Fintech, Visual Attention, and Financial Inclusion: A Field Experiment on Migrant Remittances

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Abstract

Migrant remittances to low- and middle-income countries were close to 650 billion US dollars in 2022, impacting about one billion people worldwide. Despite this, sending remittances remains relatively costly. Policymakers have argued that fintech, specifically, comparison websites like kayak.com but for sending money, can boost financial inclusion and reduce remittance prices. Yet, little is known about how a key segment of consumers – migrants with limited (financial) education and trust in digital methods – interacts with fintech. We collaborate with a World Bank certified comparison website to conduct a field experiment among Central American migrants. We vary remittance-company attributes shown to migrants on a comparison website, specifically, the time to delivery and customer reviews, to assess the potential for fintech to impact their choices. We use visual attention data to assess how search leads to such choices. We find that (1) while 10-25 percent of migrants exhibit some type of remittance habit, more than half experiment with companies once provided with information by means of fintech, (2) response to fintech information is rational but depends on migrant type – those with low financial literacy are less likely to respond to customer ratings, and (3) when presented with fintech information, almost 40 percent of migrants behave counter to the preferences over attributes they usually exhibit outside of the study. This is primarily driven by those with low financial literacy and no prior awareness of comparison platforms. The findings thus paint a nuanced picture of the potential for fintech to improve financial inclusion and consumer welfare among this demographic.

JEL Codes: C93, D87, F22, F24, G53, O12

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1 Introduction

Migrant remittances constitute a key driver of global development and economic stability (for example, Yang, 2011). In 2022, close to 650 billion US dollars (USD) in remittances went to low- and middle-income countries, benefitting 800 million people worldwide. The typical migrant worker sends USD200-300 monthly to their home country, and this can make up as much as 60 percent of the recipient household's income.[1] As of the third quarter of 2021, the Remittance Prices Worldwide dataset by the World Bank reported 343 remittance corridors across the world, with an average of 15 companies (money transfer operators/MTOs) per corridor. Despite this, remittances remain relatively costly to send: the average fee for sending USD200 globally is about six percent of the transaction value, twice the target set by the United Nations Sustainable Development Goals. This has been a concern for policymakers because an additional USD19 billion could be in the hands of the poor.

As the financial industry continues to undergo significant changes, partly brought on by the COVID-19 pandemic, it is expected that financial technologies "fintech" will play an increasing role in how migrants send remittances and the prices they will pay. For example, the amount of money sent via mobile transfers globally increased by 65 percent in 2020 to USD12.7 billion and grew again to USD16 billion in 2021 (Rodima-Taylor, 2023). From a financial inclusion standpoint, there is a particular interest in how migrants with relatively little (financial) education and trust in digital methods but who are frequent remittance senders, the so-called "200 dollar and below" market, interact with fintech (Consumer Financial Protection Bureau, 2011; LoVoi et al., 2016; Committee on Payments and Market Infrastructures, 2020). This interest was heightened during the COVID-19 pandemic when previously unwilling consumers were forced to consider switching from cash-only, brick-and-mortar services to digital, online-only services.

In this paper, we assess how a sample of U.S.-based Central American remittance senders in the 200-dollar-and-below market interacts with fintech. In this context, fintech first and foremost takes the form of a comparison website, that is, a site like kayak.com but for sending money instead of for travel. We collaborate with a World Bank certified comparison platform to create an offline-equivalent of their website. Migrants are exposed to three pages of this website, each containing 10-11 remittance companies. Two aspects are randomized: (1) the amount that is being sent within the study across USD100 and USD300 and (2) the set of attributes shown for each company, to include either time to delivery (speed) or customer reviews on top of a base set of attributes (fees, amount, and delivery mode). We combine data on (i) migrants' choice of money-transfer operator (remittance company), (ii) their choice process in the form of visual attention (eye-tracking), and (iii) day-to-day remittance sending (based on a pre-survey) to address three main questions.[2]

First, are migrants' remittance habits impacted by new information communicated through fintech? Second, how does visual attention (the choice/search process) impact our understanding of remittance habits and choices more generally? Finally, what are the potential welfare impacts of information communicated through fintech? Given the sample of 200-dollar-and-below remittance senders, answers to these questions provide a glimpse into the

[1] See this IFAD post and the references within.

[2] Throughout the paper, we use the terms money-transfer operator (MTO), remittance company, and firm interchangeably.

potential for fintech to impact financial inclusion, for example, by inducing this demographic to experiment with more "fintechy" remittance companies.

Our findings are as follows. First, while 10-25 percent of migrants exhibit some type of remittance habit, more than half experiment with companies once provided with information by means of fintech (on the comparison website). Second, migrant response to fintech information is rational: They are more likely to stick with a company when the remittance arrives faster or the company has a higher customer rating. Third, migrant response to information depends on the amount that is being sent: When sending USD300, migrants are more responsive to customer ratings whereas when sending USD100, they are more responsive to delivery speed. This is because at baseline, migrants choose worse-reviewed companies at USD300 and slower companies at USD100. Visual attention data suggest that this is because their search process is different. When sending USD300, they spend more time looking at fees which leads to faster but marginally worse reviewed companies. Fourth, response to information depends on a migrant's type: Those with low financial literacy are less likely to respond to customer ratings while those with greater information-processing capability are more likely to respond to delivery speed. No heterogeneous effects are found across other pre-specified characteristics, specifically, whether a migrant typically compares companies outside of the study, age, or gender. Fifth, when presented with fintech information, almost 40 percent of migrants behave counter to the preferences over attributes they usually exhibit outside of the study (as stated in the pre-survey). This is primarily driven by those with low financial literacy and no prior awareness of comparison platforms. While this could be because migrants are learning something about their preferences, we cannot rule out that they are making mistakes. In short, while fintech has the potential to improve financial inclusion among low-income migrants, it does not appear to be a one-size-fits-all solution. It could exacerbate pre-existing inequities by failing to help those who need it most, that is, migrants with low financial literacy and no pre-existing familiarity with comparison platforms.

Our findings contribute to a few different literatures. First, we complement prior work on the impacts of fintech and digitization on financial inclusion and consumer welfare by studying a demographic – the 200-dollar-and-below market – that is highly relevant for policy but has been understudied (for example, Gomber et al., 2018; Goldfarb and Tucker, 2019; Stulz, 2019; Philippon, 2019; Lee et al., 2021; Fabregas et al., 2024). Our findings on customer reviews also add to papers such as Reimers and Waldfogel (2021), Akesson et al. (2023), and Culotta et al. (2023). More generally, they also contribute to the literature on information provision interventions and their welfare impacts (for example, Jensen, 2007; Jensen and Oster, 2009; Nakasone et al., 2014; Abaluck and Gruber, 2022; Haaland et al., 2023). Second, we contribute to a relatively small literature on the determinants of remittance sending, especially the impacts of remittance prices (for example, Lucas and Stark, 1985; de la Brière et al., 2002; Ambler et al., 2014; Ashraf et al., 2015; Torero and Viceisza, 2015). In so doing, we indirectly contribute to a much larger literature on the potential recipient-side impacts of remittances (for example, Edwards and Ureta, 2003; Yang and Choi, 2007; Yang, 2008, 2011). Our findings also contribute to the literature on financial literacy, specifically among migrants (for example, Gibson et al., 2012; Lusardi et al., 2017; Kaiser et al., 2020). Finally, we supplement several parts of the behavioral and consumer search literatures, in particular on visual attention and choice process (for example, Krajbich and Rangel, 2011; Reutskaja et al., 2011; Chavez et al., 2018; Caplin, 2016; Gabaix, 2019; Harrison and Swarthout, 2019;

Kee et al., 2020; Fang et al., 2024), neuroeconomics more generally (for example, Caplin and Schotter, 2008; Glimcher, 2010), behavioral development (for example, Kremer et al., 2019), and to a lesser extent, information and choice overload (for example, Chernev et al., 2015). A key methodological contribution across all these literatures is the collection of eye-tracking data in a naturally-occurring field environment among participants who have relatively little (financial) education and trust but for whom the choices under consideration have significant day-to-day implications.

The remainder of the paper is organized as follows. Section 2 describes the study design. Section 3 covers the data and empirical strategy. Section 4 presents the results. Finally, section 5 concludes.

2 Study Design

2.1 Why Comparison Websites?

Prior findings from different industries suggest that comparison websites reduce search costs and prices and in so doing, increase consumer welfare despite their potential to facilitate tacit collusion among firms. For example, Brown and Goolsbee (2002) found that increases in online comparison shopping reduced the price of term life insurance by 8-15 percent. Zettelmeyer et al. (2005) found that the use of an online price referral service reduced new car prices by 1.2 percent (also see Zettelmeyer et al., 2001). Baye et al. (2003) found that the ease of search provided by a comparison site saved consumers an average of 16 percent on electronics. Finally, Scott Morton et al. (2015) found that limiting airline price and schedule information could reduce consumer welfare by more than USD 6 billion annually.

It is thus not surprising that Global Remittances Working Group (2009) proposed comparison websites as a way to increase competition (reduce prices) and consumer welfare in the remittance industry. However, there are two potential caveats. First, migrant consumers need to use comparison sites for them to have the above impacts. In fact, some comparison sites have ceased to exist over time in part due to take-up remaining low, specifically among consumers with relatively little education, technological literacy, and trust in digital services (for example, LoVoi et al., 2016).[3] Second, while reduced prices constitute a positive for consumers, they translate into a negative (reduced revenues) for firms. So, prior work has found that competition can lead to reduced financial inclusion (for example, Brunnermeier et al., 2023). This paper deals with the first caveat by studying how a sample of 200-dollar-and-below remittance senders interacts with a comparison site and thus, responds to fintech information. The second caveat is beyond the scope of the paper.

2.2 Recruitment and Sample Size

We recruited a sample of 383 Central American migrants through a reputable community organization that has been active in Washington DC, Maryland, and Virginia for more than

[3]Interestingly, these are also the consumers who could benefit from comparison websites the most because they tend to send small but frequent amounts and engage in costly search because of information frictions and recipient characteristics, for example, recipients who reside in more rural locations.

30 years (see section 3 for details on our final sample size).[4] In addition to advocating on behalf of foreign-born individuals, this organization has worker, English-language, and pathways-to-citizenship programs. Participants had to be older than 18 years of age, have sent remittances at least four times in the past year to El Salvador, Guatemala, or Honduras, be able to read and use a computer (but no strict education requirement), and not wear bifocal glasses. The third criterion allowed for participants who had not achieved certain levels of education (for example, completing primary school) but were still able to use fintech and process the relevant information. So, this criterion was consistent with our goal of understanding fintech use and its implications for financial inclusion among consumers with relatively little education. The fourth criterion was solely for the purpose of eye-tracking since the software might not calibrate properly otherwise.

We focused on migrants from El Salvador, Guatemala, and Honduras for three reasons. First, these countries continue to rely heavily on financial remittances as a percent of Gross Domestic Product, ranging anywhere from 19 to 27 percent as of 2022 (see `http://bit.ly/36iCwwl`). Second, the countries are of particular interest given their geographical proximity to and recent migratory relations with the United States (e.g., Cohn et al., 2017). Third, we further contribute to understanding what drives the sender side of remittances to Central America (for example, Ambler et al., 2014; Ashraf et al., 2015; Torero and Viceisza, 2015).

While this is a convenience sample, our goal was to recruit migrants with relatively little education and financial access consistent with the usual description of the 200-dollar-and-below market. Table 1 compares some basic demographics of the overall population of foreign-born Salvadorans, Guatemalans, Hondurans, and Hispanics in the United States (per Moslimani et al., 2023) with the study sample. Indeed, our sample is less educated, poorer, and more likely to be employed. Section 3.1 will discuss the characteristics of the sample in greater detail. A key statistic is that our sample sends an average of USD297.92 monthly in remittances (table 4). This is consistent with prior surveys of Hispanic remittance senders in the United States (for example, Yang, 2011, and the references within).

2.3 Treatments and Randomization

We partnered with a World Bank certified comparison website to create the offline-equivalent of their landing and results pages. For study purposes, we made the following modifications. First, since the whole study was in Spanish, there was no need for a bilingual site. Second, the destination drop-down box only had El Salvador, Guatemala, and Honduras as options. Third, since participants were randomly assigned to stakes of USD100 or 300 (see lottery discussion in section 2.4), the amount to be sent was not a choice. Finally, since the set of money-transfer attributes was varied experimentally (as explained further below), the ability to condition search on delivery speed or rank results by attributes was removed. These modifications led to the landing page in figure 1 and the results page in figure 2. A

[4] In the funding proposal, we committed to a sample size of 400 migrants across six potential between-subject treatments, mostly because there was a hard budget maximum. Also, this is a difficult-to-recruit demographic, hence the collaboration with a community organization. As explained in section 2.3, we ended up with four main treatments between-subjects. The planned sample size of $N = 400$ was large relative to several studies using eye-tracking data (for example, see Wedel, 2015, who reviews attention research in marketing). This is in part due to the high-frequency nature of eye-tracking data.

