# Checkout 2.0-M1 

How do we decrease cart abandonment and increase order-handling comprehension?

[^0]EXECUTIVE SUMMARY

## KEY FINDINGS

$76 \%$ of participants felt their checkout was successful, however, the average NPS score was 17.

Positive price expectations, comfort and understanding had the strongest relationship to NPS.

- Objectively, $43 \%$ of participants failed (cart abandonment).
- 30\% Struggled
- $27 \%$ Succeeded

Income had the strongest relationship with Objective Fails, Struggles and Success (p < 0.00001, Effect size: Very Large = 0.9; Large threshold is >0.5)

## GOAL

Increase conversions by reducing the number of checkout abandonments and remove any extra steps or distractions that could block an order. The goal of this research is to inspire, explore and choose new directions for design and product strategy, in order to reduce risk and improve usability of the experience, with an emphasis on conversions and operational efficiencies.

## METHOD

- Unmoderated Usability Test, Between Subject-Design
- 3 Key Segments: 2 cut points for income (< $40 \mathrm{~K} \&>80 \mathrm{~K}$ ); each $50 / 50$ split between 2 levels of sports interest (measuring changes between low income and high income users, also changes between event interest levels (for this study it was sports.)
- Device: Mobile Responsive Web only
- All participants $(\mathrm{n}=30)$ were prompted with the checkout task in the context of a simulated price sensitivity scenario (see Primary Task Card for details.) Participants were measured for objective and subjective task success, along with several root cause measurements for abandonment.


## KEY HYPOTHESES

## SUPPORTED

NEEDS RESEARCH

NEEDS RESEARCH

Income will be statistically associated with checkout success.

Cart abandonment will be statistically associated with personas with less event interest.

Almost all participants will not conflate order confirmations with order received.
Most participants will understand order handling, know when their ticket will be sent by and where they should look for it.

- To enhance transparency and clarity, always explain custom terms like "service total." Ex. Instead of the term "service total" all fees could be listed.
- To enhance freedom and control, consider breaking this price out and/or using a tool tip to show more information about alternatives. Ex. Include Klarna where the line is for applying a gift card or coupon, in addition to keeping it here.
Place order page
- Use progressive disclosure in order to prevent errors. Don't allow users to skip ahead, otherwise extensive error/empty field validation and auto scrolling will have to be programed.
- Force engagement with accordion panels, or gated anchors, which prevent users from even seeing the next set of interactions within the page. Auto-open each panel when the required interactions are validated.

Final Page

- To increase recognition over recall offer users a reminder or something clickable related to the date (see right; ex. +Add to calendar).
- To increase clarity differentiate the important information item (ex. Date) with a different color. Consider using the word form of the date since speech based information may help recall.


## T\&A Header

- To enhance Consistency and Standards audit the experience for words that are in conflict with subsequent pages.
- Talk to legal about what other word we can use hits paragraph, besides confirm.
- Consider re-labeling the T\&A header with "Agree \& Place Order"

Login:

- Let users know they are still in the checkout process, and remind them of what they were just doing. Plan for users who go to do other things while at this step and then later return to this screen (they will need some hints).
- Consider contextualizing the main CTA to "Continue Checkout."

TEST PLAN


SUBJECTIVE

Page Description

## Retention

- Info want to store

Blinded Price Comprehension-

- Price key words
- Price sentiment self rating

Price Comprehension

- Price sentiment self rating

Blinded Order Handling
Comprehension

- Sentiment about When
- Sentiment about Where

Confirmed vs Received
Comprehension

- Thank you page key words (meaning)
Trust
- Increase or decrease
- Reason

Page End

Retention

- Mechanism

Blinded Price Comprehension-

- Price Spending

Price Comprehension

- Price breakdown, detail level

Blinded Order handling
Comprehension

- Accuracy about When
- Accuracy about Where

Confirmed vs Received
Comprehension

- Fails (confirmed vs received)
- Date comprehension

1. First person "।"
2. Scenario:
a. User context (what where they just doing?)
b. Intent/Motivation
c. Game mechanics- A.K.A

- Real World Constraints
d. Multi-player dynamics (family/friends)

3. Task Goal (stopping point, how the user thinks their successful)
a. "SHOW"
b. When to "move on"
4. Rorschach test Blue + Purple

Imagine this scenario by reading it out-loud:

- I've just finished budgeting my disposable income with my family's account; we can have some fun without sacrificing our basic needs.I decided I'm going to go to a baseball game and l've found 2 tickets for myself and my partner!!! I'm so happy to give them something.

