

MEGAMART  
CLUSTER ANALYSIS

# business report

CÉSAR ISAO PASTELIN KOHAGURA - A01659947  
LUIS EMILIO FERNÁNDEZ GONZÁLEZ - A01659517  
EDUARDO BOTELLO CASEY - A01659281

TEAM 3

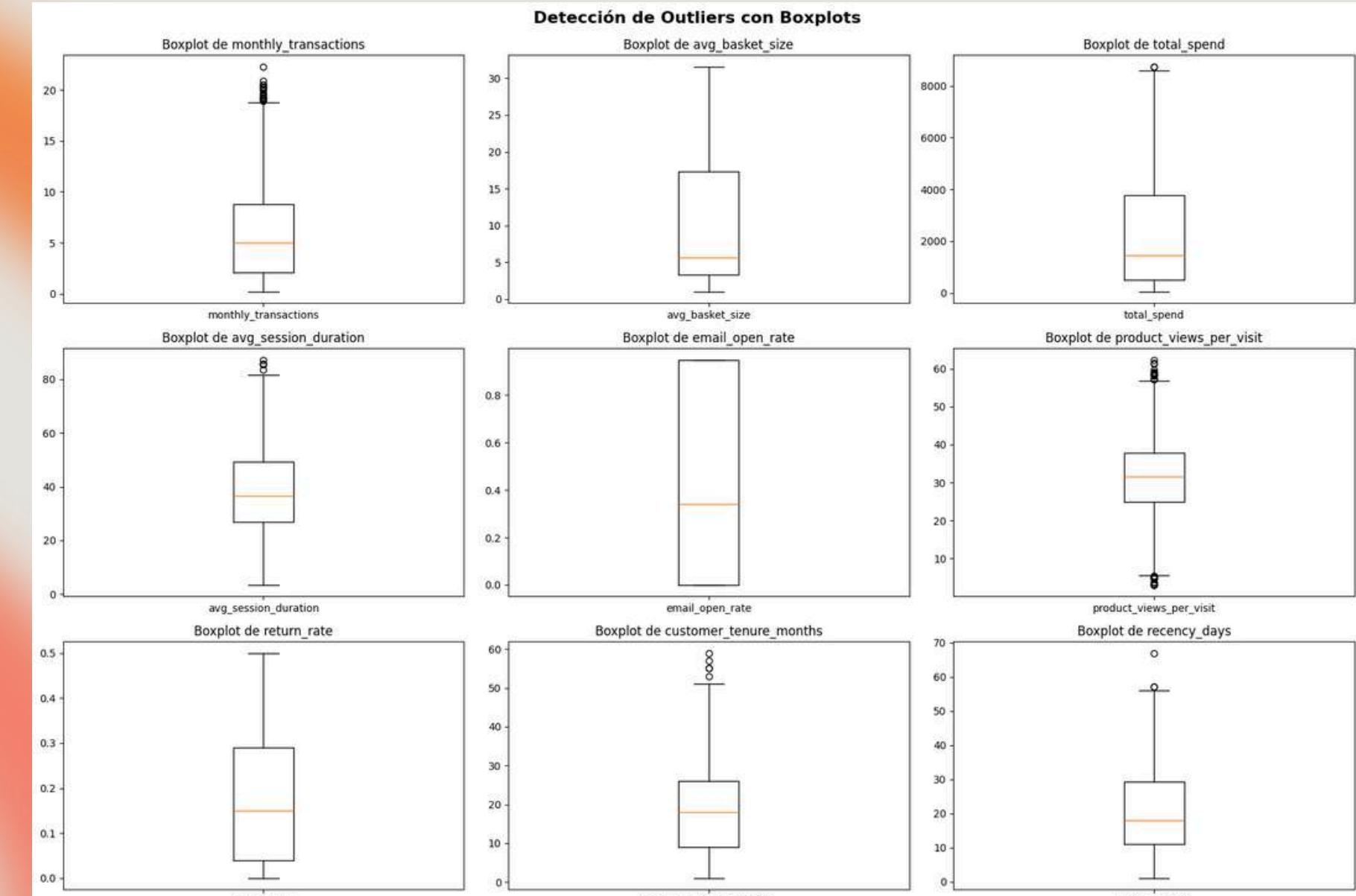
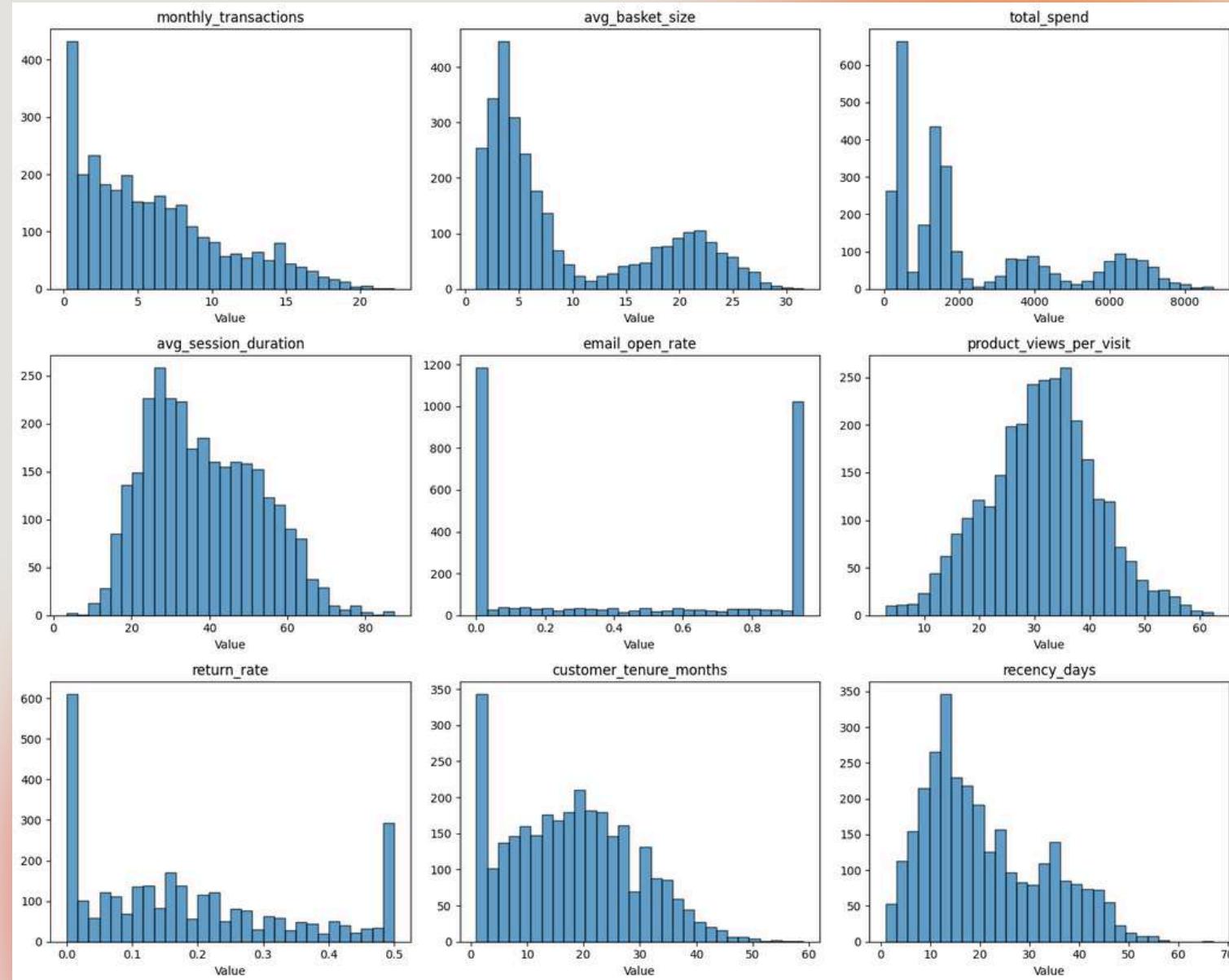
APLICACIÓN DE MÉTODOS  
MULTIVARIADOS EN CIENCIA DE DATOS

