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# User Experience

How Closed-Loop Payments UX stacks up

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## WHY UX MATTERS



“Despite the differences between in-store and in-app payments, the steps to improve them are the same. One is to remove as much friction as possible from the payments process to eliminate consumer frustration and prevent abandonment. Another is to enhance the 'buying experience' to make payments more than just, well, paying. -”

Andre Stoorvogel, CVS Head of Marketing, 2016

## WHY CLOSED-LOOP PAYMENTS MATTERS



Rewards are the best way to capture customers' loyalty to business.



## METHODOLOGY



- **Main Focus:** in-store closed-loop solutions.
- All the solutions evaluated use barcode to enable mobile payments at the POS
- Two types of transactions are used:
  - Display barcode on the smartphone: i.e. Starbucks App
  - Smartphone reads barcode: i.e. Walmart Pay
- Alternative solutions were evaluated for comparison: NFC based

### -Metrics:

#### **Quantitative:**

Operational Inertia: Number of Steps to perform a successful payment transaction

#### **Qualitative:**

Studied general aspects that have a direct impact on the usability of the mobile payment app. Some aspects studied were:

Accuracy

Time to find/spent on the task

Findability

Difficulty



## METHODOLOGY (cont'd)



- During the analysis 7\* payment solutions were evaluated
- 2 different methodologies were analyzed of one solution (Starbucks App and Wallet).
- Apple Pay and Walgreens Solution were used as a reference (not a closed loop solution)
- iOS experienced and inexperienced users were polled.

\* The solutions selected is a general representation of all the existing solutions

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# Results

Quantitative

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# STARBUCKS APP



01

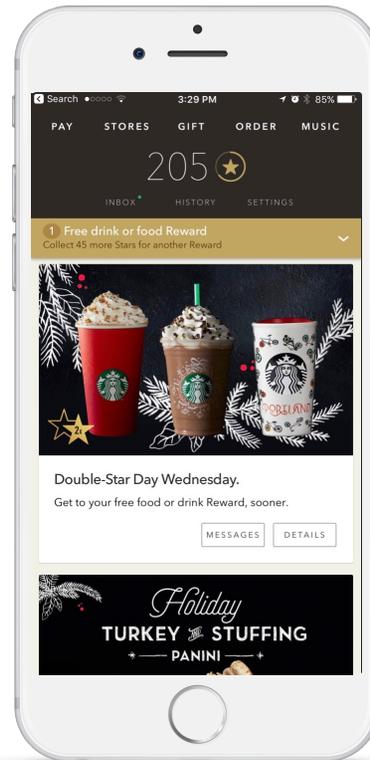
Unlock Device: Press home button to unlock device

02

Find the Starbucks App\*

03

Tap to open



Select Pay (Top Left Corner)

04

Select Pay (Center Button)

05

Hold the iPhone up to the Starbucks barcode scanner. Done.

06

Steps



\* Finding the App may take several steps (Swipe left or right to find the Starbucks app). For simplicity it is counted as one step.



# STARBUCKS APP



Paying using the Starbucks app scored 6 operational inertia steps.

6 Steps\*



UX Friction for each individual step

Step 1: Very intuitive-familiar step



Step 2: Familiar step for the user\*



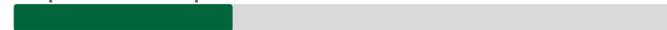
Step 3: Familiar step of the user



Step 4: Familiar step of the user



Step 5: Familiar step of the user



Step 6: Level of familiarity depends on the user and environment



## App Highlights:

- Pioneer on closed-loop mobile payment
- Uses 2 methods (Launch payment from App or Apple Wallet)
- Supports in-app payment

\* Assuming finding the Starbucks app takes 1 step and the user is familiar with the location of the app.



# STARBUCKS

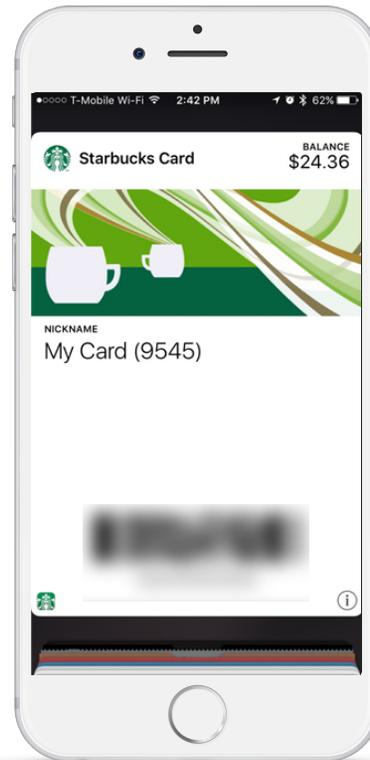


01

Double tap on Home to unlock device

02

On Wallet: Select passes



Find your Starbucks card\*

03

Hold the iPhone up to the Starbucks barcode scanner. Done.

