

Recipient Quick Launch - Experiment Findings

Authors: Kenya Chauche

Reviewers: Joshua Stark Shaun Withers Gustaf Bellstam

Approved • Hypothesis Doc

Experiment Results Notebook

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Executive Summary

This experiment tested three iterations of the recipient quick send shortcut. T3 showed the most significant improvements, with a relative 0.55% increase in profit per user and 0.43% relative increase in revenue per user, representing a \$3.4M profit opportunity. T3 also showed statsig positive impacts to transfer activity metrics. Some deteriorations in time to queue and send to duplicate recipients help us highlight some opportunities to improve this feature and the sendflow, however with the improvement to business and transaction metrics this feature gives customers an overall improved experience.

1.0 Overview

Key Findings

Unless otherwise noted, results mentioned in this section pertain to the focus segment of this experiment: Nth users with 11+ txns completed in the 6 months prior to allocation.

- T3 demonstrated a statsig increase to profit per user (+0.55% relative increase) and revenue per user (+0.43% relative increase) in the general population.
 - This increase in profit per user represents an annualized \$3.4M opportunity (\$990.8k lower bound, \$5.9M upper bound).
- customers to queue and complete an increased number of transfers more easily there were statsig increases to queued txns per user and completed txns per user across all treatments, and an increase to OR and OCR for the general population in T2 and T3.

Introducing this feature allowed for

Recommendations

- This experiment can be called for T3.
 - T3 is the only treatment that demonstrated a statsig improvement to revenue per user and profit per user, representing notable financial opportunity.
 - T3 also demonstrated flat or positive impacts to other vital KPIs, with increases to queued txns per user, completed txns per use, sendflow sessions, as well as increases to OR and OCR in the general population.
 - The deteriorations observed in T3 were observed across all treatments, and we expect they are symptoms of changes to Nth customers' learned behavior rather than significant drivers of friction.



- All treatments resulted in statsig increases to the number of sendflow sessions per user as well as statsig decreases to customers interacting with the transfer card "send again" shortcut. T3's movements in these metrics were of the greatest magnitude.
- There was a statsig increase in customers sending transfers to duplicate recipients in T3, and for all treatments in the general population. This may be due to the rank logic currently implemented for the shortcut, which is based on how recently a recipient was updated.
- There was a statsig increase in the average minutes for a user to queue a transfer in T1 and T3, and across all treatments for the general population. This may be due to the feature still being new, and introducing a change to how a customer normally goes through the sendflow. This did not result in a degradation to transfer activity metrics in any of the treatments, however we still anticipate this effect to dissipate with time.
- Customers in T3 interacted with this feature the most, as it had the highest interaction rates for both the focus segment and general population.

- The improvement to transfer activity metrics and sendflow activity support that introducing this feature is overall an improvement for customer experience.
- Coming out of this experiment there are some opportunities to improve customer experience with our product:
 - Updating the rank logic for the recipient quick send feature to be based on when a customer was sent to (rather than when they were updated) could help prevent customers from sending to duplicate recipients.
 - Enabling easier jumping between sendflow steps could help customers better manage aspects of their transfer - like which recipient they are sending to. Introducing labels and interaction points to the progress bar would allow customers to more easily get to the step they want to adjust, rather than starting over or waiting until they get to the final step.
 - In a similar vein, condensing the send summary screen and bringing more of the edit options above the fold could also help customers more easily adjust their transfers.

The tables in this doc are most readable when viewed in the Pageless format (*Format* → *Switch to Pageless format*).

Background

This experiment tests the introduction of recipient "quick send" shortcuts to the Home screen. While a "send again" shortcut currently exists on transfer cards, this recipient shortcut is intended to better fit customers' "recipient first" mindset. While these shortcuts are anticipated to benefit all customers, we focus on the outcomes for our most active customer segment.

The outcome of this experiment will be primarily determined by results from Nth customers with 11+ completed transfers in the 6 months leading up to allocation, with consideration to the impact on the overall population metrics to avoid detrimental impacts to the general customer population.



There were three treatment groups for this experiment. The treatments were as follows:

- T1: recipient shortcuts introduced to Home screen, shown above transfer cards
 - When a transfer is active the transfer card will float to the top of the Home screen, and recipient shortcuts will be shown below the transfer cards when this happens
 - In app merchandising is shown above transfer cards when there are no transfers active. In these cases, merchandising will be shown above T1 recipient shortcuts
- T2: recipient shortcuts introduced to Home screen, shown below transfer cards regardless of transfer state
- T3: recipient shortcuts introduced to Home screen, shown above transfer cards, with number of transfer cards on the Home screen reduced to one when there is not an active transfer
 - When a transfer is active the transfer card will float to the top of the Home screen, and recipient shortcuts will be shown below the transfer cards when this happens
 - In app merchandising is shown above transfer cards when there are no transfers active. In these cases, merchandising will be shown above T3 recipient shortcuts

See screenshots in the Appendix for some examples of each of these cases for T1, T2, and T3.

For more information, see the Hypothesis Document.

