VANS DATA VISUALIZATION

MSMI APPLIED PROJECT 2019

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Agenda

I. Real Time Data Collection Model

II. Data Visualization

III. Identify Customer Preference

IV. Consumer Behavior Insight

VANS

Event & Data Overview

Event Overview

- **Vans Custom Shoe Recipe**
- Location: Vans USA HQ
- Duration: 40 days
- Data Given: 11 days
- Data Records: 98
- Data Collection Method: NFC & QR code

Data Collection Methods

11 Event Reporting Dates

Scan me

Real Time Data Reporting

DATA RECORD

98

Daily Interaction Records

Date	Value
5/15	53
5/23	3
5/24	3
5/25	1
5/28	1
5/30	11
6/3	10
6/6	11
6/10	2
6/11	2
17-Jun	1

Time of Day Interaction Records

Time	Value
10 am	16
11 am	12
12 pm	3
1 pm	8
2 pm	4
3 pm	9
4 pm	25
5 pm	3
6 pm	9
7 pm	5
8 pm	3
9 pm	0
10 pm	1

SHOE RECIPE

15

Recipe Popularity

x-axis labels: 3 1 12 8 6 13 4 9 7 10 5 15 11 2 14

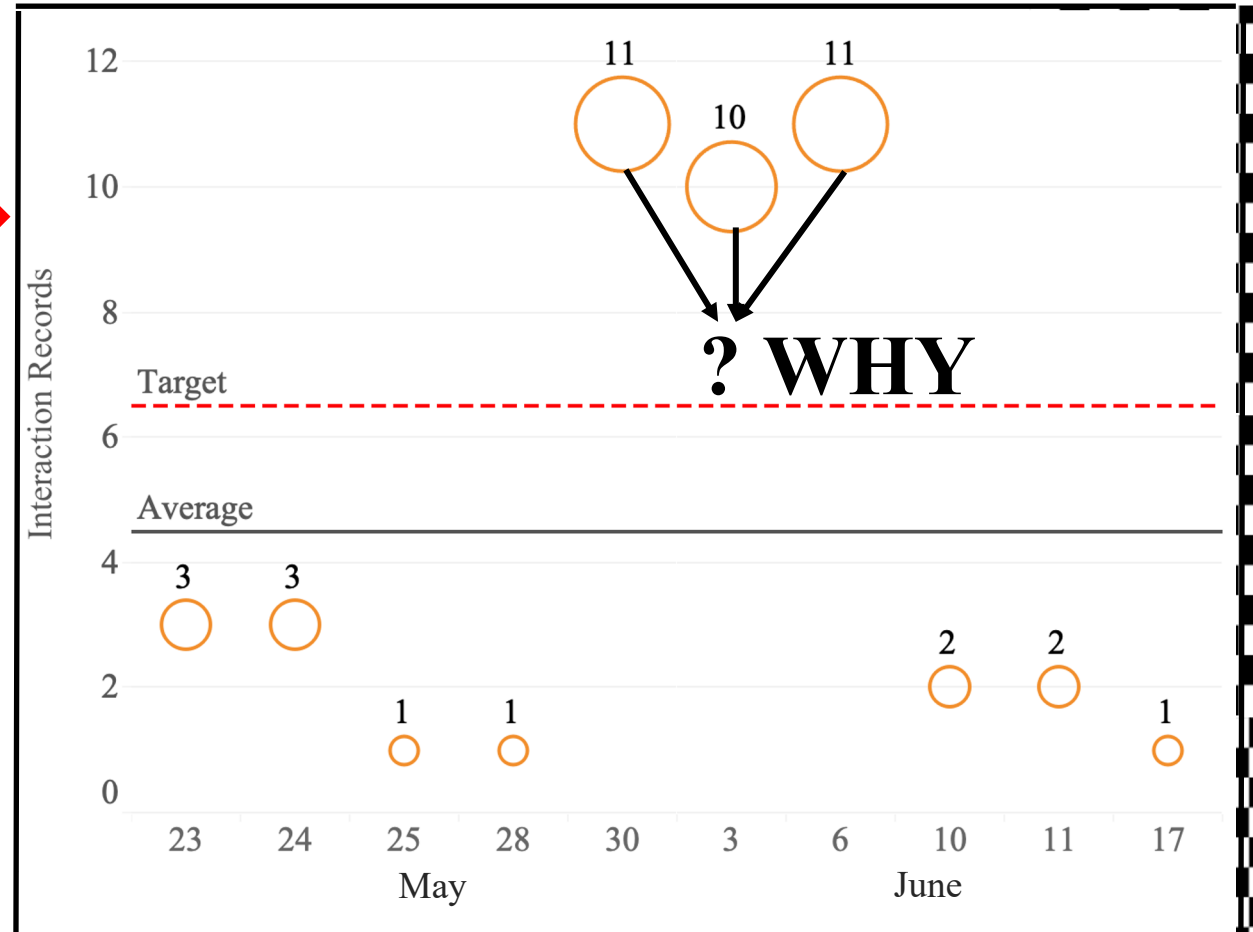## Design Access Method
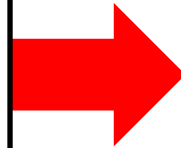
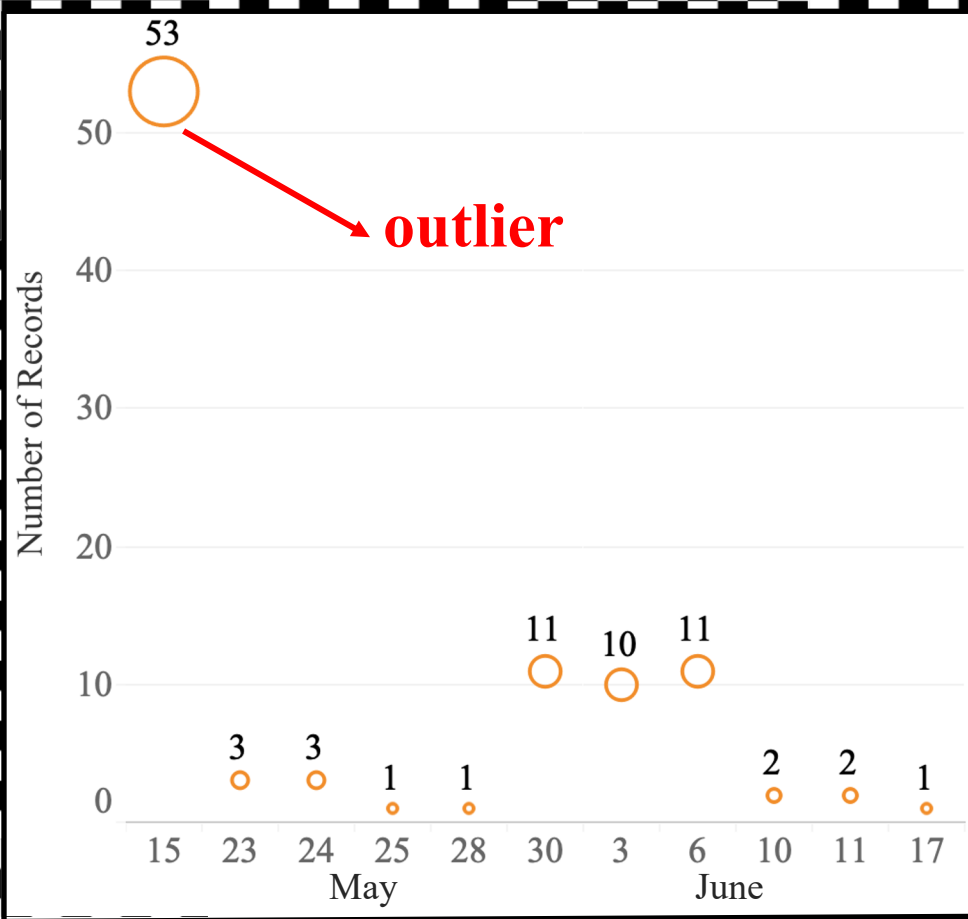NFC 28%