04

Steps



\* Finding the Starbucks card may take several steps For simplicity it is counted as one step.



# STARBUCKS PASS



Paying using the Starbucks pass scored 4 operational inertia steps.

4 Steps\*



UX Friction for each individual step

Step 1: This step can be tricky and most users are not aware.



Step 2: Familiar step for the user



Step 3: Familiar step of the user\*



Step 4: Level of familiarity depends on the user and environment



## App Highlights:

- Pioneer on closed-loop mobile payment
- Uses 2 methods (Launch payment from App or Apple Wallet)
- Supports in-app payment

\* Assuming finding the Starbucks pass takes 1 step and the user is familiar with the location.



# WALMART PAY



**01** Unlock Device: Press home button to unlock device

**02** Find the Walmart App\*

**03** Tap to open



Choose Walmart Pay **04**

Activate the Camera **05**

Scan the code displayed at the register. **06**  
Done





# WALMART PAY



Paying using the Walmart Pay scored 6 operational inertia steps.

6 Steps\*

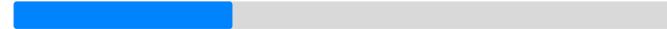


UX Friction for each individual step

Step 1: Very intuitive-familiar step



Step 2: Familiar step for the user\*



Step 3: Familiar step of the user



Step 4: Familiar step of the user



Step 5: Familiar step of the user



Step 6: Level of familiarity depends on the user and environment



## App Highlights:

- Uses the smartphone to read the Barcode

\* Assuming finding the Walmart app takes 1 step and the user is familiar with the location of the app.



# YOYO WALLET



01

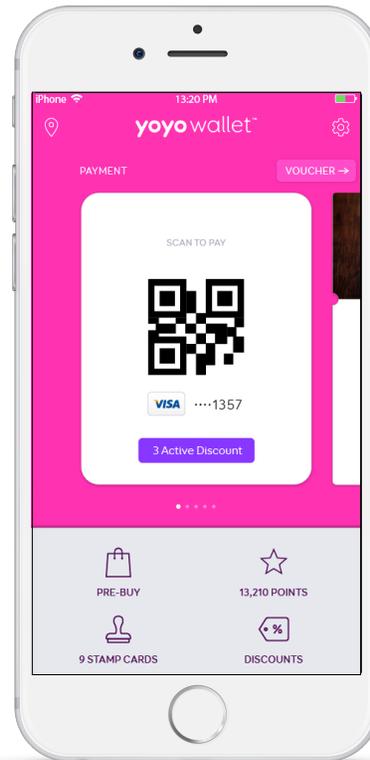
Unlock Device: Just press the Home button using the finger you registered with Touch ID.

02

Find the YOYO App\*

03

Tap to open



Unlock YOYO Wallet by lightly touching the Home button

04

Select card to pay\*\*

05

Hold the iPhone up to the barcode scanner. Done.

06

Steps



\*Assuming finding the YOYO app takes 1 step

\*\*User uses the default credit card

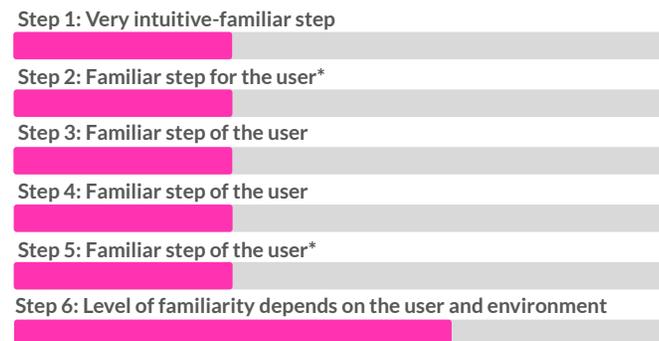


Paying using the YOYO Wallet scored 6\* operational inertia steps.

6 Steps



UX Friction for each individual step



### App Highlights:

- Allows the use on multiple stores and multiple credit cards

\* Assuming finding the YOYO app takes 1 step and the user uses the default credit card