Hypothesis — what is the	e customer-centric belief we're testing?
If we	Introduce a recipient-focused shortcut on the Home screen
Then	Revenue per user will stay flat or increase
Because	 The shortcuts better suit customers' recipient-first mindset, allowing customers to send the same amount or a greater amount more efficiently The shortcuts make it easier for our most active customers, who often have multiple recipients they send to regularly, allowing them to send more or the same amount of money more easily

2.0 - Results, Primary & Secondary Metrics

Results and User Behavior

- There were no statsig impacts to revenue per user for the Nth, 11+ txns segment in any of the treatments. This was also true for net USD send per user and profit per user (see <u>Figure 2.1</u>)
 - For overall results, T3 exhibited a statsig increase to profit per user (+\$0.07 up from \$12.98, a relative +0.55% increase) and revenue per user (+\$0.08 up from \$18.70, a relative +0.43% increase). There were no statsig impacts in T1 or T2 for these metrics in overall results (see Figure 2.2)



- For the *Nth*, *11+ txns* segment T1 demonstrated a statsig improvement to completed transfers per user (+0.0137 up from 2.9485, a relative +0.47% increase) and queued transfers per user (+0.0166 up from 3.2914, a relative +0.50% increase). T2 exhibited a statsig improvement to completed transfers per user (+0.0139 up from 2.9485, a relative +0.47% increase). T3 showed a statsig improvement to completed transfers per user (+0.0194 up from 2.9485, a +0.66% relative increase) and queued transfers per user (+0.0255 up from 3.2914, a relative +0.78% increase), but a statisig deterioration in customers sending transfers to duplicate recipients (+5 bps up from 1.05%, a relative +4.47% increase) (see Figure 2.3)
 - Duplicate recipients are defined here as recipients with the same name and disbursement destination
 - Overall results show a pattern of statsig improvements to transfer queue and completion metrics, but a statsig deterioration in customers sending to duplicate recipients. T2 has the lowest detrimental impact, with an increase of 2 bps from 0.80%, a relative +3.09% increase (see <u>Figure 2.4</u>)
- For the *Nth*, *11+ txns* segment all treatments showed an increase in the number of sendflow sessions per user (T1: +0.0435 up from 3.6283, a relative +1.20% increase; T2: +0.0302 up from 3.6283, a relative +0.83% increase; T3: +0.0613 up from 3.6283, a +1.69% relative increase) and a decrease in users interacting with the transfer card "send again" shortcut (T1: -80 bps down from 35.18%, a relative -22.86% decrease; T2: -23 bps down from 35.18%, a relative -0.65% decrease; T3: -1443 bps down from 35.18%, a relative -41.03% decrease) (see Figure 3.1)
 - There was a statsig increase in average minutes from sendflow launch to transfer queue per user in both T1 (+0.5733 up from 34.3225, a relative +1.67% increase) and T3 (+0.6956 up from 34.3225, a relative +2.03% increase)
 - A similar pattern is seen in the overall results, with statsig increases in number of sendflow sessions per user, statsig increases in average minutes from sendflow launch to transfer queue per user, and statsig decreases in transfer card "send again" interactions for all treatments (see <u>Figure 3.2</u>)
- For the Nth, 11+ txns segment T2 interacted with recipient shortcuts the least (21.86% of users). T3 had the highest interaction rate (51.90% of users), followed by T1 (44.56% of users) (see Figure 3.3). This pattern holds true for the overall results as well (see Figure 3.4)
 - For both the Nth, 11+ txns segment and the overall user population, T2's decrease in interactions with the transfer card "send again" shortcut was the one of the least magnitude (see <u>Figure 3.1</u> and <u>Figure 3.2</u>)

Recommendations

• This experiment should be called for T3.



- Though all treatments exhibited statsig positive impacts to completed transfers
 per user, T3 is the only treatment that also demonstrated a statsig positive
 impact to profit and revenue per user (this was seen in the overall customer
 population, the Nth, 11+ txn segment shows a directional but not statsig increase to
 profit, revenue, and net send per user)
 - The observed 0.55% increase in profit represents an annualized \$3.4M opportunity (\$990.8k lower bound, \$5.9M upper bound) assuming every Nth user experiences the same increase observed in the overall experiment population.
- T3 did exhibit statsig increases to customers sending to duplicate recipients and in the average time to transfer queue. These are light friction signals that, when coupled with the statsig improvements to queued transfers per customer and completed transfers per customer, are not causes for major concern since customers are still queueing and completing transfers at a higher rate than in C. However, there are still opportunities for alleviating these symptoms:
 - To stem further increase in sending to duplicate recipients the **logic for**what recipients are shown in the shortcuts can be updated to be based
 on recipients most recently sent to (with that transfer completing, to avoid
 highlighting recipients that ran into UDE, for example). Currently the logic
 is based on which recipients were most recently updated.
 - As recipient management features become more robust, we could also introduce a flow that helps customers consolidate recipients and get rid of duplicate or incorrect information. This flow could be prompted when a customer has submitted a transfer for a recipient that may be a duplicate, or show up as a notification badge on the Recipients option on the nav bar in app with an option for users to start the consolidation flow once they are in the Recipients menu.
 - The increase in time to queue a transfer may be due to the new feature representing a deviation from how customers are currently accustomed to using our product, and may be a temporary observation that ebbs with time. However, making it easier for customers to change recipient information once they are already in the sendflow could also alleviate this friction.
 - Currently all options to edit a transfer are below the fold on the send summary screen, under a couple of disclaimers about pricing, refunds, and scams. It is not inherently clear to the customer that there are options to edit a transfer accessible on this screen.
 Condensing the information on the send summary screen and bringing some edit options above the fold could help customers more easily edit transfers and switch between recipients.



