A CROSS BORDER TRADE
REPORTING EXPERIMENT FROM KENYA

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES

Jacqueline M. Klopp
Ruth Canagarajah
Lornah Wahome
Brian Baraza
Melissa Trimble
Bengusu Ozcan
Remy Spanierman
Lance Hadley
David Orega

UKaid
from the British people

Busara

Sauti.

ACE
GLOBAL INTEGRITY
Anti-Corruption Evidence
Research Programme

COLUMBIA CLIMATE SCHOOL
CENTER FOR SUSTAINABLE URBAN DEVELOPMENT

WORKING PAPER 16

ABSTRACT

Mobile phones present new opportunities to support cross-border traders in Africa in addressing corruption and harassment. This paper describes an experiment involving traders using a reporting feature on mobile phones to provide data on cross border experiences. Traders answered basic questions around payments, waiting time and overall comfort level of one cross border trip each week. Two hundred and eighteen traders were recruited to participate and received remote onboarding in June 2021. From April 17th to September 3rd 2021, we collected and tracked data from the reporting feature on a dashboard. We also conducted two surveys of all traders: one early on to gauge initial problems with using the platform and a final exit survey of users and non-users of the reporting feature. One hundred and ninety-nine participants stayed in the study with 87 becoming users of the reporting tool (44%) and 112 (56%) who did not. Younger, more educated traders had a higher likelihood of using the reporting feature, suggesting more training and support would boost participation. Towards the end of the experiment, a core group of users were reporting in a regular, sustained way. Besides being too busy or forgetting to report, non-users explained barriers to participation including misunderstandings around compensation and/or the mistaken belief that reporting entailed costs. A majority of all traders suggested that compensation or exchanging useful information from other traders would be necessary to incentivize sustained reporting.

Dashboard data was useful, revealing dynamics around corruption that need further exploration (bribes are lower at informal borders, the average bribe men reported is higher than that reported by women, higher value goods tend to lead to higher average bribes). Useful information could be extracted from crowdsourced reporting and when coupled with interviews, give a more refined view of corruption and harassment dynamics. Finally, the vast majority of traders were positive about continuing to report and further explore how to use the data for community monitoring and related social accountability interventions. This included direct rating of border services by traders as a means of putting on pressure to reduce corruption and harassment.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

2

INTRODUCTION

Mobile phones have spread across the globe offering new opportunities for people to do real-time reporting and monitoring of service delivery, including experiences with corruption. Mobile devices lower the barrier to participation since individuals can report anonymously and on their own time at low cost. Several empirical studies have found statistically significant evidence in support of the positive role ICTs can play, when leveraged thoughtfully, in reducing corruption (Srivastava et al. 2016, Shim and Eom 2008, Shim et al. 2009). Indeed, some studies find that wider mobile phone and internet penetration are negatively correlated with corruption (Kanyam et al. 2017). Buntaine et al 2018 found that providing Ugandans with information on budget corruption had an impact on electoral choice. However, simply reporting or sharing information on corruption and poor service delivery does not bring change; to be effective mobile phone based reporting systems clearly need to be embedded in wider reforms that enhance transparency and accountability.

Recently, increased emphasis is on community monitoring interventions (CMIs) defined as those interventions that involve communities in the monitoring of public service providers as a way to increase their accountability to users (Molina et al 2016; 463) and in some cases, reduce corruption at the local level. So far results are mixed. Molina et al. reviewed studies in lower and middle income countries on the impact of CMIs on access to and quality of service delivery and on corruption outcome measures where corruption is defined broadly as "dishonest or fraudulent conduct by those in power" (Molina et al. 2016). They found a positive impact overall in terms of reduced corruption or improved service delivery but cautioned that the small number of studies means that their results should be interpreted carefully. Muralidhan et al conducted a randomized control trial (RCT) on the impact of phone-based monitoring (2021). Officials charged with service delivery were told in randomly selected areas that program implementation would be measured via calls with beneficiaries; this led to a 7.8% reduction in the number of farmers who did not receive their transfers (Muralidhan et al; 2021). Service provider awareness of monitoring is a key factor in the effectiveness in CMI along with opportunities to hold these providers to account.

In contrast, several studies exploring community monitoring to enhance performance and service delivery in health, education, and water supply found no statistically significant results (Grossman et al. 2018, Banerjee et al. 2010, Olken 2007). One study found promising results in Uganda: a year after their intervention, treatment communities were still more involved in monitoring health providers, and service workers exerted higher effort (Bjorkman and Svensson 2009). Attempts to increase the scale of the study found no statistically significant effects (Raffler et al. 2018). Buntaine et al conducted a field experiment on the effect of reporting the results of community monitoring efforts to high level officials in Uganda but found discouraging results in terms of improving service delivery. They did find that informing the residents of the allocated budget of the project (part of their treatment), led to three cases of citizens publicly and successfully demanding accountability from higher authorities (Buntaine et al. 2019). Overall, some evidence suggests that community monitoring when used for overt advocacy might have utility in some cases, and mobile phones are now making such monitoring easier.

MOBILE PHONES AND SMALL-SCALE CROSS BORDER TRADE

African small-scale cross border traders are increasingly using mobile phones. In East Africa in 2012, eighty-four percent of small-scale cross border traders reported owning a mobile phone and coverage is likely to be even higher in 2020 (EASSI, 2012). Gender and wealth gaps persist, and some traders, especially women, may not have phones. An overall gender gap does exist in phone ownership in low- and middle-income countries; women are 10% less likely than men to own a mobile phone and of those that do, 23% fewer women than men use mobile internet (GSMA, 2019). A class gap also exists with wealthier traders owning smartphones and the poorest traders without any phone at all. As costs of phones and services drop, however, phone use will continue to increase although significant variation in phone access and service costs exists across East Africa (GSMA, 2019).

