

ALGONOMY

**PIZZA HUT** UK plugs churn and  
increases revenue with Algonomy CDP



# Overview of the client



**400+**  
stores



**16K**  
employees



**3M+**  
customers



**60+**  
years in  
operation

# Poor access to customer data and insights

## Siloed Customer Data

- Siloed data sources leading to fragmented view of customers across channels

## Delayed Reporting

- High wait time for decision makers to get updates with reports taking over **6 hours**

## No ready insights

- Excel reports that **did not provide actionable insights**

## Revenue Loss

- Lack of real-time visibility to customer behavior meant inability to cross-sell, reverse churn behavior leading to revenue loss

## BURNING PROBLEM

**Inconsistent numbers** – resulting in no proper insights and no timely visibility thereby delayed decision making

# Algonomy Customer Analytics

## DATA INGESTION, DEDUPLICATION & ENRICHMENT

### Data types

Personal  
Demographics  
Menu  
Transaction

### Data sources

Online  
Delivery  
Takeaway  
Aggregators

### Real-time Integration

PHDV – Online Orders  
Punchh – Loyalty



Unified Customer  
Snapshot

**GOLDEN CUSTOMER  
RECORD**

## CUSTOMER SEGMENTATION & ANALYTICS

### Segmentation

- RFME Customer
- Scoring: Predictive
- Segmentation
- Customer Lifecycle

### Algorithms

- Market basket analysis
- Churn analysis
- CLTV
- Propensity modelling
- Attribution modelling

### Business Analytics

- Acquisition & Loyalty
- Purchase behavior & Product mix
- Marketing ROI

## Customer Journey

- Purchase behaviour linked
- Marketing Lists

Automated  
interface

## ORCHESTRATION

### Direct

**PERSONALIZED  
CAMPAIGNS**



### Call Centre



API integrations



## MEASUREMENT

- Customer Lifetime Value
- Customer satisfaction
- ROI measurement
- Promotion measurement
- Conversion analysis

