**Business Insights & Recommendations Report**

**Prepared for: W BEYOND**  
**Project: Power BI Dashboard Development for E-commerce Customer Behavior**

**1. Executive Summary**

The purpose of this analysis is to explore customer behavior on an e-commerce platform, understand key performance trends, and provide actionable insights. The Power BI dashboard highlights crucial metrics like total sales, profit distribution, customer engagement, and the impact of discounts on profit margins. This report summarizes the findings and provides strategic recommendations to improve sales, customer retention, and overall profitability.

**2. Key Insights from Data Analysis**

**A. Sales Performance & Revenue Trends**

* **Total Sales & Profit:** The overall revenue and profit trends indicate the platform's financial health.
* **Monthly Sales Trends (Line Chart):**
  + Sales fluctuate across months, showing seasonal trends in customer spending.
  + Notable peaks in sales align with major shopping seasons (e.g., holidays, sales events).
  + Off-season months have lower revenue, signaling potential for targeted promotional strategies.

**B. Customer Behavior & Engagement**

* **Session Data & Time Spent:**
  + Customers spending more time on the website tend to convert at a higher rate.
  + Pages visited per session correlate with purchase behavior—users viewing more pages are more likely to buy.
  + Mobile users show shorter session durations but have a steady purchase rate.
* **Products Viewed vs. Purchased:**
  + A large gap between products viewed and products purchased suggests cart abandonment issues.
  + High interest in certain product categories does not always translate to high conversion rates.

**C. Geographical Profit Distribution (Map Visualization)**

* **Regional Performance:**
  + Certain regions contribute significantly to profits, while others lag.
  + Urban areas drive the highest sales volumes, whereas rural regions show lower conversion rates.
  + Logistics and shipping times may be a barrier in less profitable regions.

**D. Product Performance & Discounts (Bar & Scatter Plot Analysis)**

* **Top & Bottom Performing Products:**
  + Some products drive major profits, while others underperform.
  + Categories like [X] and [Y] consistently perform well, while [Z] struggles with lower profitability.
* **Impact of Discounts on Profit Margins:**
  + Excessive discounts significantly reduce profit margins.
  + Some discounted products generate high sales but minimal profits.
  + A balance is needed to attract customers while maintaining healthy profit levels.

**3. Actionable Business Recommendations**

**A. Sales Growth Strategies**

✔ **Leverage Seasonal Trends:** Launch aggressive marketing campaigns during peak sales periods to maximize revenue.  
✔ **Improve Off-Season Performance:** Introduce special promotions, loyalty rewards, or limited-time discounts to boost sales in slow months.

**B. Enhancing Customer Experience & Conversions**

✔ **Reduce Cart Abandonment:** Implement reminder emails, one-click checkout, and better payment options to improve conversions.  
✔ **Optimize Website Navigation:** Streamline product discovery to improve user engagement and increase conversion rates.  
✔ **Targeted Mobile Experience:** Since mobile users show shorter sessions, optimizing the mobile checkout process can boost conversions.

**C. Regional Expansion & Logistics Optimization**

✔ **Focus on High-Profit Regions:** Allocate more marketing spend and product availability to the best-performing regions.  
✔ **Improve Shipping Efficiency in Low-Sales Areas:** Offer faster delivery options or localized fulfillment centers.

**D. Product & Pricing Strategy Adjustments**

✔ **Reevaluate Discount Strategy:** Apply discounts strategically on high-margin products rather than across all categories.  
✔ **Increase Inventory for High-Performing Products:** Prioritize best-selling items to prevent stockouts and lost sales.

**4. Conclusion**

This analysis provides a data-driven understanding of customer behavior, sales trends, and profitability. By leveraging these insights, the e-commerce platform can enhance user engagement, refine pricing strategies, and optimize regional sales efforts. Implementing the recommended strategies will lead to higher conversion rates, improved customer retention, and ultimately, greater profitability.