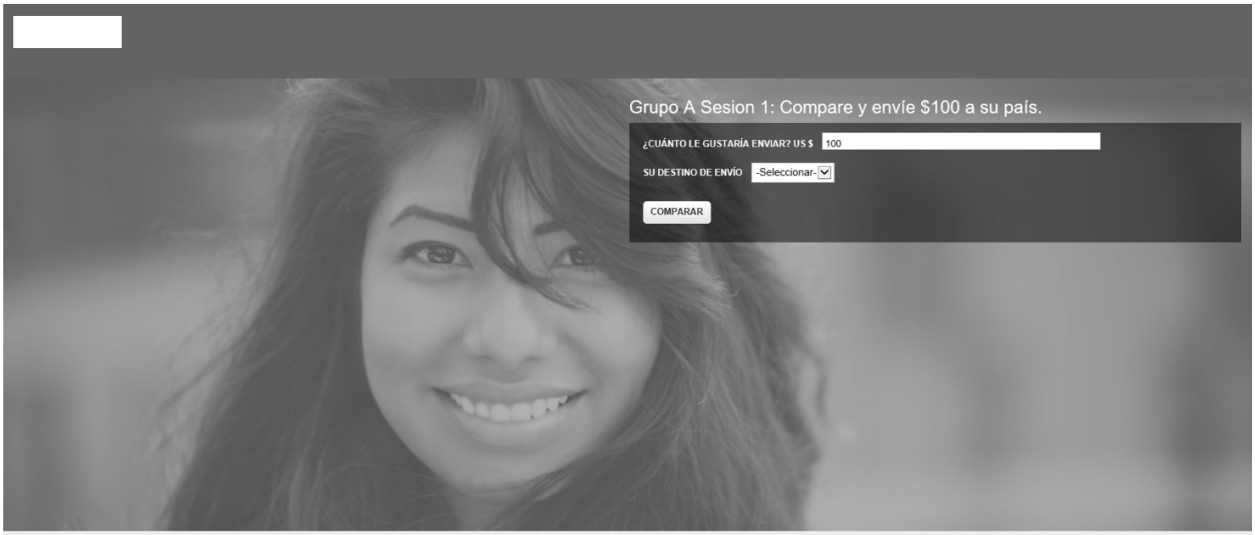
Table 1: Characteristics of US Hispanics versus the Study Sample

	Salvadorans		Guatemalans		Hondurans		Hispanics	
	US	Sample	US	Sample	US	Sample	US	Sample
High school or less	0.76	0.77	0.80	0.92	0.72	0.90	0.69	0.83
At most primary school	–	0.32	–	0.64	–	0.53	–	0.45
Income[1] (USD)	58,200	23,400	49,000	14,400	48,000	18,000	55,000	18,000
Employed	0.68	0.88	0.69	0.93	0.66	0.81	0.64	0.87
Woman	0.49	0.58	0.43	0.38	0.51	0.57	0.49	0.52
Age	43.2	40.9	36.1	38.0	35.1	39.6	44.5	39.6
Married	0.55	0.38	0.49	0.37	0.49	0.33	0.58	0.37

The statistics for US Hispanics are from Moslimani et al. (2023) based on IPUMS. Unless otherwise noted, all statistics are averages for foreign-born individuals. [1]Median annual household income.

countdown clock was added at the top of the results page since participants had a maximum of five minutes to review the information and choose their preferred money-transfer operator. This mitigated the chance of participants lingering for too long on any given page since sessions were being conducted back to back. It is also consistent with certain eye-tracking studies that put participants under (extreme) time pressure (for example, Reutskaja et al., 2011).

Figure 1: Comparison Website Landing Page



Group A option1 $100 user input page

012

As explained next, the main experimental variation came from randomly manipulating the set of attributes Z across groups A and B and the amount of money sent (stakes) across USD100 and USD300. So, the crux of our study is based on a (2x2) design in which each participant was randomized to one of four conditions: A-100, A-300, B-100, or B-300.

Figure 2: Comparison Website Results Page for USD100 to Honduras



Regardless of condition, each participant saw three results pages (again, with five minutes per page).

Page 1 served as the control since it had the same set of attributes Z_1 across group A and group B. Specifically, Z_1 comprised (1) the money-transfer operator name and logo, (2) the exchange rate and transaction fee, (3) the amount that would arrive/be received, and (4) the delivery mode, that is, whether the funds would arrive as a bank deposit, for pick-up in cash, or for home delivery in cash. Page 2 added delivery speed to Z_1 if in group A and customer reviews if in group B. The delivery speed categories were within minutes, one hour, one day, three days, or five days. The reviews consisted of the number of times a company had been reviewed and the average rating out of five stars. So, there were no comments attached to reviews. Page 3 added customer reviews to Z_2 if in group A and delivery speed if in group B. So, page 3 had the full set of attributes that is typically displayed on the real-time site. While Z_3 was the same for group A and group B, the order in which delivery speed and reviews had been presented was flipped. Table 2 summarizes the experimental design.

Several other design choices were made, mostly with external validity in mind. First, we did not provide "fake" information (for example, Akesson et al., 2023). So, the set of money-transfer operators as well as the values of the attributes were taken directly from the

Table 2: Attributes by Treatment Group and Results Page

	Treatment A (USD 100 or 300)	Treatment B (USD 100 or 300)
Page 1 (Control)	Company name + logo exchange rate + fee + amount delivery mode	
Page 2	Adds delivery speed	Adds reviews
Page 3	Adds reviews	Adds delivery speed
One discounted/starred company on each page		

real-time comparison website. As a result, there was no clearly dominant choice, specifically, there was no company that was the cheapest, the fastest, the best reviewed, and providing all possible modes of delivery. While this is realistic, it poses a potential issue when assessing optimal decisionmaking and welfare. We return to this when discussing the findings.

Second, we did not experiment with treatments that substituted for or added attributes other than those on the real-time site. A prime example is distance to the nearest money-transfer operator branch, be that on the sender or the recipient side. We did not do so for two main reasons. First, the existing set of attributes includes delivery mode, which proxies for precise branch location, for example, if one can send/receive electronically or via home delivery. Second, when discussing this possibility with the comparison website, it did not seem feasible to implement in the day-to-day environment because their algorithm crawls money-transfer operator websites in real-time and several operators do not have branch location information readily available, especially on the recipient side where this information might matter most.

Third, to introduce some random price variation, each results page had one money-transfer operator that had been randomly selected for a 50 percent fee discount. The discounted company varied with the webpage version and there were three such webpage versions per country. So, depending on the sequence of pages that a participant was randomly exposed to, the discounted company could be the same or different across the three results pages. If a participant chose the discounted company, the experimenters would cover the difference between the typical and the discounted price.

Finally, the order in which money-transfer operators were presented on any given results page was also randomly varied as part of the webpage versions. From a programming standpoint, these variations led to the creation of 108 possible webpages, that is, 3 countries $\times$ 2 groups (A or B) $\times$ 2 stakes (USD100 or USD300) $\times$ 3 results pages $\times$ 3 webpage versions (which varied the price discount and company order). Figure 12 in Appendix B shows these different variations.

2.4 Study Protocol

The study was implemented as follows:

1. During recruitment, potential participants were informed that (1) the study would take between one to two hours, (2) they would be paid USD 50 for completing the study, and (3) one in eight participants would have USD100 or USD300 sent to a

designated recipient in the country of origin based on the choices made in the study.[5] This achieved two goals. First, it enabled us to randomize the amount sent. Second, it increased the salience of decisions made in the study.

2. Those who agreed to participate provided informed consent (Figure 14 in Appendix B).[6] They were assigned a study ID and completed a pre-survey (https://bit.ly/3SrgVLI). Among other topics, the survey asked about (a) demographics (for example, country of origin, household composition), (b) preferences for remittances (for example, typical sending frequency and amount, preferred money-transfer operator, fees paid), (c) pre-existing knowledge of comparison websites, (d) economic variables (for example, employment, income), and (e) behavioral characteristics (for example, risk, time, and social preferences).

3. The main experiment was conducted:

   (a) Participants were seated at a laptop and given the following instructions: (1) a reminder of the study ID which had to be entered on the main page prior to starting, (2) the study objective (that is, to better understand why and how people send remittances), (3) an explanation that the study would entail eye-tracking and thus, calibration of the Tobii eye-tracker at the bottom of the laptop screen, and (4) an explanation that they would have to review webpages with several money-transfer operators and then, make choices (with five minutes for each page).

   (b) The eye-tracker was calibrated and participants were asked not to move back and forth in order to maintain accuracy. The eye-tracker was then activated.

   (c) Participants saw the three pages, as explained in section 2.3.

4. A subset of participants completed a short post-survey (https://bit.ly/3STZaXO). This open-ended survey asked participants to indicate any issues that they considered important, but the study missed.

5. The USD 50 were paid in cash at the end of the session. The lottery was conducted once a batch of sessions had finished. Lottery winners were notified by phone and asked to confirm the contact information of their preferred recipient in the country of origin (since this information had previously been reported in the pre-survey). The experimenters then sent the money on behalf of the participant and provided them with a confirmation number so that the recipient could retrieve the funds.

3 Data and Empirical Strategy

We collected pre-survey data, website clicks (that is, choice of money-transfer operators for the three results pages), eye-tracking data during the process of choosing money-transfer

[5] Figure 13 in Appendix B shows the gist of the recruitment flyer in English.

[6] The study protocol (# 0B6A1D) was approved by Spelman's Institutional Review Board prior to receiving NSF funding.

operators, and post-survey data. The post-survey was short and only a subset of participants completed it, so we will focus on the other data points.

Technically, our sample comprises 396 cases. However, since the study was conducted across two waves, 13 individuals participated twice, thus leading to 383 unique individuals. Of these, 378 completed the pre-survey, website clicks, and eye-tracking. If their second response is included, we have 394 pre-survey responses, 391 clicks, and 379 eye-tracking instances. That said, for any given individual we will drop their second response from the analysis.

The eye-tracking data were collected by means of the Tobii X2-60 eye-tracker and exported using version 3.4.8 of Tobii Studio software. The default I-VT fixation filter was used, as discussed in section 6.2 of version 3.4.5 of the Tobii Studio user manual. This filter is responsible for how fixation data are calculated. A separate document describing the detailed process for exporting the data is available from the authors upon request. At a high level, the following steps were implemented:

1. Areas of interest (AOIs) were identified as in figure 3, specifically: the clock, the MTO logo and name, customer reviews, the fee and exchange rate, the amount that would arrive, the delivery speed, the mode of delivery, and the send money button.

2. Webpages were grouped according to the variations in section 2.3 (figure 12).

3. Areas of interest were copied and pasted to webpage-groups.

4. Areas of interest were assigned to AOI-groups, for example, all logos in row 1 of page 1 were part of a group, all logos in row 2 of page 1 were part of a different group, and so on.

5. Raw statistics were exported, in particular, time to first fixation, total fixation duration, total visit duration, and percentage fixated. See the previously referenced Tobii user manual for a complete list of possible statistics.

The pre-analysis plan available at https://bit.ly/3d3c4M3 discusses the main variables that will be analyzed (also see Appendix C.3).

3.1 Internal Validity and Basic Sample Characteristics

Tables 3 and 4 show that our randomization was successful since participants are balanced on pre-characteristics across groups (A and B) and stakes (USD100 and USD300), see Appendix C.1 for variable definitions. As one would expect when performing a sufficient number of tests, there are some differences, specifically with regard to gender, household size, and whether the participant typically compares money-transfer operators based on fees. In section 3.2, we will discuss how we control for these baseline imbalances.

Demographically, our sample can be characterized as follows. Fifty two percent are women. On average, they are 39.64 years old, have been in the United States for 12.52 years (not in the table), and live in households that have 4.21 members. Forty five percent have completed at most primary school (21.60 percent completed secondary school – not shown in the table) and 89 percent are employed. Fifty two percent are of Salvadoran descent, 31

Figure 3: Areas of Interest on Partial Results Page



percent are of Guatemalan descent, and 15 percent are of Honduran descent. About half the sample can be considered financially literate based on correctly guesstimating how much money would be in a savings account after accruing two percent interest per year over five years.

3.2 Empirical Strategy

At a high level, the analysis will proceed as follows:

1. We start by describing migrants' usual sending patterns and preferences based on the pre-survey, that is, a birds-eye overview of their day-to-day motives to remit, remittance amount, fee paid, and search process. This provides a backdrop for behavior within the study.

2. We then descriptively assess whether fintech (that is, information provided by means of comparison websites) impacts migrant decisionmaking. We do so by summarizing remittance choices ("habits") across the three results pages in the experiment and comparing those with day-to-day sending described above.

3. We then look at determinants of switching behavior by means of the regression:

$$Switch_{it,t+1} = \beta_0 + \beta_1 B_i + \beta_2 Stakes_i + \beta_3 B_i * Stakes_i + \beta_4 X_{it-1} + \varepsilon_{it,t+1} \quad (1)$$

where the outcome, $Switch_{it,t+1}$, is a dummy for whether participant i switches money-transfer operator between results pages t and $t+1$. That is, we compare whether a

Table 3: Sample Characteristics and Balance Tests (Pre-Survey)

	N	All	A-100	B-100	A-300	B-300	p-value of diff.
Woman	377	0.52	0.64	0.47	0.52	0.43	0.02**
Age	377	39.64	38.00	41.57	38.44	40.16	0.13
Married	375	0.37	0.36	0.40	0.34	0.36	0.85
Household size	375	4.21	4.48	3.81	4.52	4.13	0.01***
Completed at most primary school	375	0.45	0.42	0.47	0.46	0.45	0.88
Employed	369	0.89	0.90	0.88	0.91	0.85	0.65
Salvadoran	375	0.52	0.52	0.50	0.55	0.52	0.93
Guatemalan	375	0.31	0.32	0.31	0.31	0.28	0.96
Honduran	375	0.15	0.14	0.16	0.13	0.19	0.72
Has smartphone	377	0.82	0.86	0.84	0.80	0.78	0.45
Has tablet	377	0.18	0.14	0.16	0.25	0.17	0.25
# financial accounts (US)	374	1.15	1.20	1.21	1.10	1.05	0.84
# financial accounts (origin)	374	0.29	0.27	0.30	0.20	0.36	0.36
Risk-seekingness	327	21.70	19.58	25.37	17.32	23.42	0.31
Patience (0=very impatient ... 2=patient)	375	1.02	1.05	1.03	0.87	1.09	0.40
Altruism (always/sometimes gives money)	364	0.54	0.56	0.56	0.49	0.54	0.83
Trust (always/sometimes lends money)	361	0.50	0.55	0.50	0.46	0.47	0.64
Feeling overwhelmed by information	343	5.40	5.32	5.15	6.10	5.21	0.12
Financially literate	374	0.51	0.50	0.54	0.54	0.44	0.51

Note: $^{*}p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. p-values are for an F-test obtained by running a one-way ANOVA in STATA with standard errors clustered at the day-part level. All variables were measured before participants interacted with the comparison site. Group A=page 2 adds delivery speed and page 3 adds reviews. Group B=page 2 adds reviews and page 3 adds delivery speed. These results are for the subsample of respondents that excludes repeats (section 3).

participant chooses a different money-transfer operator across results pages pairwise (page 1 versus 2 and page 2 versus 3). B_i and $Stakes_i$ are the treatment indicators, where B_i is a dummy for whether participant i was randomized to group B versus group A and $Stakes_i$ is a dummy for whether participant i was randomized to the USD300 versus USD100 treatment. X_{it-1} is a vector of control variables comprising (1) the pre-survey variables that are unbalanced (tables 3 and 4), (2) country, discount, and company-order dummies, and (3) additional control variables to improve precision determined by double LASSO (for example, Belloni et al., 2014; Dhar et al., 2022).[7] The set of 79 potential control variables includes practically all pre-survey variables as well as individual-level eye-tracking statistics.[8] $\varepsilon_{it,t+1}$ is an error term.