QR 72%

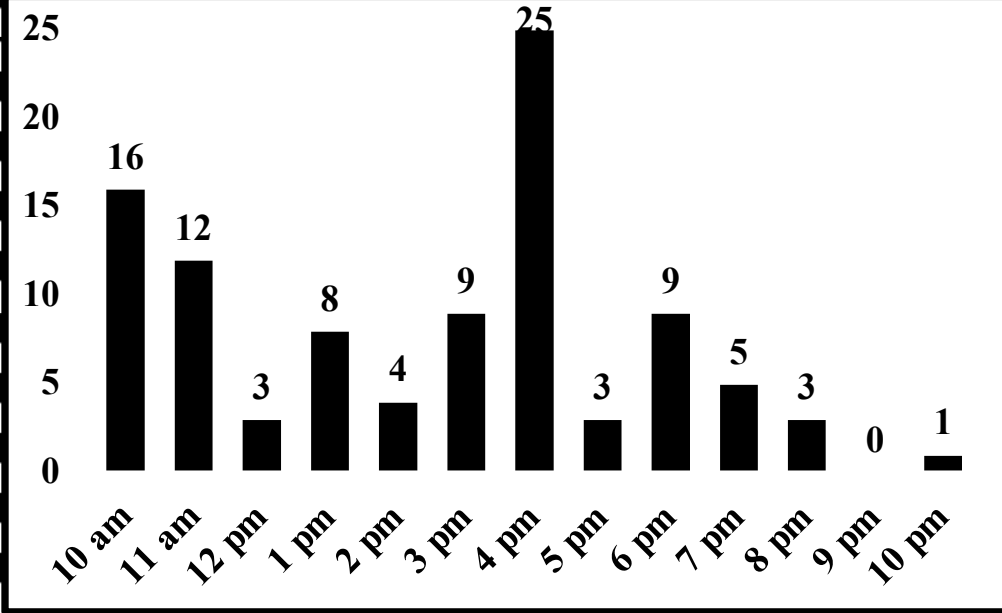## Platform Preference

Android 22%

iOS 78%
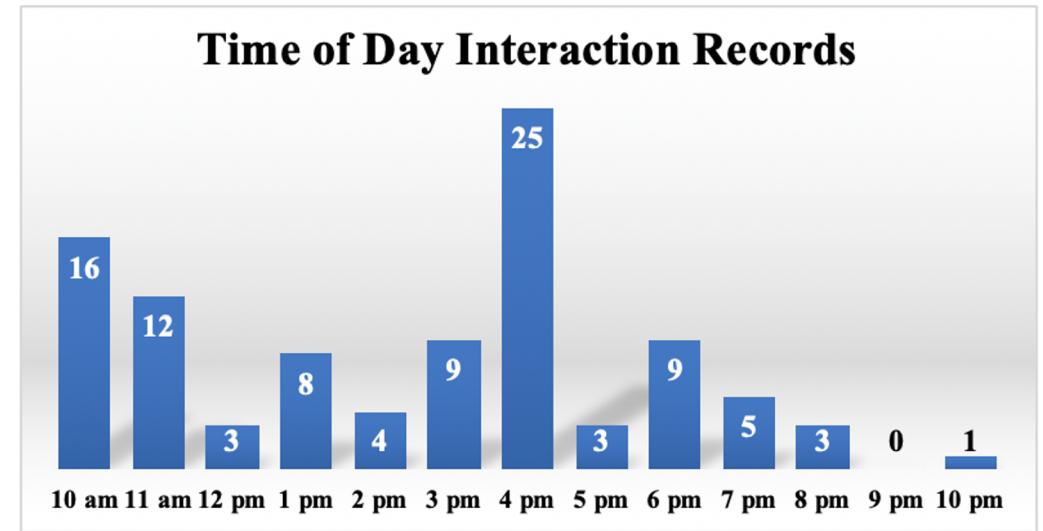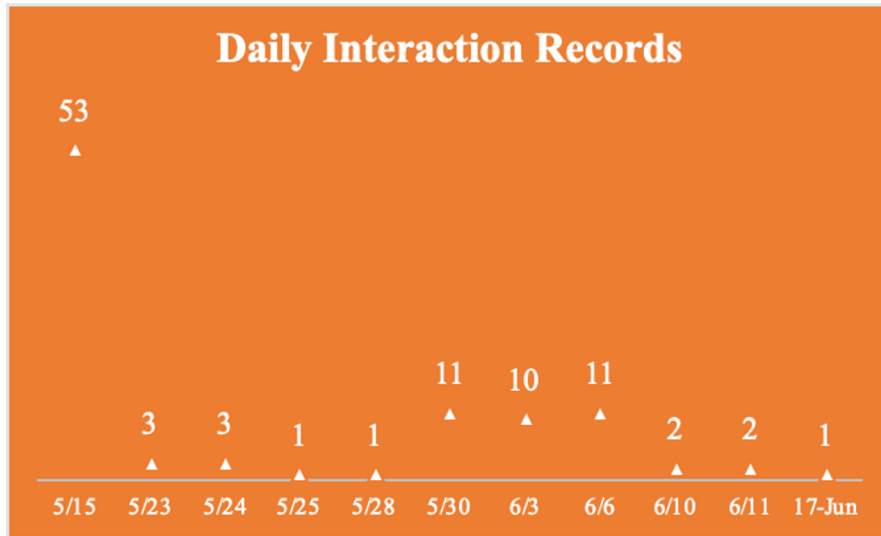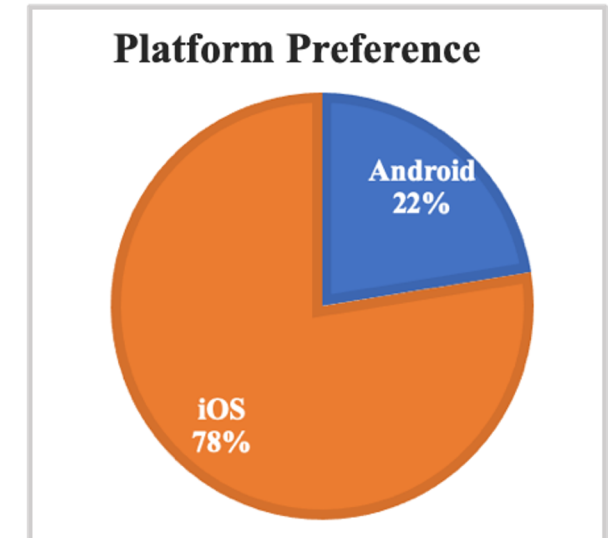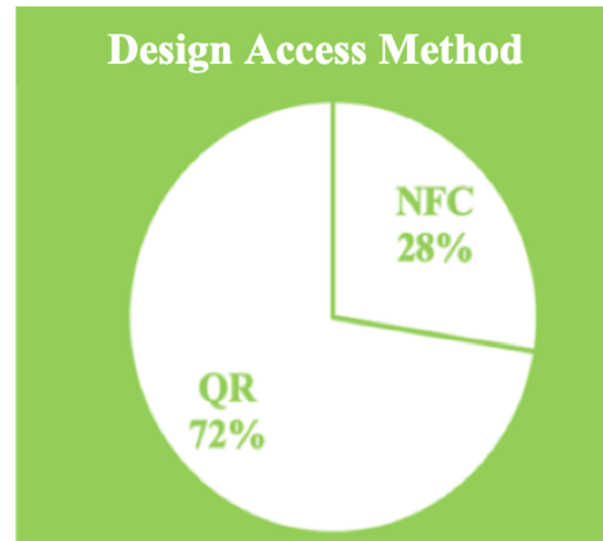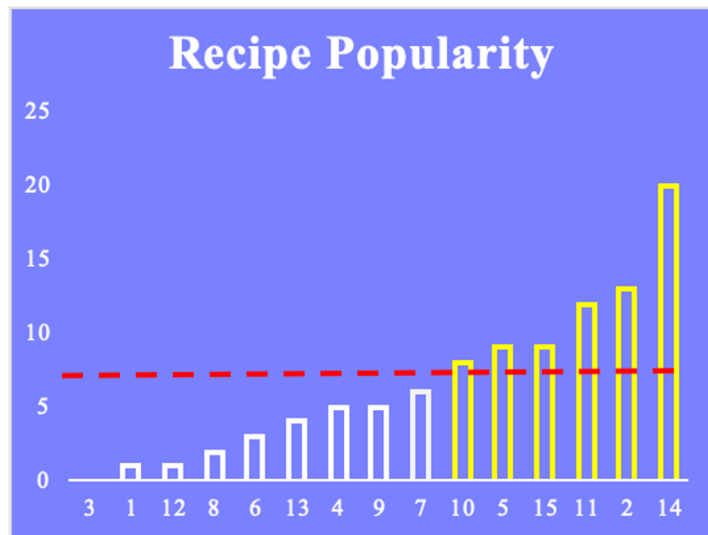
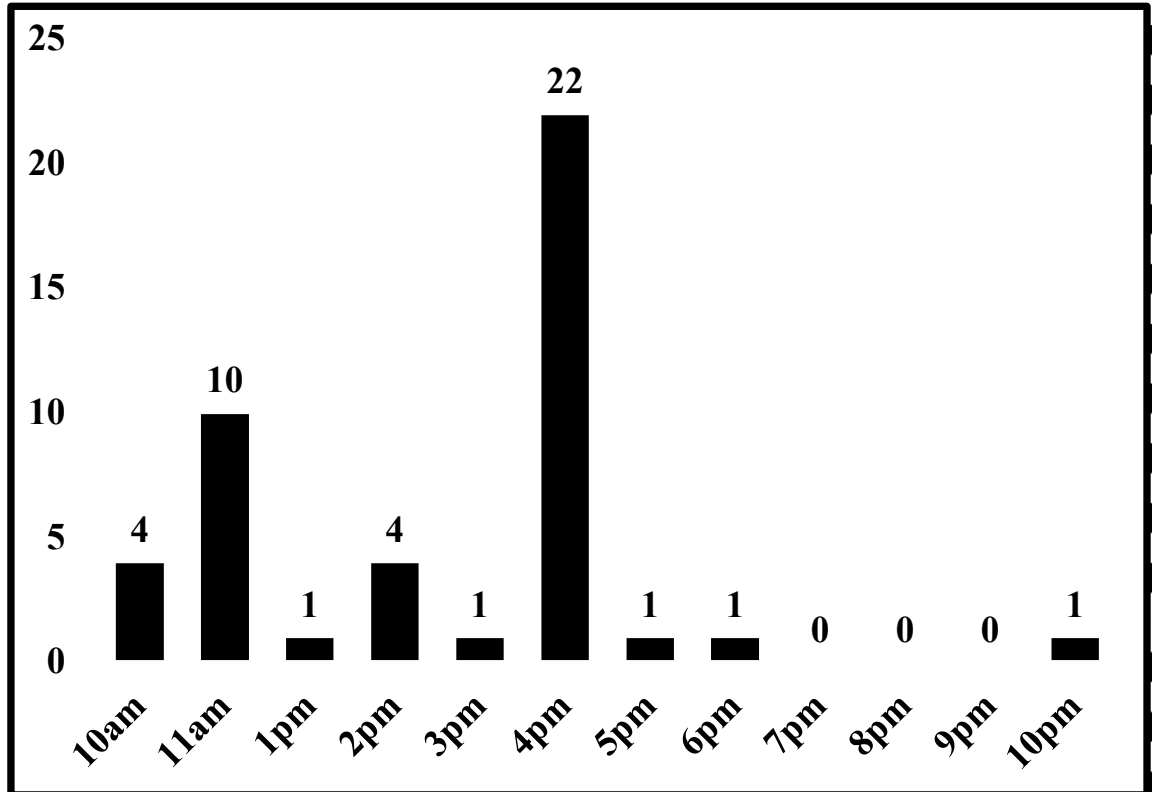# Interaction Record Analysis