Increasingly ubiquitous mobile phones have led to innovative digital platforms that provide traders with information and, in the process, also collect important data including survey data. One key platform in East Africa is Sauti East Africa, a social enterprise that has developed a phone-based application to provide traders with essential information about prices, exchange rates, and border procedures and also to collect data from traders who use it (Hadley & Rowlatt, 2019). Sauti East Africa also has been working over time to build networks with traders, gain their trust and advocate for them and is increasingly able to support and engage in research through its platform, a promising new tool for trade, corruption and gender research.

CORRUPTION AND SMALL-SCALE CROSS BORDER TRADE

Extensive research shows that these small-scale traders, the majority of whom are women in East Africa, periodically confront corruption and harassment as they cross the border to trade (Tyson 2015, 2018, Wiseman 2020, Klopp et al 2021b). The most common form of border corruption involves small or petty bribes, sometimes called "kitu kidogo" (something small in Swahili). These payments are linked to three main, distinct purposes: 1) to speed up, facilitate or get service at the formal border, 2) as a bribe to avoid paying a tax or fee, and 3) to avoid penalties from using a non-gazetted route as a way to avoid formal customs. Traders do not always see the "kitu kidogo" paid to avoid formal customs as a problem but rather as a mechanism to enable trade, an example of corruption helping to solve an everyday problem (Marquette and Peiffer 2018).

A trader's journey through a formal crossing point involves confronting several actors, including police, customs officials, revenue authorities and, if carrying agricultural goods, plant inspectorates or, if manufactured goods, a standards bureau. The process also involves paperwork and costs, although small-scale traders are often exempt from some taxes. The journey often begins with the purchase of tradable goods at a market, the choice of transportation and the gathering of relevant identification documents, including proof of origin within the East African Community (EAC) via a simplified certificate of origin, ID, and relevant receipts. At the border, traders then need to fill out the relevant forms and receive approval from authorities like the Plant Health Inspectorate (unprocessed agricultural goods) or the Bureau of Standards (manufactured goods). Small-scale traders that trade in unprocessed agricultural goods are exempt from import duties, whereas those who trade in manufactured goods will have to pay a value added tax (VAT)

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

4

and in some cases an excise tax for manufactured goods, depending on the good. The main difference lies in agricultural traders not being subject to excise tax or VAT. Wealthier traders often work through customs brokers or other third party operators who typically manage the relationship between customs and traders; these brokers help traders clear goods by preparing documents, calculating pay, and facilitating communication between the traders and government authorities (Fjeldstad et al., 2020; Lesser & Moise-Leeman, 2009; Ng'asike et al., 2020).

Bribes or "facilitation fees" can start when long lines form at the formal border and can continue along the way as traders make it through relevant offices to pass hurdles and get documents stamped. The degree of waiting has been associated in sociology with power; long waits associated with powerlessness (Schwartz, 1974). Speed money in the form of bribes is often seen to serve the purpose of facilitating economic activity in the face of onerous bureaucracy. This form of corruption can be a tax on citizens that most severely impacts the poor, who may have fewer resources to pay for facilitation (Ang, 2020; Mbate, 2018; Tyson, 2015). This also can constitute evasion of regulations for consumer health, safety and environmental protection and of taxes needed for services that also bring in a dynamic of accountability (Lesser & Moise-Leeman, 2009).

In the case of small-scale traders, waiting and informal and formal costs at customs can incentivize traders to "exit" in the form of taking more dangerous "panya" routes. These routes involve skirting formal borders, sometimes risking dangerous terrain. This often involves paying "facilitators"and transporters who help with the crossing and also paying bribes to law enforcement. Given that the police on both sides of the border know about these well-established routes, traders routinely encounter them - and sometimes other security personnel - who target them for bribes. Since this happens outside of official spaces and traders are technically in the wrong for avoiding official posts, these traders are highly vulnerable to coercion and abuse, but also see this informal parallel system overall as useful to their trading. It is hard to get specific data on these bribes along with perceived harassment which can include threats, confinement, extortionary bribes, confiscation of goods to more serious human rights violations including sexual harassment and other forms of violence.

Reporting bribes at formal customs points through complaints systems often require in-person reporting, making reporting less anonymous and more costly in terms of time and money (Klopp et al. 2021a). The "kitu kidogo" paid to cross ungazetted routes is linked to collusive corruption and traders tend not report it since it solves a practical problem they face (Marquette and Peiffer 2018). Nevertheless, it is important to understand the scale of the bribes given in this way, especially if the aim is to lower costs at formal crossing points to encourage more small-scale traders to use formal customs as a way to improve their safety and their businesses and collect revenue for service delivery.

This paper describes a small-scale experiment in using mobile phones to report border experiences including customs payments (official fees) and "kitu kidogo" (bribes) among Kenyan small-scale cross-border traders in Busia on the Kenya-Uganda border. The aim is to investigate whether mobile phone platforms can be used to collect useful data on border conditions including payments made, waiting and harassment, and be leveraged as an anti-corruption tool (Strand and Hataaka 2017). Crowdsourced community reporting is the first step in gathering the data needed for advocacy and potentially developing community monitoring approaches around cross border trade experiences and corruption. Our key research questions are:

1. *Will traders use a basic border reporting system based on a mobile Unstructured Supplementary Service Data (USSD) platform and provide meaningful data on their trading experiences including corruption?*

2. *Which framings and incentives can successfully increase consistent reporting of overall border experiences including bribery and harassment?*

3. *What do traders themselves think about the idea of border experience reporting and the potential for this reporting to support community monitoring of the border?*

To answer these questions, we worked with Sauti East Africa (Sauti), a social enterprise that has developed a mobile communication technology used to send texts between a mobile phone and an application program in the mobile phone network used by the trader. The cellphone-based platform developed by Sauti operates on simple phones via USSD but also offers an app for smartphone users. Sauti developed this platform to provide critical information on prices and procedures for traders, and currently has thousands of users across East Africa, mostly in Kenya and Uganda. As a social enterprise dedicated to supporting small-scale traders, Sauti does not charge users for the platform use or data but develops expertise and knowledge via analysis of the data which it uses to support its operations. Sauti has been operating since August 2016 and at the time of the experiment in May 2021 had 14, 245 users accessing the platform from Kenya. Sauti's platform already provides valuable information to small-scale cross- border traders that might increase the utility of a simple USSD reporting function making more people likely to use it and contribute to the reporting. Further, for the experiment, using the platform allowed easier recruitment among existing users, especially during the time of COVID, and had features that allowed for surveys and compensation via mobile money payments.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

6

METHODS

We started by building and testing the platform border experience reporting tool and recruiting participants. We also conducted two user surveys: one at the beginning and an exit survey at the end of the experiment to get trader feedback and get their help in interpreting results and for some, in understanding their choice to opt out. We then applied some basic statistics to explore both the characteristics of those who opted to stay on the platform vs those who opted out, characteristics of those who did report as well as any interesting patterns arising from the dashboard reports. We explored whether any gender differences could be discerned.