 Having labeled benchmarks on the progress bar at the top of the sendflow that are tappable could also help users more easily manage changes to their transfer. Having options highlighted such as "send amount", "your recipient", "payment method", etc would enable customers to intuitively jump between steps without having to get to the send summary screen in order to make adjustments.

No sign of imbalance was detected in this experiment's allocations. See allocation and imbalance results in the <u>Appendix</u>.

Figure 2.1 - Primary Metrics (Nth, 11+ txns only)

Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
net send usd	total sent in USD per customer within 14 days	t1	С	307,444	307,109	\$929.59	\$927.79	\$1.79	\$-6.80	\$10.38	0.19%	-0.73%	1.12%	0.732	NSS	\$2045.65	\$2048.51
total profit	total profit generated per customer within 14 days	t1	С	307,444	307,109	\$15.74	\$15.75	\$-0.02	\$-0.10	\$0.07	-0.11%	-0.66%	0.43%	0.730	NSS	\$20.23	\$20.63
total revenue	total revenue generated per customer within 14 days	t1	С	307,444	307,109	\$22.56	\$22.55	\$0.01	\$-0.10	\$0.12	0.05%	-0.44%	0.54%	0.867	NSS	\$26.12	\$26.51
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
net send usd	total sent in USD per customer within 14 days	t2	С	306,945	307,109	\$924.41	\$927.79	\$-3.38	\$-11.97	\$5.21	-0.36%	-1.28%	0.56%	0.517	NSS	\$2042.21	\$2048.51
total profit	total profit generated per customer within 14 days	t2	С	306,945	307,109	\$15.73	\$15.75	\$-0.02	\$-0.11	\$0.06	-0.15%	-0.69%	0.40%	0.651	NSS	\$20.22	\$20.63
total revenue	total revenue generated per customer within 14 days	t2	С	306,945	307,109	\$22.54	\$22.55	\$-0.01	\$-0.12	\$0.10	-0.05%	-0.53%	0.44%	0.871	NSS	\$25.87	\$26.51
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
net send usd	total sent in USD per customer within 14 days	t3	С	307,575	307,109	\$933.41	\$927.79	\$5.62	\$-2.84	\$14.08	0.61%	-0.30%	1.52%	0.274	NSS	\$1981.11	\$2048.51
total profit	total profit generated per customer within 14 days	t3	С	307,575	307,109	\$15.84	\$15.75	\$0.09	\$-0.00	\$0.17	0.55%	-0.01%	1.11%	0.106	NSS	\$21.22	\$20.63
total revenue	total revenue generated per customer within 14 days	t3	С	307,575	307,109	\$22.66	\$22.55	\$0.11	\$-0.00	\$0.22	0.49%	-0.01%	0.99%	0.105	NSS	\$26.87	\$26.51

Figure 2.2 - Primary Metrics (Overall)

Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
net send usd	total sent in USD per customer within 14 days	t1	С	738,397	738,477	\$967.53	\$961.30	\$6.22	\$-0.83	\$13.28	0.65%	-0.09%	1.39%	0.146	NSS	\$2635.09	\$2573.69
total profit	total profit generated per customer within 14 days	t1	С	738,397	738,477	\$12.99	\$12.98	\$0.00	\$-0.05	\$0.05	0.03%	-0.36%	0.42%	0.893	NSS	\$18.68	\$18.87
total revenue	total revenue generated per customer within 14 days	t1	С	738,397	738,477	\$18.71	\$18.70	\$0.02	\$-0.05	\$0.08	0.09%	-0.26%	0.44%	0.680	NSS	\$24.03	\$24.27
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
net send usd	total sent in USD per customer within 14 days	t2	С	737,911	738,477	\$965.64	\$961.30	\$4.34	\$-2.66	\$11.34	0.45%	-0.28%	1.18%	0.308	NSS	\$2598.76	\$2573.69
total profit	total profit generated per customer within 14 days	t2	С	737,911	738,477	\$13.00	\$12.98	\$0.02	\$-0.04	\$0.07	0.12%	-0.27%	0.51%	0.621	NSS	\$18.85	\$18.87
total revenue	total revenue generated per customer within 14 days	t2	С	737,911	738,477	\$18.72	\$18.70	\$0.02	\$-0.04	\$0.09	0.11%	-0.24%	0.46%	0.596	NSS	\$24.04	\$24.27
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
net send usd	total sent in USD per customer within 14 days	t3	С	738,841	738,477	\$964.72	\$961.30	\$3.42	\$-3.45	\$10.28	0.36%	-0.36%	1.07%	0.413	NSS	\$2501.07	\$2573.69
total profit	total profit generated per customer within 14 days	t3	С	738,841	738,477	\$13.05	\$12.98	\$0.07	\$0.02	\$0.12	0.55%	0.16%	0.95%	0.022	SS	\$19.33	\$18.87
total revenue	total revenue generated per customer within 14 days	t3	С	738,841	738,477	\$18.78	\$18.70	\$0.08	\$0.01	\$0.15	0.43%	0.08%	0.79%	0.045	SS	\$24.70	\$24.27