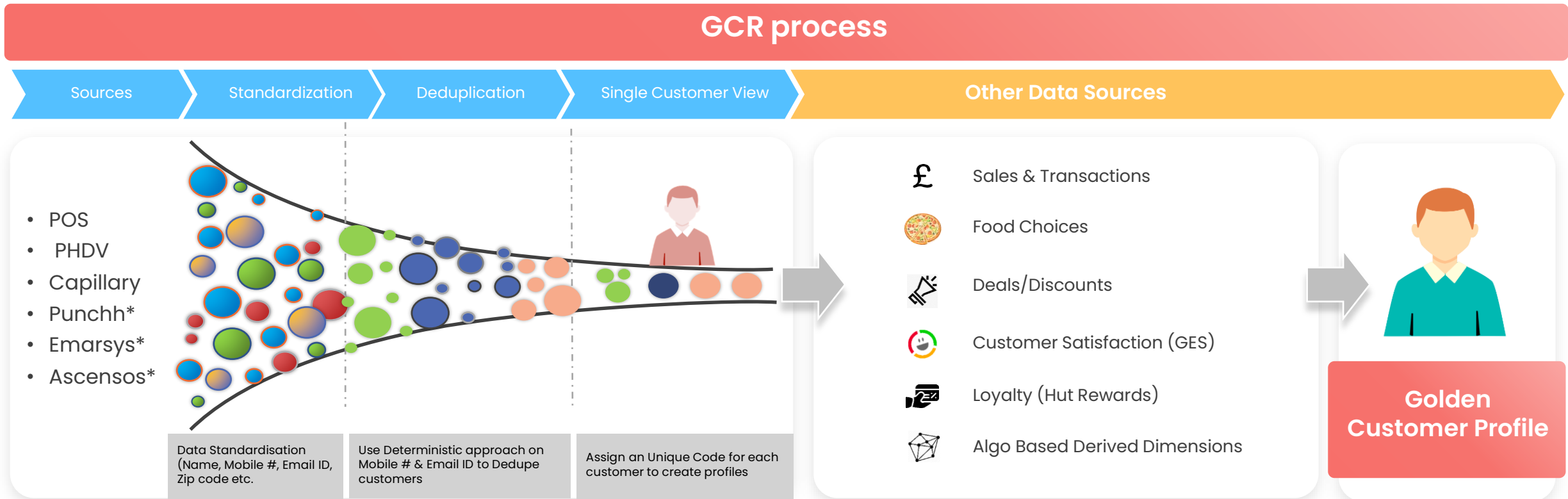


Unified campaign analytics

# Seamless integrations with data sources and audience touchpoints



# 360-degree view of customer and Golden Customer Record



- Data Standardization using attributes such as Name, Phone number, Email, Address, Zip code
- Clusters of duplicate records created by matching them based on deterministic and probabilistic rules
- Merging clusters of duplicate records and enriching it with attributes from different systems
- Creating data link between deduplicated master, original source data and purchase/interaction data
- Outward integration with source system providing golden profile

# Algonomy acts as default CRM



# Single view of customer from multiple sources

|                 | POS              | POS             | POS                    | POS              | Punchh      | POS            | Capillary         |
|-----------------|------------------|-----------------|------------------------|------------------|-------------|----------------|-------------------|
| Full Name       | Genny            | Genny           | Genny Costa            | Gelmilze         | Genny       | Gelmilze       | GELMILZE-\$-COSTA |
| First Name      |                  |                 |                        |                  |             |                |                   |
| Joining Date    | 12/22/2019       | 12/14/2019      | 11/28/2019             | 12/7/2019        | 11/28/2019  | 12/4/2019      | 1/1/1900          |
| Loyalty Status  | TRUE             | TRUE            | FALSE                  | TRUE             |             | TRUE           | NonLoyalty        |
| Customer Street | 16               | 16              | Flat 27, Pegasus House | 16 Medwin        |             | 16 Medwin      |                   |
| Address 1       | Medwin,          | Medwin,         | 89 Greengate Street,   |                  |             |                |                   |
| Email Address   | gcosta84@live.co | gcosta84@live.c | gcosta84@live.co       | gcosta84@live.co | gcosta84@li | gcosta84@live. | gcosta84@li       |
| Mobile Number   | m                | om              | m                      | m                | ve.com      | com            | ve.com            |
| SMS             | 7954175757       | 7954175757      | 7954175757             | 7954175757       | 7954175757  | 7954175757     | 7954175757        |
| Communication   |                  |                 |                        |                  | N           |                | N                 |
| Email           |                  |                 |                        |                  |             |                |                   |
| Communication   | f                | f               | f                      | f                | N           | t              | Y                 |
| Data Source     | Sales            | Sales           | Sales                  | Sales            | Punchh      | Sales          | Capillary         |
| Punchh ID       |                  |                 |                        |                  | 268106      |                |                   |
| Online Order    | OLO3/8119/6662   | OLO3/8119/659   | OLO3/721/69132         | OLO3/8119/65323  |             | OLO3/8119/63   |                   |
| Reference       | 639714/0000      | 7183322/0000    | 31972/0000             | 60380/0000       |             | 09987677/0000  |                   |
| Zip Code        | nn83td           | nn83td          | E130BN                 | NN83TD           |             | NN83TD         |                   |
| Last Order Date | 22-12-2019       | 14-12-2019      | 28-11-2019             | 07-12-2019       | 23-12-2019  | 04-12-2019     | 22-01-2020        |
| Order No.       | 2901145362       | 2900704398      | 2899793567             | 2900335838       |             | 2900136898     |                   |

Customer profile is unified by bringing data from three sources together. After Standardization, deduplication and Merging, Single Customer View and GCR is arrived at, wherein all the demographic details and other attributes are available in one record.

