

Parch and Posey Acquisition Analysis

Exploratory Data Analysis (EDA):
A Guide for Informed
Acquisition Decision-Making for
Dunder Mifflin's Leadership Team



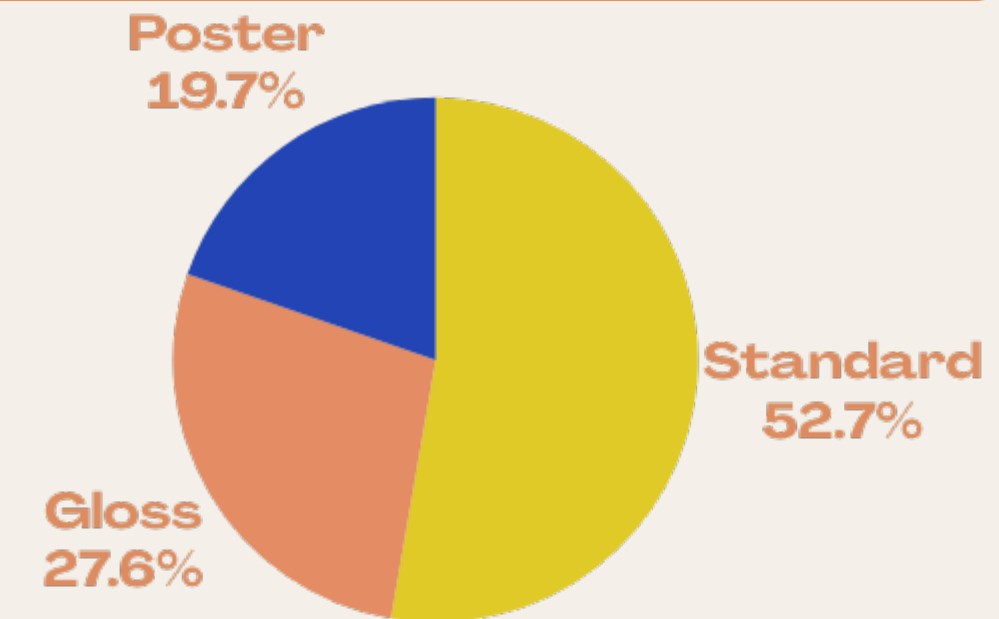
01 - Parch and Posey Business Overview

- Customer Base: **351 Accounts**
- Sales Area Coverage: **7 regions**
 - NorthEast, SouthEast, West, Midwest, International, North, South