4. We then turn to potential mechanisms by:

   (a) Interacting the treatment variables in equation 1 with the content of the infor-

[7]Double LASSO is obtained by running Stata 17's `dsregress` command. It fits a lasso linear regression model and uses the double-selection method to estimate the reported coefficients and select from potential control variables to be included in the model.

[8]A notable exception is the participant's occupation (that is, type of employment) because it significantly reduces the number of observations due to missing data. Whether or not the participant is employed, however, is included.

mation, specifically whether switching is differential by good (bad) reviews, high (low) speed, or the fee discount.

(b) Exploring the choice process by comparing average visual attention by area of interest across the experiment treatments. As noted previously, the visual attention are also included in the list of potential control variables to be considered by double LASSO.

(c) Interacting the treatment variables and information content with the following pre-specified participant characteristics (all collected pre exposure to treatment): whether they usually compare companies, prior awareness of comparison websites, information-processing capabilities, financial literacy, gender, and age.

5. Finally, we assess potential welfare impacts by comparing migrant choices in the presence of fintech across the preferences for remittance comparisons that migrants expressed in the pre-survey. In so doing, we also elaborate on how characteristics displayed on the website compare to what we know about participants' typical sending environment.

The most significant departure from the strategy laid out in the pre-analysis plan (available at this link) is that we decided to de-emphasize the reliance on discrete choice models as a main estimation approach.[9] Instead, we primarily rely on $Switch_{it,t+1}$ (constructed from $MTOChoice_{it}$) as the main outcome since it allows us to best assess the impacts of the experiment treatments. In addition, since we adopted attributes directly from the day-to-day comparison website, there turned out to be limited variation in certain attributes, especially across individuals, thus rendering it infeasible to run panel mixed logit regressions for all attributes in Z across the board. Table **??** in Appendix A estimates one such model, which suggests that on any given page, higher fees (more favorable exchange rates) lead to lower (higher) chances of choosing a money-transfer operator.

4 Results

4.1 The Day-to-Day Remittance Context

Table 4 describes the sample's day-to-day remittance behavior and preferences based on the pre-survey (that is, outside of our study). Given only nine percent of the sample compares remittance companies online, this is also the closest scenario to remittance sending in absence of fintech. On average, migrants send USD297.92 per month to a primary recipient, with 40 percent of those being parents, 21 percent being siblings, ten percent being spouses, and

[9] In the random utility discrete choice model (for example, McFadden, 1974), migrant i makes a choice j as a function of attributes, z_j, individual characteristics, w_i, and an error term, ε_{ij}. So, $U_{ij} = F(z_j, w_i, \varepsilon_{ij})$. The experiment treatments can be thought of as shocking z_j. These models typically assume full attention but can be extended to account for rational inattention (for example, Maćkowiak et al., 2023), endogenous attention (for example, Hole, 2011), or search (for example, Abaluck and Compiani, 2020). When researchers have access to attention data, one can explicitly account for this (for example, Krajbich et al., 2010; Hole, 2011; Chavez et al., 2018; Thomas et al., 2019), including to model search (for example, Reutskaja et al., 2011).

another ten percent being children.[10] Eight seven percent indicate that their main reason for sending money is because recipients need or expect to receive funds. The remainder cite altruistic motives (5.60 percent), repayment motives (1.07 percent), insurance motives (1.60 percent), peer effects (0.27 percent), return motives (1.33 percent), and other motives (2.93 percent). Eighty percent of the sample find that recipients spend the funds as they should, with the preferred spending categories being food (56.13 percent), health (24.50 percent), and education (10.26 percent).

Migrants pay an average of USD8.31 per transaction to send funds to this primary recipient. The maximum fee paid is USD25.00. The most prevalent remittance companies used to send money are Western Union (42 percent), Ria Money Transfer (21 percent), and other companies such as MoneyGram and Sigue (27 percent). Five percent of the sample send via informal channels such as family and friends. Fifty nine percent of the sample usually compare remittance companies, with 35 percent doing so based on cost/fees, 13 percent doing so based on delivery speed, five percent doing so based on both fees and speed, and the remainder doing so based on other attributes such as security and ease of pick-up. About half the sample is aware of the existence of comparison websites although as noted previously, a significantly lower proportion compares remittance companies via online methods.

4.2 Remittance Habits in the Presence of Fintech

Since the sample is used to sending remittances but not necessarily online, a first-order question is whether they stick to their habits when presented with fintech information. As a first pass, we summarize two dummy variables: (1) whether a participant chooses the same money-transfer operator throughout the experiment (all three results pages) as in the day-to-day environment (pre-survey) and (2) whether a participant chooses the same money-transfer operator on the first results page of the experiment as in the day-to-day environment.

About ten percent of participants satisfy the first criterion. These individuals can be thought of as truly "habitual" senders in the sense that they always send with the same remittance company regardless of the context. Another way of saying this is that these migrants fully ignore information provided in the study, including any experimentally provided fintech information (results pages two and three). About 24 percent of participants satisfy the second criterion. These individuals are "habitual" to start but then depart from their typical remittance company, in particular when experimentally provided fintech information is available to them.

We can also define habits in the context of the experiment (three results pages) ignoring what migrants typically do outside of the study (pre-survey). To that end, we summarize two other dummy variables: (1) whether a participant chooses the same company on all three results pages and (2) whether a participant always chooses the discounted (starred) company on all three results pages.

About 28 percent of participants satisfy the first criterion. These migrants can be thought of as "habitual" senders within the study. Another way of saying this is that these migrants ignore any experimentally provided fintech information. Only one percent of participants

[10] Close to 30 percent of the sample send an additional USD174.06 per month to a second recipient while close to ten percent send an additional USD146.50 per month to a third recipient (these statistics are not reported in the table).

Table 4: Day-to-Day Remittance Sending and Preferences (Pre-survey)

	N	All	A-100	B-100	A-300	B-300	p-value of diff.
Monthly remittance top 3 recipients (USD)	359	365.90	315.31	333.53	423.98	425.75	0.36
Monthly remittance primary recipient (USD)	362	297.92	260.86	271.79	334.41	349.76	0.52
Remittance fee, primary recipient (USD)	340	8.31	8.05	8.34	8.34	8.57	0.48
Western Union	352	0.42	0.42	0.42	0.44	0.41	0.99
Ria Money Transfer	352	0.21	0.24	0.17	0.25	0.19	0.47
Xoom	352	0.03	0.02	0.04	0.01	0.03	0.79
Wells Fargo	352	0.01	0.02	0.00	0.03	0.01	0.41
Transfast	352	0.00	0.00	0.00	0.00	0.01	0.32
Lucky Money	352	0.00	0.00	0.00	0.01	0.00	0.24
Other MTOs (e.g., MoneyGram)	352	0.27	0.21	0.32	0.21	0.33	0.12
Informal Channel (e.g., family)	352	0.05	0.08	0.06	0.04	0.01	0.23
Primary recipient is parent	364	0.38	0.40	0.30	0.47	0.39	0.14
Primary recipient is sibling	364	0.21	0.26	0.21	0.17	0.20	0.51
Primary recipient is grandparent	364	0.05	0.05	0.06	0.04	0.05	0.99
Primary recipient is spouse	364	0.10	0.09	0.12	0.09	0.11	0.84
Primary recipient is child	364	0.10	0.08	0.13	0.07	0.11	0.52
Compares MTOs	375	0.59	0.65	0.54	0.54	0.61	0.28
Compares MTO fee	375	0.35	0.42	0.28	0.30	0.41	0.06*
Compares MTO speed	375	0.13	0.15	0.14	0.15	0.08	0.47
Compares MTO delivery mode	375	0.01	0.03	0.01	0.01	0.00	0.38
Compares MTO security	375	0.01	0.00	0.02	0.01	0.00	0.36
Aware of comparison sites	375	0.48	0.42	0.56	0.41	0.51	0.10
Compares MTOs online	375	0.09	0.06	0.11	0.07	0.14	0.19
Spending based on sender's preference	322	0.80	0.84	0.81	0.81	0.75	0.51

Note: $^{*}p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. p-values are for an F-test obtained by running a one-way ANOVA in STATA with standard errors clustered at the day-part level. All variables were measured before participants interacted with the comparison site. Group A=page 2 adds delivery speed and page 3 adds reviews. Group B=page 2 adds reviews and page 3 adds delivery speed. MTO=money-transfer operator (remittance company). These results are for the subsample of respondents that excludes repeats (section 3).

satisfy the second criterion. While this might seem low at first glance, it should be noted that the discounted company need not be the cheapest among the set of possible companies. That said, the sample is significantly more likely to choose the discounted company on the first results page than on the second and third results pages (0.26 versus 0.12 and 0.11, $p = 0.00$ for two-sided t-test of page 1 versus page 2), suggesting that participants might focus on the price discount at least initially (in absence of experimental information).

These findings suggest that while the sample comprises "habitual" senders, a significant proportion also responds to fintech. To further assess this, we compare pairwise across results pages (page 1 versus 2 and page 2 versus 3). In other words, we summarize the outcome $Switch_{it,t+1}$ in equation 1, which takes the value 1 if a participant switches money-transfer operator between any two pages and zero otherwise. Tables 9 and 10 in the appendix display the percentage of participants who choose the same money-transfer operator along the diagonal and those who do not off the diagonal. Both tables have a top and a bottom panel because group A participants saw the delivery speed on page 2 and reviews on page 3 while group B participants saw the reviews on page 2 and delivery speed on page 3.

In the top panel of table 9, when delivery speed is added on the second page, 53.63

percent choose a different money-transfer operator (when adding up all the switchers in the off-diagonal). In the bottom panel, when delivery speed is added on the third page, 52.79 percent choose a different company. In the top panel of table 10, when reviews are added on the second page, 54.31 percent choose a different money-transfer operator. In the bottom panel, when reviews are added on the third page, 58.10 percent choose a different company. This confirms that more than half of the sample is switching when presented with any type of fintech information.

Finally, tables 9 and 10 show that while the traditional, brick-and-mortar remittance companies like Western Union, MoneyGram, and Ria Money Transfer are frequently chosen, so are the digital providers like WorldRemit and Remitly. This suggests that fintech information might be impacting financial inclusion by shifting migrants from more traditional to more "fintechy" companies.

4.3 Reviews versus Speed Information

To assess whether migrants respond differentially to information on prior customer reviews versus delivery speed, we estimate regression equation 1. In columns 1-6 of table 5, the dependent variable is a dummy for whether participant i switches money-transfer operator between pages 1 and 2, $Switch_{i1,2}$. In these columns, the B dummy captures the differential effect of reviews versus speed because the additional attribute that group B (A) participants saw when moving from page 1 to 2 was reviews (speed). In columns 7-12, the dependent variable is a dummy for whether participant i switches money-transfer operator between pages 2 and 3, $Switch_{i2,3}$. In these columns, the B dummy captures the differential effect of speed versus reviews because the additional attribute that group B (A) participants saw when moving from page 2 to 3 was speed (reviews).[11]

Two key findings emerge. First, the response to one information attribute versus the other depends on whether migrants are facing high or low stakes. At USD300, migrants are more responsive to customer reviews than they are to delivery speed whereas the opposite is true at USD100. A closer examination of the data indicates that this is because at baseline (page 1), migrants choose companies with worse reviews at USD300 and slower companies at USD100. So, when they respond to information on reviews (group B) and speed (group A) on page 2, this gives rise to the above stakes-dependent effect. Visual attention data suggest that on page 1, migrants' search process is stakes-dependent. When sending USD300, migrants spend more time looking at fees which leads to faster but marginally worse reviewed companies. We return to the visual attention data in section 4.6.

Second, order matters. New information (reviews relative to speed) seems to differentially impact switching when participants are exposed to it first ($Switch_{i,12}$, columns 1-6 versus $Switch_{i,23}$, columns 7-12), although this finding will turn out to be a bit more nuanced in table 14.

[11] This could have been coded as an A dummy instead in which case the results would be reversed, see table 11 in the appendix.

Table 5: Impact of Reviews versus Speed on Money-Transfer Operator Switching

	Switches MTO Page 1-2						Switches MTO Page 2-3					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Reviews	0.02	0.02	0.15*	-0.10	-0.08	0.01	-0.05	-0.06	-0.14	-0.00	-0.01	-0.10
	(0.05)	(0.06)	(0.09)	(0.07)	(0.07)	(0.11)	(0.05)	(0.06)	(0.09)	(0.07)	(0.08)	(0.11)
300	-0.11**	-0.09*	-0.12*	-0.25***	-0.21***	-0.32***	-0.05	-0.04	-0.06	0.01	0.01	-0.01
	(0.05)	(0.05)	(0.07)	(0.07)	(0.08)	(0.10)	(0.05)	(0.06)	(0.07)	(0.08)	(0.08)	(0.10)
Rev. × 300				0.27***	0.23**	0.36***				-0.11	-0.10	-0.09
				(0.10)	(0.11)	(0.13)				(0.11)	(0.11)	(0.14)
Constant	0.58***	0.36**		0.63***	0.44**		0.59***	0.64***		0.57***	0.61***	
	(0.04)	(0.18)		(0.05)	(0.18)		(0.04)	(0.18)		(0.05)	(0.19)	
Observations	366	364	231	366	364	231	366	364	231	366	364	231
Mean dep. variable	0.54	0.54	0.57	0.54	0.54	0.57	0.55	0.55	0.59	0.55	0.55	0.59
Unbalanced controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country & Discount	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Double LASSO	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
R^2	0.01	0.17		0.03	0.19		0.00	0.11		0.01	0.11	

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. The unbalanced controls are gender, household size, and whether the participant compares fees across money-transfer operators. All specifications include MTO-order dummies. Double LASSO is obtained by running Stata 17's `dsregress` command, which implements the algorithm proposed by Belloni et al. (2014).