Daily Interaction Records

- An outlier record of **53** interactions on the first day

- Average record in the rest of days is **4.5** interactions, less that a <u>hypothetical</u> target of **6.5**.

- May 30th, June 3rd, 6th days with most interactions.
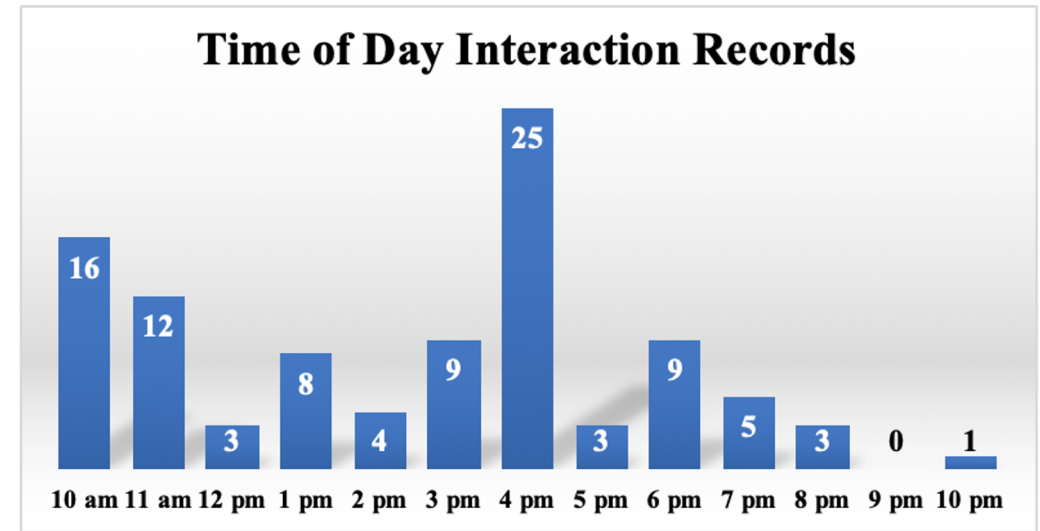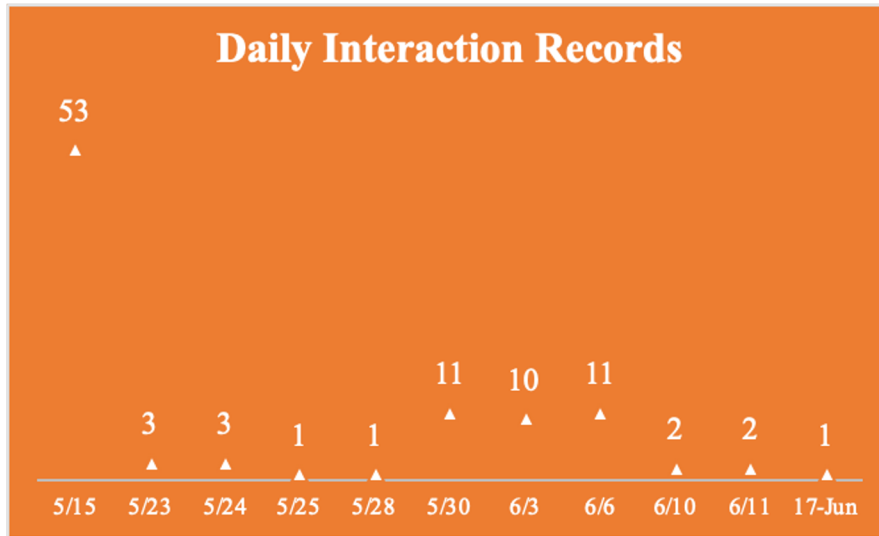
Time of Day Interactions

Exclude Outlier

- 4 pm was the peak time of interactions.

