

# ENIAC Discount Strategy Analysis



by ENIAC Business Intelligence Team

# ENIAC – Business Context, Objectives & Data Preparation

ENIAC is a Premium electronics retailer

**Discount debate:**

- Marketing: grow sales & customers
- Investors: protect revenue & brand image

## Project Objectives

- Analyze products & price distribution
- Measure discount impact on sales & revenue
- Assess seasonality (Black Friday, Christmas)
- Identify data collection improvements
- Enable data-driven decision making

## Data Preparation

- **Data cleaned and standardized:** missing values checked, dates & prices fixed, invalid orders removed, completed orders kept, product categories standardized.

# Product Categorization

Category	Examples / Products
Desktop & Professional Hardware	Apple Mac/PC, docking stations
Storage & Memory	SSDs, HDDs, RAM modules, NAS drivers, servers, memory cards
Smartphone	Apple iPhone
Laptop	Apple MacBook
Tablet	Apple iPad, Graphics tablets
TV_ Monitor	Monitors, TVs, displays
Audio	Air pods, headphones, speakers, microphones
Wearable	Smartwatches, fitness trackers, health monitors
Smart Home	Smart bulbs / locks /..., IoT sensors, connected home devices
Camera & Drone	Action cameras, drones, video capture devices
Accessory	Cables, adapters, cases, keyboards, batteries, protectors, chargers
Networking	Routers, switches, Wi-Fi extenders, network adapters
Software	Licenses, apps, software packages
Other	Warranties, repair/replacement service, other products

## Purpose

- Simplify reports
- Compare similar products
- Identify trends and patterns in pricing, discounts, sales.
- Adapt marketing strategies