Figure 2.3 - Transaction Metrics (Nth, 11+ txns only)

Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
comped txn count	number of transfer completed per customer within 14 days	t1	С	307,444	307,109	2.9623	2.9485	0.0137	0.0014	0.0260	0.47%	0.05%	0.88%	0.066	SS	2.9506	2.9059
comped txn flag	binary indicator of whether a customer completed a transfer within 14 days	t1	С	307,444	307,109	0.9072	0.9067	0.0004	-0.0008	0.0017	0.05%	-0.09%	0.18%	0.556	NSS	0.2902	0.2908
dupe recipient flag	binary indicator of whether a customer queued a transfer to a duplicate recipient (same name and destination) within 14 days	t1	С	307,444	307,109	0.0105	0.0103	0.0003	-0.0001	0.0007	2.81%	-1.32%	7.11%	0.266	NSS	0.1022	0.1008
queued txn count	number of transfers queued per customer within 14 days	t1	С	307,444	307,109	3.3080	3.2914	0.0166	0.0023	0.0308	0.50%	0.07%	0.94%	0.056	SS	3.4113	3.3862
queued txn flag	binary indicator of whether a customer queued a transfer within 14 days	t1	С	307,444	307,109	0.9179	0.9177	0.0002	-0.0009	0.0014	0.02%	-0.10%	0.15%	0.754	NSS	0.2745	0.2748
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Metric	Definition	Hyp1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
comped txn count	number of transfer completed per customer within 14 days	t2	С	306,945	307,109	2.9624	2.9485	0.0139	0.0015	0.0262	0.47%	0.05%	0.89%	0.064	SS	2.9685	2.9059
comped txn flag	binary indicator of whether a customer completed a transfer within 14 days	t2	С	306,945	307,109	0.9067	0.9067	0.0000	-0.0012	0.0012	0.00%	-0.13%	0.14%	0.994	NSS	0.2908	0.2908
dupe recipient flag	binary indicator of whether a customer queued a transfer to a duplicate recipient (same name and destination) within 14 days	t2	С	306,945	307,109	0.0104	0.0103	0.0001	-0.0003	0.0005	0.94%	-3.13%	5.18%	0.708	NSS	0.1012	0.1008
queued txn count	number of transfers queued per customer within 14 days	t2	С	306,945	307,109	3.3055	3.2914	0.0141	-0.0002	0.0283	0.43%	-0.01%	0.86%	0.106	NSS	3.4183	3.3862
queued txn flag	binary indicator of whether a customer queued a transfer within 14 days	t2	С	306,945	307,109	0.9175	0.9177	-0.0001	-0.0013	0.0010	-0.02%	-0.14%	0.11%	0.833	NSS	0.2751	0.2748
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Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
comped txn count	number of transfer completed per customer within 14 days	t3	С	307,575	307,109	2.9679	2.9485	0.0194	0.0071	0.0317	0.66%	0.24%	1.08%	0.009	SS	2.9560	2.9059
comped txn flag	binary indicator of whether a customer completed a transfer within 14 days	t3	С	307,575	307,109	0.9075	0.9067	0.0008	-0.0004	0.0020	0.08%	-0.05%	0.22%	0.301	NSS	0.2898	0.2908
dupe recipient flag	binary indicator of whether a customer queued a transfer to a duplicate recipient (same name and destination) within 14 days	t3	С	307,575	307,109	0.0107	0.0103	0.0005	0.0000	0.0009	4.47%	0.30%	8.83%	0.077	SS	0.1030	0.1008
queued txn count	number of transfers queued per customer within 14 days	t3	С	307,575	307,109	3.3170	3.2914	0.0255	0.0111	0.0399	0.78%	0.34%	1.21%	0.004	SS	3.4665	3.3862
queued txn flag	binary indicator of whether a customer queued a transfer within 14 days	t3	С	307,575	307,109	0.9186	0.9177	0.0009	-0.0002	0.0021	0.10%	-0.02%	0.23%	0.182	NSS	0.2734	0.2748

Figure 2.4 - Transaction Metrics (Overall)

Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
comped txn count	number of transfer completed per customer within 14 days	t1	С	738,397	738,477	1.8353	1.8271	0.0082	0.0018	0.0146	0.45%	0.10%	0.80%	0.034	SS	2.3627	2.3354
comped txn flag	binary indicator of whether a customer completed a transfer within 14 days	t1	С	738,397	738,477	0.7272	0.7264	0.0008	-0.0004	0.0021	0.12%	-0.05%	0.28%	0.248	NSS	0.4454	0.4458
dupe recipient flag	binary indicator of whether a customer queued a transfer to a duplicate recipient (same name and destination) within 14 days	t1	С	738,397	738,477	0.0084	0.0080	0.0003	0.0001	0.0006	4.31%	1.24%	7.46%	0.020	SS	0.0910	0.0891
queued txn count	number of transfers queued per customer within 14 days	t1	С	738,397	738,477	2.1384	2.1288	0.0096	0.0020	0.0172	0.45%	0.09%	0.81%	0.038	SS	2.8250	2.8038
queued txn flag	binary indicator of whether a customer queued a transfer within 14 days	t1	С	738,397	738,477	0.7536	0.7528	0.0008	-0.0004	0.0019	0.10%	-0.05%	0.26%	0.281	NSS	0.4309	0.4314

Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
comped txn count	number of transfer completed per customer within 14 days	t2	С	737,911	738,477	1.8390	1.8271	0.0119	0.0056	0.0183	0.65%	0.30%	1.00%	0.002	SS	2.3792	2.3354
comped txn flag	binary indicator of whether a customer completed a transfer within 14 days	t2	С	737,911	738,477	0.7279	0.7264	0.0015	0.0003	0.0027	0.21%	0.04%	0.38%	0.038	SS	0.4451	0.4458
dupe recipient flag	binary indicator of whether a customer queued a transfer to a duplicate recipient (same name and destination) within 14 days	t2	С	737,911	738,477	0.0083	0.0080	0.0002	0.0000	0.0005	3.09%	0.05%	6.22%	0.094	SS	0.0905	0.0891
queued txn count	number of transfers queued per customer within 14 days	t2	С	737,911	738,477	2.1421	2.1288	0.0133	0.0056	0.0209	0.62%	0.26%	0.98%	0.004	SS	2.8369	2.8038
queued txn flag	binary indicator of whether a customer queued a transfer within 14 days	t2	С	737,911	738,477	0.7544	0.7528	0.0016	0.0004	0.0027	0.21%	0.05%	0.36%	0.028	SS	0.4304	0.4314



Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
comped txn count	number of transfer completed per customer within 14 days	t3	С	738,841	738,477	1.8409	1.8271	0.0138	0.0074	0.0202	0.75%	0.41%	1.11%	0.000	SS	2.3743	2.3354
comped txn flag	binary indicator of whether a customer completed a transfer within 14 days	t3	С	738,841	738,477	0.7279	0.7264	0.0015	0.0003	0.0027	0.21%	0.04%	0.38%	0.038	SS	0.4451	0.4458
dupe recipient flag	binary indicator of whether a customer queued a transfer to a duplicate recipient (same name and destination) within 14 days	t3	С	738,841	738,477	0.0085	0.0080	0.0004	0.0002	0.0007	5.54%	2.45%	8.73%	0.003	SS	0.0915	0.0891
queued txn count	number of transfers queued per customer within 14 days	t3	С	738,841	738,477	2.1480	2.1288	0.0192	0.0115	0.0269	0.90%	0.54%	1.27%	0.000	SS	2.8747	2.8038
queued txn flag	binary indicator of whether a customer queued a transfer within 14 days	t3	С	738,841	738,477	0.7547	0.7528	0.0019	0.0007	0.0031	0.25%	0.09%	0.40%	0.008	SS	0.4303	0.4314

3.0 User Behavior Findings

Figure 3.1 - User Behavior Metrics (Nth, 11+ txn only)

Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
avg min to queue	average minutes between sendflow launch and transfer queue per transfer per customer for transfers queued within 14 days	t1	С	307,444	307,109	34.8958	34.3225	0.5733	0.2744	0.8722	1.67%	0.80%	2.55%	0.002	SS	71.6983	70.7524
num sessions	number of sendflow sessions per customer within 14 days	t1	С	307,444	307,109	3.6718	3.6283	0.0435	0.0295	0.0574	1.20%	0.81%	1.59%	0.000	SS	3.3510	3.2949
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t1	С	307,444	307,109	0.2713	0.3518	-0.0804	-0.0824	-0.0785	-22.86%	-23.35%	-22.37%	0.000	SS	0.4446	0.4775
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
avg min to queue	average minutes between sendflow launch and transfer queue per transfer per customer for transfers queued within 14 days	t2	С	306,945	307,109	34.6140	34.3225	0.2915	-0.0108	0.5938	0.85%	-0.03%	1.74%	0.113	NSS	73.2288	70.7524
num sessions	number of sendflow sessions per customer within 14 days	t2	С	306,945	307,109	3.6585	3.6283	0.0302	0.0162	0.0441	0.83%	0.45%	1.22%	0.000	SS	3.3602	3.2949
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t2	С	306,945	307,109	0.3495	0.3518	-0.0023	-0.0043	-0.0003	-0.65%	-1.22%	-0.08%	0.059	SS	0.4768	0.4775
Metric	Definition	Hyp1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
avg min to queue	average minutes between sendflow launch and transfer queue per transfer per customer for transfers queued within 14 days	t3	С	307,575	307,109	35.0181	34.3225	0.6956	0.3884	1.0029	2.03%	1.13%	2.93%	0.000	SS	75.6176	70.7524
num sessions	number of sendflow sessions per customer within 14 days	t3	С	307,575	307,109	3.6897	3.6283	0.0613	0.0474	0.0753	1.69%	1.30%	2.08%	0.000	SS	3.3689	3.2949
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t3	С	307,575	307,109	0.2074	0.3518	-0.1443	-0.1462	-0.1424	-41.03%	-41.44%	-40.61%	0.000	SS	0.4055	0.4775