## WALGREENS BALANCE REWARDS

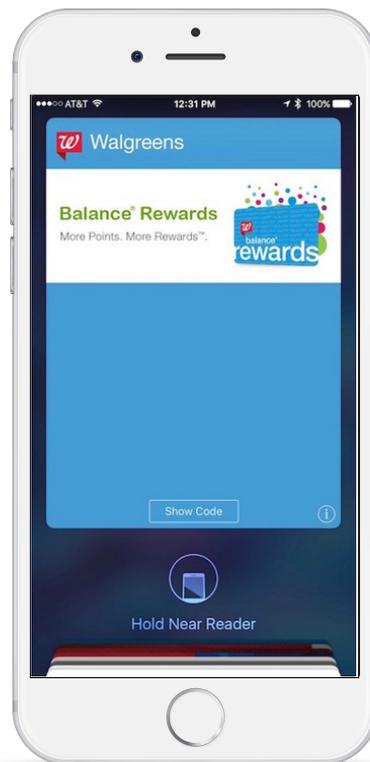


01

Lightly put the finger on the Home button to authorize Touch ID

02

Hold the phone near the reader to exchange Balance Rewards credentials



Lightly put the finger again on the Home button to authorize Touch ID

03

Hold the phone near the reader to pay

04

Steps





# WALGREENS BALANCE REWARDS



Paying using the Walgreens Balance Rewards scored 4 operational inertia steps.

4 Steps

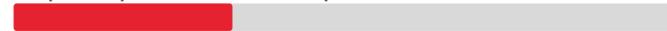


UX Friction for each individual step

Step 1: Very intuitive-familiar step



Step 2: Very intuitive-familiar step



Step 3: Very intuitive-familiar step



Step 4: Very intuitive-familiar step



## App Highlights:

- Not a closed-loop
- Uses Apple Wallet for rewards pass



01

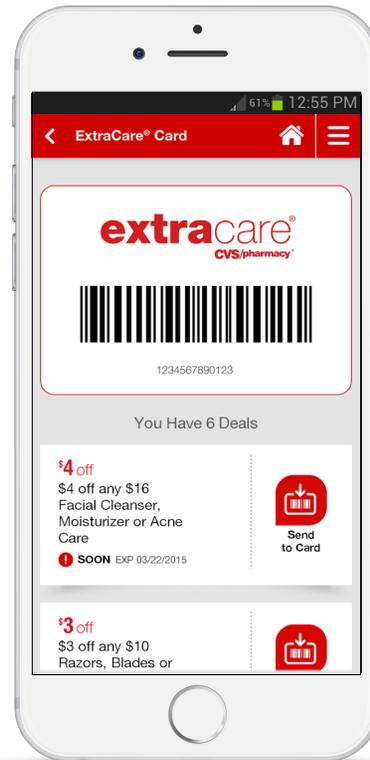
Unlock Device: Just press the Home button using the finger you registered with Touch ID.

02

Find the CVS App\*

03

Tap to open



Select Barcode

04

Select Card to Pay

05

Hold the iPhone up to the barcode scanner. Done.

06

Steps





# WALGREENS BALANCE REWARDS



Paying using the CVS Pay scored 4 operational inertia steps.

4 Steps



UX Friction for each individual step

Step 1: Very intuitive-familiar step



Step 2: Familiar step for the user\*



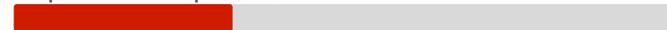
Step 3: Familiar step of the user



Step 4: Familiar step of the user



Step 5: Familiar step of the user



Step 6: Level of familiarity depends on the user and environment



## App Highlights:

- Allows user to select different credit cards



## APPLE PAY



01

Lightly put the finger on the Home button to authorize Touch ID



Hold the phone near the reader to pay

02

Steps





## APPLE PAY



Paying using the Apple Pay scored 2 operational inertia steps.

2 Steps



UX Friction for each individual step

Step 1: Very intuitive-familiar step



Step 2: Very intuitive-familiar step



### App Highlights:

- Apple Pay does not belong to this category since it does not interchange rewards information. It is used as a reference since it is the simplest method of payment.

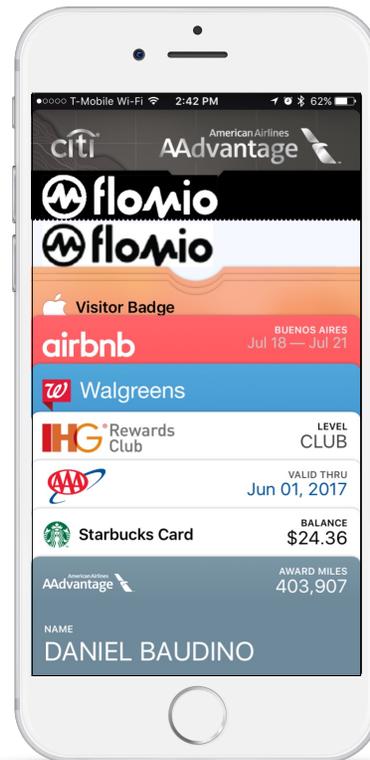


## RETAIL NFC ENABLED PASS



01

Lightly put the finger on the Home button to authorize Touch ID



Hold the phone near the reader to pay. DONE

02

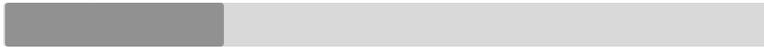
Steps





Paying using the proposed methodology scored 2 operational inertia steps\*.