- More interactions in the morning.
Few interactions after 6 pm.
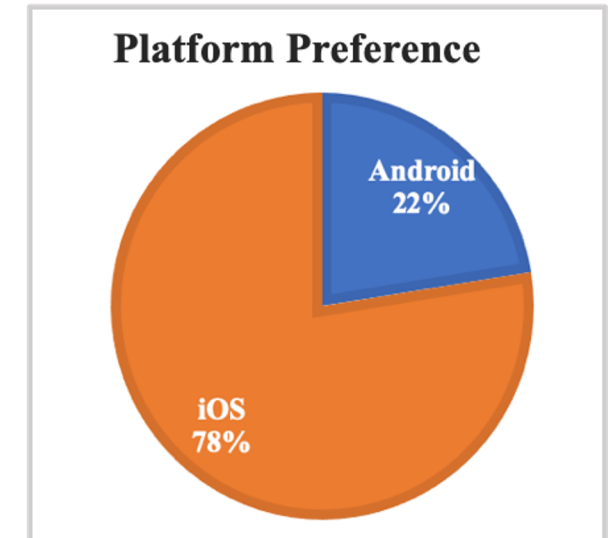
Real Time Data Reporting

DATA RECORD

98

Daily Interaction Records

53

3 3 1 1 11 10 11 2 2 1

5/15 5/23 5/24 5/25 5/28 5/30 6/3 6/6 6/10 6/11 17-Jun

Time of Day Interaction Records

16 12 3 8 4 9 25 3 9 5 3 0 1

10 am 11 am 12 pm 1 pm 2 pm 3 pm 4 pm 5 pm 6 pm 7 pm 8 pm 9 pm 10 pm

SHOE RECIPE

15

Recipe Popularity

25 20 15 10 5 0

3 1 12 8 6 13 4 9 7 10 5 15 11 2 14

Design Access Method

NFC 28%

QR 72%

Platform Preference

Android 22%

iOS 78%
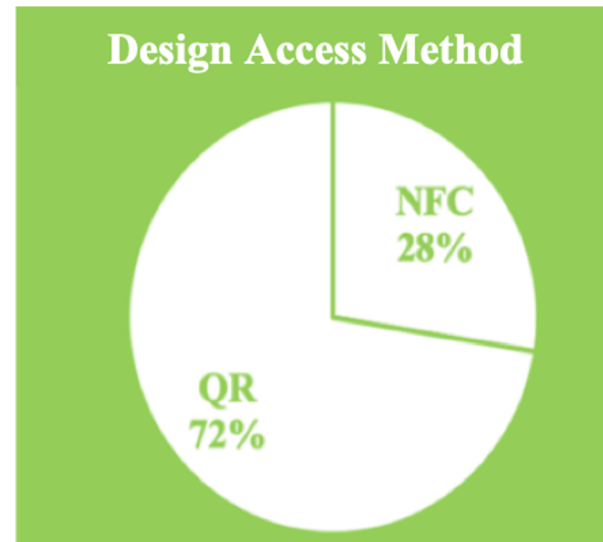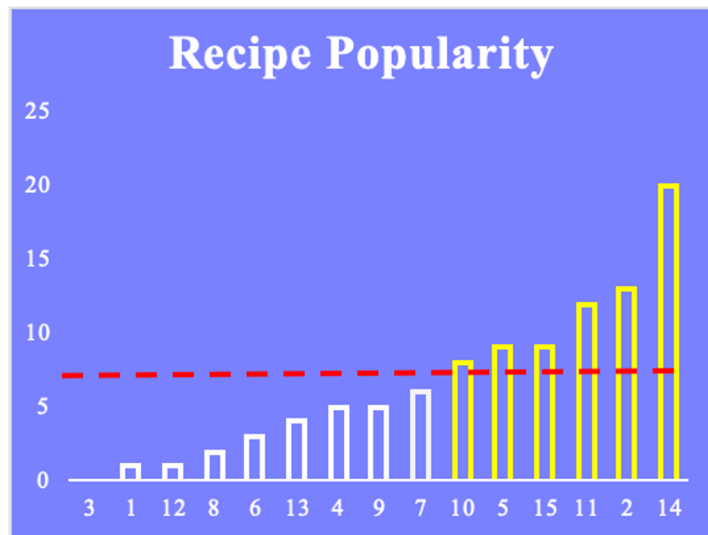
Shoe Design Analysis