Figure 3.2 - User Behavior Metrics (Overall)

Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI LB	CI UB	Diff %	CI% LB	CI% UB	P Val	SS?	SD1	SD2
Metric	Definition	пурі	пург	MI	N2	Weam	Weanz	Dill	CI_LB	CI_UB	DIII_70	CI70_LB	CI%_UB	P_Vai	331	301	302
avg min to queue	average minutes between sendflow launch and transfer queue per transfer per customer for transfers queued within 14 days	t1	С	738,397	738,477	41.0909	40.4685	0.6224	0.3693	0.8754	1.54%	0.91%	2.17%	0.000	SS	96.1997	90.6977
num sessions	number of sendflow sessions per customer within 14 days	t1	С	738,397	738,477	2.6141	2.5759	0.0383	0.0305	0.0461	1.49%	1.18%	1.79%	0.000	SS	2.8926	2.8523
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t1	С	738,397	738,477	0.2079	0.2816	-0.0737	-0.0749	-0.0726	-26.18%	-26.54%	-25.82%	0.000	SS	0.4058	0.4498
Metric	Definition	Hyp1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
avg min to queue	average minutes between sendflow launch and transfer queue per transfer per customer for transfers queued within 14 days	t2	С	737,911	738,477	40.8688	40.4685	0.4003	0.1471	0.6535	0.99%	0.36%	1.62%	0.009	SS	96.2730	90.6977
num sessions	number of sendflow sessions per customer within 14 days	t2	С	737,911	738,477	2.6052	2.5759	0.0294	0.0216	0.0372	1.14%	0.84%	1.45%	0.000	SS	2.9001	2.8523
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t2	С	737,911	738,477	0.2739	0.2816	-0.0077	-0.0089	-0.0065	-2.74%	-3.17%	-2.32%	0.000	SS	0.4460	0.4498



Metric	Definition	Нур1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
avg min to queue	average minutes between sendflow launch and transfer queue per transfer per customer for transfers queued within 14 days	t3	С	738,841	738,477	41.5222	40.4685	1.0537	0.8004	1.3070	2.60%	1.97%	3.24%	0.000	SS	96.3949	90.6977
num sessions	number of sendflow sessions per customer within 14 days	t3	С	738,841	738,477	2.6344	2.5759	0.0585	0.0507	0.0663	2.27%	1.97%	2.58%	0.000	SS	2.9214	2.8523
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t3	С	738,841	738,477	0.1667	0.2816	-0.1150	-0.1161	-0.1139	-40.83%	-41.14%	-40.51%	0.000	SS	0.3727	0.4498

Figure 3.3 - Recipient Shortcut Interaction Rates (Nth, 11+ txn only)

Metric	Definition	Hyp1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t1	С	307,444	307,109	0.4456	0.0000	0.4456	0.4439	0.4474	13685471.53%	nan%	nan%	0.000	SS	0.4970	0.0018
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t2	С	306,945	307,109	0.2186	0.0000	0.2186	0.2173	0.2199	6713285.03%	nan%	nan%	0.000	ss	0.4133	0.0018
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t3	С	307,575	307,109	0.5190	0.0000	0.5190	0.5172	0.5209	15940212.54%	nan%	nan%	0.000	SS	0.4996	0.0018

Figure 3.4 - Recipient Shortcut Interaction Rates (Overall)

Metric	Definition	Нур1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t1	С	738,397	738,477	0.3729	0.0000	0.3729	0.3719	0.3740	27537983.23%	nan%	nan%	0.000	ss	0.4836	0.0012
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t2	С	737,911	738,477	0.1810	0.0000	0.1810	0.1803	0.1818	13368846.53%	nan%	nan%	0.000	ss	0.3850	0.0012
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t3	С	738,841	738,477	0.4253	0.0000	0.4253	0.4242	0.4264	31410317.61%	nan%	nan%	0.000	SS	0.4944	0.0012

Figure 3.5 - Send Shortcut Interaction Rates (Nth, 11+ txn only)

The "send again" and quick send interaction rates are redundant with above, but shown here to illustrate the overall change in interactions with send shortcuts

Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t1	С	307,442	307,109	0.4456	0.0000	0.4456	0.4439	0.4474	13685360.78%	nan%	nan%	0.000	SS	0.4970	0.0018
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t1	С	307,442	307,109	0.2713	0.3518	-0.0804	-0.0824	-0.0785	-22.86%	-23.35%	-22.37%	0.000	SS	0.4446	0.4775
shortcut interaction flag	binary indicator of whether a user interacted with any send shortcut (transfer card "send again" or the recipient quick send)	t1	С	307,442	307,109	0.5917	0.3518	0.2399	0.2378	0.2420	68.21%	67.41%	69.00%	0.000	SS	0.4915	0.4775
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t2	С	306,943	307,109	0.2186	0.0000	0.2186	0.2173	0.2199	6713228.72%	nan%	nan%	0.000	SS	0.4133	0.0018
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t2	С	306,943	307,109	0.3495	0.3518	-0.0023	-0.0043	-0.0003	-0.65%	-1.22%	-0.08%	0.059	SS	0.4768	0.4775
shortcut interaction flag	binary indicator of whether a user interacted with any send shortcut (transfer card "send again" or the recipient quick send)	t2	С	306,943	307,109	0.4762	0.3518	0.1245	0.1224	0.1265	35.39%	34.70%	36.08%	0.000	SS	0.4994	0.4775
Metric	Definition	Hyp1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t3	С	307,574	307,109	0.5190	0.0000	0.5190	0.5172	0.5209	15940164.52%	nan%	nan%	0.000	SS	0.4996	0.0018
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t3	С	307,574	307,109	0.2074	0.3518	-0.1443	-0.1462	-0.1424	-41.03%	-41.44%	-40.61%	0.000	ss	0.4055	0.4775
shortcut interaction flag	binary indicator of whether a user interacted with any send shortcut (transfer card "send again" or the recipient quick send)	t3	С	307,574	307,109	0.6143	0.3518	0.2626	0.2605	0.2647	74.65%	73.83%	75.46%	0.000	SS	0.4868	0.4775



Figure 3.6 - Send Shortcut Interaction Rates (Overall)

The "send again" and quick send interaction rates are redundant with above, but shown here to illustrate the overall change in interactions with send shortcuts

Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t1	С	738,397	738,477	0.3729	0.0000	0.3729	0.3719	0.3740	27537983.23%	nan%	nan%	0.000	SS	0.4836	0.0012
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t1	С	738,397	738,477	0.2079	0.2816	-0.0737	-0.0749	-0.0726	-26.18%	-26.54%	-25.82%	0.000	SS	0.4058	0.449
shortcut interaction flag	binary indicator of whether a user interacted with any send shortcut (transfer card "send again" or the recipient quick send)	t1	С	738,397	738,477	0.4946	0.2816	0.2130	0.2117	0.2143	75.63%	75.00%	76.27%	0.000	SS	0.5000	0.449
Metric	Definition	Hyp1	Hyp2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t2	С	737,911	738,477	0.1810	0.0000	0.1810	0.1803	0.1818	13368846.53%	nan%	nan%	0.000	SS	0.3850	0.0012
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t2	С	737,911	738,477	0.2739	0.2816	-0.0077	-0.0089	-0.0065	-2.74%	-3.17%	-2.32%	0.000	SS	0.4460	0.4498
shortcut interaction flag	binary indicator of whether a user interacted with any send shortcut (transfer card "send again" or the recipient quick send)	t2	С	737,911	738,477	0.3919	0.2816	0.1102	0.1090	0.1115	39.14%	38.61%	39.68%	0.000	SS	0.4882	0.4498
						1	1										
Metric	Definition	Hyp1	Нур2	N1	N2	Mean1	Mean2	Diff	CI_LB	CI_UB	Diff_%	CI%_LB	CI%_UB	P_Val	SS?	SD1	SD2
quicksend interaction flag	binary indicator of whether a user interacted with a recipient shortcut within 14 days	t3	С	738,841	738,477	0.4253	0.0000	0.4253	0.4242	0.4264	31410317.61%	nan%	nan%	0.000	SS	0.4944	0.0012
sendagain interaction flag	binary indicator of whether a user interacted with the transfer card "send again" shortcut on the Home screen within 14 days	t3	С	738,841	738,477	0.1667	0.2816	-0.1150	-0.1161	-0.1139	-40.83%	-41.14%	-40.51%	0.000	ss	0.3727	0.449
shortcut	binary indicator of whether a user interacted with any send shortcut (transfer card "send again" or the recipient	t3	С	738.841	738.477	0.5139	0.2816	0.2323	0.2309	0.2336	82.47%	81.82%	83.13%	0.000	SS	0.4998	0.4498

