

ECOMMERCE DATA ANALYSIS

Data driven insights for the business strategy

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date:07/02/2026

PROJECT OVERVIEW

- Customer segmentation and trend analysis
- Channel performance analysis
- Discount impact on increased purchases
- Loyalty members data examination

KEY OBJECTIVES

- High-Value demographics
- Low-value segments

METHODOLOGY

OVERVIEW OF DATA METHODOLOGY APPROACH

DATA CHARACTERISTICS

- A total of 1000 sales order transaction were analysed
- Key attributes include products , customer, purchases,amount, time
- Comprehensive market trend explanation

ANALYTICAL APPROACH

- Statistical correlation analysis
- Data visualization and trend analysis
- Comparative market analysis methodology by

KIPKOECH AMOS

TOP PERFORMING PRODUCTS

top sales products

product_id 16 with total purchase of 12066.06 sum of frequency = 324

product_id 42 with total purchase of 12731.16 sum of frequency = 314

product_id 6 with total purchase of 12149.03 sum of frequency = 269

product_id 55 with total purchase of 11782.28 sum of frequency = 279

product_id 23 with total purchase of 11689.18sum of frequency = 292

sales distribution

- Product_id 16 and product_id 42 dominates with the top sales
- There is a big opportunity for competitive analysis in this segment

KEY INSIGHTS

- Focus inventory acquisition on high performing products

PRICING STRATEGY ANALYSIS

Average purchase price = \$275.063

Market Medium Rate(MMR) = \$276.165

- Products above(MMR) = 24

PRICING BY TOP PRODUCTS CATEGORY

Jewelry & Accessories = \$ 15,139.36

Sports & Outdoors = \$ 14610.51

Electronics = \$ 13,842.4

PRICING EFFICIENCY

There are many pricing strategies alignment opportunity identified t

KEY CORRELATION FINDINGS

High product rating has high sum of frequency purchase

- High product rating have high sum of frequency purchase
- products sales have Correlation coefficient of 0.67 which is moderate strong
- product value below 276.165\$ reduces the value to approximately 8.9%

PRICING RECOMMENDATION

- Adjust inventory acquisition strategy
- Implement product cost based on customer demand

VALUE PRESERVATION

- Low product value tend to lower the market value for the products

MMR COMPARISON VS ACTUAL PRICE

- Products sold above MMR: 210 products(21%)
- products sold below MMR: 411 products (40%)
- products sold at MMR: 289 products (34%)

PRICING EFFICIENCY ANALYSISI

- Optimal pricing :560 products within 20% MMR
- Overpriced : 64 products = 6% above the MMR
- Underprice : 356 products = 10% below the MMR

BUSINESS OPPORTUNITY

Improve pricing alignment on 45% inventory

BUSINESS RECOMMENDATIONS

PRICING RECOMMENDATIONS

- Implement dynamic pricing based on the MMR benchmarks
- Also creating a premium pricing for the high quality products
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IMMEDIATE ACTION RECOMMENDATION

- Adjusting the underperforming 411 products to the the MMR
- introducing the discounts on the low frequenct sale count products

LONG TERM STRATEGY

- Continuous data monitoring and data starategy adjustment
- Automating pricing algorithm development

EXPECTED OUTCOME

15 % improving in pricing efficiency between a period of 3 months

CONCLUSIONS

SUMMERY OF FINDINGS

- MARKET LEADERSHIP : Product_id 18 and product_id 3 demonstrates the strongest performance on the sales
- THE QUALITY : Products are mostly focused on the quality
- REVENUE POTENTIAL : 290\$ in identified improvement if the actions considered

ADVANTAGES

- Enhanced customer value proportions
- Optimized customer value proportions
- Competitive pricing strategies

FINAL RECOMMENDATION

Implementing the outlined data driven strategy to achieve 15% improvement in sales efficiency and there will be an automatic increase in profit sales

VALIDATION

Analysis based on comprehensive product sets dataset and statistical methods

CONTACT INFORMATION

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