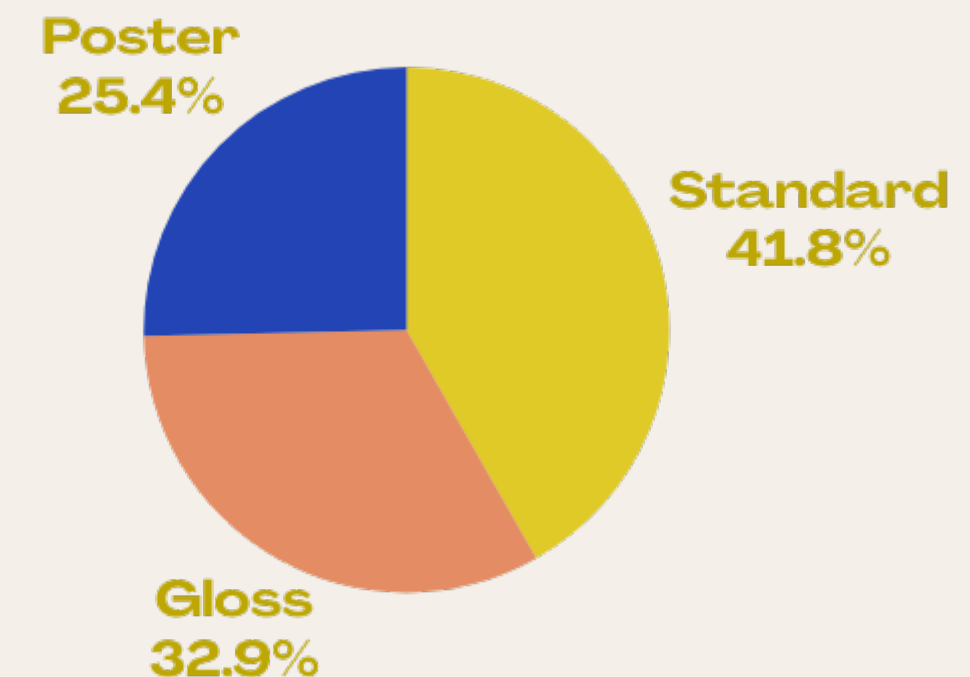
3. Types of Paper Sold: **3 Types**

- a. Standard, Gloss, Poster
- b. There are other potential types of paper

Percentage Share by Quantity



Percentage Share by Revenue



02 - Growth Status Analysis

1. Total Revenue by Year

- a. From 2014 to 2015, the total revenue increased by ~\$1.68 M or 41.36%
- b. From 2015 to 2016, the total revenue increased by ~\$7.2 M or

123.66%

year_occurred	annual_total_revenue	revenue_growth_usd	revenue_growth_percentage
2014	4069106.54	NULL	NULL
2015	5752004.94	1682898.40	41.3579
2016	12864917.92	7112912.98	123.6597

2. Total Units Sold by Year

- a. From 2014 to 2015, the total units sold increased by ~260K units or 40.26%
- b. From 2015 to 2016, the total units sold increased by ~1.12 M units or