2 Steps

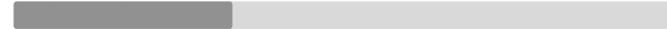


UX Friction for each individual step

Step 1: Very intuitive-familiar step



Step 2: Very intuitive-familiar step

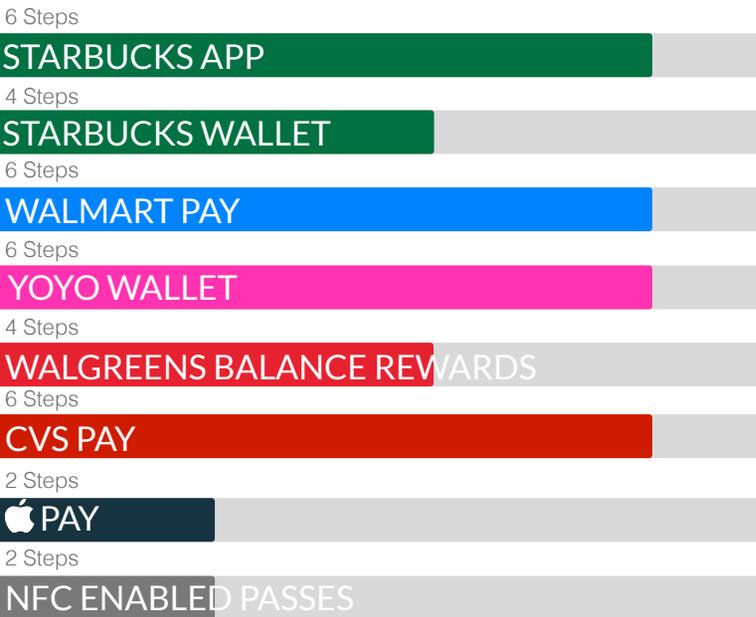


### App Highlights:

- Ideal scenario.
- With only 2 operational inertia steps (and low friction each step) “payment and loyalty” transaction is achieved.



# OVERALL OPERATIONAL INERTIA COMPARISON



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# Results

Qualitative

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## QUALITATIVE METRIC METHODOLOGY



For the qualitative analysis a combined results of the following aspects were used:

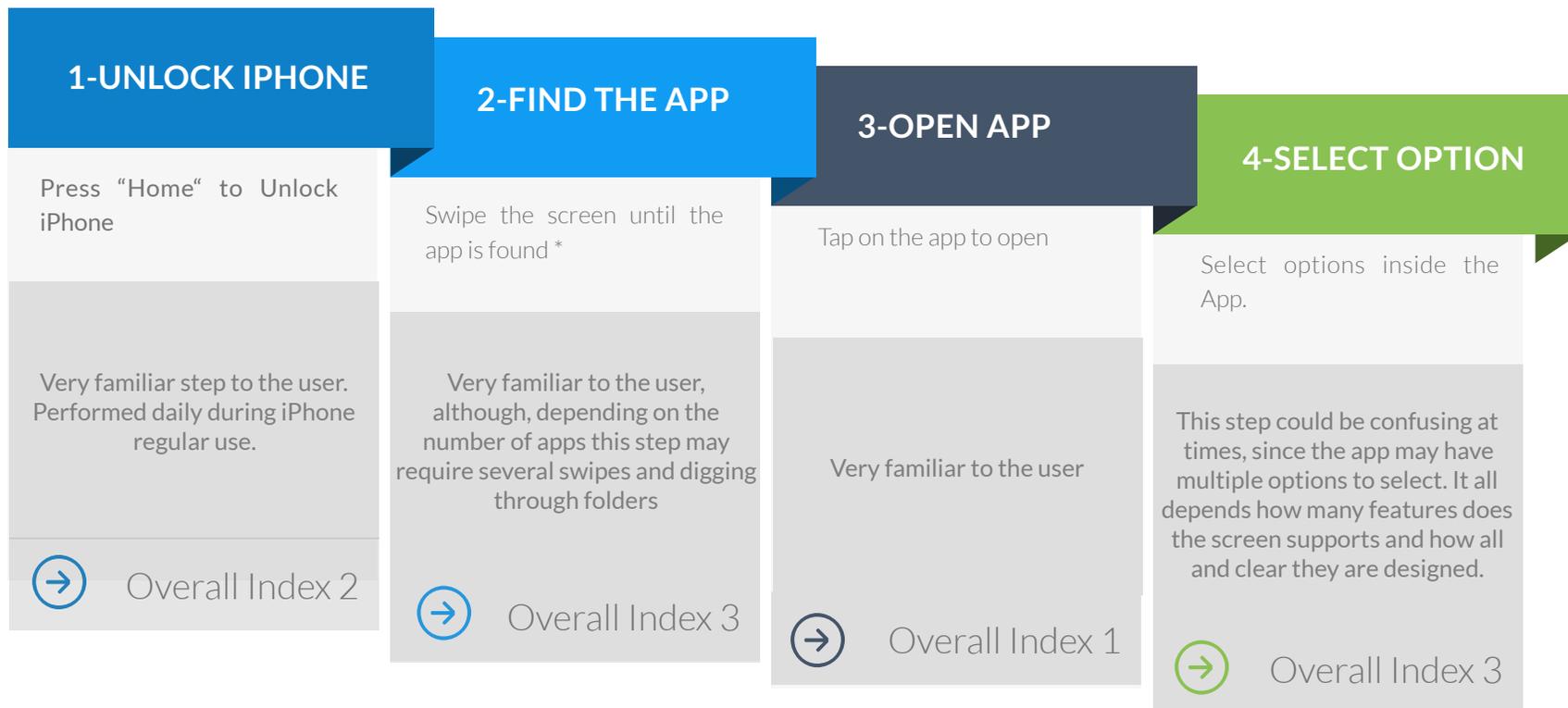
- **Accuracy**
- **Time to find/spent on the task**
- **Findability**
- **Difficulty**