4.4 Information Updating

Table 6 assesses whether these findings are differential by information content, specifically high versus low reviews, high versus low speed, and choice of the discounted company on the previous page. High reviews are defined as ratings of five or four stars versus two, one, or zero stars, irrespective of the number of times that the company has been reviewed.[12] High speed constitutes within minutes or the hour versus within a day, three days, or five days.[13] Since table 5 suggested limited switching from page 2 to 3, here we only look at switching from page 1 to 2. Tables 13 and 14 include columns for switching from page 2 to 3 as well as a breakdown by stakes.

The first take-away is that migrants update their decisions based on new information. As columns 1 and 2 of table 6 show, migrants are significantly less likely to switch when they learn (on page 2) that the company they previously chose (on page 1) has a high review. As columns 3 and 4 indicate, the same holds for high speed. In short, migrants are updating their decisions rationally.

The second take-away is that switching in response to new information does not seem to vary with whether the participant chose the discounted company on the previous page (columns 5 and 6).

[12]The eye-tracking statistics suggest that participants pay more attention to the star rating than the number of reviews.

[13]Table 12 presents findings for the case where high reviews constitutes five-star ratings and high speed is within minutes.

Table 6: Does Information Content Matter?

	Switches MTO Page 1-2					
	(1)	(2)	(3)	(4)	(5)	(6)
Reviews	0.21**	0.38***			-0.12	0.03
	(0.10)	(0.14)			(0.08)	(0.12)
300	-0.08	-0.17	-0.00	0.02	-0.23***	-0.25**
	(0.11)	(0.15)	(0.09)	(0.11)	(0.09)	(0.13)
Reviews × 300	0.06	0.17			0.23*	0.24
	(0.15)	(0.19)			(0.12)	(0.16)
High reviews	0.29***	0.31**				
	(0.10)	(0.14)				
Reviews × High reviews	-0.52***	-0.64***				
	(0.13)	(0.17)				
300 × High reviews	-0.22	-0.22				
	(0.16)	(0.21)				
Reviews × 300 × High reviews	0.26	0.29				
	(0.21)	(0.26)				
Speed			0.22***	0.21*		
			(0.08)	(0.12)		
Speed × 300			-0.22*	-0.34**		
			(0.13)	(0.16)		
High speed			0.12	0.26*		
			(0.12)	(0.15)		
Speed × High speed			-0.61***	-0.81***		
			(0.16)	(0.20)		
300 × High speed			0.04	0.07		
			(0.16)	(0.17)		
Speed × 300 × High speed			0.22	0.25		
			(0.23)	(0.28)		
MTO Discount					-0.01	0.25
					(0.13)	(0.18)
Reviews × MTO Discount					0.12	-0.03
					(0.17)	(0.23)
300 × MTO Discount					0.08	-0.25
					(0.19)	(0.23)
Reviews × 300 × MTO Discount					0.06	0.36
					(0.24)	(0.30)
Constant	0.31		0.40**		0.46**	
	(0.19)		(0.16)		(0.18)	
Observations	364	231	364	231	364	231
Mean dep. variable	0.54	0.57	0.54	0.57	0.54	0.57
Double LASSO	No	Yes	No	Yes	No	Yes
R^2	0.23		0.24		0.19	

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies. For double LASSO, see table 5 or main text.

The final take-away (table 14 in the appendix) is that migrants do respond to information content on page 3 after all. Even though information on reviews versus speed did not seem to matter on average (table 5, columns 6-12), once we account for high versus low reviews or high versus low speed, there is a differential impact on switching.

4.5 Type-Dependent Information Updating

As laid out in the pre-analysis plan, we preregistered six heterogeneity dimensions based on the pre-survey: (1) whether the migrant usually compares remittance companies, (2) prior awareness of comparison websites, (3) information processing capability, (4) financial literacy, (5) gender, and (6) age. As explained in appendix C, information processing capability is based on a scale from zero to ten (like the willigness-to-risk scale in Dohmen et al., 2011) with a higher number meaning that the participant more frequently feels overwhelmed by information, that is, by words, numbers, reading, and so on. Financial literacy is based on whether the participant guesstimated the correct answer to a standard compound interest question.

To avoid fourth-order interactions, we run the same specification as for table 6 but separate the sample by high versus low financial literacy, awareness of comparison sites or not, propensity to compare companies or not, men versus women, low or high information-processing capability (that is, feels overwhelmed by information or not), and below or above average age (based on the sample). We thus report the p-value for equality of coefficients across the subsamples.

Two findings emerge. First, migrants with high financial literacy are significantly less likely to switch when they learn that a previously chosen company has high reviews relative to migrants with low financial literacy (table 7, $p < 0.00$). Second, migrants with higher information processing capability (that is, those who feel less overwhelmed by information) are weakly less likely to switch when they learn that a previously chosen company has high speed (table 8, $p < 0.08$). The other heterogeneity checks are insignificant but are included as appendix tables 15-24.

4.6 Visual Attention and Search

To assess visual attention and engagement during the choice process, we turn to total fixation duration – the total amount of time (in seconds) that migrants fixate on average on any given attribute z, also known as an area of interest (section 3).[14] Albert and Tullis (2023) report that fixation duration typically ranges from 0.15 to 0.3 seconds. As explained previously, the set of possible attributes Z comprises the money-transfer operator logo and name, the fee and exchange rate, the amount received, the delivery mode (in cash for pick up or delivery, or via direct deposit), the delivery speed (within minutes, one hour, one day, three days, or five days), and the reviews, which consist of the number of times a company has been reviewed and the average rating out of five stars.

Figure 4 displays the extensive margin of total fixation duration for each attribute by page and group. That is, it shows the frequency with which an attribute gets nonzero fixation.

[14]For additional details on total fixation duration, see the pre-analysis plan (recapitulated in Appendix C.3), which is based on page 106 of version 3.4.5 of the Tobii Studio user's manual.

Table 7: Impact of Reviews by Financial Literacy

	Switches MTO Page 1-2	
	(1)	(2)
Reviews	-0.14	0.15
	(0.14)	(0.13)
300	-0.57***	-0.11
	(0.15)	(0.15)
Highest review	-0.35**	-0.23
	(0.15)	(0.16)
Rev. × 300	0.67***	0.04
	(0.21)	(0.21)
Rev. × High reviews	0.03	-0.44***
	(0.15)	(0.14)
300 × High reviews	0.38*	0.03
	(0.20)	(0.18)
Rev. × 300 × High reviews	-0.60**	0.22
	(0.28)	(0.28)
Constant	0.76***	0.21
	(0.24)	(0.28)
Observations	176	187
Mean dep. variable	0.56	0.52
Financial Literacy	Low	High
p-val Diff Rev. × HR	0.00	
Double LASSO	No	No
R^2	0.40	0.31

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 8: Impact of Speed by Feeling Overwhelmed by Info

	Switches MTO Page 1-2	
	(1)	(2)
Speed	0.18	0.15
	(0.12)	(0.12)
300	-0.08	-0.08
	(0.13)	(0.14)
Highest speed	0.11	-0.23
	(0.14)	(0.15)
Speed × 300	-0.06	-0.31
	(0.19)	(0.20)
Speed × High speed	-0.63***	-0.11
	(0.18)	(0.29)
300 × High speed	0.11	0.28
	(0.23)	(0.18)
Speed × 300 × High speed	0.04	0.03
	(0.35)	(0.37)
Constant	0.55**	0.22
	(0.24)	(0.23)
Observations	184	180
Mean dep. variable	0.54	0.54
Overwhelmed by Info	No	Yes
p-val Diff Sp. × HS	0.08	
Double LASSO	No	No
R^2	0.31	0.40

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

On page 1, as expected fees get most attention. On page 2A, fees get more attention than delivery speed (p-value=0.01 for two-sided t-test) while on page 2B, fees get less attention than reviews (p-value=0.00 for two-sided t-test). Stated differently: When reviews are first introduced (page 2B), they get more attention than fees but since that is not the case for delivery speed (page 2A), this is not just a "new information" effect. Reviews also get more attention on both page 3A and 3B (p-value=0.00 for two-sided t-test in both cases).

Figure 5 displays the intensive margin of total fixation duration for each attribute by page and group. That is, it shows how much time people spend on average fixating on an attribute. As before, fees get most attention on page 1 and page 2A (relative to delivery speed). However, on page 2B reviews and fees get about the same amount of attention (p-value=0.25 for two-sided t-test). Moreover, reviews get most attention on page 3A when first introduced (p-value=0.00 for two-sided t-test) but speed now also gets most attention when first introduced on page 3B (p-value=0.00 for two-sided t-test). In short, the visual attention data confirms that people are consuming new information during the choice process; however, reviews seem to be more salient than speed. Figures 8-11 in the appendix also suggest that people exert more visual attention at stakes of USD300 than USD100. We are still digging into some of the data, for example, to assess how migrant types interact with visual attention and search.

Figure 4: Extensive Margin: Percent Nonzero Fixation Duration by Attribute by Page

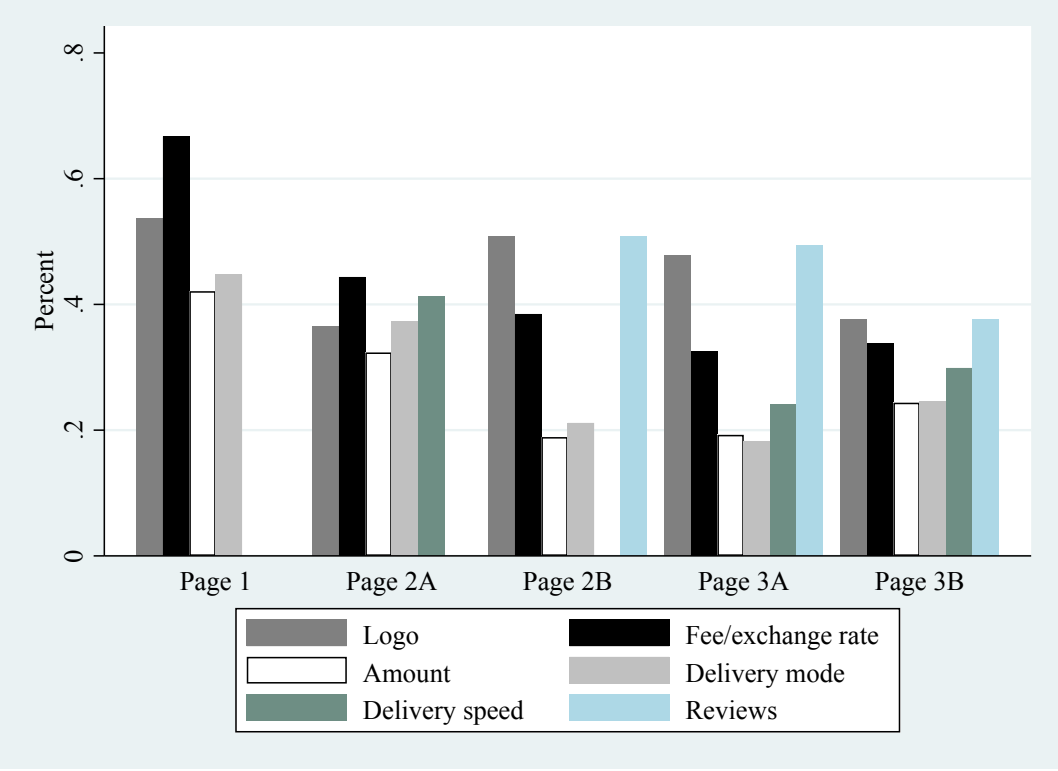
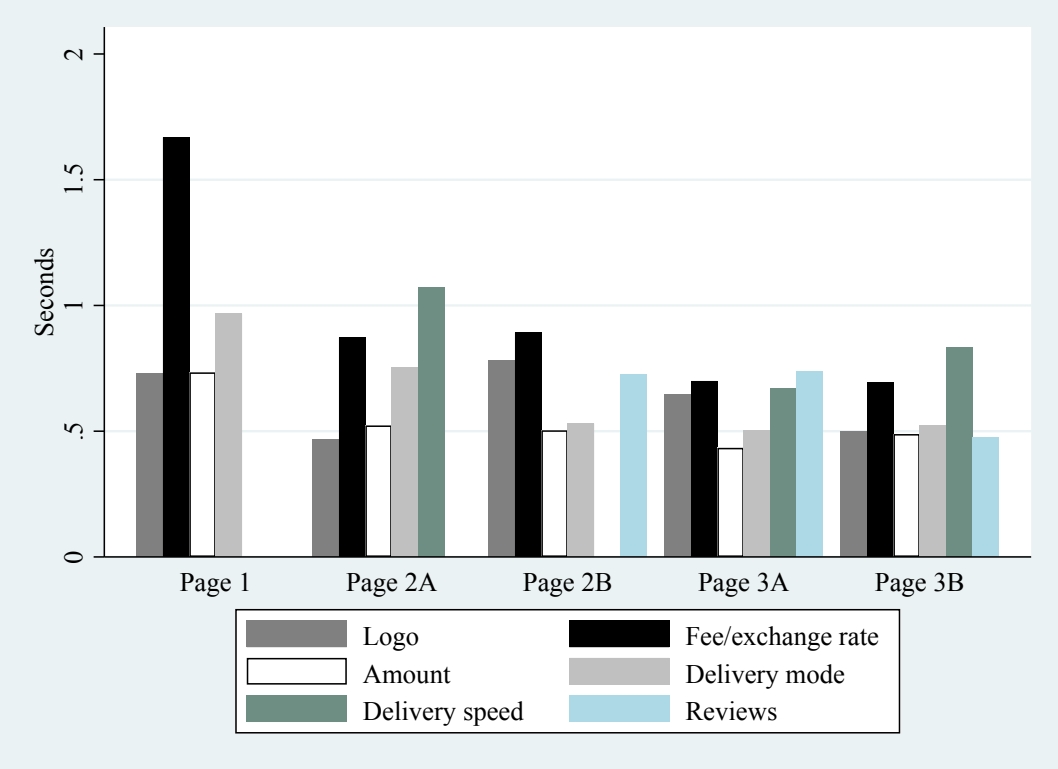


Figure 5: Intensive Margin: Average Nonzero Fixation Duration by Attribute by Page



4.7 Potential Welfare Impacts

As explained in section 2.3, since we adopted attributes from the real-time comparison website, there is no clearly dominant choice among the money-transfer operators. So, we assess welfare impacts as follows. In the pre-survey, we asked migrants whether they typically compare remittance companies and if so, on what attributes (price/fee, delivery speed, other _____, with more than one choice possible).[15] Taking the latter response as a true measure of their preference, we can thus ask whether those who typically compare on fees or delivery speed indeed choose companies that satisfy such criteria (cheapest or fastest) within the study.