15 Recipes of Shoes Design Starters
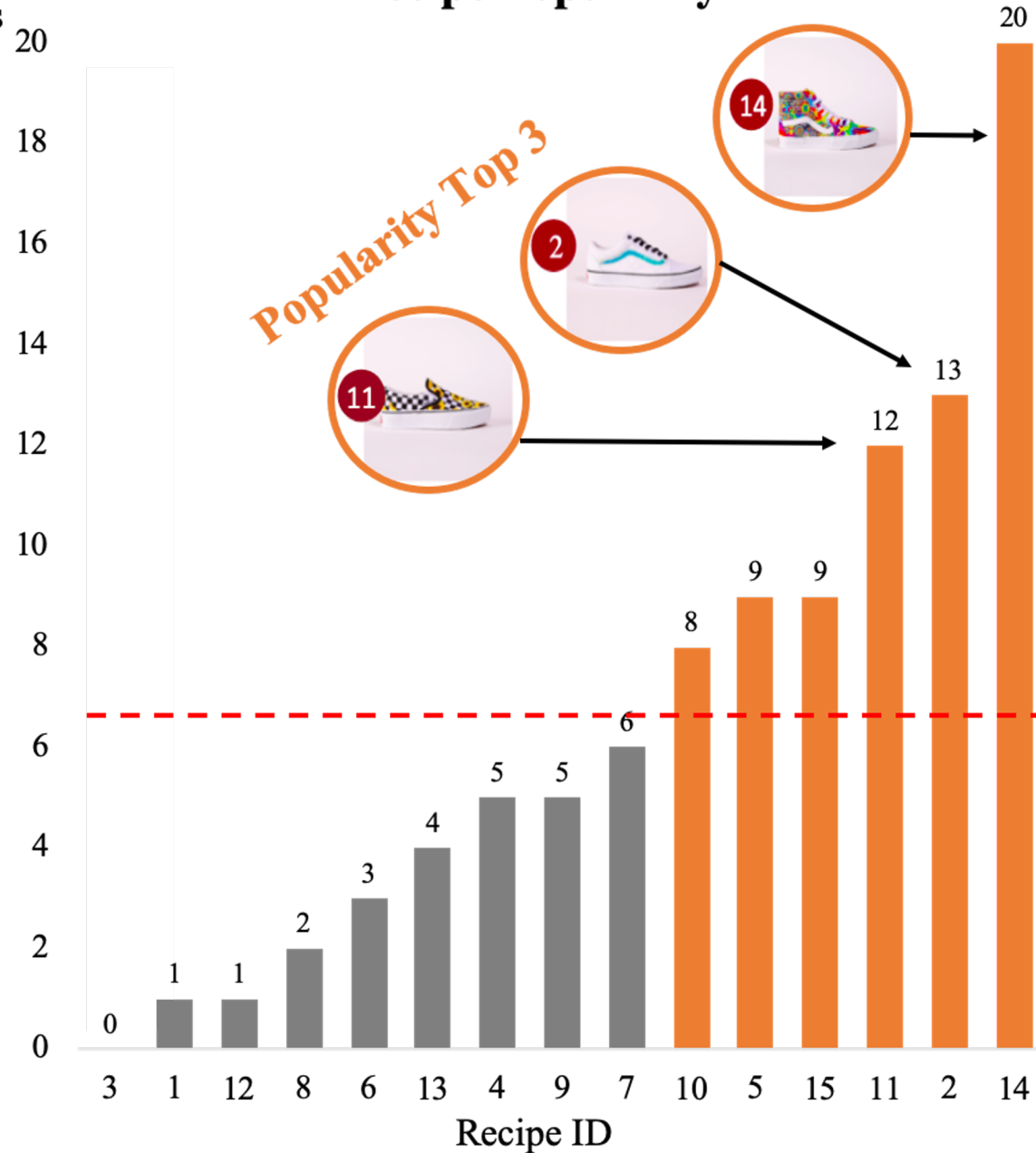
Recipe Popularity Overview

• Amongst 15 recipes, Recipe No.14 is the most popular one.

• Over half of the recipes were not so popular and did not reach the average interaction records.

Clustering Criteria   **Number of Interaction Records**

Shoe Design Clustering
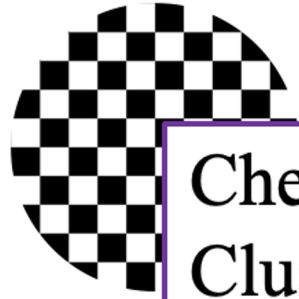
1 Checkerboard Clustering
- Checkerboard
- Not Checkerboard

69 + 29 = 98
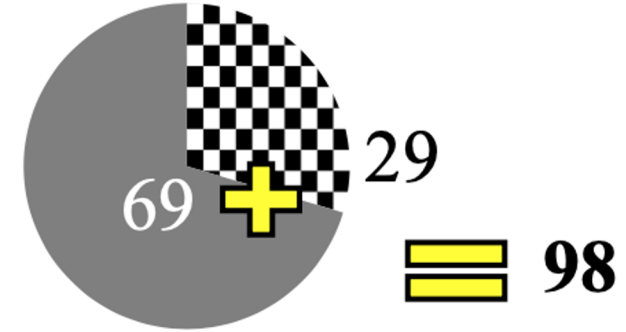
2 Base Colors Clustering
- White Base
- Colorful Base
- Pure Color Base

32 + 21 + 45 = 98
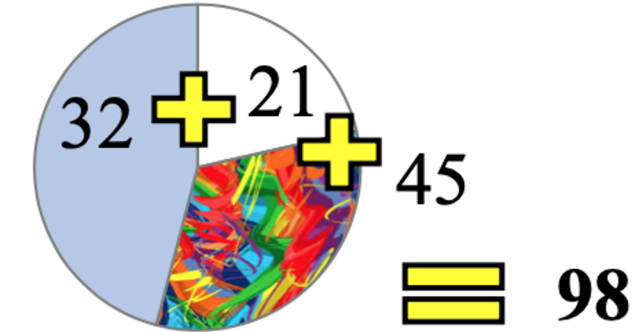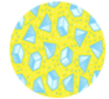
3 Pattern Clustering
- Pop Pattern
- Plaid Pattern
- Camouflage Pattern
- Other

46 + 47 + 5 = 98

Checkerboard Design

12 records

8 records
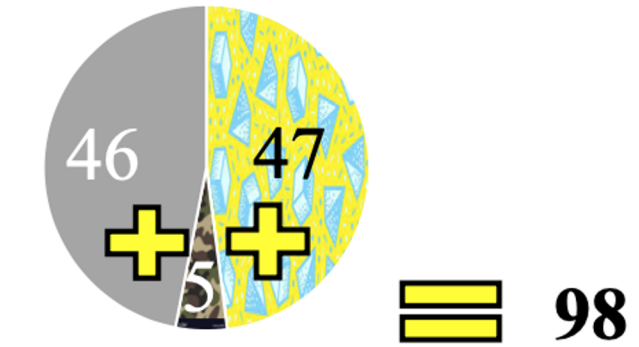
5 records

2 records

1 record

1 record

Design Popularity Comparison
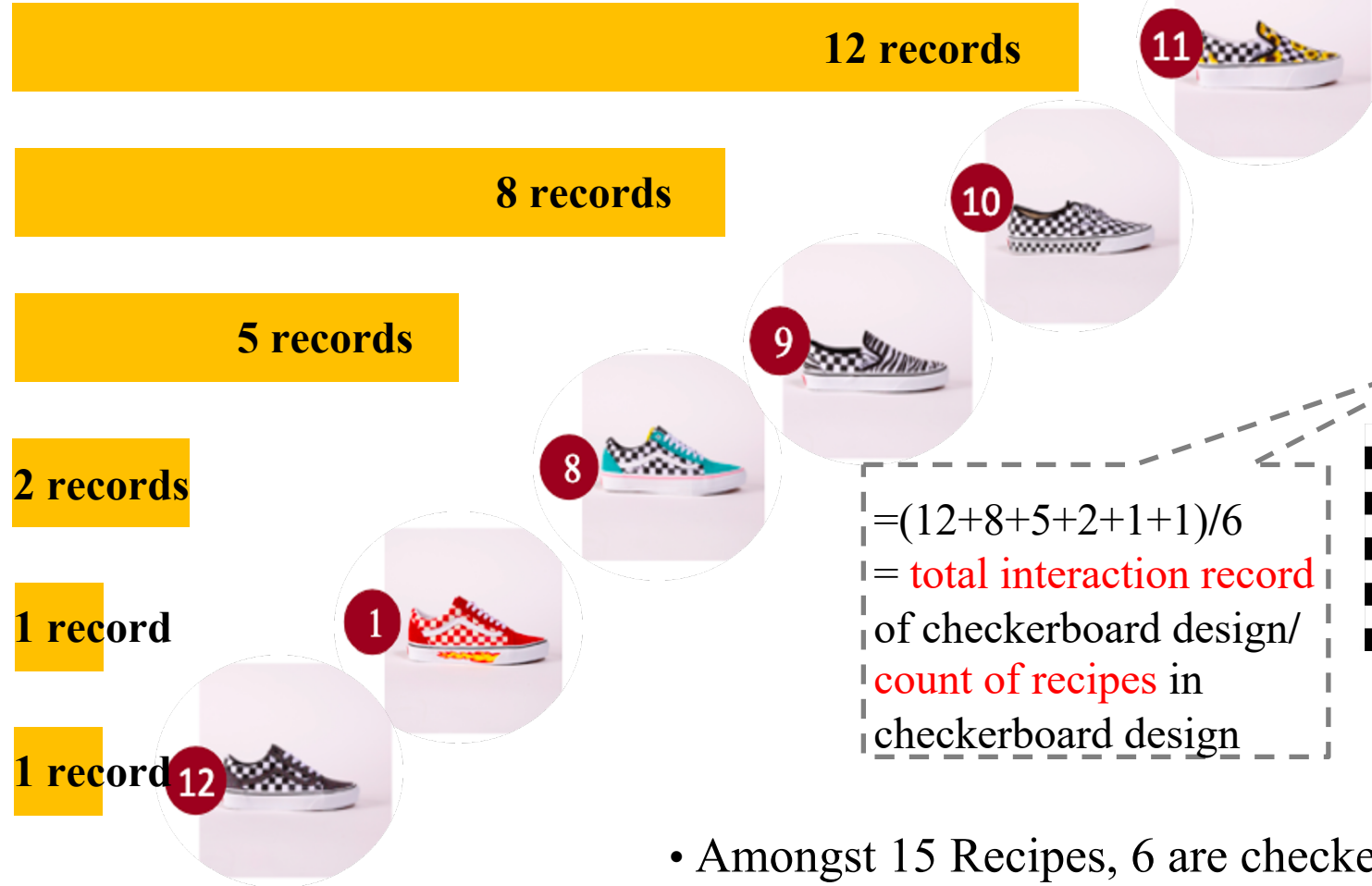
=(12+8+5+2+1+1)/6
= total interaction record
of checkerboard design/
count of recipes in
checkerboard design

