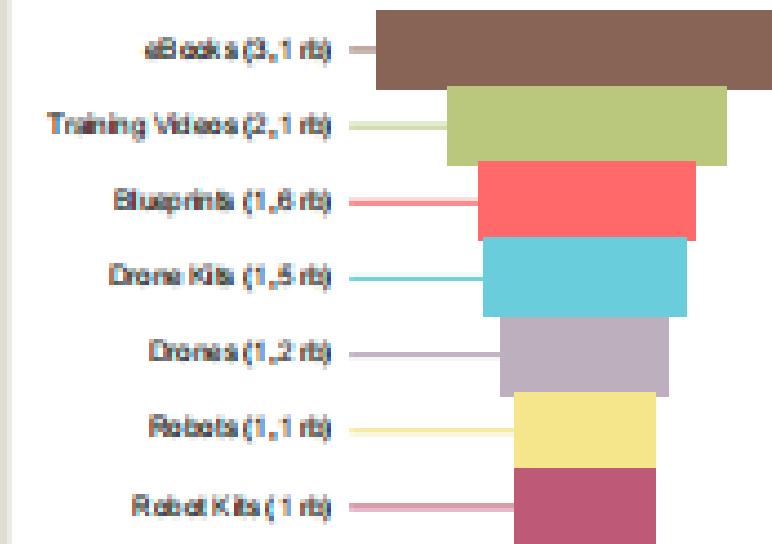
Total Items Sold by Product Category



Total Items Sold by City



Top 5 Items Sold



Strategic Recommendations

Product Portfolio	<p> Tiga produk teratas (Robots, eBooks, dan Training Videos) mendominasi penjualan berdasarkan kategori di dashboard.</p> <ul style="list-style-type: none">  Perusahaan dapat fokus pada produk dengan margin tinggi dan mengembangkan strategi seperti bundling atau sistem langganan untuk mendorong penjualan.
Geographic Expansion	<p> Kota dengan penjualan tertinggi adalah Washington, Houston, dan Sacramento.</p> <ul style="list-style-type: none">  Pertimbangkan perluasan ke kota potensial seperti San Diego, Dallas, Phoenix, dan Atlanta, serta lakukan promosi terarah di wilayah dengan karakteristik pasar serupa.
Customer Retention	<p> Tingkat pembelian ulang masih rendah dibanding standar industri (49% vs 60–70%).</p> <ul style="list-style-type: none">  Buat program loyalitas bertingkat, promo khusus pelanggan lama, dan bangun komunitas pelanggan.
Revenue Enhancement	<p> Rata-rata nilai pembelian (AOV) masih tergolong moderat dibanding target.</p> <ul style="list-style-type: none">  Strategi seperti bundle deal, gratis ongkir untuk pembelian di atas nominal tertentu, dan produk premium bisa membantu meningkatkan nilai transaksi setiap pelanggan.
Operational Excellence	<p> Transaksi digital sudah tinggi dari sisi volume, tetapi kontribusi pendapatan masih rendah.</p> <ul style="list-style-type: none">  Perusahaan dapat menerapkan sistem manajemen stok berbasis prioritas (ABC inventory), prediksi permintaan, serta negosiasi harga dengan vendor untuk menekan biaya dan meningkatkan efisiensi.

Thank You



X