I have to consider some things:My accountant has given my family a strict budget for luxury things, which is $\$ 500$ dollars a month.
Between myself, my partner and daughter, I can only spend at most \$150 this month. The rest is for them.
These Baseball tickets are reasonably priced and well under my budget. Only $\mathbf{\$ 1 3 0}$ for the both of us!!! Wow. My partner will be so happy I'm spending some of my allowance on them.
Last month I went over budget and my partner was so upset, it wasn't even worth it. I'm trying to make it up to them.
I've selected my my two tickets and I'm ready checkout.Based on this scenario, show us how you would checkout with tickets described above.Move on to the next task when you're done checking out with the tickets you described above.

## DEMOGRAPHICS

- Age average - 36
- Slightly more participants identified as male $56 \%$; statistically half \& half
- Income was strictly controlled, per our test plan hypotheses
- Most participants 40\% were employed full-time; very few were unemployed
- Most participants were Advanced 63.3\%.


Employment -
Frequency Count
Self Reported Web Expertise


[^1]Employment status

Gender


Annual Household Income


## What happened in the checkout?

This section answers research questions that deal with the "what" "how many"/ "how much" using Google's HEART framework for UX.

In another section we'll answer "why?"

## $76 \%$ of Participants felt successful

There's a $95 \%$ chance that $59-88 \%$ of the population will feel successful in this checkout flow; at most with this confidence level, $41 \%$ will feel not successful. This did not statistically differ by income or by sports interest. The difference for selfreported success is shown below.

Tested against 60 other variables in the test, SEQ (the participant's standard ease of use rating) had the highest effect and confidence level ( $p<0.001$ level, Very Large Effect Size, Cohen's D 2.79 ). This indicates that if participant's felt successful if they felt like it was easy.

Only two other variables had a statistically significant relationship: Gender and Blinded Price Comfort Rating which we'll review on the next few slides. Gender is discussed in the appendix - an ongoing tracking for all research is being collected. Past research also aligns with less than optimal results for those identifying as male.

| Main_task_... |  |  |  |  |  | * | Count | F | Percent | * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Success |  |  |  |  | $\longrightarrow$ |  |  | 23 |  |  |
| No_Success |  |  | , |  |  |  |  | 7 |  |  |
| Total | 0.08 | 20.08 | 40.08 | 60.08 | 80.08 |  |  | 30 | 100 |  |

## How many checkouts actually succeeded?

- $27 \%$ Succeeded
- $30 \%$ Struggled
- $43 \%$ Failed

However, this story is not true for everyone. Participants in low to medium income households observed 20\% MORE fails than those in high income households.

In this section we'll address the differences in this outcome, but in the next section we'll cover why this also presents different usability issues.


## Objective Task Success is strongly related to income.

- The low income segment had a $10 \%$ success rate.
- The medium income segment (\$40K \$80K) had a 20\% success rate
- The high income segment ( > \$80K+) observed a 50\% success rate

Notice that even in an interocular test, shows a correlation between movements towards success and higher income.


## Objective Task Success is strongly correlated to income ( p 0.00001 )



Not only is annual household income very likely to to impact users in the real world, but it also accounts for a very large effect (> 0.9; threshold is $>0.5$ ).

## 87\% adopted the first step in the checkout process.

$13 \%$ of participants directly observed expressed hesitation or confusion. Of those, all were in the medium to low-income segment (50/50 split).

The next section shows the root cause analysis about why this might be the case for some participants.