## Approach

- keywords from product names
- primary function of product

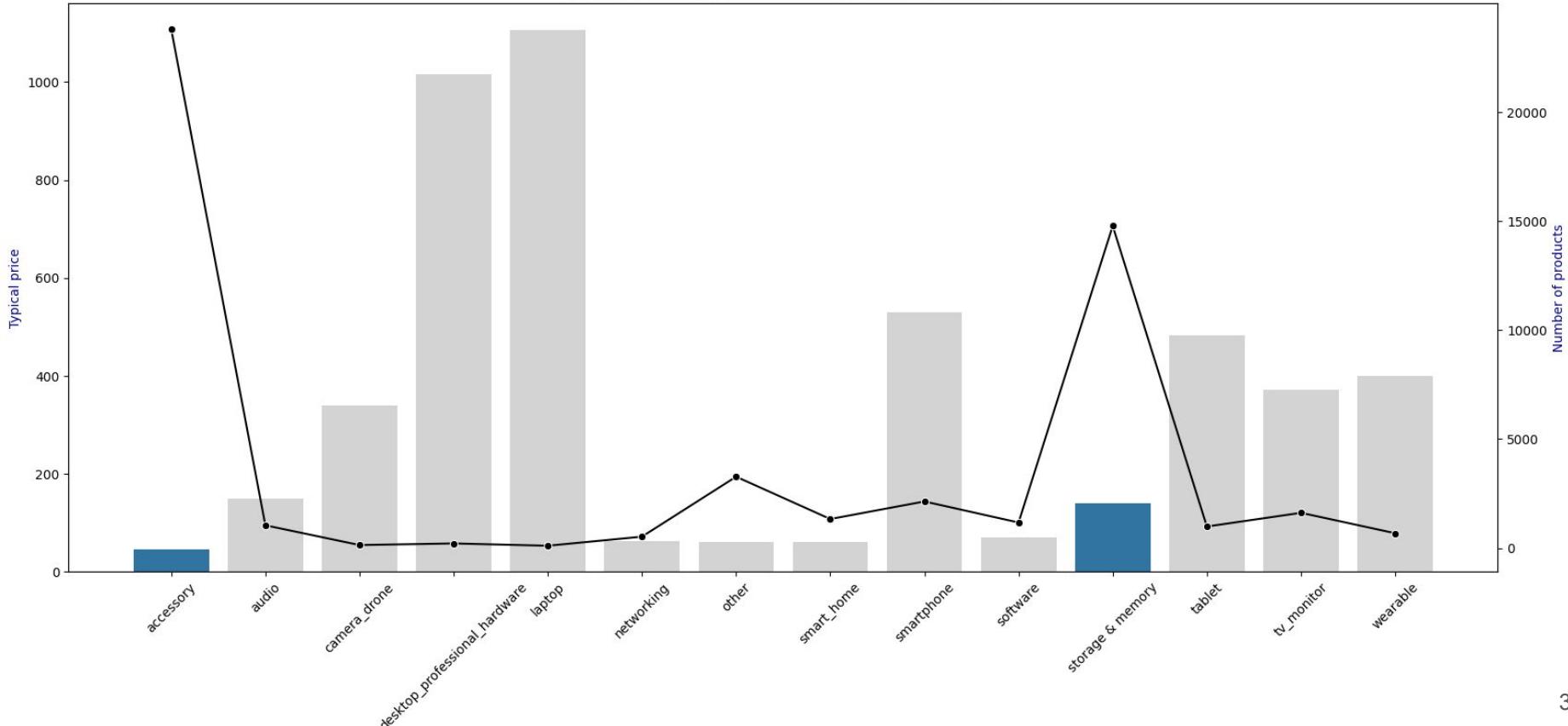
## Conclusion

Product categorization makes it easier to answer the key business question:

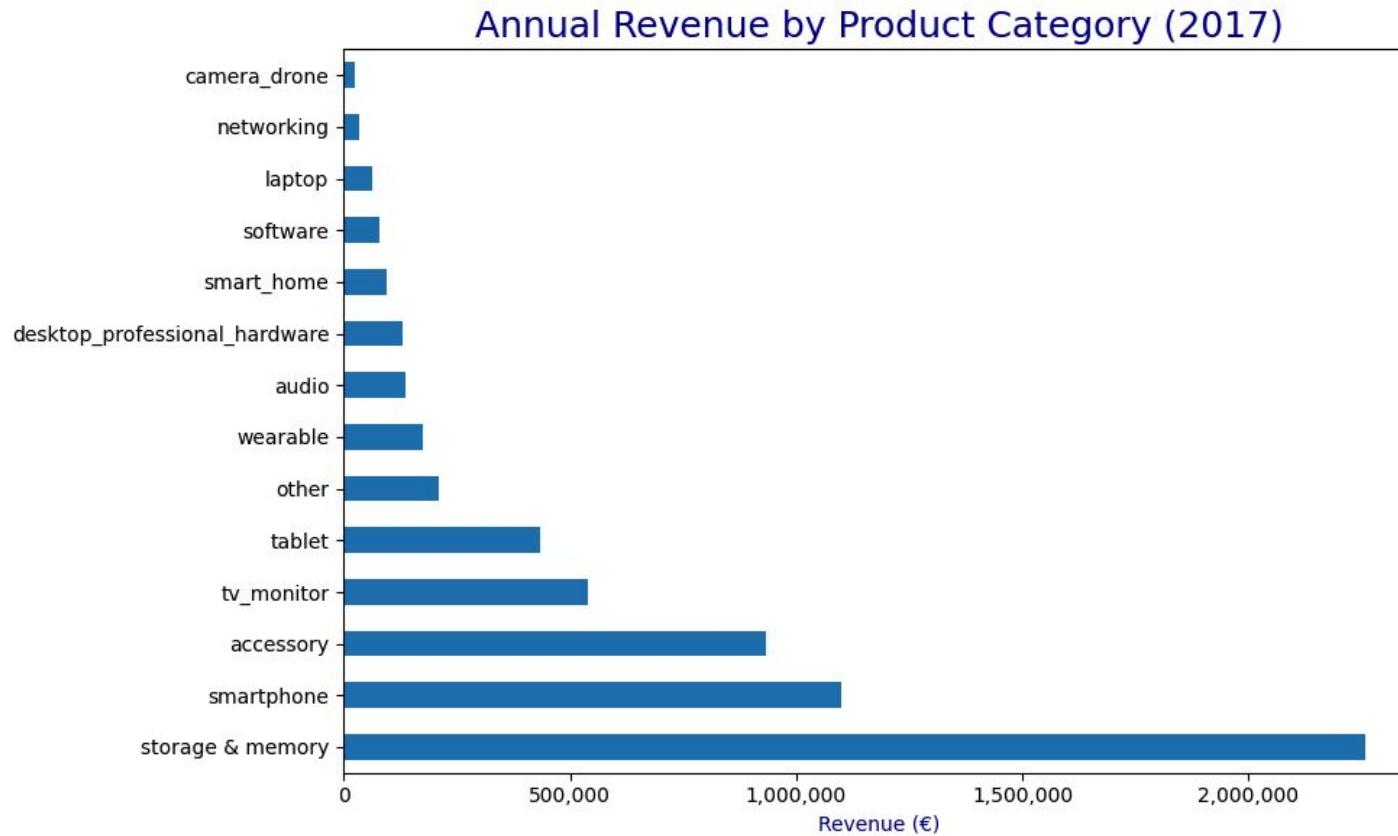
*Are discounts an effective strategy for increasing revenue and customer satisfaction at Eniac?*