We start with attributes of migrant choices irrespective of their response in the pre-survey. On average, migrants pay 12-13 percent more to send money when information about delivery speed first becomes available (page 2A versus page 1, USD 6 versus 5.29, $p = 0.00$ for two-sided t-test).[16] The same is not true for reviews (page 2B versus page 1, USD 5.27 versus 5.29, $p = 0.88$ for two-sided t-test). If we restrict to the subset of migrants who compare companies in the day-to-day environment (the pre-survey question referenced previously), we find that they too pay about 15-18 percent more when information about

[15]Fifty eight percent ($N = 221$) typically compare and of those who do, 58.37 percent ($N = 129$) do so based on fees, 22.62 percent ($N = 50$) do so based on delivery speed, 9.5 percent ($N = 21$) do so based on both fees and speed, and the remainder compare based on some other attribute or combination.

[16]The same is not true when delivery speed is added on top of reviews (page 2B versus page 3, USD 5.50 versus 5.27, $p = 0.15$ for two-sided t-test).

delivery speed first becomes available (page 2A versus page 1, USD 5.97 versus 5.07, $p = 0.00$ for two-sided t-test). The other findings are also the same as for the full sample above.

Since the above findings are purely positive, we use migrants' preferences over attributes (expressed in the pre-survey) to assess whether they are behaving optimally. The logic is as follows. If a participant indicated that they usually compare remittance companies based on fees, they should choose the cheapest option in the experiment. Similarly, if a migrant usually compares based on delivery speed, they should choose the fastest option. We can also control for the fact that some migrants have preferences over multiple attributes since the pre-survey allowed for more than one attribute (fees and delivery speed) to be selected as well as "other _____".

Figure 6 compares the average fee paid on page 1 (when delivery speed is not shown) versus page 2A (when delivery speed *is* shown) across migrants who prefer companies with lower fees versus faster delivery. As expected, those who have a preference for faster delivery pay 18-21 percent more on average when delivery speed information is shown than not (left side of the figure, USD 6.12 versus 5.04 across page 1 versus 2A, $p = 0.05$ for two-sided t-test). However, surprisingly those who have a preference for cheaper companies also pay more on average (15-18 percent) when delivery speed information is shown (right side of the figure, USD 5.92 versus 5.01 across page 1 versus 2A, $p = 0.00$ for two-sided t-test). Given the pre-survey allowed migrants to express preferences over multiple attributes, this finding could mean one of two things. Either migrants are making mistakes, and thus welfare-reducing (suboptimal) decisions, or they are learning from delivery-speed information and shifting their preferences.

Figure 6: Average Fee across Migrant Preferences

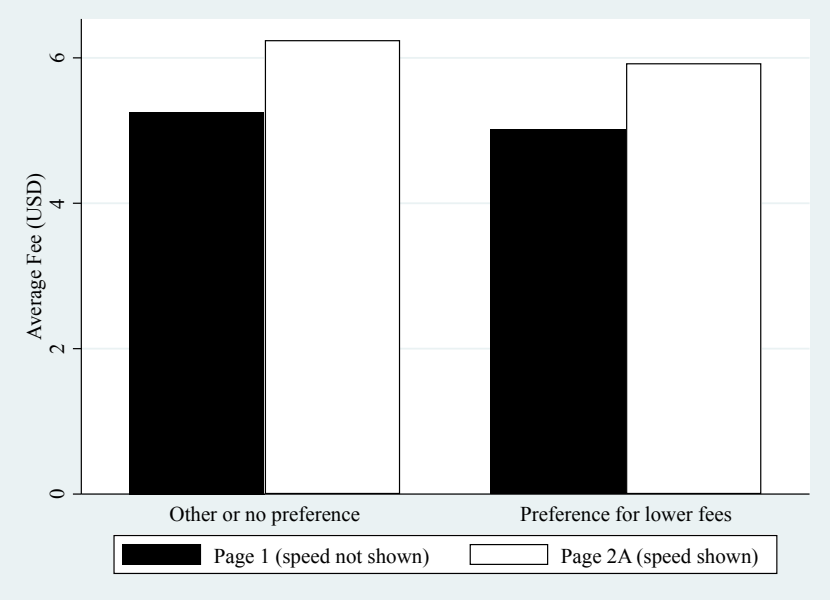
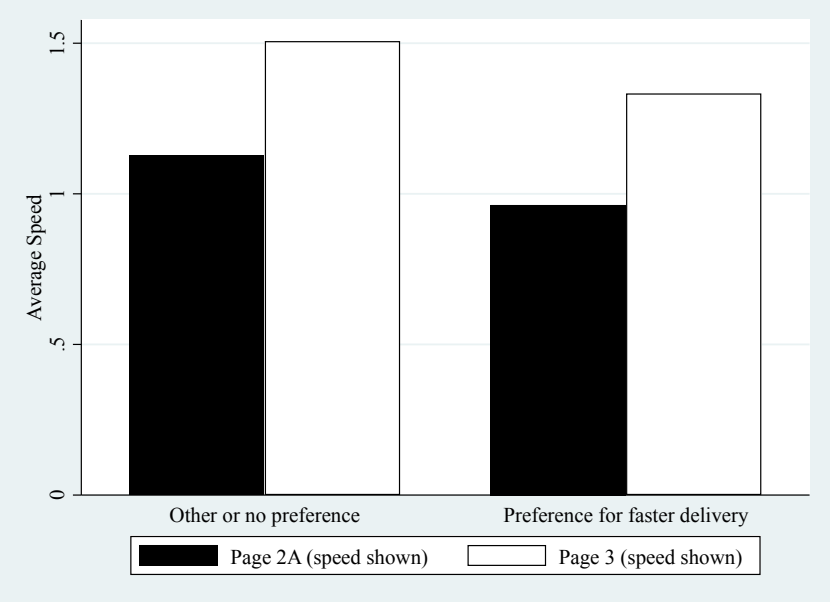


Figure 7 compares the average speed on page 2A (when delivery speed is shown) versus page 3 (when customer reviews are shown in addition) across migrants who prefer companies with lower fees versus faster delivery. Contrary to the previous case, migrants make decisions that are consistent with their preferences. Those who prefer lower fees choose somewhat

slower companies on page 3 (note that a higher number means a slower company), likely because those are cheaper or they now have information about reviews (left side of the figure, 1.48 versus 1.15 across page 2A versus 3, $p = 0.06$ for two-sided t-test). Those who prefer faster companies also choose somewhat slower companies but the effect is not statistically significant (left side of the figure, 1.33 versus 0.96 across page 2A versus 3, $p = 0.11$ for two-sided t-test).

Figure 7: Average Speed across Migrant Preferences



Finally, the above findings are more pronounced for migrants with low financial literacy or who are unaware of comparison websites prior to the experiment. Low financial literacy migrants who prefer cheaper companies are significantly more likely to pay a higher fee when new information is introduced to them. Similarly, migrants who do not have prior knowledge of comparison websites and prefer cheaper companies are significantly less likely to choose a lower fee company when presented with new information. This suggests that fintech might be hurting those who need it most (although we are still digging into some of this analysis).

5 Conclusions

Migrant remittances are a key form of social protection for poor households. Yet, they remain relatively costly to send. As fintech and other financial innovations such as Central Bank digital currencies continue to disrupt the financial industry generally and the remittance industry specifically, policymakers have a main interest in what this will mean for remittance prices and how migrants choose to send money.

We collaborated with a World Bank certified comparison website to assess the potential for fintech to impact remittance habits, financial inclusion, and welfare among an understudied group of remittance senders, the so-called USD200-and-below market of consumers who are known to send frequent but small remittance amounts (for example, Yang, 2011). Our

findings paint a somewhat nuanced picture: While migrants respond to fintech information rationally, fintech might also exacerbate pre-existing inequities by failing to impact those who need it most – migrants with low financial literacy.

At least two policy implications emerge from this work. First, comparison websites have the potential to improve consumer decisionmaking but might need to be customized to meet certain consumers where they are at, keeping in mind factors such as financial literacy, capabilities for information processing, and prior awareness of comparison sites.

Second, just because comparison websites and fintech impact migrant behavior, this need not lead to increased welfare. To better understand such impacts and optimally design fintech, future work should collect more precise data on migrant's normative preferences for remittance attributes while also considering the potential implications of fintech for producer welfare and the broader remittance industry (for example, Viceisza and Xu, 2021; Brunnermeier et al., 2023).

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A Additional Figures and Tables

Table 9: Does Delivery Speed Impact Switching?

	MTO on Page 2A										
	WU	MG	WF	PP	Ria	LM	RL	TF	WR	XO	Total
MTO on Page 1A											
WU	10.06	7.26	1.12			1.12				1.68	21.23
MG	0.56	8.38	0.56		0.56	1.12	0.56	0.56		0.56	12.85
WF		1.68	5.03		0.56	0.56			0.56		8.38
Ria	0.56	1.12	1.12		9.50	1.68				1.12	15.08
LM			0.56			5.03		0.56			6.15
RL	1.12	2.23	1.68	0.56	1.68	4.47	2.79	0.56	1.68	2.23	18.99
TF						0.56	0.56	0.56		1.68	3.35
WR	0.56	1.68	0.56		1.12	2.79	0.56		3.35	0.56	11.17
XO					0.56					1.68	2.23
PG							0.56				0.56
Total	12.85	22.35	10.61	0.56	13.97	17.32	5.03	2.23	5.59	9.50	100.00
	MTO on Page 3B										
	WU	MG	WF	PP	Ria	LM	RL	TF	WR	XO	Total
MTO on Page 2B											
WU	5.58	2.03		0.51	0.51	0.51				2.03	11.17
MG	1.52	3.55			0.51	0.51		0.51		0.51	7.11
WF			3.55		1.52		0.51			0.51	6.09
Ria	1.52	2.03	1.02		12.69		1.02	2.03	0.51	2.54	23.35
LM						1.52		0.51	0.51		2.54
RL	1.02	2.03	1.52		2.54	1.02	5.08	0.51	1.02	3.55	18.27
TF	0.51				0.51	0.51		1.52	0.51	0.51	4.06
WR	0.51	1.02			1.02	0.51	1.02	1.02	10.15	4.06	19.29
XO		0.51			1.52	0.51	0.51		0.51	3.55	7.11
PG			0.51						0.51		1.02
Total	10.66	11.17	6.60	0.51	20.81	5.08	8.12	6.09	13.71	17.26	100.00

Note: Sample size for page 1-2A (top part of table): 179. Sample size for page 2B-3 (bottom part of table): 197. All duplicate participants have been removed (section 3), but the results are robust to their inclusion. MTO=money-transfer operator (remittance company) WU=Western Union MG=MoneyGram WF=Wells Fargo PP=PayPal Ria=Ria Money Transfer LM=Lucky Money RL=Remitly TF=Transfast WR=WorldRemit XO=Xoom PG=Pangea. PP was not chosen on pages 1A-2B.

Table 10: Do Customer Reviews Impact Switching?

	MTO on Page 2B										
	WU	MG	WF	Ria	LM	RL	TF	WR	XO	PG	Total
MTO on Page 1B											
WU	8.12	1.52	0.51	3.55	1.02	2.54	0.51	2.03			19.80
MG	0.51	3.55	1.02	2.03		2.54	0.51	3.55	1.02		14.72
WF		0.51	2.54			3.55	0.51	0.51	1.52		9.14
Ria	1.02	0.51	1.02	13.71		0.51	1.02	1.52	1.02	0.51	20.81
LM				0.51	1.02		1.02	1.52	0.51		4.57
RL	0.51	1.02	1.02	1.52	0.51	8.12	0.51	2.03	0.51		15.74
TF	0.51			1.52		0.51		1.52	0.51		4.57
WR						0.51		6.60		0.51	7.61
XO				0.51					2.03		2.54
PG	0.51										0.51
Total	11.17	7.11	6.09	23.35	2.54	18.27	4.06	19.29	7.11	1.02	100.00

	MTO on Page 3A										
	WU	MG	WF	PP	Ria	LM	RL	TF	WR	XO	Total
MTO on Page 2A											
WU	8.38	0.56		0.56	1.68		0.56		0.56	0.56	12.85
MG	3.35	8.38	0.56		2.23	0.56	0.56	0.56	2.23	3.91	22.35
WF		0.56	2.79		2.23			0.56	2.23	2.23	10.61
PP					0.56						0.56
Ria	0.56				10.06		0.56		1.12	1.68	13.97
LM	0.56				3.91	1.12	1.12	1.12	5.59	3.91	17.32
RL		0.56			1.12		1.68	0.56	0.56	0.56	5.03
TF								0.56	1.68		2.23
WR	0.56					1.68	0.56		2.79		5.59
XO	0.56	0.56	0.56		1.12				0.56	6.15	9.50
Total	13.97	10.61	3.91	0.56	22.91	3.35	5.03	3.35	17.32	18.99	100.00

Note: Sample size for page 1-2B (top part of table): 197. Sample size for page 2A-3 (bottom part of table): 179. All duplicate participants have been removed (section 3), but the results are robust to their inclusion. MTO=money-transfer operator (remittance company) WU=Western Union MG=MoneyGram WF=Wells Fargo PP=PayPal Ria=Ria Money Transfer LM=Lucky Money RL=Remitly TF=Transfast WR=WorldRemit XO=Xoom PG=Pangea. PP was not chosen on pages 1B-2B.