|                   | Manthan SCV       |                     |
|-------------------|-------------------|---------------------|
| Customer Code     | 12236879          | Demographic Details |
| Full Name         | Genny Costa       |                     |
| First Name        | Genny             |                     |
| Last Name         | Costa             |                     |
| Punchh ID         | 268106            |                     |
| Guest Signup Date | 11/28/2019        |                     |
| Loyalty Status    | Hut Rewards       |                     |
| Address 1         | 16                |                     |
| Address 2         | Medwin,           |                     |
| Zip Code          | NN83TD            |                     |
| Email ID          | gcosta84@live.com | Opt-In Data         |
| Mobile Number     | 7954175757        |                     |
| SMS               | Opt_Out           |                     |
| Email             | Opt_In            |                     |

|                             | Manthan SCV           |                                    |
|-----------------------------|-----------------------|------------------------------------|
| First Purchased Date        | 28-11-2019            | Other Derived Customer Information |
| Last Purchased Date         | 22-12-2019            |                                    |
| Most Visited Store          | Wellingborough (8119) |                                    |
| Last Visited Store          | Wellingborough (8119) |                                    |
| Household Head              | Yes                   |                                    |
| Current Lifecycle Status    | New                   |                                    |
| GDPR Flag                   | N                     |                                    |
| Current Performance Status  | Heavy                 |                                    |
| Email – Last Opt Out Source | Capillary             |                                    |
| SMS – Last Opt Out Source   | Capillary             |                                    |



# Automated Householding for better targeting

## Golden Customers

| Customer Code | Joining Date | Name    | Phone      | Email                                            | Postal Code | Address              | Loyalty |
|---------------|--------------|---------|------------|--------------------------------------------------|-------------|----------------------|---------|
| 10032401      | 10-Jun-2018  | Thomas  | 8763446902 | <a href="mailto:xyz@gmail.com">xyz@gmail.com</a> | DY32BB      | 6 Roberts Green Road | No      |
| 23004596      | 04-May-2002  | Luttman | 7489834234 | <a href="mailto:akl@gmail.com">akl@gmail.com</a> | DY32BB      | 6 Roberts Green Road | Yes     |

## Household

| Household Code | Household Joining Date | No of Customers | Primary Phone | Primary Email                                    |
|----------------|------------------------|-----------------|---------------|--------------------------------------------------|
| HH_10023       | 10-Jun-2018            | 2               | 8763446902    | <a href="mailto:xyz@gmail.com">xyz@gmail.com</a> |

Household of each Golden Customer is identified based on Deterministic and Probabilistic logic defined on customer attributes

- **Deterministic:** Works on unique identifiers like E-mail ID/Mobile/Phone Number attributes of customer for matching
- **Probabilistic:** For other non unique identifiers attributes are processed through Probabilistic match type which is based on Levenshtein distance (string similarity metric) algorithm calculation.

# Plug churn and increase revenue with Algonomy CDP

## CHALLENGE

- Limited customer data and analysis crippling the ability to personalize engagement
- Unable to expand customer base with targeted, tested messaging
- Poor visibility into segment migration meant inability to reverse churn behavior

## SOLUTION

**Identify untapped sales opportunity** using machine learning algorithms like Customer Segmentation, Propensity Modelling

**Create customer lists for personalized targeting** using behavioral and predictive analysis

## BENEFIT

- Increase customer base
- Increase existing customers' average spend
- Reactivate Lapsed, Dormant, Churned customers

Prepare Data  
for Analysis

Use K-Means  
Clustering  
algorithm to  
segment customers

Profile customers  
using Lifecycle  
Status,  
Performance  
Status & RFM  
Groups

Identify  
Micro-Segment  
& their profile

Calculate revenue  
potential based  
on RFM Analysis  
& Propensity  
modelling

# Segmentation based on Clustering Algorithms

## Loyalists



- Loyalists are most frequent and significantly indulge in Online Sales
- Pizza, Starter, Beverage Units sale is extremely high, Maximum Deal units used
- Off all the Segments, Loyalists prefer veg more
- Reward customers sales are extremely high compared to all other

## Loyalists



- Stars are quite frequent and are heavy buyers
- Pizza, Starter, Beverage Units sale is high
- Deal units are also high
- Non –Reward Sales are high compared to other segments