**Product volume is concentrated in a few low-price categories, while higher prices are concentrated in more specialized categories.**

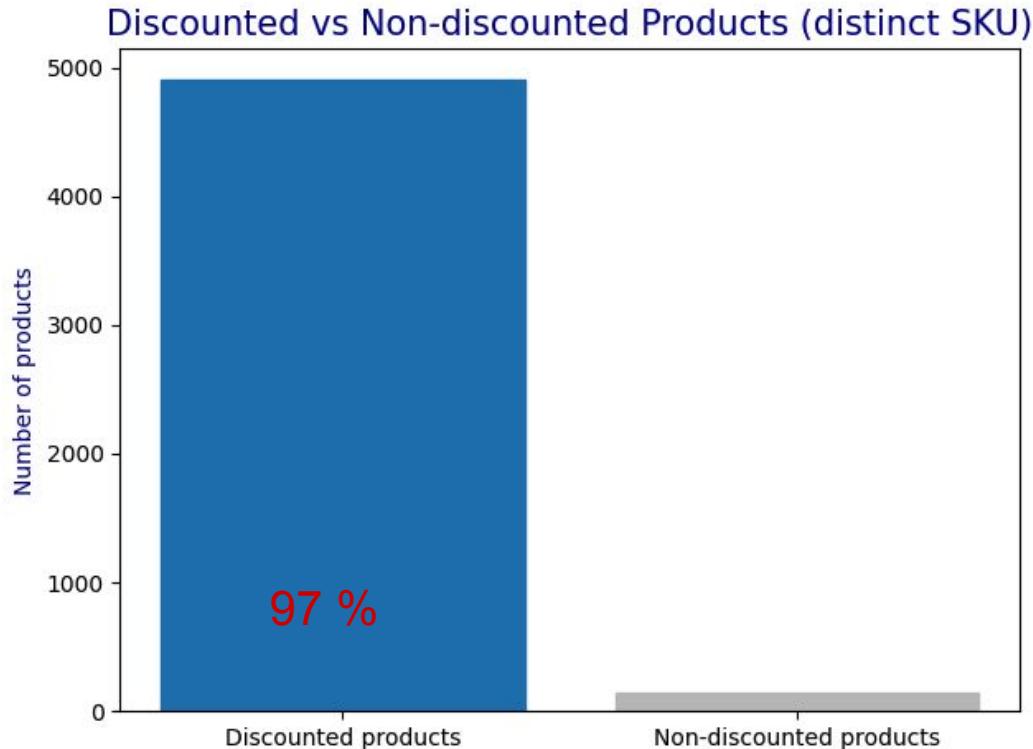
Typical price and product volume by category