Table 11: Impact of Reviews versus Speed on Switching (A Dummy Version)

	Switches MTO Page 1-2						Switches MTO Page 2-3					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Speed	0.10	0.08	-0.01	-0.17**	-0.15*	-0.37***	0.00	0.01	0.10	0.11	0.11	0.19
	(0.07)	(0.07)	(0.11)	(0.08)	(0.08)	(0.11)	(0.07)	(0.08)	(0.11)	(0.08)	(0.09)	(0.12)
300	0.02	0.02	0.05				-0.09	-0.09	-0.10			
	(0.07)	(0.07)	(0.08)				(0.07)	(0.08)	(0.10)			
Speed × 300	-0.27***	-0.23**	-0.36***				0.11	0.10	0.09			
	(0.10)	(0.11)	(0.13)				(0.11)	(0.11)	(0.14)			
100				-0.02	-0.02	-0.05				0.09	0.09	0.10
				(0.07)	(0.07)	(0.08)				(0.07)	(0.08)	(0.10)
Speed × 100				0.27***	0.23**	0.36***				-0.11	-0.10	-0.09
				(0.10)	(0.11)	(0.13)				(0.11)	(0.11)	(0.14)
Constant	0.54***	0.36**		0.55***	0.38**		0.56***	0.59***		0.47***	0.51***	
	(0.05)	(0.17)		(0.05)	(0.18)		(0.05)	(0.17)		(0.06)	(0.18)	
Observations	366	364	231	366	364	231	366	364	231	366	364	231
Mean dep. variable	0.54	0.54	0.57	0.54	0.54	0.57	0.55	0.55	0.59	0.55	0.55	0.59
Unbalanced controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country & Discount	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Double LASSO	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
R^2	0.03	0.19		0.03	0.19		0.01	0.11		0.01	0.11	

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. The unbalanced controls are gender, household size, and whether the participant compares fees across money-transfer operators. All specifications include MTO-order dummies. Double LASSO is obtained by running Stata 17's `dsregress` command, which implements the algorithm proposed by Belloni et al. (2014).

Table 12: Does Information Content Matter? (Highest Review or Speed)

	Switches MTO Page 1-2			
	(1)	(2)	(3)	(4)
Reviews	-0.02	0.05		
	(0.08)	(0.11)		
300	-0.17**	-0.26**	0.01	0.06
	(0.08)	(0.11)	(0.08)	(0.10)
Reviews × 300	0.21*	0.33**		
	(0.11)	(0.14)		
Highest review	0.13	0.15		
	(0.16)	(0.18)		
Reviews × Highest review	-0.60**	-0.09		
	(0.23)	(0.34)		
300 × Highest review	-0.43*	-0.33		
	(0.25)	(0.29)		
Reviews × 300 × Highest review	0.35	-0.15		
	(0.34)	(0.48)		
Speed			0.18**	0.14
			(0.08)	(0.11)
Speed × 300			-0.25**	-0.37**
			(0.12)	(0.15)
Highest speed			0.06	0.16
			(0.13)	(0.18)
Speed × Highest speed			-0.62***	-0.81***
			(0.17)	(0.22)
300 × Highest speed			0.06	0.04
			(0.18)	(0.22)
Speed × 300 × Highest speed			0.27	0.28
			(0.26)	(0.31)
Constant	0.34*		0.38**	
	(0.18)		(0.17)	
Observations	364	231	364	231
Mean dep. variable	0.54	0.57	0.54	0.57
Double LASSO	No	Yes	No	Yes
R^2	0.23		0.23	

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies. For double LASSO, see table 5 or main text.

Table 13: Does Information Content Matter? ($Switch_{12}$ with USD300 and USD100 separate)

	Switches MTO Page 1-2													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Reviews	0.21**	0.26*	0.20*	0.38***	0.54***	0.29*							-0.12	0.03
	(0.10)	(0.14)	(0.10)	(0.14)	(0.18)	(0.16)							(0.08)	(0.12)
300	-0.08			-0.17			-0.00			0.02			-0.23***	-0.25**
	(0.11)			(0.15)			(0.09)			(0.11)			(0.09)	(0.13)
Reviews × 300	0.06			0.17									0.23*	0.24
	(0.15)			(0.19)									(0.12)	(0.16)
High reviews	0.29***	0.11	0.27**	0.31**	0.16	0.36**								
	(0.10)	(0.14)	(0.11)	(0.14)	(0.21)	(0.17)								
Reviews × High reviews	-0.52***	-0.26	-0.53***	-0.64***	-0.44*	-0.63***								
	(0.13)	(0.19)	(0.14)	(0.17)	(0.25)	(0.20)								
300 × High reviews	-0.22			-0.22										
	(0.16)			(0.21)										
Reviews × 300 × High reviews	0.26			0.29										
	(0.21)			(0.26)										
Speed							0.22***	0.00	0.23***	0.21*	-0.04	0.26**		
							(0.08)	(0.11)	(0.09)	(0.12)	(0.16)	(0.12)		
Speed × 300							-0.22*			-0.34**				
							(0.13)			(0.16)				
High speed							0.12	0.14	0.13	0.26*	0.25	0.22		
							(0.12)	(0.14)	(0.13)	(0.15)	(0.16)	(0.18)		
Speed × High speed							-0.61***	-0.39*	-0.64***	-0.81***	-0.68***	-0.79***		
							(0.16)	(0.20)	(0.17)	(0.20)	(0.21)	(0.23)		
300 × High speed							0.04			0.07				
							(0.16)			(0.17)				
Speed × 300 × High speed							0.22			0.25				
							(0.23)			(0.28)				
MTO Discount													-0.01	0.25
													(0.13)	(0.18)
Reviews × MTO Discount													0.12	-0.03
													(0.17)	(0.23)
300 × MTO Discount													0.08	-0.25
													(0.19)	(0.23)
Reviews × 300 × MTO Discount													0.06	0.36
													(0.24)	(0.30)
Constant	0.31	0.07	0.41*				0.40**	0.20	0.48**				0.46**	
	(0.19)	(0.36)	(0.24)				(0.16)	(0.34)	(0.20)				(0.18)	
Observations	364	153	211	231	101	130	364	153	211	231	101	130	364	231
Mean dep. variable	0.54	0.48	0.58	0.57	0.51	0.62	0.54	0.48	0.58	0.57	0.51	0.62	0.54	0.57
Double LASSO	No	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes
Stakes	Both	300	100	Both	300	100	Both	300	100	Both	300	100	Both	Both
R^2	0.23	0.28	0.27				0.24	0.30	0.29				0.19	

Note: Standard errors in parenthesis. $*p < 0.10$ $**p < 0.05$ $***p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies. For double LASSO, see table 5 or main text.

Table 14: Does Information Content Matter? ($Switch_{23}$ with USD300 and USD100 separate)

	Switches MTO Page 2-3													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Speed	0.13	0.36**	0.15	0.15	0.14	0.05								
	(0.12)	(0.16)	(0.13)	(0.15)	(0.28)	(0.16)								
300	-0.17			-0.16			-0.14			-0.05			0.03	0.03
	(0.15)			(0.21)			(0.12)			(0.17)			(0.09)	(0.11)
Speed × 300	0.15			0.10										
	(0.18)			(0.23)										
High reviews	0.01	0.16	0.03	-0.10	-0.03	-0.13								
	(0.12)	(0.16)	(0.14)	(0.15)	(0.27)	(0.17)								
Speed × High reviews	-0.28*	-0.43**	-0.31*	-0.22	-0.19	-0.27								
	(0.16)	(0.21)	(0.17)	(0.19)	(0.33)	(0.21)								
300 × High reviews	0.11			0.07										
	(0.18)			(0.24)										
Speed × 300 × High reviews	-0.06			0.06										
	(0.24)			(0.31)										
Reviews							0.08	0.10	0.09	-0.02	0.12	0.17	0.03	-0.04
							(0.10)	(0.12)	(0.11)	(0.14)	(0.20)	(0.16)	(0.08)	(0.12)
Reviews × 300							0.07			-0.02			-0.15	-0.19
							(0.15)			(0.20)			(0.12)	(0.14)
High speed							0.16	0.38**	0.20*	0.22	0.23	0.39**		
							(0.11)	(0.16)	(0.12)	(0.14)	(0.25)	(0.16)		
Reviews × High speed							-0.24	-0.58***	-0.24	0.03	-0.57*	-0.11		
							(0.17)	(0.21)	(0.18)	(0.21)	(0.32)	(0.24)		
300 × High speed							0.25			0.10				
							(0.16)			(0.22)				
Reviews × 300 × High speed							-0.35			-0.40				
							(0.25)			(0.35)				
MTO Discount													0.16	0.27
													(0.14)	(0.16)
Reviews × MTO Discount													-0.16	-0.23
													(0.21)	(0.26)
300 × MTO Discount													-0.11	-0.15
													(0.25)	(0.33)
Reviews × 300 × MTO Discount													0.28	0.62
													(0.35)	(0.44)
Constant	0.58***	0.09	0.59**				0.51***	0.19	0.54**				0.60***	
	(0.20)	(0.33)	(0.28)				(0.19)	(0.30)	(0.25)				(0.19)	
Observations	364	153	211	231	101	130	364	153	211	231	101	130	364	231
Mean dep. variable	0.55	0.52	0.56	0.59	0.56	0.61	0.55	0.52	0.56	0.59	0.56	0.61	0.55	0.59
Double LASSO	No	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes
Stakes	Both	300	100	Both	300	100	Both	300	100	Both	300	100	Both	Both
R^2	0.14	0.31	0.19				0.15	0.32	0.17				0.11	

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies. For double LASSO, see table 5 or main text.

Table 15: Impact of Reviews by Prior Awareness of Comparison Sites

	Switches MTO Page 1-2	
	(1)	(2)
Reviews	-0.06	0.02
	(0.15)	(0.13)
300	-0.19	-0.41**
	(0.13)	(0.17)
Highest review	-0.10	-0.27
	(0.15)	(0.18)
Rev. × 300	0.35*	0.27
	(0.21)	(0.22)
Rev. × High reviews	-0.07	-0.30**
	(0.16)	(0.15)
300 × High reviews	0.14	0.07
	(0.16)	(0.21)
Rev. × 300 × High reviews	-0.56*	0.23
	(0.29)	(0.30)
Constant	0.74***	0.29
	(0.26)	(0.28)
Observations	188	176
Mean dep. variable	0.54	0.54
Aware Comparison Site	No	Yes
p-val Diff Rev. × HR		0.23
Double LASSO	No	No
R^2	0.35	0.34

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 16: Impact of Reviews by Typical Propensity to Compare Companies

	Switches MTO Page 1-2	
	(1)	(2)
Reviews	-0.02	0.12
	(0.15)	(0.13)
300	-0.37**	-0.22*
	(0.16)	(0.13)
Highest review	-0.48**	-0.15
	(0.21)	(0.14)
Rev. × 300	0.44*	0.17
	(0.24)	(0.19)
Rev. × High reviews	-0.15	-0.26*
	(0.16)	(0.15)
300 × High reviews	0.30	0.02
	(0.19)	(0.18)
Rev. × 300 × High reviews	-0.29	0.10
	(0.31)	(0.26)
Constant	0.45	0.28
	(0.32)	(0.23)
Observations	150	214
Mean dep. variable	0.53	0.54
Compares MTOs	No	Yes
p-val Diff Rev. × HR		0.52
Double LASSO	No	No
R^2	0.39	0.28

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 17: Impact of Reviews by Gender

	Switches MTO Page 1-2	
	(1)	(2)
Reviews	-0.00	0.02
	(0.15)	(0.14)
300	-0.36**	-0.23
	(0.16)	(0.14)
Highest review	-0.10	-0.37**
	(0.16)	(0.17)
Rev. × 300	0.43**	0.16
	(0.21)	(0.21)
Rev. × High reviews	-0.11	-0.30*
	(0.15)	(0.16)
300 × High reviews	0.15	-0.09
	(0.19)	(0.19)
Rev. × 300 × High reviews	-0.27	0.26
	(0.29)	(0.29)
Constant	0.33	0.91***
	(0.26)	(0.29)
Observations	179	185
Mean dep. variable	0.51	0.56
Women	No	Yes
p-val Diff Rev. × HR	0.33	
Double LASSO	No	No
R^2	0.26	0.31

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 18: Impact of Reviews by Age

	Switches MTO Page 1-2	
	(1)	(2)
Reviews	0.21	-0.02
	(0.15)	(0.14)
300	-0.26**	-0.39**
	(0.13)	(0.17)
Highest review	-0.03	-0.39**
	(0.16)	(0.17)
Rev. × 300	0.10	0.47**
	(0.21)	(0.23)
Rev. × High reviews	-0.36**	-0.22
	(0.17)	(0.15)
300 × High reviews	0.12	0.20
	(0.18)	(0.20)
Rev. × 300 × High reviews	0.09	-0.23
	(0.29)	(0.29)
Constant	0.46*	0.61**
	(0.25)	(0.30)
Observations	194	170
Mean dep. variable	0.56	0.51
Above Mean Age	No	Yes
p-val Diff Rev. × HR	0.45	
Double LASSO	No	No
R^2	0.30	0.33

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 19: Impact of Reviews by Feeling Overwhelmed by Info

	Switches MTO Page 1-2	
	(1)	(2)
Reviews	0.18	-0.07
	(0.13)	(0.14)
300	-0.22	-0.34**
	(0.15)	(0.13)
Highest review	-0.35**	-0.22
	(0.15)	(0.17)
Rev. × 300	0.26	0.31
	(0.23)	(0.19)
Rev. × High reviews	-0.28*	-0.21
	(0.15)	(0.15)
300 × High reviews	0.21	-0.06
	(0.20)	(0.17)
Rev. × 300 × High reviews	-0.30	0.10
	(0.30)	(0.27)
Constant	0.57**	0.53*
	(0.25)	(0.27)
Observations	184	180
Mean dep. variable	0.54	0.54
Overwhelmed by Info	No	Yes
p-val Diff Rev. × HR		0.67
Double LASSO	No	No
R^2	0.30	0.40

Note: Standard errors in parenthesis. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 20: Impact of Speed by Financial Literacy