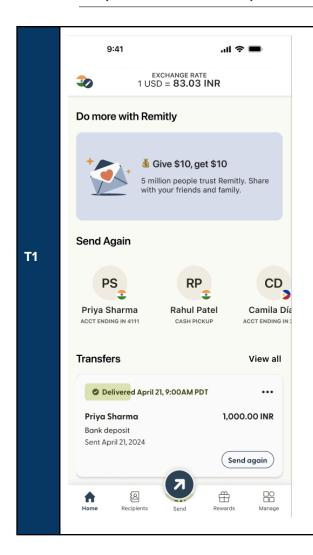


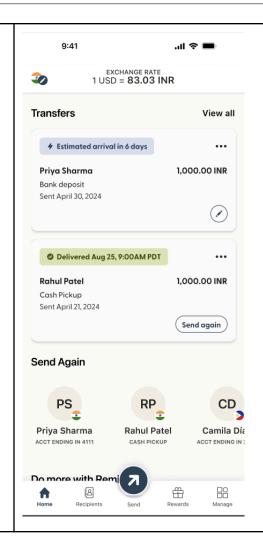
5.0 Appendix

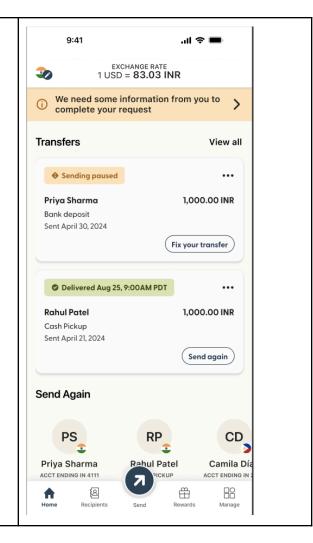
Control vs Treatment Screenshots

No active transfers	Transfer in flight	CAR banner/transfer in flight

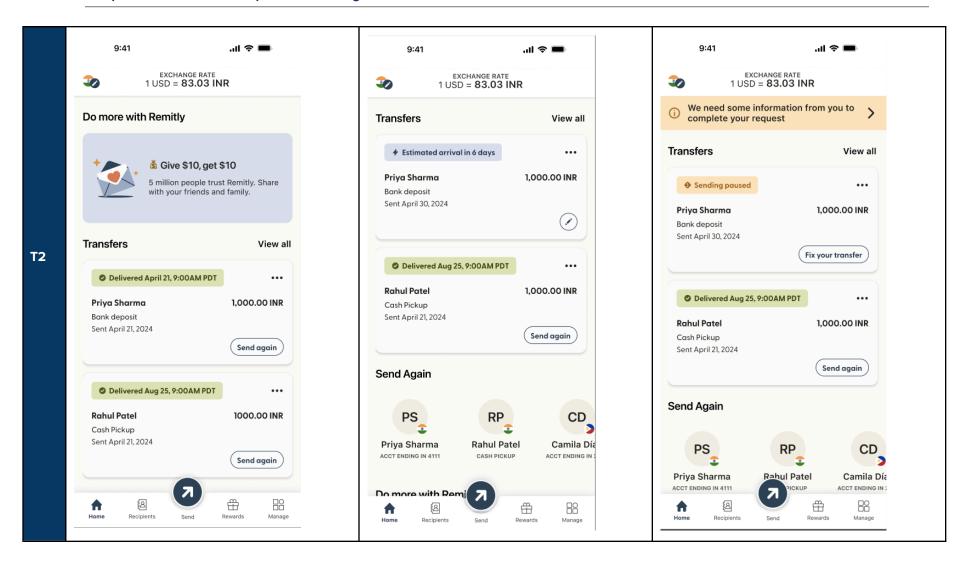




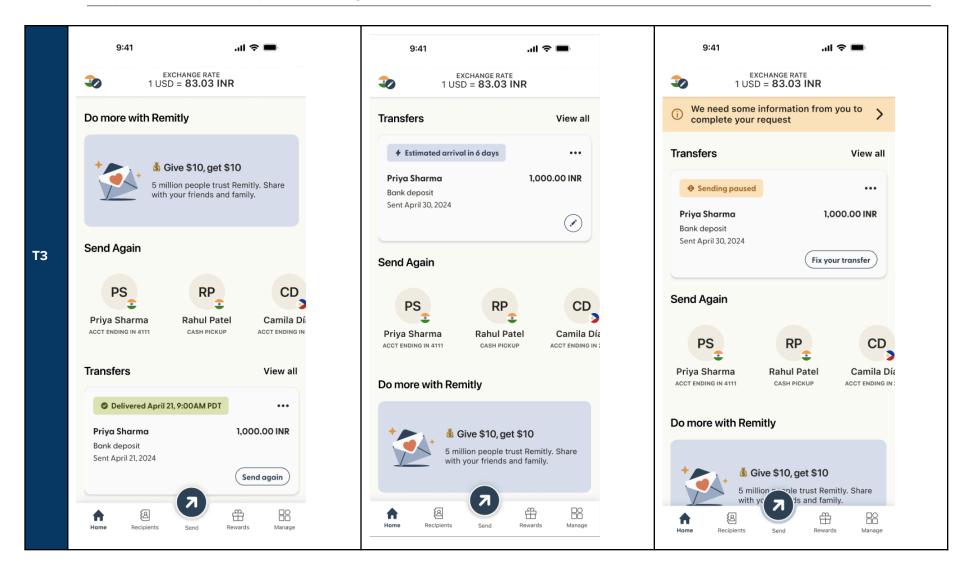














Experiment Allocations and Balance

Figure A.2 - Exposure Balance Results

	hypothesis_name	${\bf expected_proportion}$	actual_proportion	expected_exposures	actual_exposures
0	С	0.25	0.250024	738406.5	738477
1	t1	0.25	0.249997	738406.5	738397
2	t2	0.25	0.249832	738406.5	737911
3	t3	0.25	0.250147	738406.5	738841

p-value: 0.8975701275649478

No sign of imbalance. The p-value is greater than the specified significance_threshold of 0.05

Figure A.3 - Exposures per Day

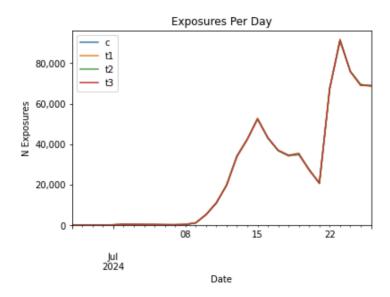




Figure A.4 - Cumulative Exposures