### 3 Dominant Product Categories generating the highest revenue



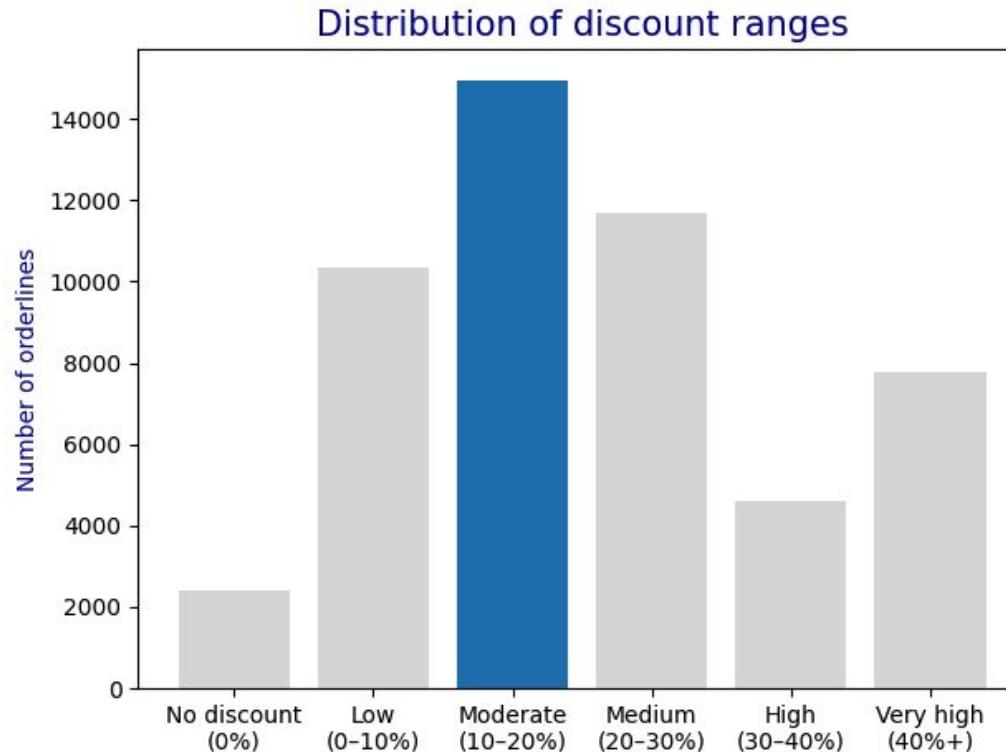
# Almost 97% of Eniac's Products Are Sold at a Discounted Price



## Quantity of Products Sold:

Total products - 5043  
Discounted products - 4899  
Non discounted products - 144