BUILDING THE PLATFORM SURVEY TOOL

We developed a set of basic questions in order to explore costs, waiting time and overall comfort level for cross border traders in our sample. The platform was designed so that traders would first be prompted for their language preference (English or Swahili). Next, they would be given a menu in their language of choice with the reporting feature as one new option from among Market Prices, Exchange Rates, Trade Information, COVID Info, *Report Border Experience* and Weather. Traders were told that they would receive a SMS as a prompt each week as a reminder to fill out the survey. To fill out the survey, they would need to enter a code number. This is similar to how they access the Sauti platform as a whole.

Figure 1: Example of the Sauti survey on a basic feature phone
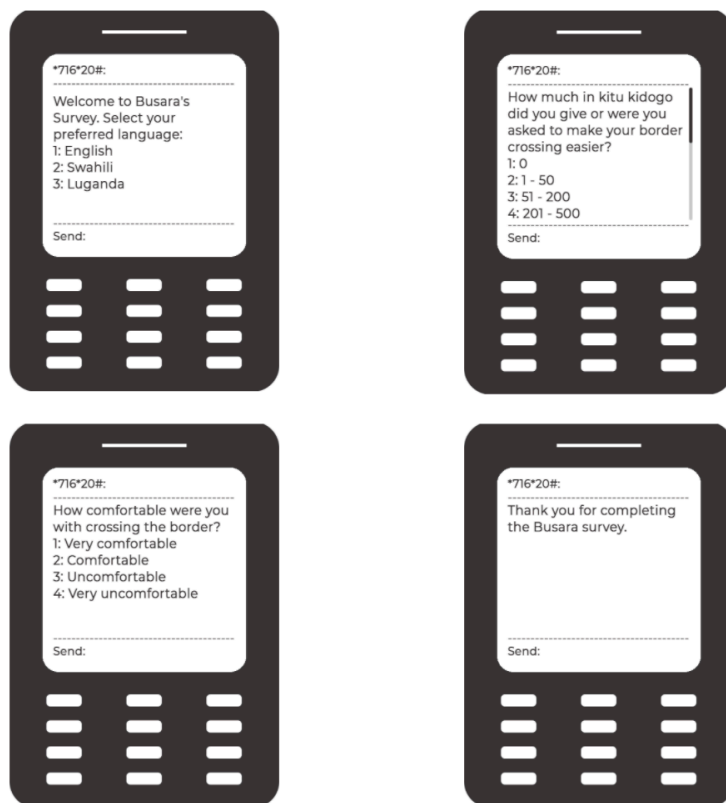
Distilling complex human interactions at the border into a set of clear questions turned out to be challenging. We piloted the questions with a subset of traders to help hone the clarity of the questions, testing for the words that best described different irregular payments. There was confusion around the wording of a bribe, which included "facilitation fee" or the local "kitu kidogo" which is not often seen as corruption. Hence we avoided explicitly using words for corruption or bribes. The words "time to cross" lent themselves to some ambiguity, and hence we settled on asking if a trader had to wait. Some traders were unclear on how to precisely calculate the value of their own goods. After sifting through the lessons from the pilot, we refashioned the questions to make them as clear as possible.

Our questions (Table 1) involved asking whether the trader had crossed the border at least once that week. The next question focused on the trader's route and whether the formal customs border was used or not. We did this by asking specifically if goods crossed the customs border in the last week. Next, we asked questions to get a sense of how much traders paid generally for transport, for a formal customs fee and then more explicitly for "kitu kidogo". We used the term "kitu kidogo" to avoid ascribing any judgment or interpretation. We were also interested if these payments would be considered the same or not. We also follow with a question about the perception of fairness around "the extra amount paid" at the border. This question aimed to get at whether any payment seen as an "extra amount" (again a term to avoid judgment or interpretation as corruption) is generally perceived as fair. If the extra amount was considered "fair" this possibly indicates collusive corruption as we might define it, ie. that something was given

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

8

TABLE 1: SHORT SURVEY QUESTIONS ON TRADING EXPERIENCE

1. TRADED THIS WEEK?
Have you crossed the border at least once in the last 7 days?
1- Yes
2- No

2. ROUTE USED
Have your goods crossed the customs border at least once in the last 7 days?
1- Yes
0- No

3. AMOUNT PAID FOR TRANSPORT FOR CROSSING THE BORDER
How much did you pay (in KShs) to transport your goods across the border?