# **Strategic Context and Problem Definition**

MEGAMART FACES STRATEGIC CHALLENGES THAT LIMIT ITS GROWTH AND REDUCE THE EFFECTIVENESS OF ITS COMMERCIAL EFFORTS. ITS CAMPAIGNS ARE TOO GENERIC AND DO NOT CONSIDER THE DIVERSITY OF CUSTOMER BEHAVIOR, RESULTING IN LOW ENGAGEMENT AND INEFFICIENT USE OF RESOURCES. THIS AFFECTS KEY METRICS SUCH AS CLV, MROI, AND CHURN, ESPECIALLY BECAUSE HIGH-RISK CUSTOMERS ARE NOT IDENTIFIED EARLY ENOUGH TO APPLY RETENTION ACTIONS.

# Analytical Approach

## VARIABLE DISTRIBUTIONS



ANALYZED CLIENTS

3000

ANALYZED VARIABLES

9

# Customer Segmentation Insights

CLUSTER 0 --- HIGH-VALUE CHAMPIONS (17.5\%)

CLUSTER 2 --- PREMIUM OCCASIONAL BUYERS (14.4\%)

CLUSTER 1 --- WINDOW SHOPPERS (31\%)

CLUSTER 3 --- LOW-ENGAGEMENT MASS SEGMENT (37.7\%)

# Marketing strategy Overview

Cluster 0	Cluster 1	Cluster 2	Cluster 3
Premium loyalty program	Dynamic retargeting	Complementary product recommendations	Volume promotions and bundles
Personalized campaigns	Optimized checkout flow	Subscriptions or scheduled reminders	Mass automation
VIP churn alerts	Reactivation incentives	Simplified customer journey	Inventory optimization
Priority customer support	Recency-based email journeys	Second-purchase incentives	Upward-mobility detection

# **expected Business Impact**

## **CLUSTER 0**

MAINTAIN LOW CHURN, HIGH PURCHASE FREQUENCY, STRONG BASKET SIZE, AND CURRENT PROFIT MARGINS. ALL ACTIONS AIM TO PRESERVE AND EXPAND THE SEGMENT'S STRATEGIC VALUE.

## **CLUSTER 1**

PROJECTED OUTCOMES INCLUDE 40% REDUCTION IN RETURN RATE AND A 50% INCREASE IN TRANSACTIONS, NORMALIZING PERFORMANCE RELATIVE TO THE PLATFORM AVERAGE.

## **CLUSTER 2**

EXPECTED EFFECTS INCLUDE A 40% INCREASE IN MONTHLY VISITS AND A 30% GROWTH IN COMPLETED PURCHASES, ADDRESSING FREQUENCY AND RECURRENCE GAPS.

## **CLUSTER 3**

GOALS INCLUDE A 30% INCREASE IN BASKET SIZE AND A 30% IMPROVEMENT IN ENGAGEMENT, ELEVATING THE SEGMENT TOWARD STANDARD

# Next steps

## Q1

- DEPLOY RECENCY-BASED AUTOMATION JOURNEYS FOR CLUSTERS 1 AND 2.
- ACTIVATE DYNAMIC RETARGETING FOR BROWSING WITHOUT PURCHASE.
- DESIGN THE PREMIUM LOYALTY PROGRAM FOR CLUSTER 0.
- OPTIMIZE CHECKOUT TO REDUCE FRICTION FOR CLUSTER 1.
- LAUNCH BASE-LEVEL VOLUME PROMOTIONS AND BUNDLES FOR CLUSTER 3.

## Q2

- DEPLOY MODEL-BASED PERSONALIZED RECOMMENDATIONS (CLUSTERS 0 AND 2).
- IMPLEMENT VIP CHURN ALERT SYSTEM.
- ENABLE FAST-PURCHASE AND SIMPLIFIED JOURNEYS FOR CLUSTER 2.
- AUTOMATE MASS COMMUNICATIONS FOR CLUSTER 3.

## Q3

- LAUNCH FULL PREMIUM LOYALTY PROGRAM.
- IMPLEMENT SECOND-PURCHASE INCENTIVE CAMPAIGNS FOR CLUSTER 2.
- EXECUTE ADVANCED REACTIVATION CAMPAIGNS FOR CLUSTER 1.
- ALIGN INVENTORY OPTIMIZATION WITH CLUSTER 3 USAGE PATTERNS.

## Q4

- CONDUCT FULL IMPACT ASSESSMENT: UPLIFT, INCREMENTAL REVENUE, RETENTION.
- RETRAIN CLUSTERING MODEL FOR UPDATED SEGMENTATION.
- PROMOTE TRANSITION OF HIGH-POTENTIAL CLUSTER 3 USERS.
- EXPAND PREMIUM LOYALTY BENEFITS AND REFINE MARKETING BASED ON ROI.