All the solutions evaluated use 8 common steps. Each step was evaluated individually and a combined overall UX friction index is presented.

**Overall UX Friction Index** represents a combined results of all the different benchmarks (Accuracy, Time, Findability and Difficulty). A 1-5 (Lower is Better) index was created for comparison.



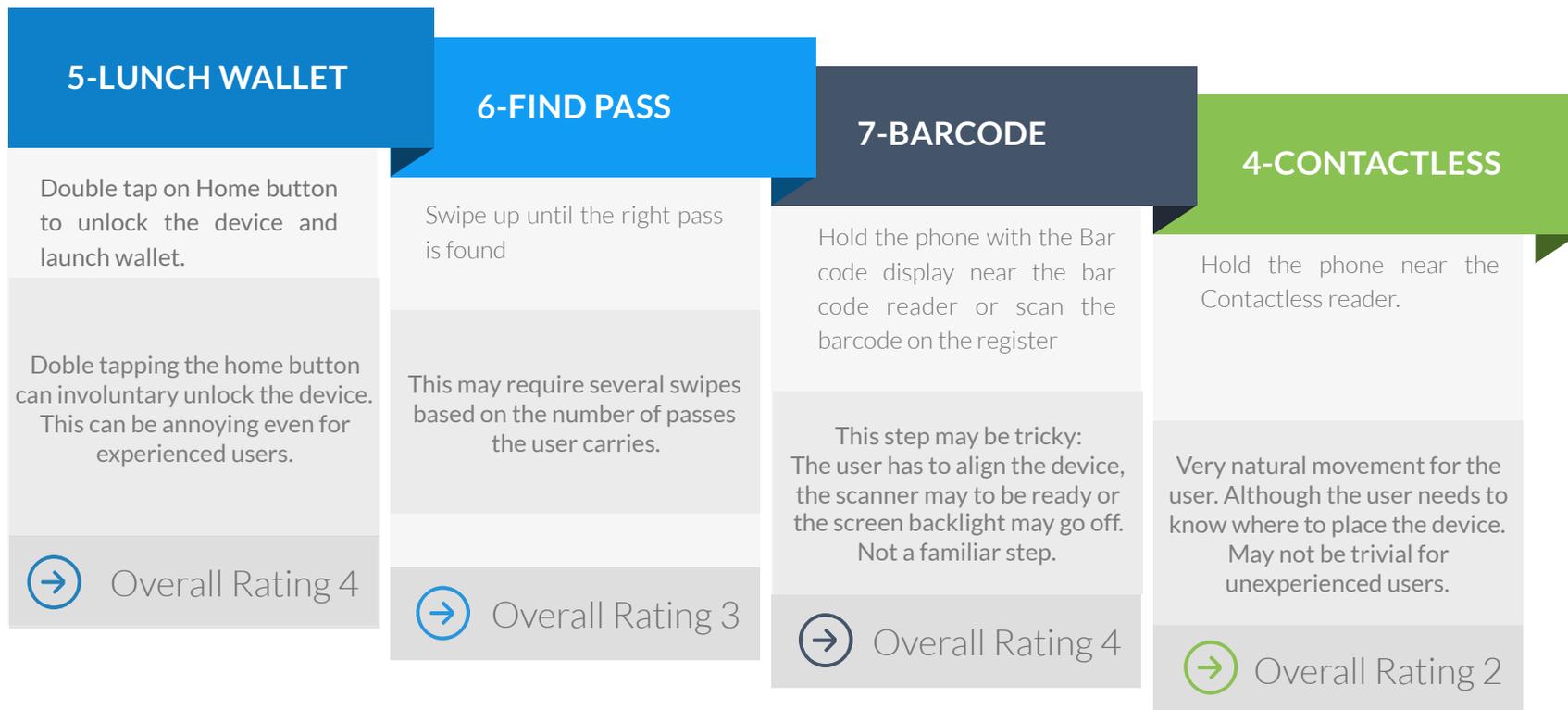
## OVERALL UX FRICTION INDEX PER INDIVIDUAL STEP