1- 0 KSH
2- 1-50 KSH
3- 51-200 KSH
4- 201-500 KSH
5- 501-1000 KSH
6- >1000 KSH

4. AMOUNT PAID FOR CUSTOMS FEE
How much (in KShs) did you pay the customs official to cross the border with your goods?
1- 0 KSH
2- 1-50 KSH
3- 51-200 KSH
4- 201-500 KSH
5- 501-1000 KSH
6- >1000 KSH

5. KITU KIDOGO QUESTION
How much in kitu kidogo did you give or were you asked to make your border crossing easier?

1- 0 KSH
2- 1-50 KSH
3- 51-200 KSH
4- 201-500 KSH
5- 501-1000 KSH
6- >1000 KSH

6. PERCEPTIONS OF FAIRNESS (INDICATES FORCED BRIBE VS WILLFUL BRIBE)
Do you think the amount you paid as an extra amount to cross the border was fair?
1- Yes
2- No
3- Not sure

7. VALUE OF GOODS (TRADER FROM DIFFERENT COUNTRIES WILL HAVE DIFFERENT CODE, AUTOMATE IT TO UGX, TSH, KSH)
What is the total value of goods (in KShs) that you transported across the border?
1- 0-50,000
2- 51,000-100,000
3- 101,000-150,000
4- 151,000-200,000

8. TIME CONSUMPTION (ALSO 2 DIFFERENT QUESTION APPROACH)
DID YOU HAVE TO WAIT TO CROSS FROM THE ENTRANCE OF THE BORDER TO THE EXIT OF THE BORDER?
1- Yes
2- No

9. COMFORT/WELL BEING
How comfortable were you with crossing the border?
1- Very comfortable
2- Comfortable
3- Uncomfortable
4- Very uncomfortable

RECRUITMENT

Due to COVID border restrictions, fewer traders were actively crossing the border during the months of the experiment and most had diverted their trade to local markets (Klopp et al 2021b). This shift was evident on the Sauti platform where queries for information shifted to local Kenyan markets. Onboarding also had to be done remotely, restricting the sample further and potentially skewing it towards wealthier traders with phones who were able to continue to trade. This led to a much smaller sample size than we originally planned.

We began recruitment for active cross border traders by contacting 332 traders who we understood to be current users of the Sauti platform. Of the list, 138 were eligible to participate because they were still engaged in small-scale cross border trade. We focused on traders at Busia on the Kenyan side of the Kenya-Uganda border where, despite fluctuating COVID restrictions, some traders continued to cross the border to trade. Additionally, due to the inability to conduct in-person training on the platform, the participants already had to be familiar with the Sauti platform. We discovered that an additional 94 respondents of the 332 told us that they had not used the Sauti platform; possible reasons for this might be that someone else had previously used the platform from their phone. These 94 were not selected, making the total sample 232 eligible individuals. Two hundred and eighteen traders reconsented to participate, and therefore received a remote onboarding session between June 2nd to 5th 2021 and were compensated 100 KSH (approximately $1 US) for their time.

At the onboarding session which had to be done by phone we provided basic instruction. We described the platform to the traders using the following script:

"Sauti is a mobile-based trade and market information platform that empowers small-scale cross-border traders across East Africa to trade legally, safely, and more profitably across borders. It can be accessed on any type of phone.

Sauti aims to empower small-scale cross-border traders by providing them with the requisite information that would enable them to understand their obligations and rights when trading across borders. Some of the information that one can access on the Sauti platform include border procedures for importing and exporting goods, required documentation, official taxes applicable on their imports, prices of commodities across the East African Community and real time exchange rates for the major currencies in East Africa. The Sauti platform is completely free in Kenya and is available on the Safaricom network at no cost to the user."

Traders were able to access the platform by dialing a code anywhere they had reception and were asked to report once a week. Text reminders were sent out at the beginning and end of the week. The first question on the reporting platform was "Have you crossed the border at least once in the last seven days?" If No, the survey ended there and the trader did not receive compensation.

FIRST USER SURVEY

We launched the platform on April 27th 2021 and received few responses over the first two weeks. Traders needed

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

10

to dial the code to access the platform and while they were encouraged to save the number in their phone, it turned out understandably that we needed to remind the traders in our messaging which we started to do by May 18th 2021. We reprogrammed the questions to include the number to make it easier for the traders to access and saw an increase in responses. We conducted a short phone survey on June 3-4 , 2021 with all the traders to better understand the challenges they were facing with the platform as well as get a more complete demographic profile (see Appendix). We wanted to be sure that the incentives in the form of mobile money payments were being received, and we also asked what kinds of challenges traders were facing with the platform. We were conscious that traders were facing serious challenges during the pandemic and sadly one had passed away.

MESSAGING TO ENHANCE REPORTING

We initially wanted to test different messaging that encouraged traders to report, specifically comparing more community-minded versus more individual-utility messaging. Given the small sample size we were able to recruit during this time of COVID, we tested two messages, one that was neutral-sounding we called the control, and one that emphasized more cooperative-framing and focused on ways the reporting could help traders as a community (see Table 2).

TABLE 2: DIFFERENT MESSAGES BETWEEN CONTROL AND TREATMENT	
CONTROL	Please fill out your border trade experience questions this week. Dial *716* 20# to access.
TREATMENT 1 (PRO-SOCIAL MESSAGING)	To better help the community of small scale traders, please answer a few questions about your trade experience this week. Dial *716* 20# to access.

Evidence from surveys conducted among small-scale cross border traders suggest they primarily trade alone, although they are heavily involved in associational activities especially to gain access to small-scale loans (Klopp et al 2021b). This might lead to a hypothesis that a prompting that emphasizes individual benefits might work best to elicit responses. Given our interest in this tool for future community reporting and monitoring, we focused more on a community message to see if it gave a nudge to traders to report.

The traders who agreed to participate were divided into control and treatment groups. The treatment group consisted of 18 men and 59 women, while the control group had 17 men and 61 women. The treatment group thus had a slightly larger number of men. To randomize the sample, the 218 consented and onboarded participants were listed in Excel, and the =RANDBETWEEN(1,2) function distributed them into the control and treatment groups. Randomization is a method to prevent selection bias and assures against accidental bias by producing comparable groups and a counterfactual to the treatment (Institution for Social and Policy Studies, 2021). Since 94 of the traders reported that they were unfamiliar with the platform when we recruited them, the randomization took self-reported familiarity into account. After sorting all traders into treatment and control, we reviewed the assignments to check that randomization ensured a relative balance between traders who had previously used the Sauti platform compared to traders who said they had not previously used the Sauti platform. This was conducted through some manual reassignments after the pure

randomization led to the imbalance. This effort to ensure balance in experience with the platform may have introduced some unintentional bias, and we discovered that the control group did have more women than men by a factor of four, while the treatment group is more gender balanced with more women than men by a factor of two.