	Switches MTO Page 1-2	
	(1)	(2)
Speed	0.23**	0.14
	(0.11)	(0.12)
300	-0.08	-0.05
	(0.12)	(0.13)
Highest speed	0.03	-0.16
	(0.14)	(0.14)
Speed × 300	-0.17	-0.09
	(0.20)	(0.19)
Speed × High speed	-0.50**	-0.48**
	(0.20)	(0.20)
300 × High speed	0.31*	0.23
	(0.17)	(0.21)
Speed × 300 × High speed	-0.35	0.22
	(0.31)	(0.34)
Constant	0.66***	0.16
	(0.23)	(0.25)
Observations	176	187
Mean dep. variable	0.56	0.52
Financial Literacy	Low	High
p-val Diff Sp. × HS	0.93	
Double LASSO	No	No
R^2	0.44	0.31

Note: Standard errors in parenthesis. $*p < 0.10$ $**p < 0.05$ $***p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 21: Impact of Speed by Prior Awareness of Comparison Sites

	Switches MTO Page 1-2	
	(1)	(2)
Speed	0.16	0.26**
	(0.12)	(0.12)
300	-0.18	-0.03
	(0.14)	(0.12)
Highest speed	-0.00	-0.11
	(0.14)	(0.14)
Speed × 300	0.06	-0.41**
	(0.19)	(0.20)
Speed × High speed	-0.35*	-0.72***
	(0.20)	(0.22)
300 × High speed	0.44**	0.09
	(0.19)	(0.19)
Speed × 300 × High speed	-0.25	0.47
	(0.31)	(0.36)
Constant	0.62**	0.08
	(0.25)	(0.23)
Observations	188	176
Mean dep. variable	0.54	0.54
Aware Comparison Site	No	Yes
p-val Diff Sp. × HS		0.12
Double LASSO	No	No
R^2	0.35	0.38

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 22: Impact of Speed by Typical Propensity to Compare Companies

	Switches MTO Page 1-2	
	(1)	(2)
Speed	0.13	0.13
	(0.12)	(0.11)
300	0.06	-0.07
	(0.14)	(0.11)
Highest speed	0.35**	-0.32**
	(0.17)	(0.12)
Speed × 300	-0.13	-0.23
	(0.21)	(0.17)
Speed × High speed	-0.31	-0.43***
	(0.29)	(0.16)
300 × High speed	0.02	0.25
	(0.21)	(0.17)
Speed × 300 × High speed	-0.26	0.23
	(0.38)	(0.27)
Constant	0.35	0.33
	(0.30)	(0.20)
Observations	150	214
Mean dep. variable	0.53	0.54
Compares MTOs	No	Yes
p-val Diff Sp. × HS		0.71
Double LASSO	No	No
R^2	0.39	0.35

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 23: Impact of Speed by Gender

	Switches MTO Page 1-2	
	(1)	(2)
Speed	0.12	0.26**
	(0.13)	(0.12)
300	-0.01	-0.06
	(0.12)	(0.14)
Highest speed	-0.27*	0.20
	(0.15)	(0.14)
Speed × 300	-0.23	-0.22
	(0.19)	(0.20)
Speed × High speed	-0.48**	-0.62***
	(0.23)	(0.19)
300 × High speed	0.15	0.14
	(0.18)	(0.20)
Speed × 300 × High speed	0.12	0.20
	(0.34)	(0.31)
Constant	0.18	0.90***
	(0.23)	(0.27)
Observations	179	185
Mean dep. variable	0.51	0.56
Women	No	Yes
p-val Diff Sp. × HS		0.58
Double LASSO	No	No
R^2	0.31	0.33

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Table 24: Impact of Speed by Age

	Switches MTO Page 1-2	
	(1)	(2)
Speed	0.13	0.19
	(0.12)	(0.12)
300	-0.02	-0.07
	(0.13)	(0.13)
Highest speed	0.13	-0.16
	(0.13)	(0.15)
Speed × 300	-0.02	-0.28
	(0.19)	(0.19)
Speed × High speed	-0.39**	-0.69***
	(0.17)	(0.24)
300 × High speed	0.06	0.39*
	(0.17)	(0.21)
Speed × 300 × High speed	-0.27	0.29
	(0.28)	(0.37)
Constant	0.40*	0.37
	(0.23)	(0.26)
Observations	194	170
Mean dep. variable	0.56	0.51
Above Mean Age	No	Yes
p-val Diff Sp. × HS		0.17
Double LASSO	No	No
R^2	0.34	0.36

Note: Standard errors in parenthesis. $^*p < 0.10$ $^{**}p < 0.05$ $^{***}p < 0.01$. MTO=money-transfer operator. All specifications include unbalanced controls (gender, household size, and whether the participant compares fees across MTOs), country dummies, and MTO-order dummies.

Figure 8: Extensive Margin: Percent Nonzero Fixation Duration by Attribute by Page (USD 300)

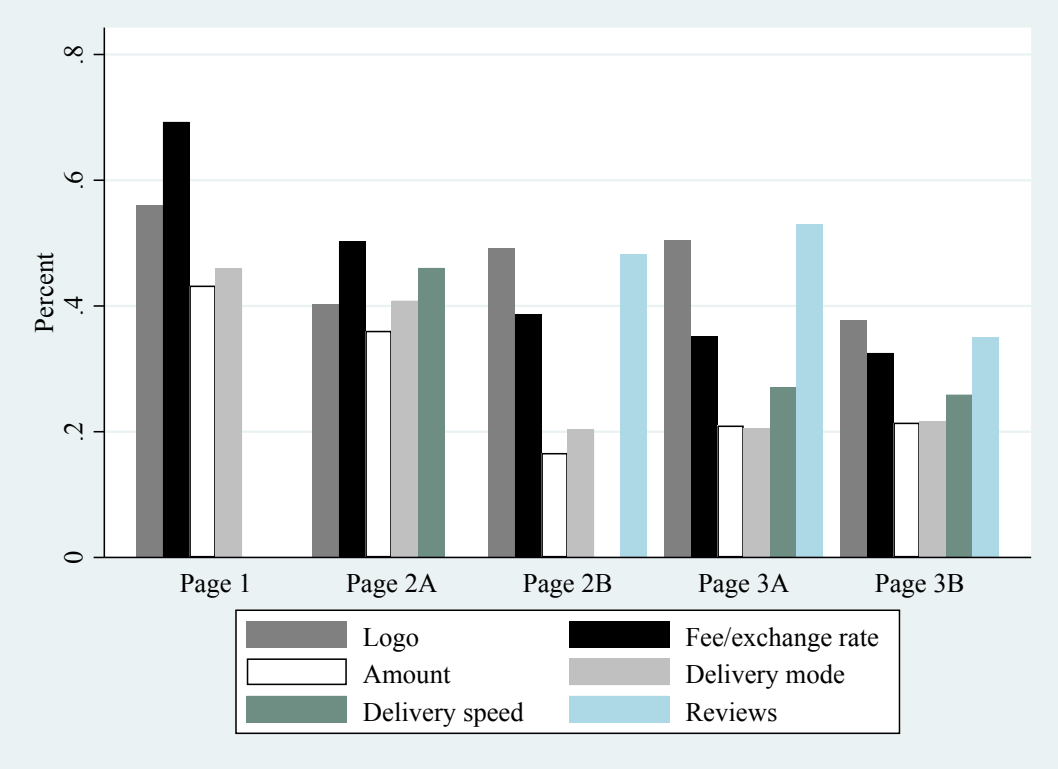


Figure 9: Extensive Margin: Percent Nonzero Fixation Duration by Attribute by Page (USD 100)

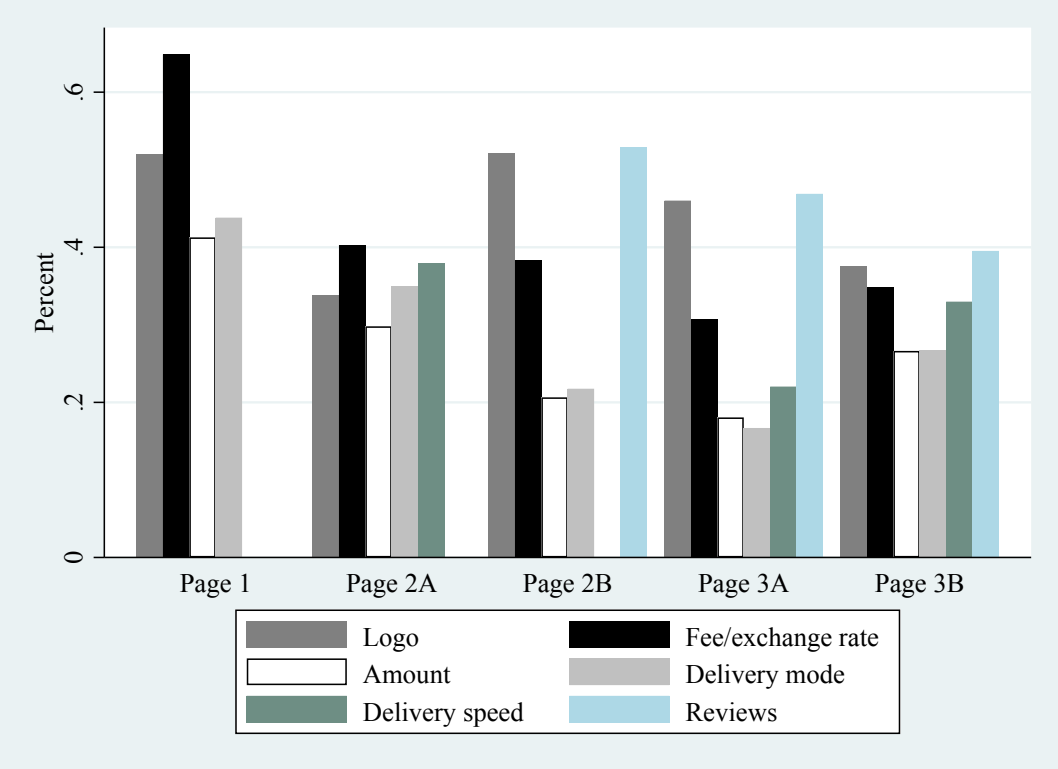


Figure 10: Intensive Margin: Average Nonzero Fixation Duration by Attribute by Page (USD 300)

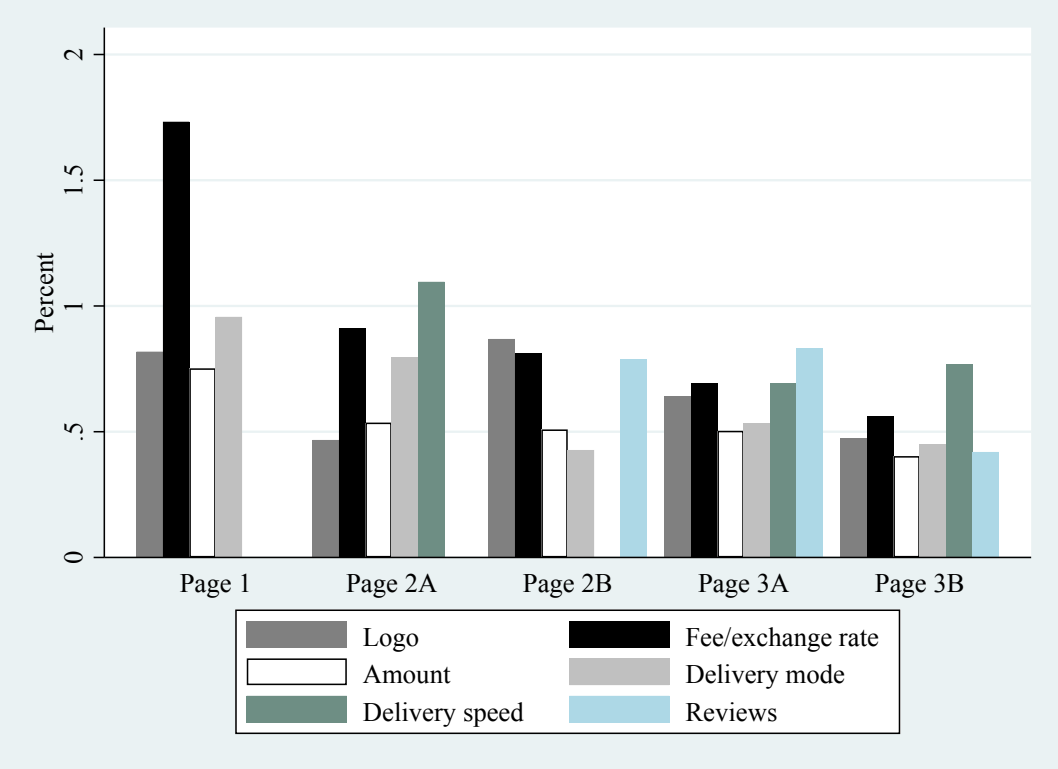
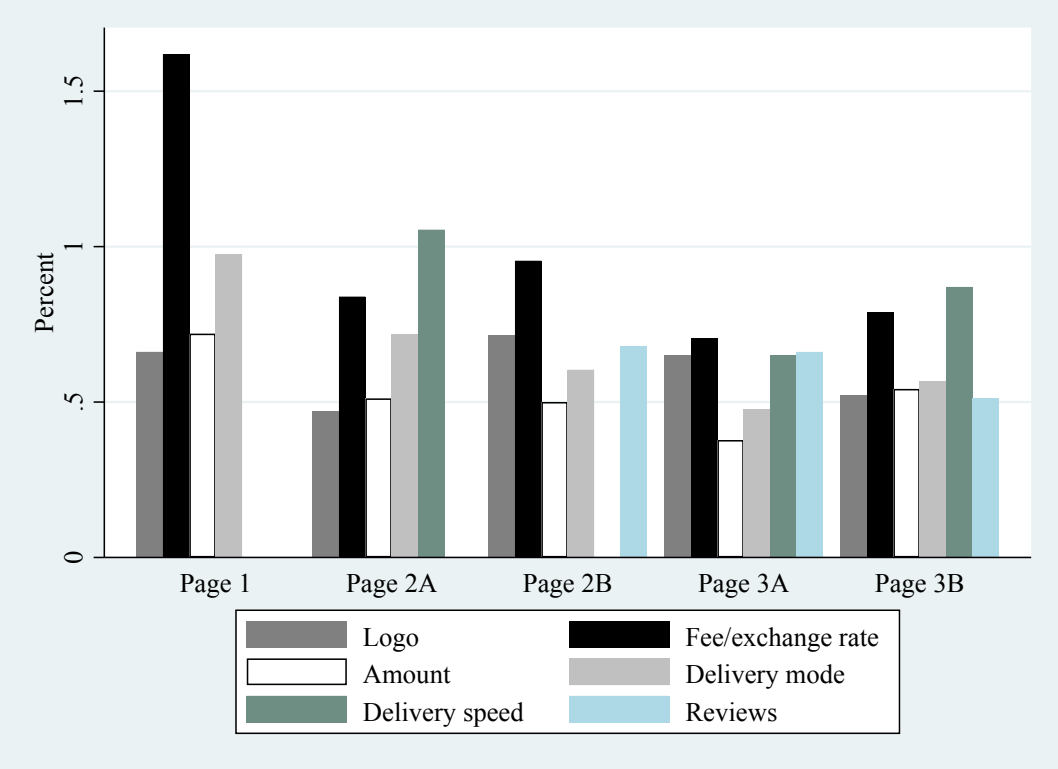