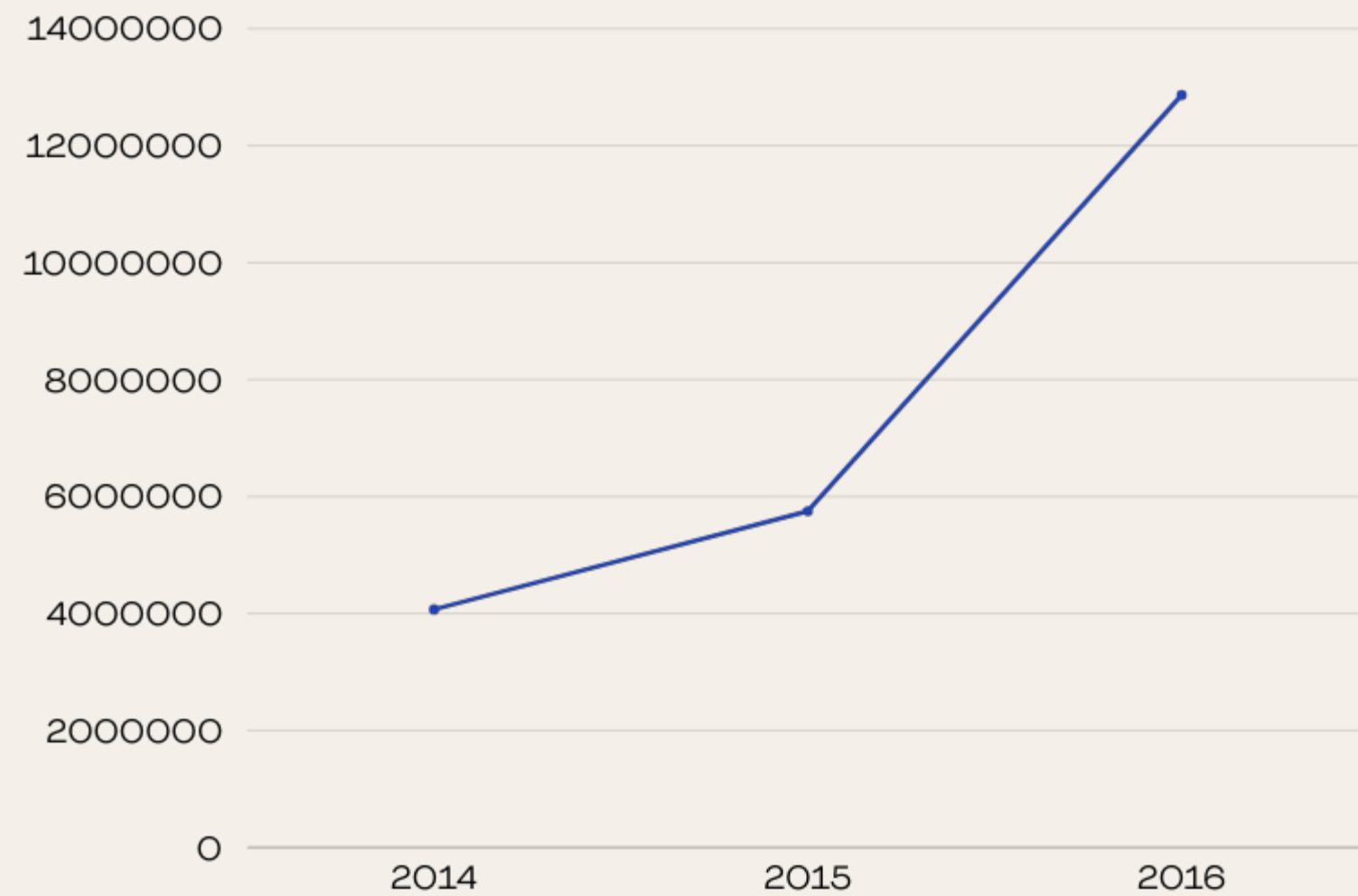
123.62%

year_recorded	annual_total_units	quantity_growth	quantity_growth_percentage
2014	650896	NULL	NULL
2015	912972	262076	40.2639
2016	2041600	1128628	123.6213

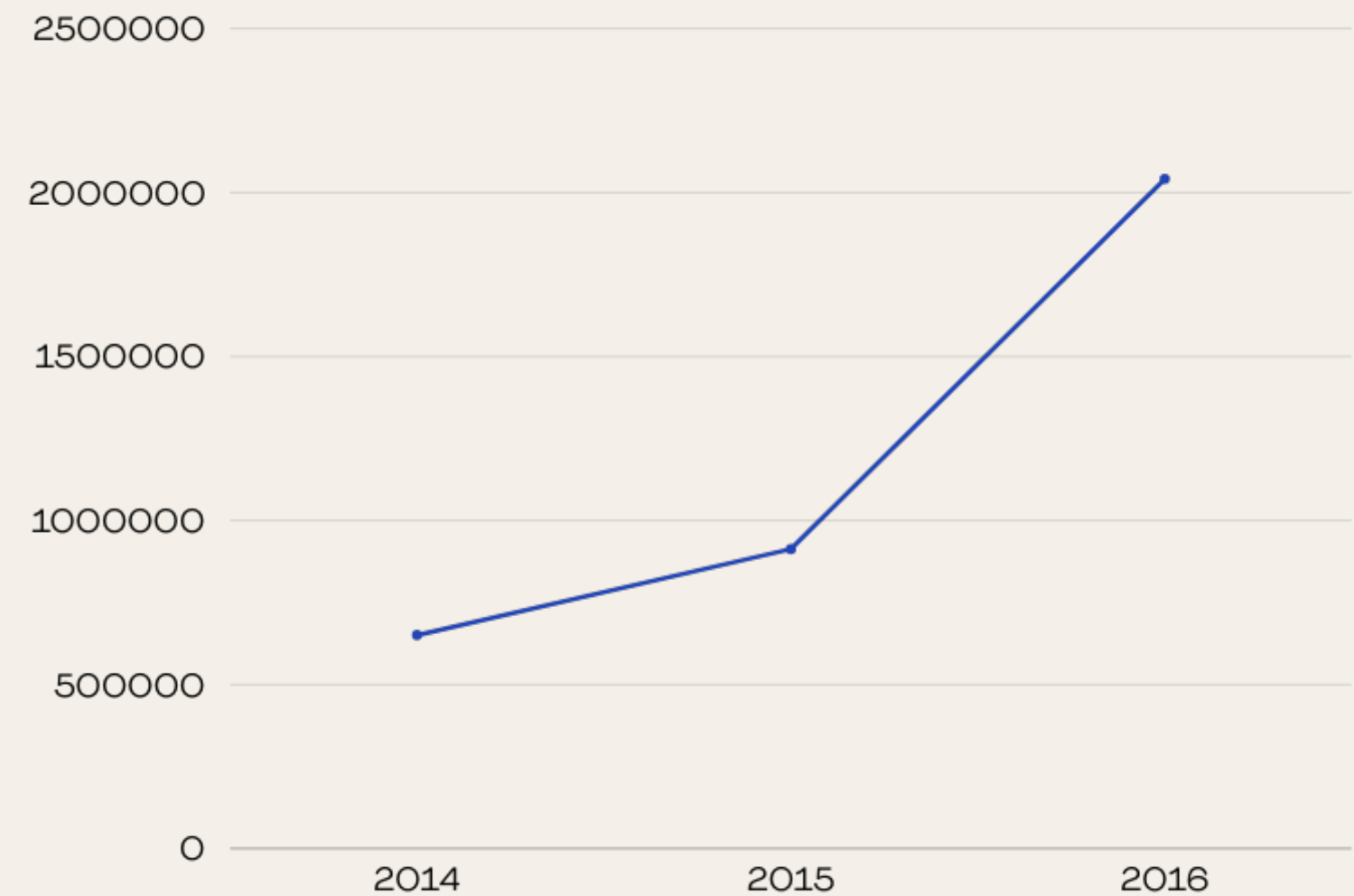
** The results only take into account years with full data