DATA COLLECTION MICRO-INCENTIVES AND THE DASHBOARD

From 27 April to 3 September 2021, data was continuously collected and tracked on a dashboard (Figure 3) using micro-incentives to drive consistent user responses. Small financial compensation of 40 KSH (approximately 37 cents) per report per week was paid for a maximum of 160 KSH per month. We allowed only one report and payment a week.

Figure 2: The Sauti Dashboard Keeps Track of Survey Responses and Remuneration

.
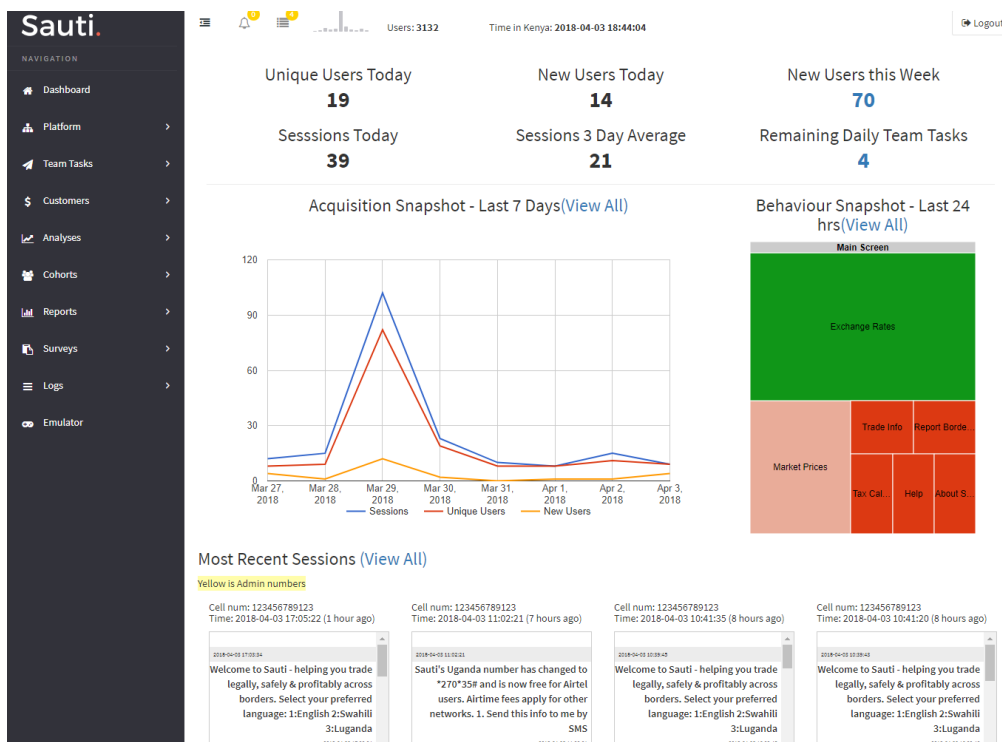
EXIT INTERVIEWS

As a final step we conducted a phone survey of participants to get their feedback on the reporting platform. Interviews were conducted between October 5-9th 2021, a month after the reporting tool was discontinued when the platform was still somewhat fresh in the minds of those who had been using it. We were interested in what the participants thought about the ways the platform could improve and also wanted to know what traders thought overall about the idea of reporting and its utility. We also asked some questions to help better understand how the questions were understood: for example, if they reported an uncomfortable trip, what did that mean or why was the trip uncomfortable?

We broke the survey participants into two groups: those who used the platform and those who did not. Each group was asked different questions to address the fact that some traders enrolled in the study did not end up reporting and therefore could not give us feedback on the user experience. For those who used the platform, we wanted to understand their experience with the platform and their thoughts on both improving it and their views on its broader utility (Table 3).

TABLE 3: PLATFORM USER EXIT INTERVIEW QUESTIONS

How often did you end up reporting on the Busara Trader Experience Questions?

Generally, how often did you report?

If [answers B, C, and D], why didn't you report more frequently?

How often do you usually access Sauti by dialling *716# to get information about trade (i.e., not reporting)?

Did you find it difficult overall to answer the questions on the Busara Trader Experience Questions by dialling *716*20# on Sauti?

If yes, what type of problems did you encounter?

Were there some specific questions that were particularly hard to answer?
A reminder that questions dealt with: if you crossed your goods across the border; how much you paid to transport your goods; how much you paid in customs fees; the value of your goods; whether you paid a bribe; and how comfortable your trade experience was

If yes, which ones and why?

Did you ever try reporting but it didn't work?

If yes, what happened?

How often did this happen?

User Perceptions of the Busara Trader Experience Questions

Did you ever have concerns or feel hesitant about answering the trader questions?

If yes, please explain.

Were you satisfied that submitting the information by phone was private and secure?

If not, please tell us your concerns.

User Experience with Compensation

When you answered the cross border trade experience questions, did you receive the compensation?

How important was the compensation to you?

Do you think traders would be likely to answer these questions if they were not compensated?

Do you think traders would be likely to answer these questions in exchange for information on how other traders are experiencing their trips?

Would you be willing to share your information anonymously with other traders who also share their information with you anonymously?
Only your answers will be shared, not your name or contact details. For example: "12 people indicated a good experience at the border this week"

If yes, please explain why.

If no, please explain why.

User Experience with Compensation

Was there any kind of information we did not ask that you think would be valuable to collect?

If yes, what and why?

Do you think Sauti should continue collecting data on border crossings?

If yes, why?

If no, why?

Do you think this reporting feature will be useful for other traders?

If yes, which traders do you think might use this reporting feature and why?

Would you like a feature on Sauti that summarizes other trader's experiences so you can compare with your own?

Have you ever used a government complaint mechanism for a problem?

If yes, which one?

If yes, do you think it made a difference?

Do you think that the government should get direct information from the traders on the quality of border service?

If yes, how do you think it would help?

If yes, are there particular government agencies that you think need more direct feedback?

Did you ever report paying "an extra amount" at the border?

If yes, did you ever think it was fair?

If yes, can you explain why you thought it was fair?