4.8

7.7

Checkerboard
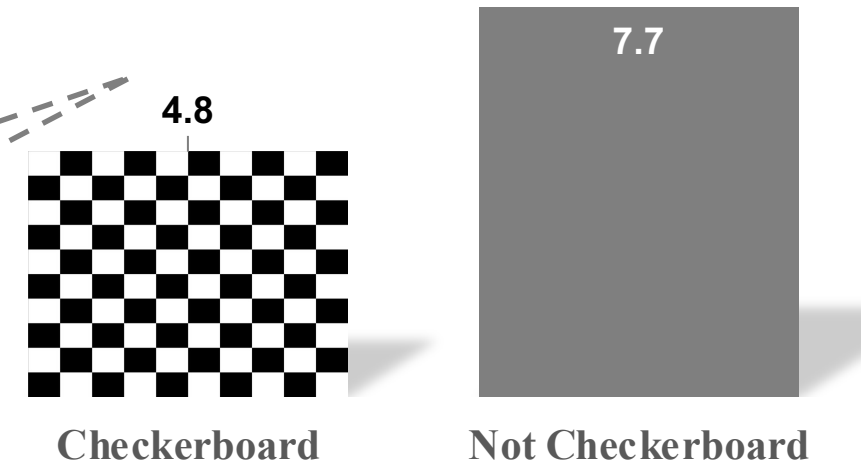
Not Checkerboard

• Amongst 15 Recipes, 6 are checkerboard design.

• Checkerboard cluster is not as popular as others.

Base Colors Clustering

Colorful Base

20 records

9 records

3 record

White Base

13 records

9 records

• White base design and colorful design are the most popular designs in the custom recipe event.

Design Popularity Comparison

10.7 — Colorful Base

11.0 — White Base

4.4 — Pure Color Base

Pop Pattern

20 records

12 records
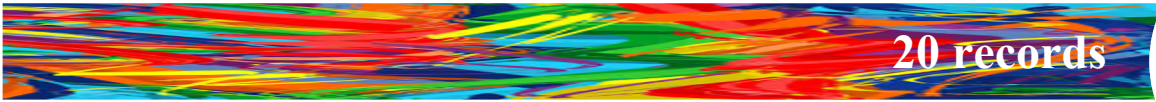
9 records

6 records

Camouflage Pattern

5 records
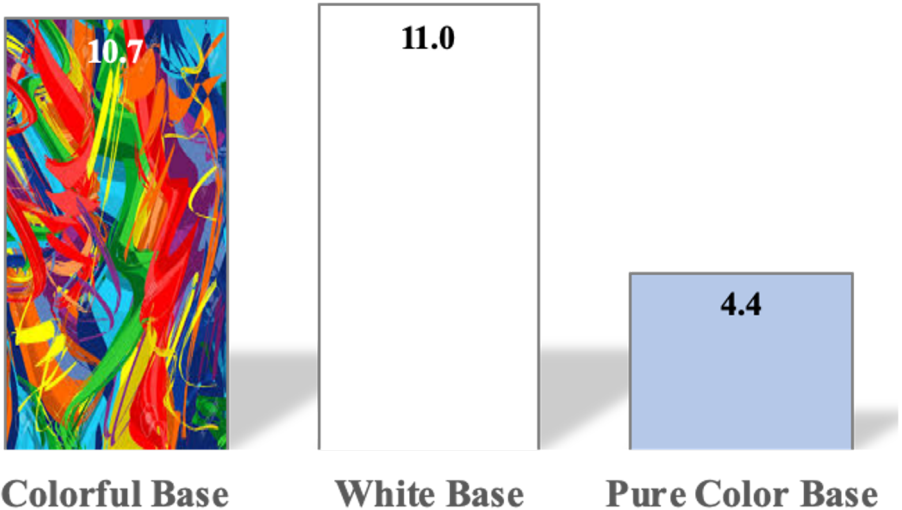
Plaid Pattern

0 records

Pattern Clustering

• Pop pattern is the most popular design, while the plaid pattern is less popular than the other pattern designed styles.