## Loyalists



- Casual Pizza Lovers have maximum unit sales of Pizza, Starters, Beverages and Deals after the Loyalists and Stars
- Mostly indulge in online sales

## Least Engaged



- This segment has the maximum no. of customers with a very low purchase potential

## Pizza Celebrators



- This segment is least frequent with highest avg spend
- Maximum Pizza Units per visit is consumed by this segment

## On the Go Buyers

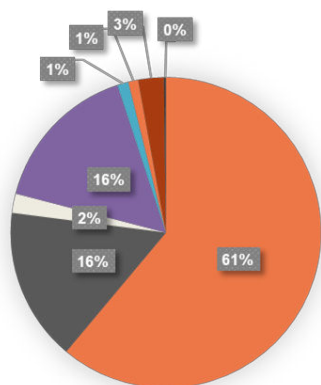


- This segment indulges in offline sales and take away orders. Has lowest average Spend of all segments

**Key take away: Identify segment size, sales contribution, ARPU, Average Spend for better targeting**

# Profile customers using Lifecycle Status, Performance Status & RFM Groups for better targeting

Current Lifecycle Status: Sales Contribution (2018-19)

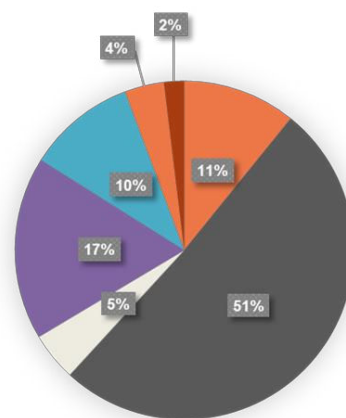


Active  
Lapsed  
Churned Transacted  
New  
Reactivated From Lapsed  
Shopped Before 2018  
Dormant  
New Reactivated

## Key Take Away:

Identify customers in Lapsed/ Churned transacted lifecycle status and send promotional offers to reverse behavior

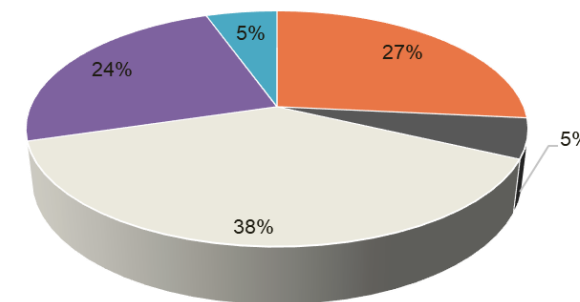
Performance Status: Sales Contribution (2018-19)



Medium  
Non-Transacted  
Heavy  
Light  
Light-Medium  
Super-Heavy  
Extreme

## Key Take Away:

Identify segments that have not transacted in last 90 days to reverse behavior



Regular High Spenders  
Conservative Newbies  
Most Recent High Spenders  
Less Frequent Low Spenders  
Least Contributors

## Key Take Away:

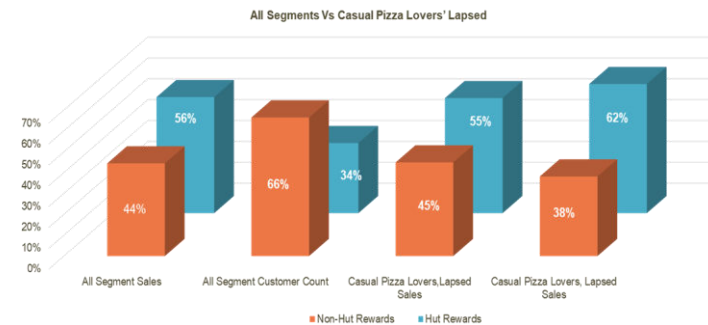
Identify segments that are regular high spenders to enhance loyalty