\* There are other methods to find apps, not considered on this analysis (Methods not considered: Siri or spotlight)



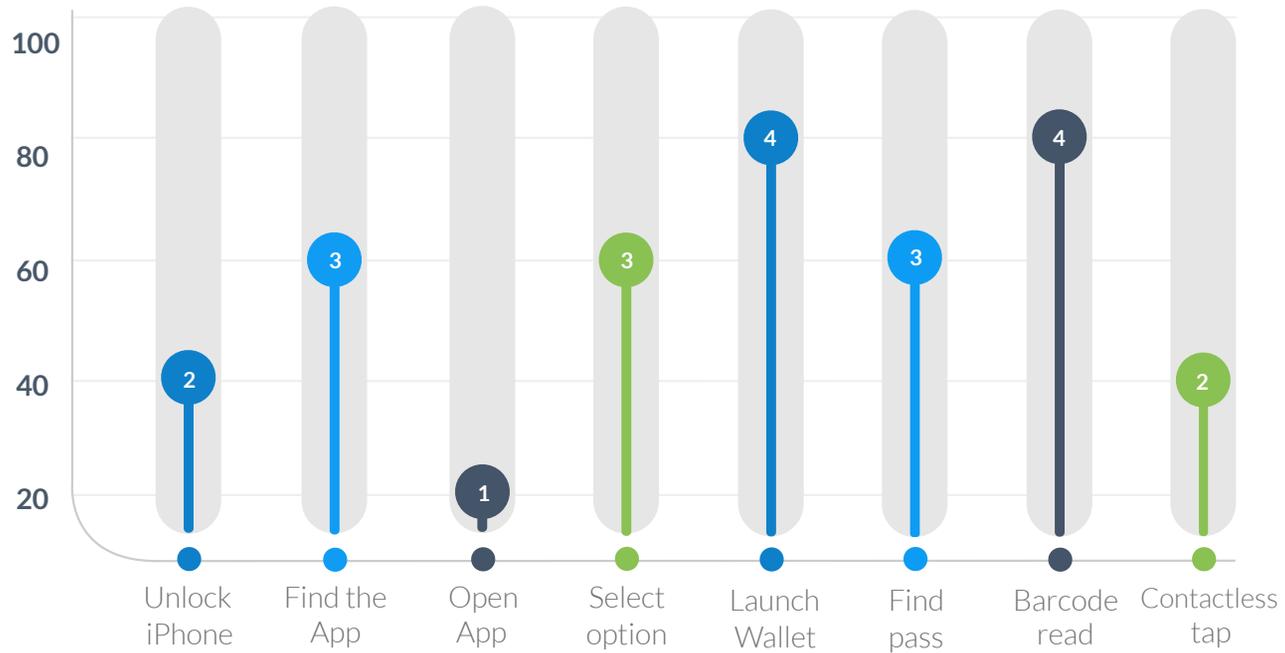
## OVERALL UX FRICTION INDEX PER INDIVIDUAL STEP



\* There are other methods to find apps, not considered on this analysis (Methods not considered: Siri or spotlight)