# Most Sales Are Concentrated in the 10–20% Discount Range



# Higher Discounts Do Not Increase Revenue and Reduce Value

## 0–10% discount

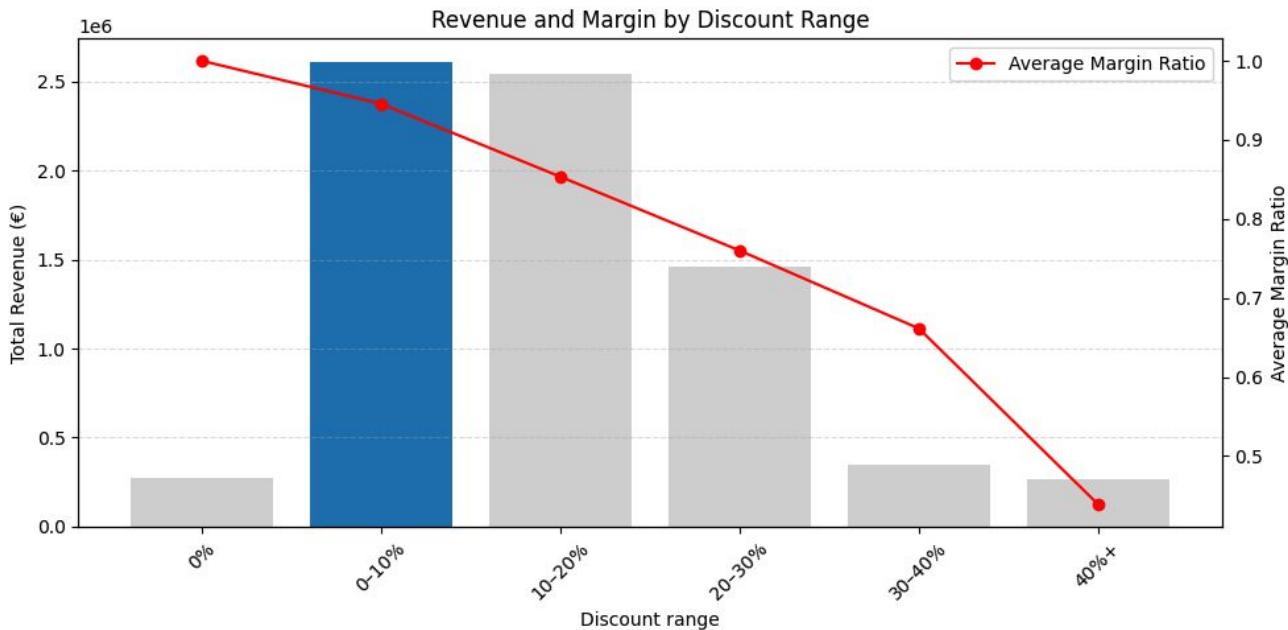
- High revenue despite fewer orders
- ~95% average margin

## 10–20% discount

- **More orders, but no revenue uplift** (almost the same as 0–10%)
- Margin drops to ~85%