02 - Growth Status Analysis

Annual Total Revenue (\$ USD)



Annual Total Units Sold (Units)



03 - Expansion Strategy:

Integrating New Regions for Sustained Growth

1. Sales Representatives by Region (person)



2. Regional Performance Overview

region	total_orders	number_of_reps	number_of_accounts	total_revenue	average_revenue
Northeast	1196	21	97	3999036.82	3343.68
West	968	10	93	3608646.36	3727.94
Southeast	1110	10	86	3545487.49	3194.13
Midwest	483	9	41	1711747.25	3543.99

3. Representative Performance Overview by Region

region	avg_orders_per_rep	avg_accounts_per_rep	avg_revenue_per_rep
West	96	9	360864.64
Southeast	111	8	354548.75
Northeast	56	4	190430.32
Midwest	53	4	190194.14

** The results only take into account the representatives presented in currently operating regions

04 – Identifying Key Accounts: Insights and Future Strategies

Average Revenues per Account by Account Name

account_label	avg_revenue	count
Group	61831.74	18
Not Group	66351.03	332

account_label	avg_revenue	count
Group	59100.45	16
Not Group	66454.80	334

Result: Contrary to hypothesis, average revenue is lower for ‘Group’

Additional Metrics for Identifying Valuable Customers

- Group accounts by other dimensions to determine average revenue or sales
 - Group by region of accounts
 - Group accounts by total revenue generated over a specific period (year, month, etc)
- Differentiate Between Revenue and Profit
- Customer Lifetime Value
- Purchase frequency/pattern
- Price sensitivity

- ‘Group’ if the name of the account ends with the word ‘group’
- ‘Not Group’ otherwise

05 - Marketing Optimization for New Region Expansion

The Least Used Channel for Web Events by Region

region	least_used_channel
Midwest	banner
Northeast	twitter
Southeast	twitter
West	banner

Old Regions

Deactivate Banner from Midwest & West and Twitter from Northeast and Southeast, then reallocate resources from underperforming channels to high-engagement channels

New Regions

a. Enhance the direct click rate and improve user experience

- Optimize Website Design, A/B Testing
- Personalization
- Compelling Ad Creative, Clear Call-to-Action (CTA)

b. Invest in R&D

- Localized Targeting and Content
- Adaptation to Market Trends and Approaches.

region	most_used_channel
Midwest	direct
Northeast	direct
Southeast	direct
West	direct

region	second_most_used_channel
Midwest	facebook
Northeast	facebook
Southeast	facebook
West	organic