## $43 \%$ of participants abandoned the order summary page.

However, this didn't always lead to failing to checkout. Most indicated that they would "cancel" or not purchase the tickets in that moment because that's not why they hit checkout in the first place.

Some participants looked for a way back to double check what they saw. A few wanted to go back to choose a different ticket.
$56 \%$ decided to come back or stay, and consequently sacrifice their original intentions.

## 6\% of participants recognized that they could use Klarna to meet their price expectations and successfully checkout.



## Event Ticket Protection

Get reimbursed $100 \%$ of your ticket cost with event ticket protection for $\$ 17.98$ total. If you can't attend an event for a number of reasons such as covered illness or injury, airline delays, traffic accidents, mechnical breakdowns, and

## $26 \%$ of participants clicked on the electronic transfer pink question: How will I receive my tickets?

Most participants clicked here to search for more ways to reduce their total ticket price- not to get more information about electronic transfer.

57\% of eligible participants did not click this information.

This was split almost evenly between all income segments.

Order Summary

## Delivery

Electronic Transfer
Delivery instructions and order updates will be sent to Deiveryinidseats.com.

How will I receive my tickets?

Electronic Transfer is a secure and simple method to transfer paperless tickets. When the seller initiates the ticket transfer, you will receive an email or text containing instructions to claim the tickets on your phone. Please note that you will need to use an iOS or Android mobile device to gain entry to your event.

Payment Method

$$
+\quad \text { Add a credit card }
$$



## $40 \%$ of participants skipped the credit card input and initially and scrolled back and forth.

Most of these participants stopped at the insurance options and attempted to click, or they attempted to click the T\&A Agreement.

This type of engagement led to significant checkout struggling. Participants scrolled up and down to scan information to determine a few different things.

In one instance, a participant gave up after not being able to figure out what was missing and then claimed that they were giving up because of the price.

On face this seems like a test artifact (prototype issue) however, it's much more than that. In the next section we'll discuss how and why this could be a huge input validation problem.


## $83 \%$ of participants did not sufficiently engage with the dates on the last page.

Participants were asked to select when they would get their tickets based on a multiple choice with false dates.

Only 17\% said that none of these applied (which was the correct answer.)

This was all while being able to view the final page of the prototype (pictured right.)

The next section deals with why this could be the case.

-

## Thank you!

Your order has been successfully received.
We'll be ready to send your tickets by 02/24/2022

COVID Disclaimer<br>Due to the uncertainty related to the COVID-19 pandemic, your tickets and admission to the event are subject to all venue and/or event organizer/promoter safety and health policies. The venue and/or event organizer/promoter may continue to develop and update these policies in the intervening time between your purchase and the event date. It is your responsibility to monitor and comply with such policies and your attendance at the event is conditioned on such compliance. If your admission to the event is denied and revoked because you have wilfully failed or refused to comply with any such safety and health policies of the venue and/or event organizer/promoter, you will not be eligible for any refund or other compensation from Vivid Seats.

## $36 \%$ of participants described this as a confirmation page.

Participants were asked to describe this page in one sentence. They were presented with this page, in order to look back and scan it as much as they would like.
$33 \%$ used the word summary.

The next section deals with why this


## COVID Disclaimer

Due to the uncertainty related to the COVID-19 pandemic, your tickets and admission to the event are subject to all venue and/or event organizer/promoter safety and health policies. The venue and/or event organizer/promoter may continue to develop and update these policies in the intervening time between your purchase and the event date. It is your responsibility to monitor and comply with such policies and your attendance at the event is conditioned on such compliance. If your admission to the event is denied and revoked because you have wilfully failed or refused to comply with any such safety and health policies of the venue and/or event organizer/promoter, you will not be eligible for any refund or other compensation from Vivid Seats. could be the case.

## Memorability of the total cost may aid retention.

An astounding number (93\%) of participants remembered what the total cost of the tickets were- without looking at the page and after 4 other questions.

Even if they indicated that they would not continue checking out because the price was over budget or never actually checked out.

Why is this good?