Design Popularity Comparison

11.8

5.0

0.0

5.1

Pop Pattern | Camouflage Pattern | Plaid Pattern | Others

Clustering

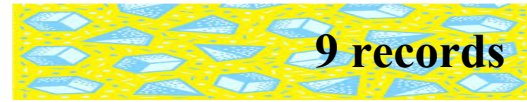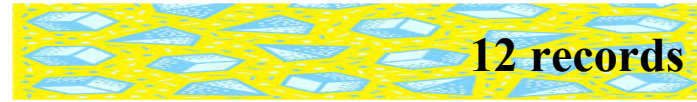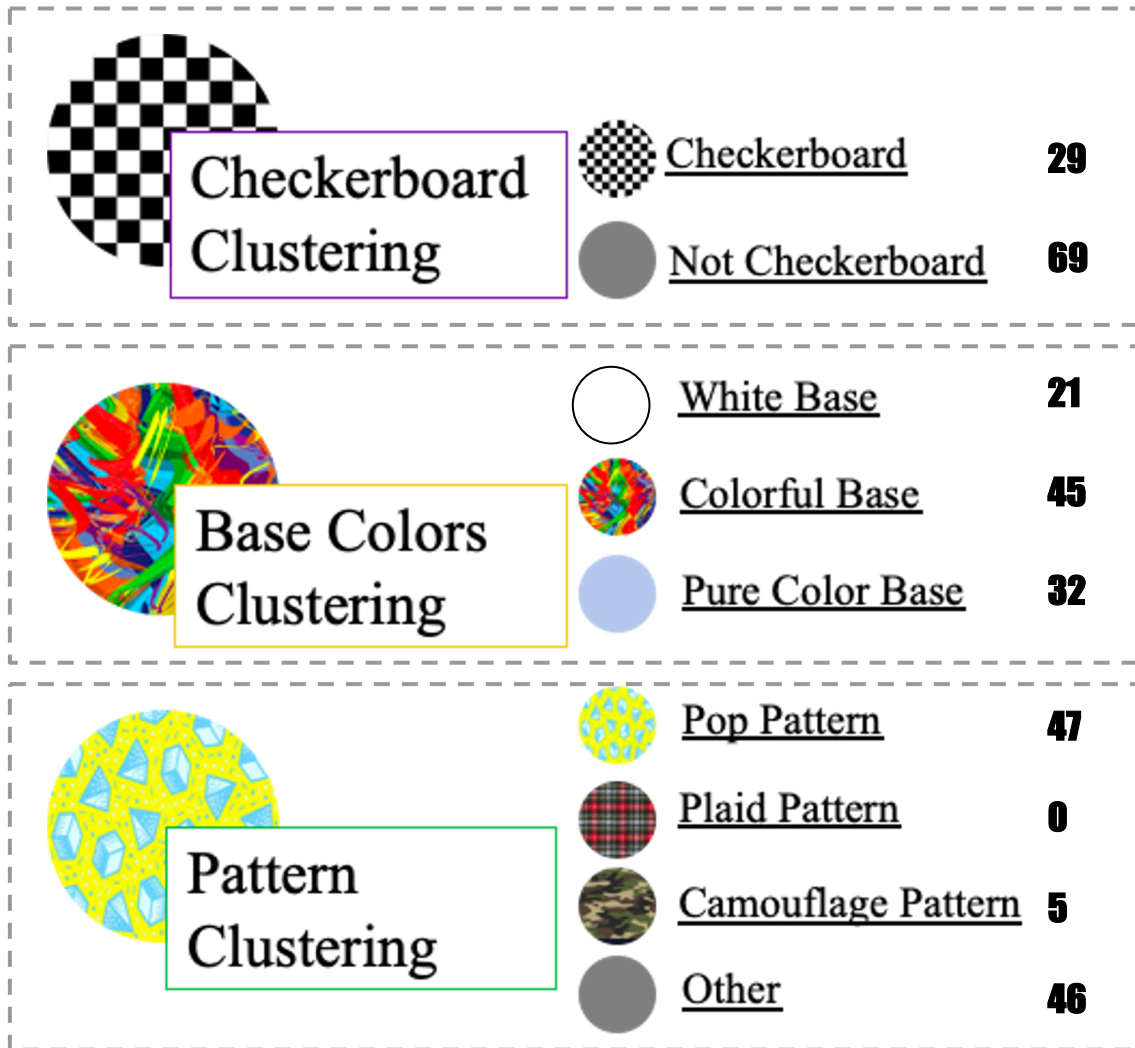|		
Checkerboard Clustering	Checkerboard	**29**
	Not Checkerboard	**69**

Base Colors Clustering	White Base	**21**
	Colorful Base	**45**
	Pure Color Base	**32**

Pattern Clustering	Pop Pattern	**47**
	Plaid Pattern	**0**
	Camouflage Pattern	**5**
	Other	**46**

Here,

What Vans Can Learn From the Analysis About Clustering.

- Checkerboard not as popular as other style right now.
  - Classic Vans design -- but not as **personalized**

- Colorful based shoes are **personality.**
- Simple color based shoes can design without limitation.

- As the target customers of Vans are **personality**, pop pattern is the most attractive style.
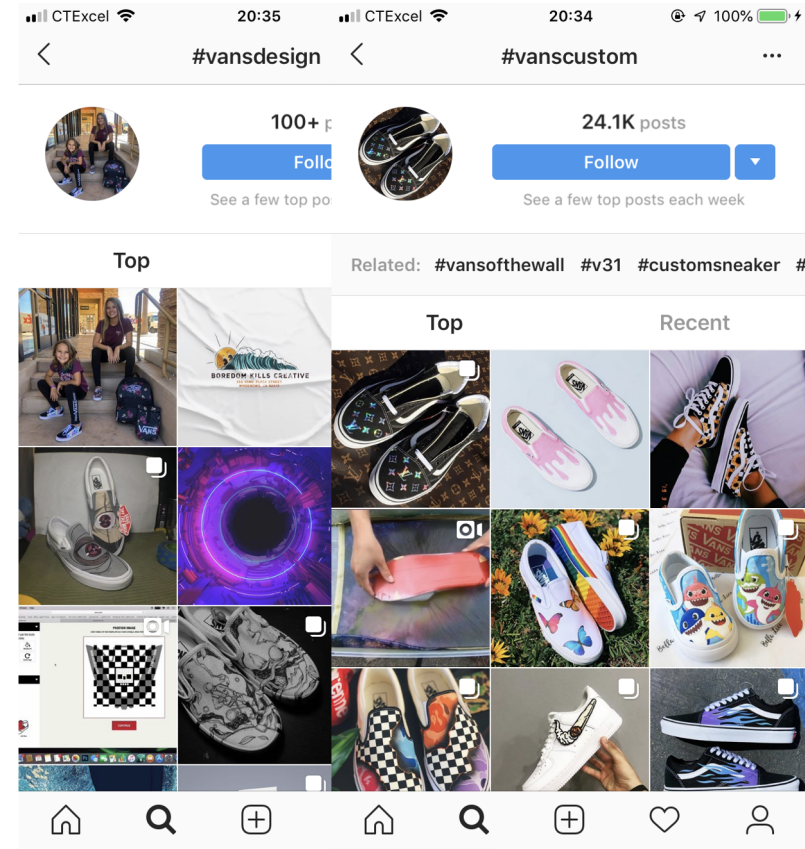
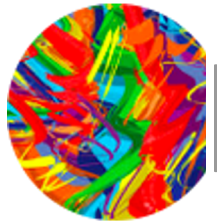# We added another source of data

#vanscustom
#vansdesign

Visual over hundreds of customers designed shoes in two **#hashtags**.

QWASI
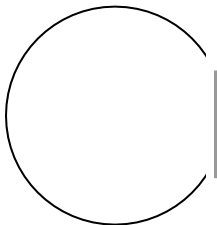Innovation Realized™

Instagram

Promotion Clusters

Checkerboard Clustering

Colorful Base Clustering

White/Pure Color Base Clustering

+

Instagram Clusters

Hand Painted

Printed Classic Characters

Letters / Words / Sentences

Color Combination

Monitor and Access Promotions

+

Social Media Postings

=

Valuable Information about Users Preferences for Vans in Real Time

1 Hand Painted

3 Letters / Words / Sentences

Popular Vans Custom Designs -- Design Selection Affects Recipe

2 Printed Classic Characters

4 Color Combination

• Highest popularity type for shoes customization: hand-painted, classic characters printed, letters and color combination.
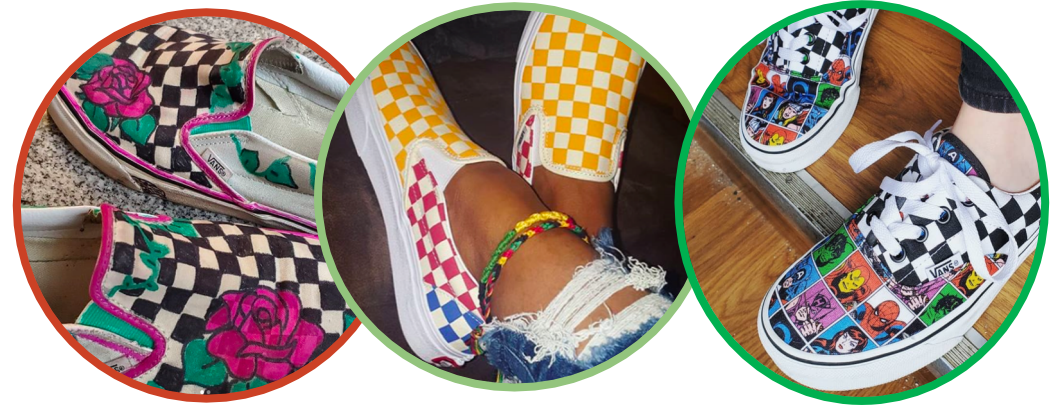
Checkerboard Design Clustering Model