# COGNITIVE LOAD



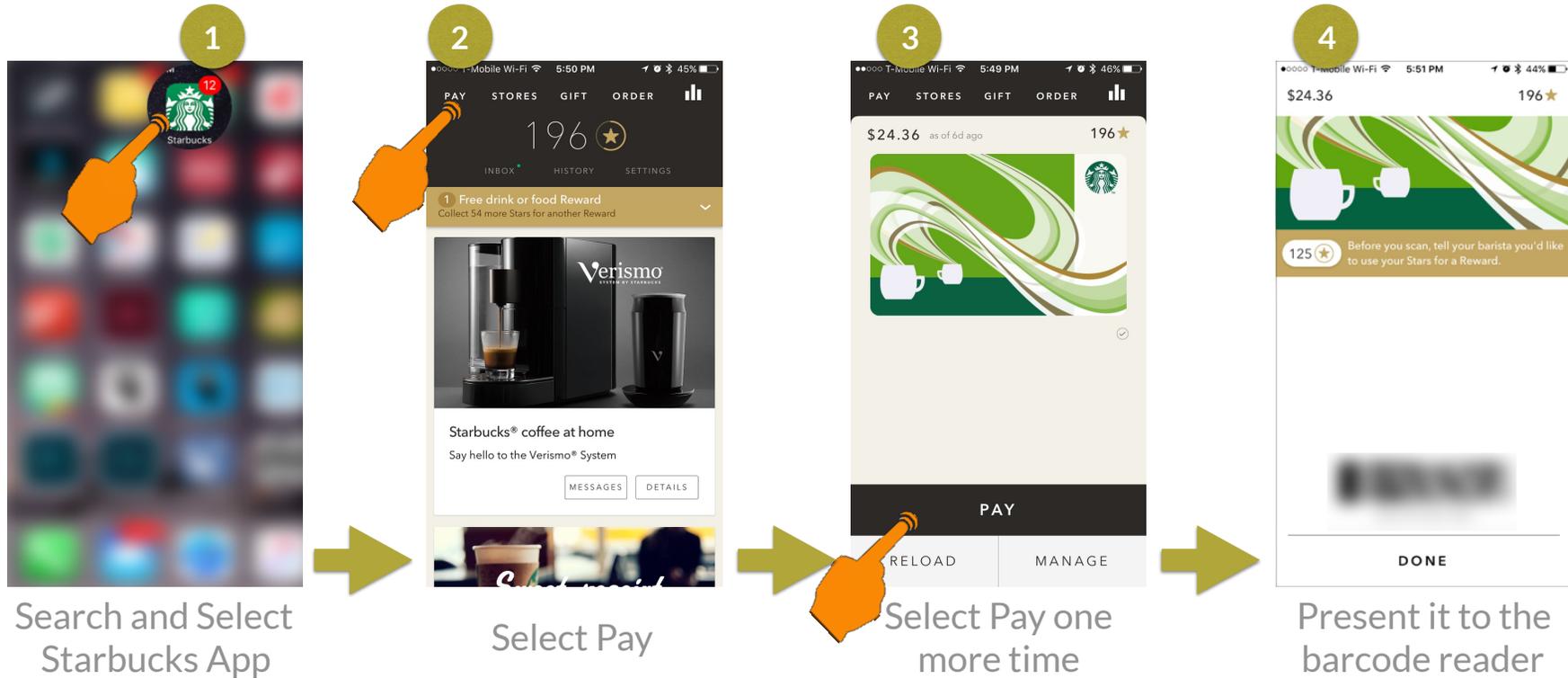
Lower is Better



Thank You!