Did you ever report an uncomfortable trip?

If yes, describe what made your trip uncomfortable.

If these agencies knew traders were reporting on their experiences, do you think they would change any of their behaviors that cause discomfort?

Please explain your answer.

Should formal customs borders be graded (like excellent, good, poor service) by traders based on the quality of their service?

If no, please explain.

Is there anything that you would like to add or discuss in more detail? If you felt that you had something to say but couldn't get a chance to, please feel free to share it with us now.

Is there any information that you would not like us to include in our report? Please feel free to let us know now or even after we finish.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

14

These people who opted out of the experiment could not tell us about their experience with the platform; instead we asked questions about the barriers to participation and why they did not report, asking specifically if they had problems accessing the platform, were worried about secrecy of the information or had other concerns (Table 4).

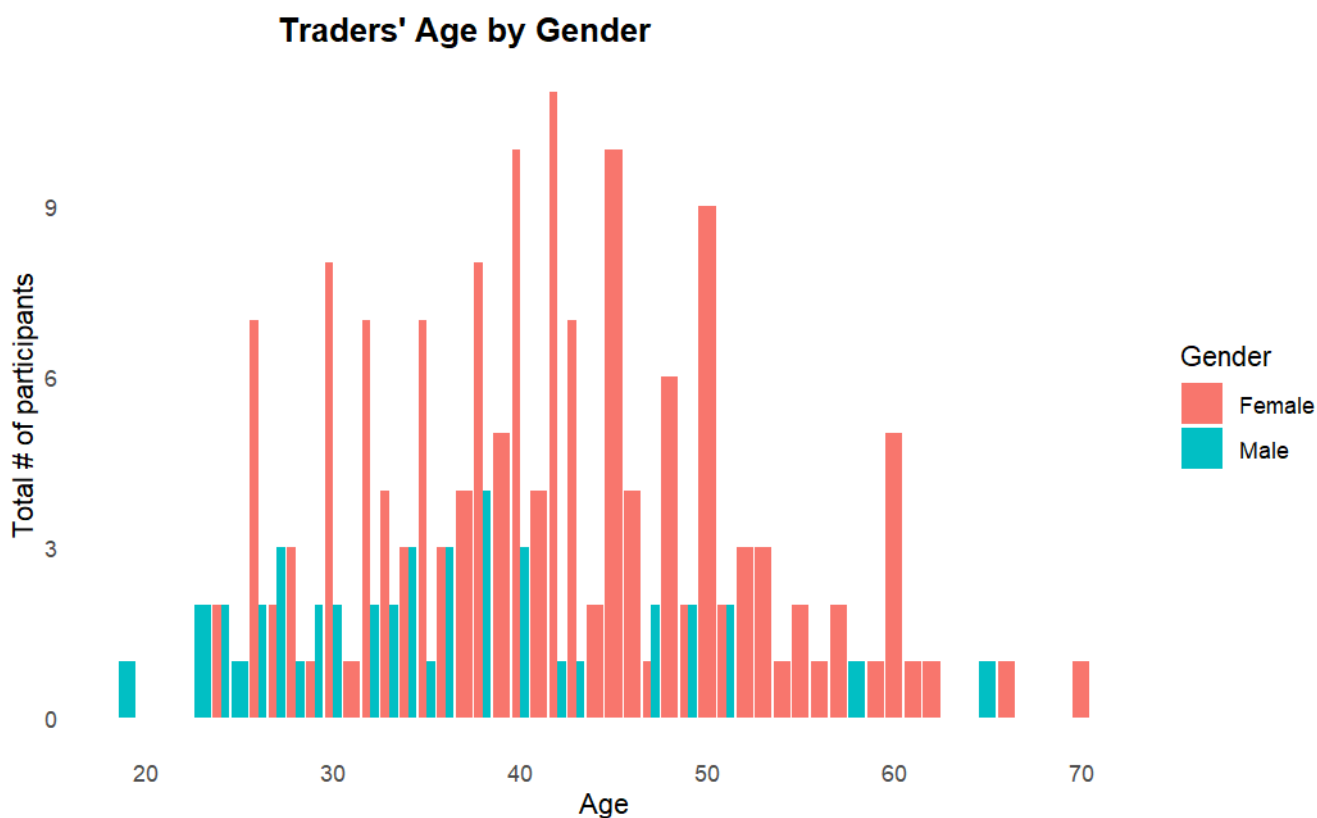| User Experience with Busara Trader Experience Questions |
|---|
| Have you been engaging in cross border trade since May? |
| If yes, how many times did you trade across the border every month? |
| How often did you access Sauti by dialling *716# to get information about trade (i.e., not reporting)? |
| Did you know that there was a phone number for you to call if you had problems with the Busara trader questions platform? |
| If yes, did you ever try and call for a problem? |
| Did you ever try to report but it didn't work? |
| If yes, what happened? |
| How often did this happen when you tried to report? |
| Did you at any time feel hesitant to answer questions because you feared that the information would be too sensitive? |
| If yes, please explain. |
| Were you satisfied that submitting the information by phone was private and secure? |
| If not, please tell us your concerns. |
| Were you aware that the reporting function did not cost you anything? |
| If no, if you had known that reporting wouldn't have cost you anything, would you be more likely |
| Would you be willing to share your information anonymously with other traders who also share their information with you anonymously? Only your answers will be shared, not your name or contact details. For example: 12 people indicated a good experience at the border this week" |
| If yes, please explain why. |
| If no, please explain why. |
| Do you think Sauti should continue the border experience reporting platform? |
| If yes, why? |
| If no, why? |