# Create micro-segments and analyze their profile

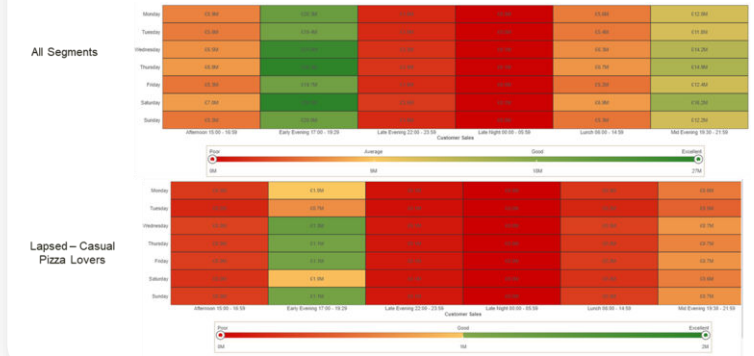
## Key Metrics of Lapsed – Casual Pizza Lovers

| Key Metrics              | Casual Pizza Lovers, Lapsed |
|--------------------------|-----------------------------|
| Customer Sales           | £16.64M                     |
| Transacted Member Count  | 13.45K                      |
| GC Count                 | 95.60K                      |
| Average Revenue Per User | £123.71                     |
| Avg Spend                | £17.41                      |
| Avg visit count          | 7.3                         |
| % SMS Opt In             | 23.8%                       |
| % Email Opt In           | 11.1%                       |

## Rewards Vs Non-Rewards Break-up



## Preferred Time of Day & Day of Week



## Menu preference of segment

| All Segments                                                                                                      | Casual Pizza Lovers, Lapsed Customers                                              |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Menu items – Popular menu items are chicken strips followed by Large Classic Crust Pepperoni Feast, Potato wedges | Menu items – 51% of the sales came from BBQ Wings                                  |
| Pizza Crust - 31% of the sales came from classic crust followed by Pan crust (19%)                                | Pizza Crust - 32% of the sales came from classic crust followed by Pan crust (17%) |
| Pizza Size – 76% of the pizza volume came from Large(56%) and medium pizza(20%)                                   | Pizza Size – 80% of the pizza volume came from Large(53%) and medium pizza(26%)    |
| Peperoni feast and Margherita are clear favorites. 4Topp most preferred in toppings                               | Peperoni and Margherita are clear favorites. 4Topp most preferred in toppings      |

## Deal preference of segment

| All Segments                            |         | Lapsed Casual Pizza Lovers              |         |
|-----------------------------------------|---------|-----------------------------------------|---------|
| 83% of sales contributed by Top 4 deals |         | 80% of sales contributed by Top 6 deals |         |
| Deals                                   | % sales | Deals                                   | % sales |
| £20 Bundle                              | 27%     | £20 Bundle                              | 27%     |
| £24.99 Deal                             | 20%     | £24.99 Deal                             | 18%     |
| £5 FavouriteDeal                        | 20%     | £5 FavouriteDeal                        | 19%     |
| £19.99 Bundle                           | 16%     | £19.99 Bundle                           | 14%     |
|                                         |         | Cookie Mix&Match                        | 3%      |

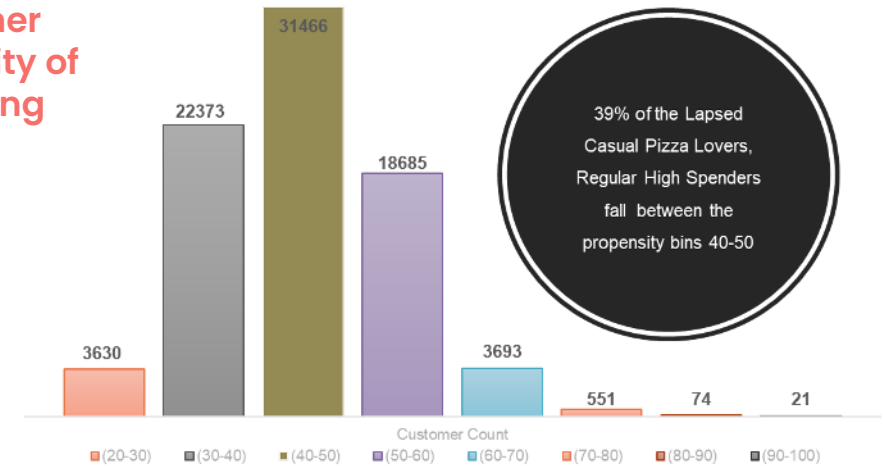
**Insights:** Customers do not show any unique behavior when it comes to Menu, Deal or Time preferences and is primarily influenced by the brand marketing strategies