Recall, from previous research (Search Competitive Analysis) that remembering a price was correlated with preferring to come back at $\boldsymbol{a}$ later time. Hence, retention may be benefit when the total cost is easily remembered.

Think about how this works: if users are dissatisfied with the price now, but also able to remember it, their comparison on competitor sites may benefit Vivid Seats.

Memorability of The Total Cost of Tickets


We'll talk about how and why this price memorability happens in the next section.

## Storing information SEQ to come back to was negatively correlated with other booking travel and setting up reoccurring home deliveries.

Participants were asked:
Show us what, if any, information you would like to come back to and how you would store it.
Move on to the next task when you feel you could return to this information at a later date.

Then participants rated the ease of use of doing this task (1-5, SEQ, were 5 means very easy). On average users felt like it was somewhat easy to come back to the information they wanted to $(4.3 / 5)$

However, participants who had booked travel or set up reoccurring deliveries were more likely to not think this was easy.

This may indicate that other ecommerce activities make it more clear on what and where they can go back to for information.

## $43 \%$ of participants could reasonably said to be still happy.

Machine analyzed sentiment and NPS were both clearly low.*

Of all the machine analyzed sentiments only $38 \%$ were positive. This aligns slightly with participant's average NPS score 17 (43\% Promoters, 30\% Passives, 27\% Detractors).

- For High Income participants $45 \%$ of sentiments were positive. (NPS 20)
- For Medium Income participants $60 \%$ of sentiments were positive. (NPS 10)
- For low income participants $11 \%$ of sentiments were positive. (NPS 20)



## NPS was not related to any canon demographic or brand awareness background.

It was related to these 5 things that we'll discuss on the next slides:

1. Being comfortable with the price they had remembered (before revisiting)
2. Understanding the price before revisiting it
3. Agreeing that the price met their expectations after they revisited
4. Booking travel
5. And holding a false belief that their tickets were begin delivered.

## SES Segments Vivid

Net Promoter Score (NPS)
This measures the likelihood of users to recommend your product or services. Scores range from -100 to 100 and include all participants.

|  |  | Mobile Responsive Web |  |
| :--- | :---: | :---: | :---: |
| Test Segment | High Income | Medium Income | Low Income |
| NPS Score | 20 | 10 | 20 |
| \%Detractors | 30 | 30 | 20 |
| \%Passives | 20 | 30 | 40 |
| \%Promoters | 50 | 40 | 40 |

Average


## NPS was also

correlated price understandi ng ( $\mathrm{p}<0.05$ )
and
meeting expectation s (p < 0.01).


So how does this happen?

## Unlike the ease of use in retention tasks, NPS was correlated with booking travel ( $p<0.05$ ) .

## $x$

On average, booking travel has a moderate effect effect on participant's NPS score. If they had booked travel they were more likely to have been a promoter.

Which means that if we want to study how and why booking travel sets better expectations we should see design references there.

More on this in the next


NPS is strongly positively correlated with Viewing_Fail_Final_Page_means_Tickets_Delivered
Hide statistical test results -
Ranked Correlation (Recommended)

| P-Value | 0.00334 |
| :--- | ---: |
| Effect Size (Spearman's rho) | 0.518 |
| Confidence Interval of Effect Size | 0.194 to 0.740 |
| Sample Size | 30 |

Show unranked correlation results ,
Show simple linear regression results


Viewing_Fail_Final_Page_means_Tickets_Delivered

## But NPS was also correlated with false beliefs about the order confirmation page.

## Some users checkedout thinking that the Tickets were already delivered.

## Why and how did this happen?

This section deals with qualitatively significant problems that were sampled amongst participants that observed at least one of the quantitative problems identified in the previous section.

## 5 Email requirement needs explaining

## LOW

The question and email input lacks context; it requires that users recall vs recognize the purpose.

Only a few participants did not initially attempt to enter an email address. Instead, they hesitated or looked back at the task when they arrived on the login page. After some consideration, they eventually tapped the email field.