All this work underwent ethical review and was done under the Protocol IRB-AAAS9623.
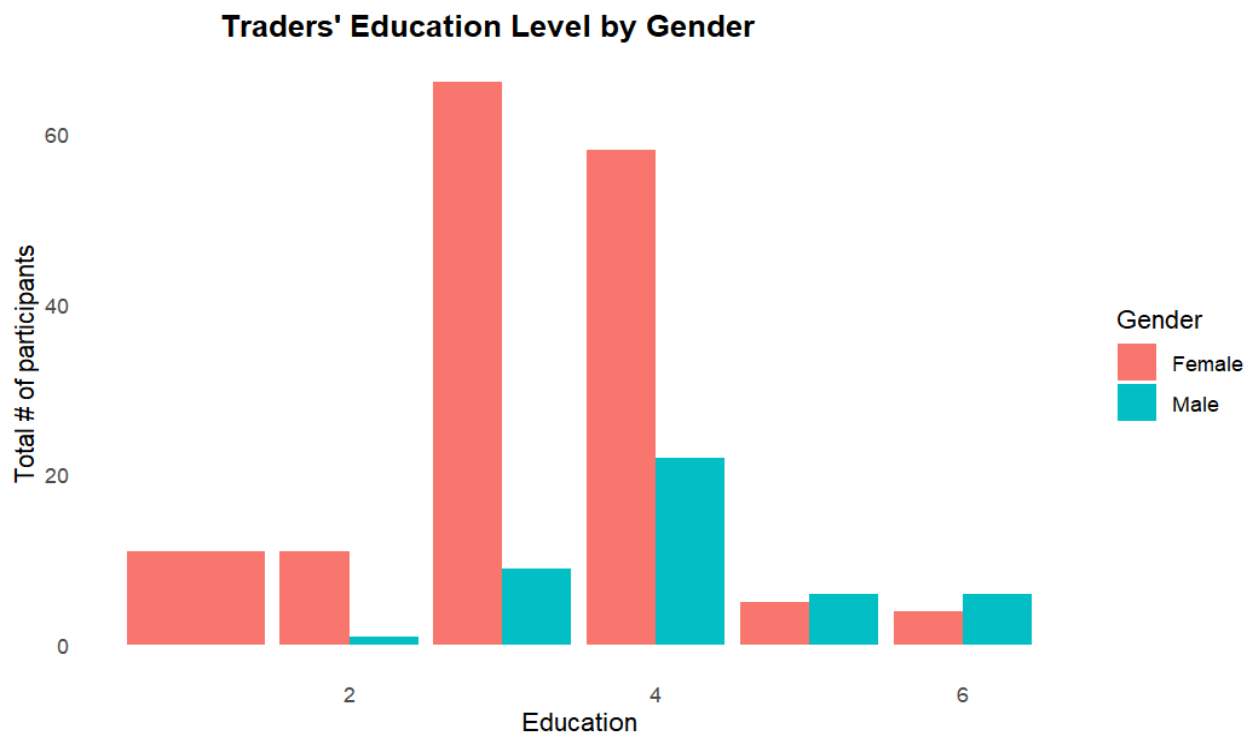
DEMOGRAPHICS OF PARTICIPANTS

Results from the first user survey on June 3-4 2021 included 199 participants and all but one participant were Kenyan. The gender breakdown was 78% women and 22% men. This is not atypical for small-scale traders but having fewer men made the gender analysis more difficult in terms of testing for significance. Most traders were between the ages of 35-45 with the youngest 20 years old and the oldest 70; the age distribution followed a normal distribution with the average age of 40.1 (Figure 3).

Figure 3: Age Distribution of participants

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

16

On average women's age in the sample (orange bars) was higher (41.4 years) than for men (35.5 years). In terms of education, most traders had some upper primary and secondary education. More men (green bars) had higher education levels (5,6) than women in the sample (Figure 4).

Figure 4: Traders' Education Level (from lowest (1) to highest (6)) by Gender

Traders' Education Level by Gender

PLATFORM USAGE: DEMOGRAPHICS AND FREQUENCIES

Overall, by comparing dashboard usage, we were able to determine 112/199 (56%) of the participants who responded to the first user survey did not use the reporting feature. People who reported tended to be younger and more educated than those who dropped out. A linear probability model and regression analysis found that out of education, age, gender and smartphone ownership, only age was a statistically significant variable in explaining likelihood of dropping off of the platform. We also found that owning a basic phone decreases use of the reporting feature and this was statistically significant at the 95% confidence level. Interestingly, 29 people (33%) reported using the platform before taking the first user survey but actually did not according to the dashboard data, while five people (5.7%) used the platform but have reported that they had not. One reason for this may be confusion between using the reporting feature and using the platform as a whole. Overall, these results, in line with expectations, suggest that younger, more educated traders are more likely to report and also that a smartphone may make reporting easier.