# Identify revenue potential based on RFM analysis & Propensity modelling

74% of Lapsed Casual Pizza Lovers' sales was contributed by Regular High Spenders who also have a higher ARPU

| RFME Group                 | Customer Sales | Sales contribution | Transacted Member Count | % Transacted Member Count | GC Count | % GC Count | Average Basket Value | Average Revenue Per User |
|----------------------------|----------------|--------------------|-------------------------|---------------------------|----------|------------|----------------------|--------------------------|
| Less Frequent Low Spenders | £1.90M         | 11%                | 2.68K                   | 20%                       | 9.81K    | 10%        | £19.38               | £70.94                   |
| Regular High Spenders      | £12.38M        | 74%                | 8.13K                   | 60%                       | 70.95K   | 74%        | £17.44               | £152.26                  |
| Least Contributors         | £2.37M         | 14%                | 2.65K                   | 20%                       | 14.85K   | 16%        | £15.94               | £89.44                   |

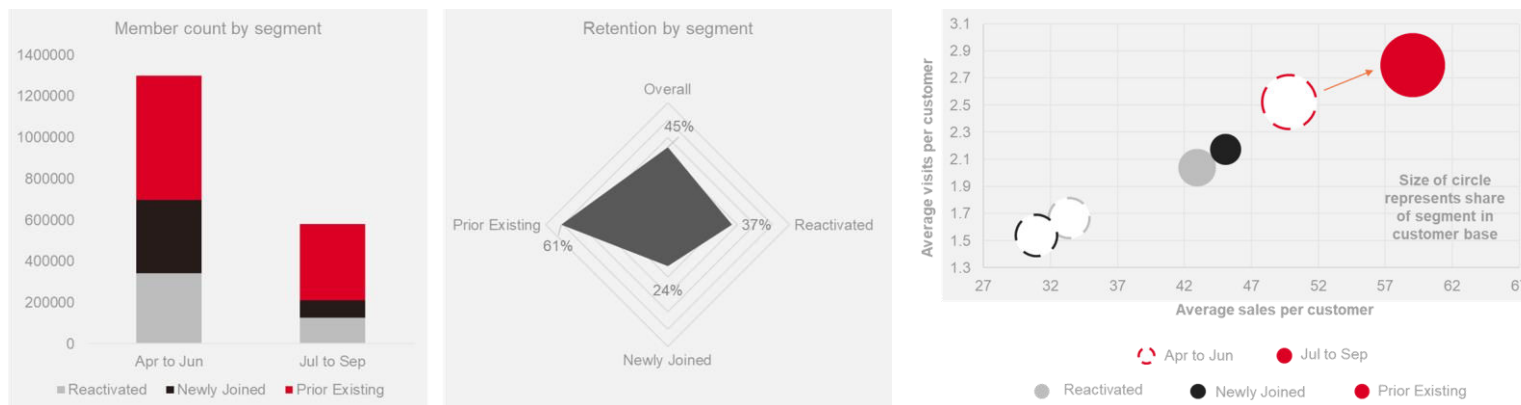
Identify customers with higher probability of responding



| Avg Propensity | Customer Count | Reachable | Estimated Responders | ARPU    | Potential Opportunity |
|----------------|----------------|-----------|----------------------|---------|-----------------------|
| 25%            | 3630           | 954       | 239                  | £ 139.5 | £ 33,277              |
| 35%            | 22373          | 5567      | 1948                 | £ 142.6 | £ 277,755             |
| 45%            | 31466          | 7631      | 3434                 | £ 146.7 | £ 503,720             |
| 55%            | 18685          | 4292      | 2361                 | £ 161.1 | £ 380,347             |
| 65%            | 3693           | 854       | 555                  | £ 201.3 | £ 111,759             |
| 75%            | 551            | 114       | 86                   | £ 269.3 | £ 23,025              |
| 85%            | 74             | 13        | 11                   | £ 413.0 | £ 4,563               |
| 95%            | 21             | 2         | 2                    | £ 729.7 | £ 1,386               |