## RECOMMENDATION

Let users know they are still in the checkout process, and remind them of what they were just doing. Plan for users who go to do other things while at this step and then later return to this screen (they will need some hints).

Consider contextualizing the main CTA to "Continue Checkout."

-
$\nabla$ vividseats

New or returning customer?

- New $\bigcirc$ Returning
-Email Address -
test@vividseats.com

Continue to checkout
Afull service notionol event ticket marketploc.

Accessibility $\mid$ Terms of Use

Box Level 101
Row 1-16
$\$ 65$ ea


This shows the previous user context, letting them know this is intentional and part of what they were doing previously.

## Explain the additional prices and offer alternatives



HIGH
The service total lacks clarity and transparency but also makes Vivid Seats the sole owner of this mark up. Secondly, Klarna offers more control and freedom in this situation but lacks visibility in this moment (where users are most likely to abandon.)

The only users who were successful were the ones that later verbalized use of Klarna, or that they expected sales tax (these participants also happened to be in the medium to high income range.)
Low income participants for this event are considered sticker shock vulnerable - they need extra signifiers to understand what freedom and control they have over this situation.

## RECOMMENDATION

To enhance transparency and clarity, always explain custom terms like "service total." Ex. Instead of the term "service total" all fees could be listed.

To enhance freedom and control, consider breaking this price out and/or using a tool tip to show more information about alternatives. Ex. Include Klarna where the line is for applying a gift card or coupon, in addition to keeping it here.


圖 7:54-7:58


And don't see any handle, see any sales tax here. \#salestaxexpected \#SeparateVSfromState


## Checkouts struggle after skipping around

## HIGH

There is no real checkout funnel. Empty fields currently don't have validation and are not auto-scrolled to- so users must scroll to find out what the problem is. Important information is initially missed or not even seen.


More information is available than necessary, creating a cognitive overload. Users must scan all the information on the page in order to see what the problem is, and what interactions they should do next. Participants in this study tapped several times on things only to eventually realize that there is information they haven't filled out yet.
$40 \%$ of participants skipped the credit card input and initially and scrolled back and forth.

Only 26\% of participants engaged with the electronic transfer information.

## RECOMMENDATION

[^2]

## It's not a confirmation, but it asks you to "confirm"

## MEDIUM

The word confirm is on the previous page. Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions.
$36 \%$ of participants described the next page as a confirmation page.

Users who had more positive sentiment about the overall process had previously booked travel.

## RECOMMENDATION

To enhance Consistency and Standards audit the experience for words that are in conflict with subsequent pages. Talk to legal about what other word we can use hits paragraph, besides "confirm."
Consider re-labeling "Confirm \& Place Order" header with:
"Review \& Place Order"
"Agree \& Place Order"
"Reserve your Seat \& Place Order"


## Force proactive engagement to decrease Support Calls.

## HIGH

There is a lot of text that competes for attention. The main pieces of information that inform the user's next steps is crowded out, and requires users to recall vs. recognize what they should do next.

Almost all participants scrolled down on this page and even read the date out-loud (in words, not numbers). However, $83 \%$ of participants failed the ticket date comprehension question after the task. They had full access to this page.

30\% of participants did not agree that they understood when their tickets would be getting their tickets. $20 \%$ did not understand where they would be getting the next piece of information.

## RECOMMENDATION

To increase recognition over recall offer users a reminder or something click able related to the date (see right).

To increase clarity differentiate the important information item (ex. Date) with a different color. Consider using the word form of the date since speech based information may help recall.


- To enhance transparency and clarity, always explain custom terms like "service total." Ex. Instead of the term "service total" all fees could be listed.
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Final Page

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Login:

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- Consider contextualizing the main CTA to "Continue Checkout."


## Appendix

Study Limitations; Test Artifacts; Special Findings

Appendix-A

Test Artifacts









Show us what, if any, information you would like to come back to and how you would store it.

Move on to the next task when you feel you could return to this information at a later date.