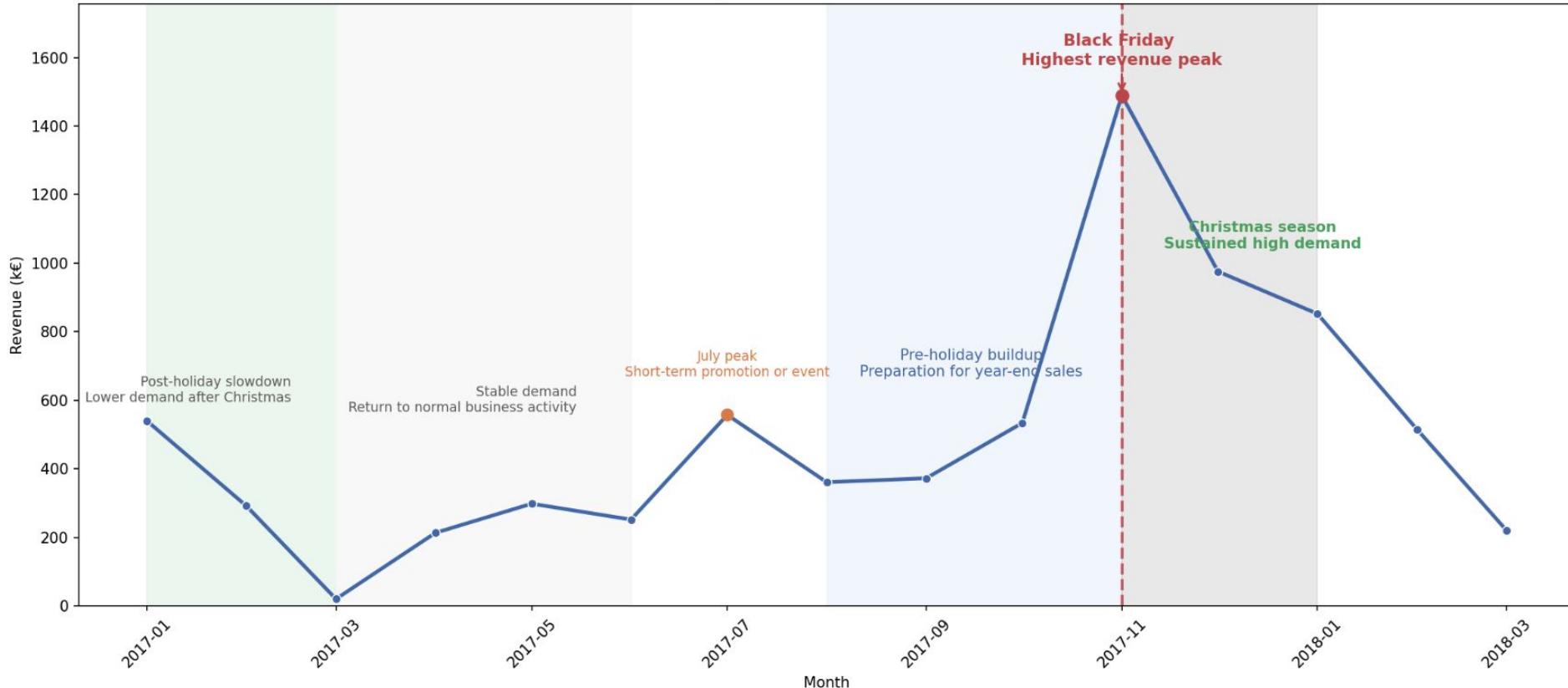
## 40%+ discount

- ~ €0.27M in revenue
- ~ 44% margin
- very low value per order



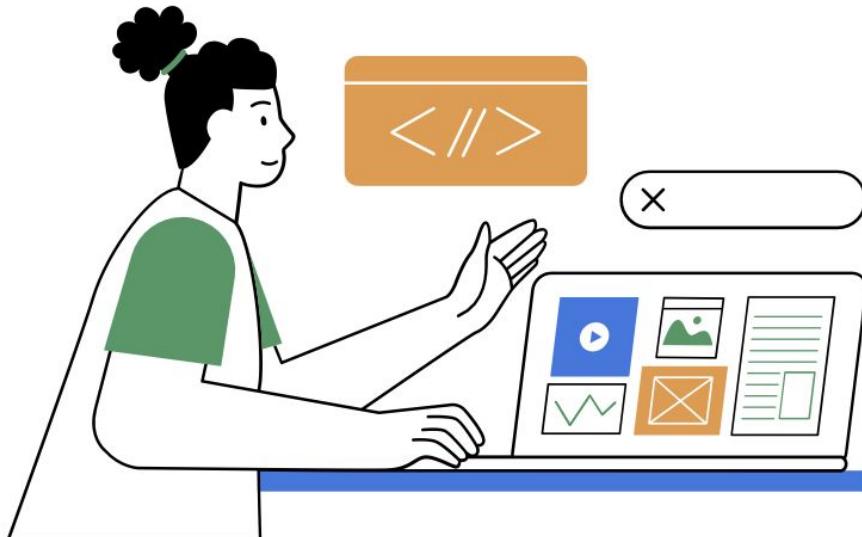
# Seasonality and Special Dates Significantly Increase Sales

Eniac Monthly Revenue - Seasonal Effects



# Data Collection Improvements

“For reliable statistical analysis, we need enforced IDs, mandatory core fields, controlled categories, and validation at data entry. Otherwise results are biased and not reproducible.”



- Standardize product categories at data source
- Store promotion and campaign data (campaign name, type, start and end dates)
- Capture full order lifecycle timestamps (created, paid, shipped, delivered)
- Store validated revenue and margin per order
- Collect customer, country & channel data

# Conclusion & Recommendations

## Key Facts

- **5,043 products** (distinct SKUs)
- Revenue is highly concentrated in storage & memory and smartphones
- **97%** of products are sold with a discount

## Key Insights

- Orders increase with higher discounts, but order value and margins decline
- Low discounts (0–10%) generate the highest and most stable revenue, with strong margins
- Revenue peaks are driven by **Black Friday & Christmas**, not by permanent high discounts

## Strategic Recommendations

- Improve data collection
- Use discounts between 0–20% as the default strategy
- Avoid frequent aggressive discounts (20%+)
- Apply strong discounts only through targeted campaigns
- Optimize after-sales services, customer support, and service quality



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