Reactivating **LAPSED – CASUAL PIZZA LOVERS – REGULAR HIGH SPENDERS – WITH PROPENSITY OF 20% – 100%** may lead to a potential revenue opportunity of **£1.3M** in one visit

# Impact analysis of reactivation campaign



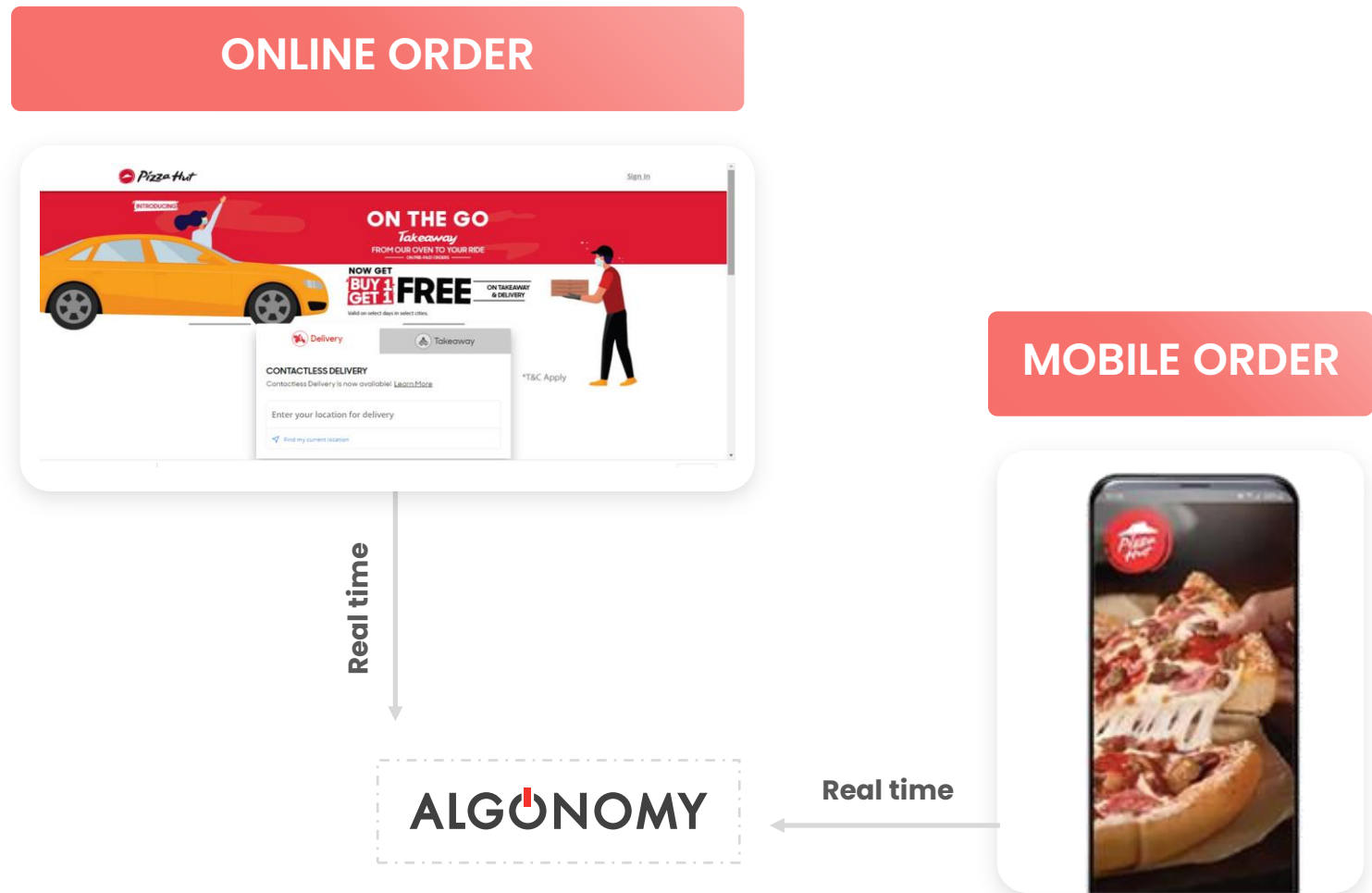
## Key Take Away:

- Newly acquired customers during Apr-Jun have the lowest retention rate whereas prior existing customers have the highest retention.
- However on average sales and average visits, all segments saw improvement with newly joined being the highest whereas prior existing being the lowest
- The retention rate of customers acquired in April is the highest for the following month. However it dropped significantly after a couple of months

|      |     | 2019 |      | 2020 |      |      |      |      |      |      |      |      |
|------|-----|------|------|------|------|------|------|------|------|------|------|------|
|      |     | Nov  | Dec  | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  |
| 2019 | Nov | 100% | 16%  | 12%  | 11%  | 10%  | 9%   | 9%   | 8%   | 8%   | 7%   | 7%   |
|      | Dec |      | 100% | 13%  | 12%  | 10%  | 9%   | 9%   | 8%   | 8%   | 8%   | 7%   |
| 2020 | Jan |      |      | 100% | 16%  | 12%  | 10%  | 9%   | 8%   | 8%   | 8%   | 7%   |
|      | Feb |      |      |      | 100% | 13%  | 10%  | 9%   | 8%   | 8%   | 7%   | 7%   |
|      | Mar |      |      |      |      | 100% | 19%  | 15%  | 11%  | 10%  | 9%   | 8%   |
|      | Apr |      |      |      |      |      | 100% | 23%  | 15%  | 12%  | 11%  | 9%   |
|      | May |      |      |      |      |      |      | 100% | 18%  | 14%  | 12%  | 10%  |
|      | Jun |      |      |      |      |      |      |      | 100% | 17%  | 13%  | 10%  |
|      | Jul |      |      |      |      |      |      |      |      | 100% | 16%  | 12%  |
|      | Aug |      |      |      |      |      |      |      |      |      | 100% | 14%  |
|      | Sep |      |      |      |      |      |      |      |      |      |      | 100% |

# Real time visibility to enhance customer satisfaction

- Orders are integrated in real-time between Pizza-Hut online portal/mobile-app and Algonomy
- Call Center Agent has real-time visibility on
  - Customer Order
  - Last Five Orders
  - Customer Snapshot (giving view on which Segment, Lifetime value, Churn score etc.,)
- Assisting Call Center agent to take appropriate action (improved customer refund process time by nearly 70%)





# Ensuring GDPR Compliance

## Right to forget API

Customer visits Pizza Hut's website (or reaches call Center)



Customer asks the Pizza Hut to forget her



Pizza Hut calls Algonomy GDPR API



Algonomy removes the customer's identity from the database



Algonomy API notifies Pizza Hut



Pizza Hut notifies the customer

## Right to access API

Customer mails Pizza Hut requesting access to all data captured



Pizza Hut calls Algonomy GDPR API



Algonomy fetches all data of the concerned customer



A CSV file with all data is uploaded on a secure location



Algonomy API notifies Pizza Hut



Pizza Hut shares data with the customer

# Customer Speak....

“Algonomy has demonstrated its ability to understand our business and our customers and has the capability to deliver the highest levels of scalable technology innovation. The partnership with Algonomy has significantly boosted our operational and analytical efficiencies. Algonomy not only collated all our data from legacy systems to create a Single Source of Truth, but also created easier access to operational and performance metrics to give us quicker analytical turnaround times”,

said **Beverley D'Cruz**, Chief Marketing Officer,  
Pizza Hut Delivery – UK

**ALGONOMY**

**Thank You!**