## Appendix - B

Special Findings

## Identifying as male, is associated with less selfreported success.

In line with previous research (Search A/B Competitive Analysis) Females tended to self-report success more than males in the checkout process.

So what is Gender associated with in this study? On average, those who identified as females tended to do these things more than males:

- Heard of or used Seat Geek
- Refilled a Prescription
- Interested in attending Concerts and were more loosely interested in sports
- Agreed that the prices was more comfortable

| Fisher's Exact Test (Recommended) |  |
| :---: | :---: |
| P -Value | 0.0104 |
| Effect Size (Cramér's V) | 0.482 |
| Sample Size | 30 |

Show Chi-Squared results •

| Reorder/Recode $\vee$ | Bucketing $\vee$ | Reset |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | | Count | All \% | Row \% | Col \% |
| :--- | :--- | :--- | :--- |


| Main_task_self_report_success |  | Gender |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | * | Female |  | Male | Total |
| Success | - | 100.08 |  | 58.88 |  |
| No_Success | - | $\approx 0.08$ | * | 41.28 |  |
| Total | * | 100.0\% |  | 100.0\% |  |

Time on Task is mostly associated with Age ( $\mathrm{p}<$ 0.02, Large Effect.)

For this study we are not interested in time on task average as a benchmark because data entry input was not required for the prototype.

What we are interested in is how this would change between participants and if this relationship would still hold after prototypes required data entry input.

What should be most important to note is that this time on task was not associated with selfreporting task success or self -reported ease of

Main_Task_Time_on_Task is strongly positively correlated with Age

## Hide statistical test results

Correlation $\triangle$ (Recommended)

| P-Value © | 0.00212 |
| :--- | ---: |
| Effect Size (Pearson's r) $)$ | 0.539 |
| Confidence Interal of Efect Size © | 0.222 to 0.753 |
| Sample Size | 30 |

Simple Linear Regression


Show ranked correlation results ,
 use.

Blind_Rate_understand_when is positively correlated with Blinded_Rate_price_COMFORT Hide statistical test results -

## Ranked Correlation (Recommended)

| P-Value | 0.0452 |
| :--- | ---: |
| Effect Size (Spearman's rho) | 0.368 |
| Confidence Interval of Effect Size | 0.00926 to 0.643 |
| Sample Size | 30 |

Show unranked correlation results
Show simple linear regression results


NPS is strongly positively correlated with Viewing_Fail_Final_Page_means_Tickets_Delivered
Hide statistical test results -
Ranked Correlation (Recommended)

| P-Value © | 0.00334 |
| :--- | ---: |
| Effect Size (Spearman's ho) | 0.518 |
| Confidence Interval of Effect Size © | 0.194 to 0.740 |
| Sample Size 0 | 30 |

Show unranked correlation results ,
Hide simple inear regression results -

## simple Linear Regression

| R-squared 0 | 0.223 |
| :--- | ---: |
| Line of Best Fit $O$ | NPS $=(2.54 \times$ Vewing_ Fail |



| Prabue 0 | 0.09929 |
| :---: | :---: |
| Erect 5lue (Pearsan's i) ${ }^{\circ}$ | 0.457 |
| Contidence irmerat ot Etect Size 0 | 0.128 to 0.708 |
| Sample Size 0 | 30 |

Simple Linear Regression

| R.squared ${ }^{\circ}$ | 0.218 |
| :---: | :---: |
| Line of Best Ft | Loose Sparts interest $=(0.237 \times$ Binded_Rate_Price_UNDERSTAND $)=0.558$ (See equation for predicting Blinded Rate Price UNOERSTAND trom Loose Sports interest) |




[^0]:    UX Research | Unmoderated Usability Study - Formative 1.0 - JIRA Ticket: UER-2
    Senior UX Researcher, Dawn Procopio
    UX Design Initiative for Q4 - Originally Presented on October 18, 2021

[^1]:    O Advanced
    Average
    Beginner

[^2]:    Use progressive disclosure in order to prevent errors. Don't allow users to skip ahead, otherwise extensive error/empty field validation and auto scrolling will have to be programed.

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