Checkerboard

+

Hand Painted

Change Color Combination

Printed Classic Characters

Not Checkerboard

+

Letters / Big Patterns

Base Colors Design Clustering Model

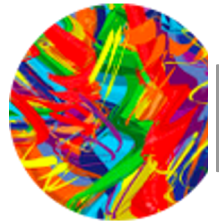**White/Pure Color Base**

+

Hand Painted

Colorful Base

+

Change Color Combination
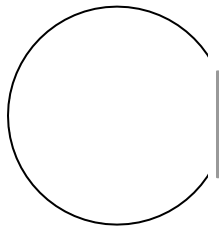
QWASI Innovation Realized™

Instagram

Promotion Clusters

Checkerboard Clustering

Colorful Base Clustering

White/Pure Color Base Clustering

Instagram Clusters

Hand Painted

Printed Classic Characters

Letters / Words / Sentences

Color Combination

Monitor and Access Promotions

+

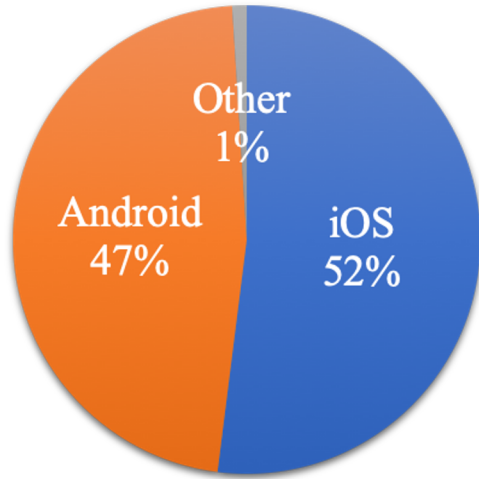Social Media Postings

=

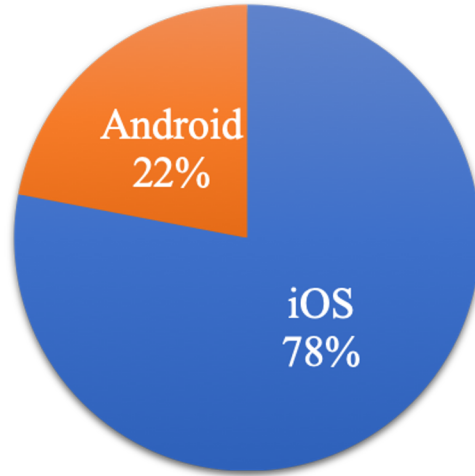Valuable Information about Users Preferences for Vans in Real Time

Design Access Method Analysis

User Platform Analysis

VS

North America Operate
System Distribution
(Jan.2018-Jan.2019)
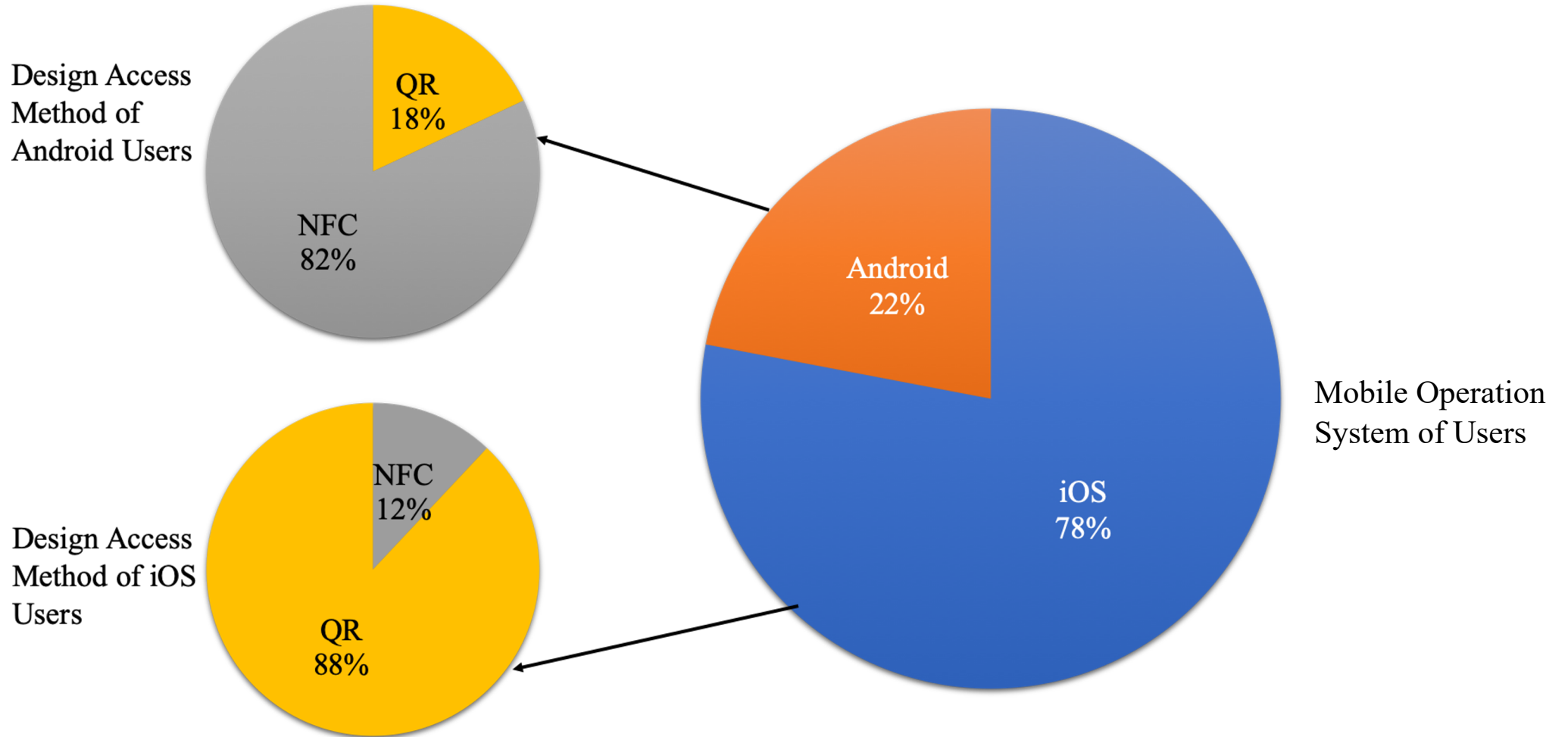
Vans Event Users Operate
System Distribution

WHY

- The target group of Vans event is the **young generation**. They prefer iPhone to Android phones.

Source:
https://www.macworld.co.uk/feature/iphone/iphone-vs-android-market-share-3691861/
https://www.businessinsider.com/apple-iphone-popularity-teens-piper-jaffray-2018-4

Design Access Method Analysis

Design Access Method of Android Users
- QR 18%
- NFC 82%

Design Access Method of iOS Users
- NFC 12%
- QR 88%

Mobile Operation System of Users
- Android 22%
- iOS 78%

- A **technical limitation** exists. While all Android phones can read NFC tag, not all iPhone can read NFC tag.

Recommendations

Recommendations

Technology

I. Retail Efficiency

Real time data monitor with

QWASI
Innovation Realized™

II. Technology Education

Popularization of

NFC

Shoe Design

I. Customer Behavior

Follow the trend of young generation

? ?

II. Combine With Social Media

Cooperate with

Instagram

THANK YOU