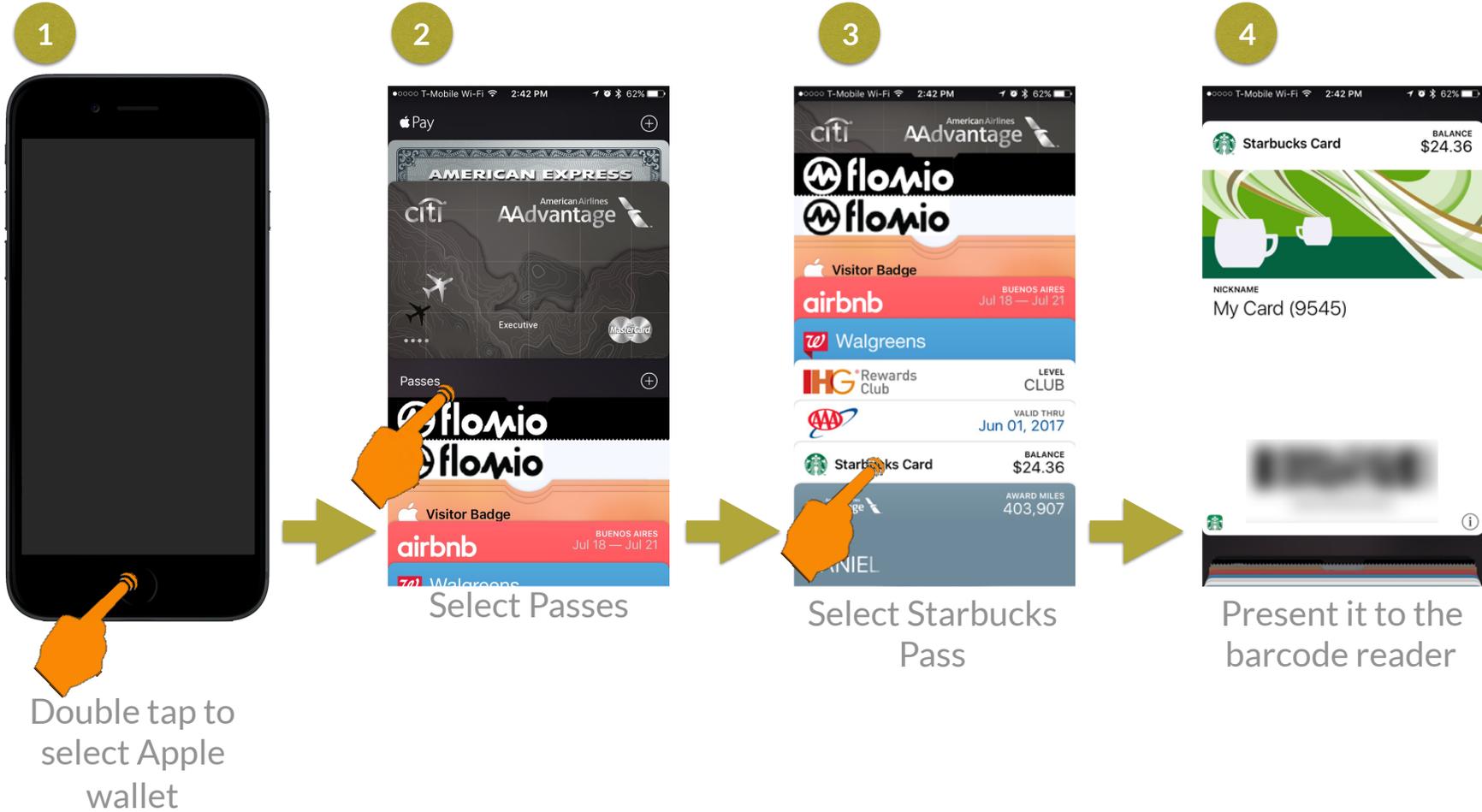


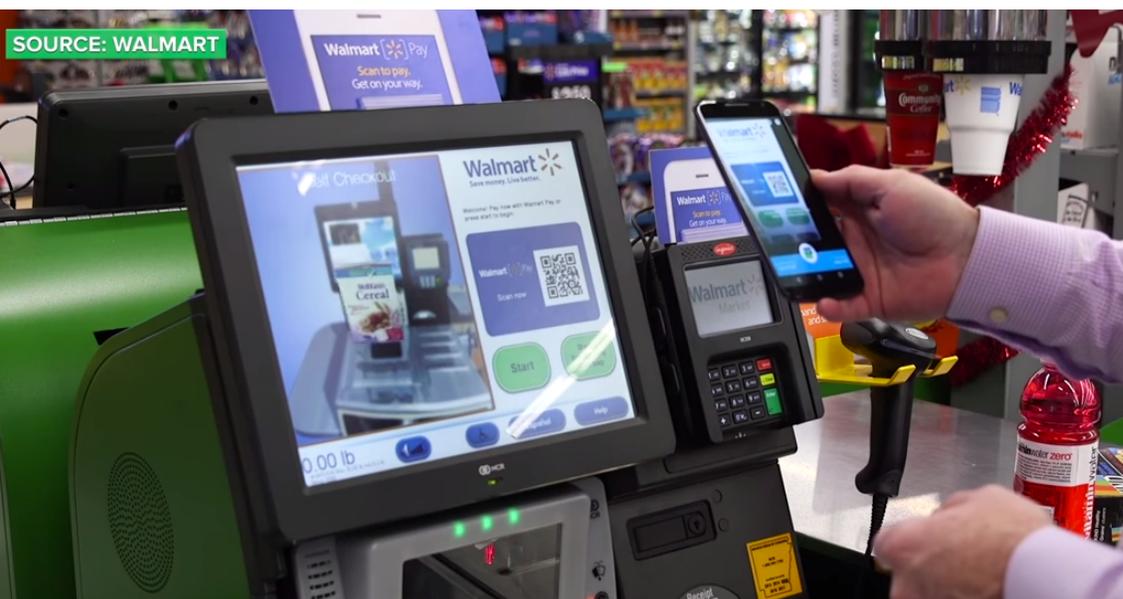
## 4 STEPS TO PAY USING BARCODE (FROM APP)





# 4 STEPS TO PAY USING BARCODE (FROM WALLET)



**Open, Scan, Done – It's That Easy**

Checkout using Walmart Pay happens in three easy steps:

- 1 **Open:** Visit any register, open the Walmart app and choose Walmart Pay.
- 2 **Open:** Activate the camera.
- 3 **Scan:** At any time during checkout, simply scan the code displayed at the register. Walmart Pay is now connected.
- 4 **Done:** Associate scans and bags the items... and it's done. An eReceipt will be sent to the app and can be viewed at any time.

<https://www.youtube.com/watch?v=cwsWpdDrwpl>



## 2 STEPS TO PAY USING NFC



Pay and exchange loyalty credentials in just 2 steps.