Figure 11: Intensive Margin: Average Nonzero Fixation Duration by Attribute by Page (USD 100)



B Additional Materials

Figure 12: Webpage Variations

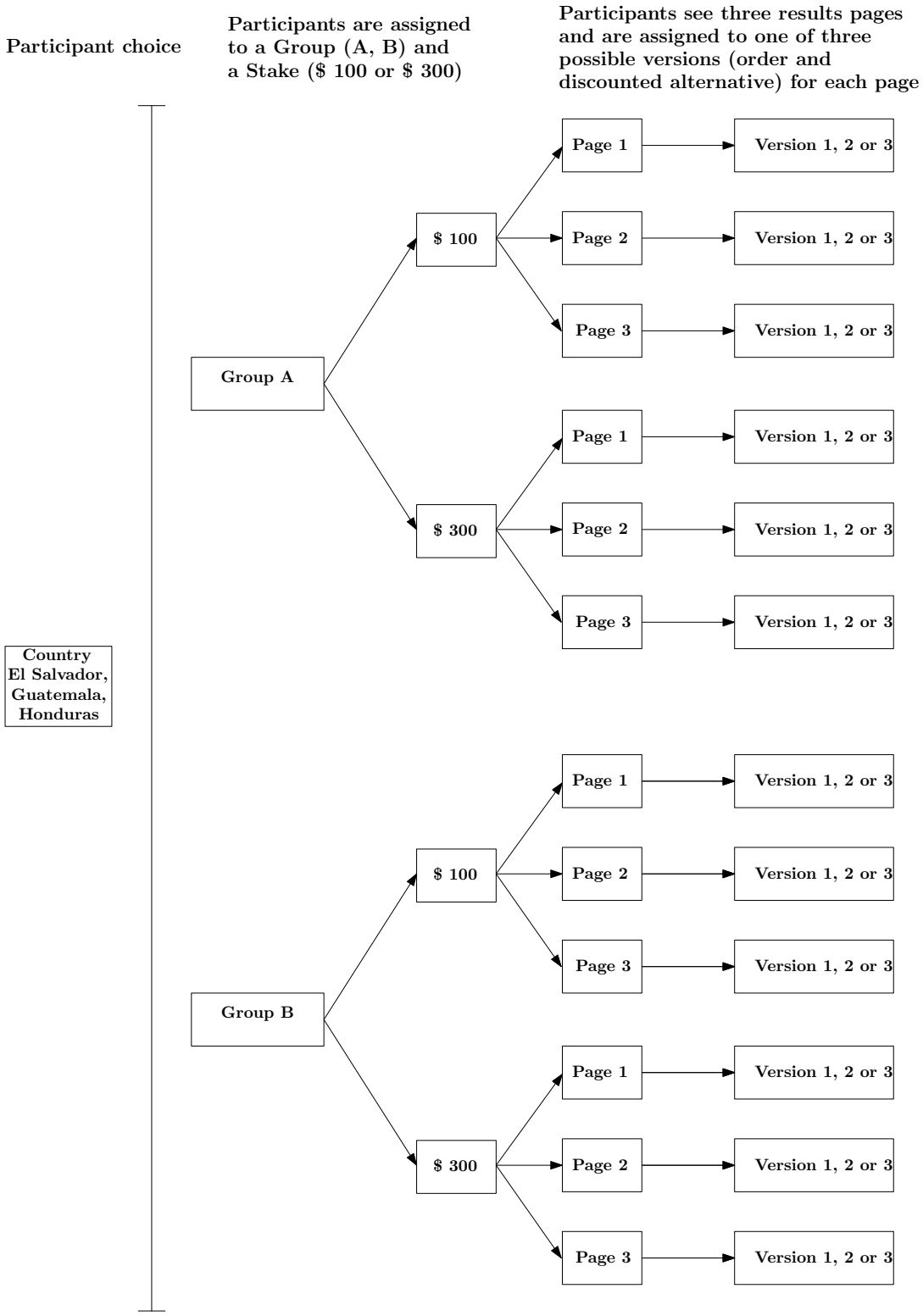


Figure 13: Recruitment Flyer





Invitation to participate in research study about sending money to Central America
(El Salvador, Honduras and Guatemala)

Objective of the study:

The objective of this study is to understand how and why people send money to family and friends (also known as "remittances") in an effort to improve money-transfer services.

Dates and length of the study:

The study will last for 1-2 hours. Depending on your availability, you can participate during the following two-hour windows on the following dates …

Location:

NGO (exact locations concealed for privacy purposes).

What will you gain from participating in the study:

You will be paid **$50** for participating in the study. In addition, you will be entered into a lottery. The winners of this lottery will have **$100** or **$300** sent to their families/friends in the respective country of origin. One in eight participants will win this lottery of $100 or $300.

Criteria for participation:

(a) Have sent remittances at least four times in the past year to families/friends in El Salvador, Honduras or Guatemala; (b) Be able to read; (c) Be able to use a computer; (d) *NOT* wear bifocal glasses.

What should I do if I would like to participate in the study?

Please contact the offices of NGO at ... During this call, we can get you registered and discuss your preferred times for participating in the study. In addition, we can address any questions or concerns you may have.

Many thanks for your interest in participating in our study!

Figure 14: Informed Consent Form

Spelman College
A Choice to Change the World

Consent Form: Study on Remittances

- This study will last for one year. We may contact you throughout this period to ask questions. However, agreement to participate in this study does not mean that you must participate for the full duration of the study.

- Are there any risks associated?
  - There are no specific risks to participating in this study, beyond those of everyday life.

- Will information from this study be kept private?
  - The information from this study will be kept private. It will be stored securely and only authorized personnel will have access.

- Who may I contact for more information?
  - You may contact Dr. Angelino Viceisza (cell number aviceisz@spelman.edu) or Chandra Chambliss at the Spelman College Institutional Review Board (404-270-5706 irb@spelman.edu).

- What if I change my mind about participating?
  - Participation in this study is voluntary and you may withdraw from it at any time by formally notifying Dr. Angelino Viceisza before the findings are presented.

- Statement of consent
  - If you agree to participate in this study as outlined above, please check the first box below.
  - If you do not agree, but would like to be contacted in the future, please check the second box. Please also complete the requested information, so we can contact you.

- I **agree** to participate in this study.
- I **do not agree** to participate in this study, but agree to be contacted in the future.

_____ _____

Signature Date

First Name, Last Name (PRINT) Phone number Email address

C Variable Definitions

C.1 Pre-Survey

The pre-analysis plan and verbatim pre-survey questions are available at https://bit.ly/3d3c4M3.

Remittance variables

1. *MTO Habit$_{ij}$ (Q103)*: This variable is a dummy or set of dummies for the MTO j that participant i typically uses to send money.
2. *Compare MTO$_i$ (Q85)*: This variable is a dummy for whether or not participant i typically compares MTOs, e.g., via web or phone.
3. *Compare Attribute$_{ik}$ (Q86)*: This variable is a dummy or set of dummies for whether or not participant i compares MTOs on attribute k, e.g., fees or delivery speed.
4. *Compare Aware$_i$ (Q89-93)*: This variable is a dummy for whether or not participant i is aware of the existence of comparison websites.
5. *Remittance$_i$ (Q103-104)*: This variable is the average monthly remittance amount (in USD) that participant i sends to the top three recipients.
6. *Fee$_i$ (Q104)*: This variable is the average fee (in USD) that participant i incurs across MTOs.
7. *Relation$_i$ (Q103)*: This variable is a dummy or set of dummies for the relationship between participant i and the main remittance recipient/s.
8. *Spending preference$_i$ (Q107*: This variable is a dummy for remittances being spent as they should according to participant i's preference, i.e., equality of the two columns.

Demographics

9. *Female$_i$ (Q10)*: This variable is a dummy for whether or not participant i identifies as female.
10. *Age$_i$ (Q11)*: This variable is the participant i's age.
11. *Education$_i$ (Q73)*: This variable is a dummy for whether or not participant i completed at most primary school. *This is a slight deviation from the pre-analysis plan where we indicated that the dummy would be coded the other way.*
12. *HH size$_i$ (Q74)*: This variable is participant i's household (HH) size.
13. *Married$_i$ (Q75)*: This variable is a dummy for whether or not participant i is married.
14. *El Salvador$_i$ (Q6)*: This variable is a dummy for whether or not participant i identifies El Salvador as the country of origin.

15. *Guatemala$_i$ (Q6)*: This variable is a dummy for whether or not participant i identifies Guatemala as the country of origin.

16. *Honduras$_i$ (Q6)*: This variable is a dummy for whether or not participant i identifies Honduras as the country of origin.

Employment and assets

17. *Employment$_i$ (Q108)*: This variable is a dummy for whether or not participant i is employed. Retired will be coded as zero while "other" will be coded as one if it identifies an occupation not previously listed.

18. *Smartphone$_i$ (Q8)*: This variable is a dummy for whether or not participant i owns a smartphone.

19. *Tablet$_i$ (Q9)*: This variable is a dummy for whether or not participant i owns a tablet.

20. *Financial access US$_i$ (Q96)*: This variable counts the number of financial instruments that participant i has access to in the US.

21. *Financial access home$_i$ (Q97)*: This variable counts the number of financial instruments that participant i has access to in the the country of origin.

Behavioral characteristics

22. *Risk$_i$ (Q80)*: This variable is the share of USD100 that participant i hypothetically chose to invest in a risky asset relative to a safe asset. The risky asset paid 25 times the amount invested with 50 percent chance and zero otherwise. The safe asset paid 10 times the amount invested with certainty.[17]

23. *Time$_i$ (Q81-84)*: Participants made a hypothetical choice between a USD100 reward in one month and an USD X reward in three months. X started out at USD 125 and was increased to USD 150 and USD 200 as applicable. Participants who always chose USD100, were asked how much X would need to be (up to USD 1,000) in order for them to wait three months. Participant i is categorized as "0=very impatient" if USD100 was always chosen, "1=impatient" if USD100 was chosen once or twice, and "2=patient" if the participant chose X the first time.

24. *Altruism$_i$ (Q114)*: This variable is a dummy for whether or not participant i always or sometimes *gives* money to others.

25. *Trust$_i$ (Q113)*: This variable is a dummy for whether or not participant i always or sometimes *lends* money to others.

26. *Information processing$_i$ (Q117)*: This variable counts how frequently participant i feels overwhelmed by information, e.g., words, letters, and numbers.[18]

[17] This type of lottery was first proposed by Gneezy and Potters (1997). It has been applied in a field context by for example, Charness and Viceisza (2016).

[18] The question is similar to willingness-to-take-risk questions along the lines of Dohmen et al. (2011).

27. *Financial literacy$_i$ (Q99)*: This variable is a dummy for whether or not participant i identified the correct category "More than USD 102" when asked how much money would be in an account with initial deposit of USD100 after five years at an interest rate of 2 percent.

C.2 Website clicks

1. *MTO Choice$_{it}$*: This is a categorical variable for participant i's choice of company on page t. There will be three such choices for each participant. These variables have also been converted into a set of dummy variables for whether or not participant i chose MTO j on page t.

2. *MTO Attributes$_{jt}$*: This set of variables represents the attributes of company j on page t. Specifically:

   (a) *Reviews$_{jt}$*: The (weighted) number of positive reviews that MTO j on page t has.

   (b) *Fee$_{jt}$*: The exchange rate and fee associated with company j on page t. We may end up creating two separate variables, one for the fee and one for the exchange rate.

   (c) *Discount$_{jt}$*: A dummy variable for whether or not MTO j on page t had a 50 percent price discount.

   (d) *Amount$_{jt}$*: The amount that would arrive if funds were sent via MTO j on page t.

   (e) *Speed$_{jt}$*: A dummy variable for whether the funds sent via MTO j on page t would arrive in a day or less.

   (f) *Delivery$_{jt}$*: A categorical variable for how funds sent via MTO j on page t would arrive, i.e., as a deposit, in cash for pick-up or delivery, or either.

C.3 Eye-tracking

1. *Fixation Duration$_{ikjt}$*: The average amount of time that participant i fixated on attribute k for company j on page t. This variable is an average since a participant may fixate on the AOI multiple times. If an attribute/AOI was not fixated upon, it will be assigned a zero.

2. *Visit Duration$_{ikjt}$*: The average amount of time that participant i visited attribute k for company j on page t. A visit is defined as the interval of time between the first fixation on the AOI and the next fixation outside the AOI. This variable is an average since a participant may visit an attribute/AOI multiple times. If an attribute was not visited, it will be assigned a zero.

3. *Duration$_{ijkt}$*: This variable is defined as *Fixation Duration$_{ikjt}$* + *Visit Duration$_{ikjt}$*. I.e., it gives an overall measure of time spent on an attribute/AOI.

4. *Fixation$_{ijkt\tau}$*: The attribute/AOI k that participant i fixated on for company j on page t at a given point in time τ. This can include refixations.