The Most Popular Channel for Web Events by Region

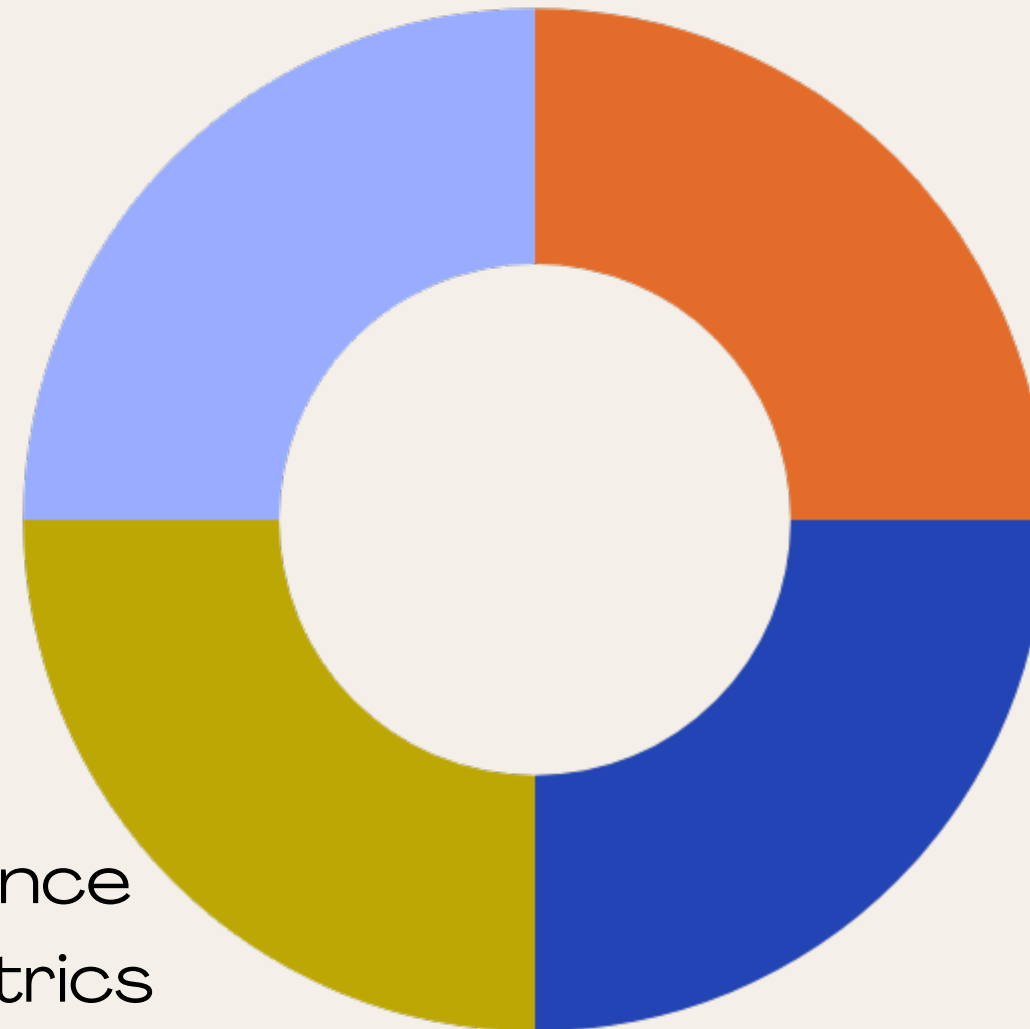
06 - Further Exploration Directions: During EDA process

Data

- a. Data Quality Assessment
- b. Feature Engineering
- c. Data Validation
- d. Documentation

Due Diligence

- a. Legal and Regulatory Compliance
- b. Operational Performance Metrics
- c. Customer and Market Insights
- d. Management and Organizational Structure



Financial Performance

- a. Revenue Analysis
- b. Cost Structure Examination
- c. Profitability Metrics
- d. Financial Health Indicators

Synergy Potential

- a. Business Alignment and Complementarity
- b. Operational Integration and Efficiency
- c. Financial Impact and Value Creation:

07 - Key Takeaways

1. Parch and Posey currently **operates in 4 regions** and has recently expanded into **3 additional regions**, where no orders have been made yet

2. Their order database only includes data on the **quantity sold** and **revenue** for **3 types of paper** from **2013 to 2017**

3. The company experienced **significant growth** in both **revenue** and **units sold from 2014 to 2016**, with increases **exceeding 200%**.

4. The company has **limited human capital resources** in both sales and marketing teams and aims to **leverage reallocation** to support new regions.
Currently, it employs **52 sales representatives**

5. The database **lacks identification of high-value customers**

07 - Recommendations

*It's best to suggest
conducting more analysis
before deciding whether to
proceed with the acquisition*

Other Key Factors for a Successful Business Acquisition

- a. Look at the Rationale Behind the Acquisition/ Strategic Alignment
- b. Focus on Human Capital
- c. Cultural Compatibility
- d. Post-Acquisition Integration Plan

Questions?