The Sauti border experience dashboard received a total number of 748 entries distributed almost equally between control (53%) and treatment (47%). The control group had 45 unique respondents who made 398 reports and the treatment group had 43 unique respondents that made a total of 350 reports. The average number of reports in the control group was slightly higher at 8.6 per person or 7.5 (men) and 8.9 (women) over the reporting period of 14-16 weeks. The average number of reports in the treatment group was 7.9 per person with 10.4 per person (men) compared to 6.9 per person (women).
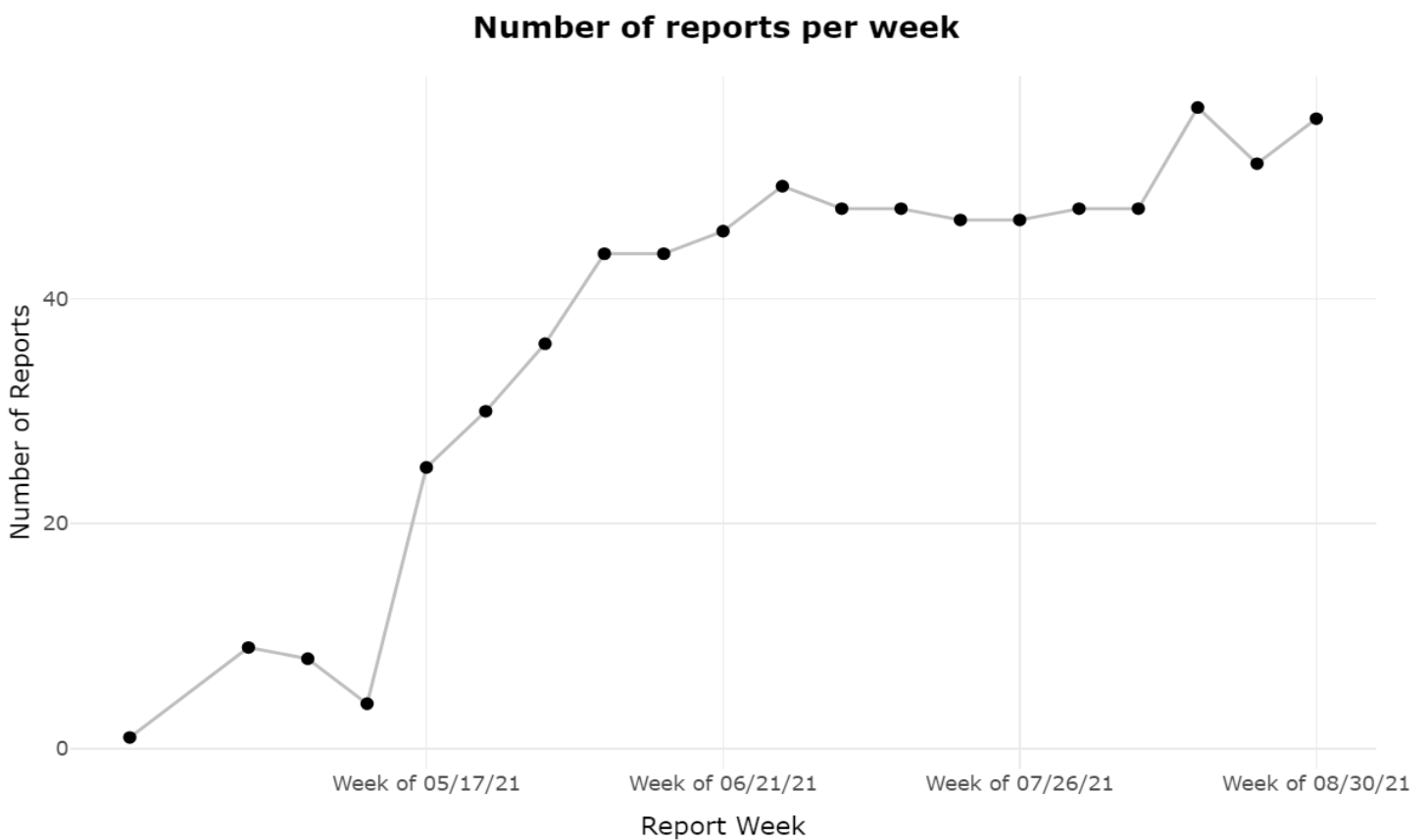
TABLE 5: DASHBOARD DATA SUMMARY		
	CONTROL	TREATMENT
FEMALE AVG. EDUCATION	3.69	3.43
MALE AVG. EDUCATION	4.67	4.46
MALE AVG. AGE	40.5	40.4
FEMALE AVG. AGE	41.2	41.2
AVG. # OF REPORTS / PERSON	8.6	7.9
FEMALE AVG.# OF REPORTS	8.9	6.9
MALE AVG. # OF REPORTS	7.56	10.5

Some traders entered the information that they had not traded that week, which ended the survey right there and they did not receive compensation. This still is an engagement compared to someone who did not report at all, but the report from these traders does not also have the information about trade experience. We excluded these from the analysis of remaining reports which we refer to as "trade reports". In total, there are 676 trade reports. 355 from control, 321 from treatment group. 72% from female traders while 28% are from male traders. The average number of trade reports in the control group is 8.6 while it is 8.2 for the treatment group and the gender analysis looks similar to the previous analysis.

The demographics of those giving trade reports are very similar to what was reported in the first trader phone survey, except that the males in the treatment group are significantly younger (28 years on average compared to women who were 39.7 years on average). In the control women averaged 40.3 years of age and men 41.2 years. Education values across the groups were similar as well.

Males reported more than females in the treatment group. Average age of males in the treatment group is also significantly younger than other respondents. A logistic regression was used to look into whether demographic factors impact the frequency of reporting. By calculating the average number of reports per person as the dependent variable, we find that only age, although not statistically significant (90% confidence level) is worth noting. The older a trader is, the less likely this trader would report more frequently than an average trader.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

18

Figure 5: Number of Reports over Time

We did find that at the end of the experiment a fairly stable pattern of reporting from the user population was emerging (Figure 5). We also see another jump in reporting when we provide a reminder of the code in our messaging and then another bump after we conduct the short follow up survey (week 23), which served as a prompt. We also find that education is a statistically significant variable in determining whether a trader was reporting before the follow up survey . Overall, this is encouraging in terms of the viability of the reporting feature. These results suggest that with better onboarding and education about the platform than was possible during COVID much more participation would be possible in the future.

STATISTICAL ANALYSIS OF BRIBES AND COMFORT FROM DASHBOARD DATA

We also explored reported bribe ("kitu kidogo") levels and gender. We found the average bribe paid is more for males than females (both more than 0-50, less than 51-200 KShs on average). By applying a logistical regression model on the average bribe amount we found two statistically significant factors First, if someone's value of goods is between 51,000 - 100,000 Ksh, compared to someone with a value of goods between 0-50,000 Ksh, they are more likely to pay a greater than average bribe (average bribe is more than 0-50 and less than 51 - 200 KShs). Second,males are more likely to pay a larger average bribe level compared to females.

We also compared bribes reported when using the formal vs. informal border. The average bribe paid is 1.2 when not using the border (1 being 1-50 KShs) while it is 1.5 when using the formal border (2 being 51-200 KShs). According to the reported data, traders may be paying a higher bribe amount when using the official border. Interestingly, for the most valuable goods (goods that are more valuable than 101,000 KShs), traders who reported on the platform only used the official border. Men tend to pay higher bribes for the most valuable goods, regardless of which route they are using (Figure 6).

Figure 6: Average Bribe Distribution: Formal and Informal (Panya) Borders Compared
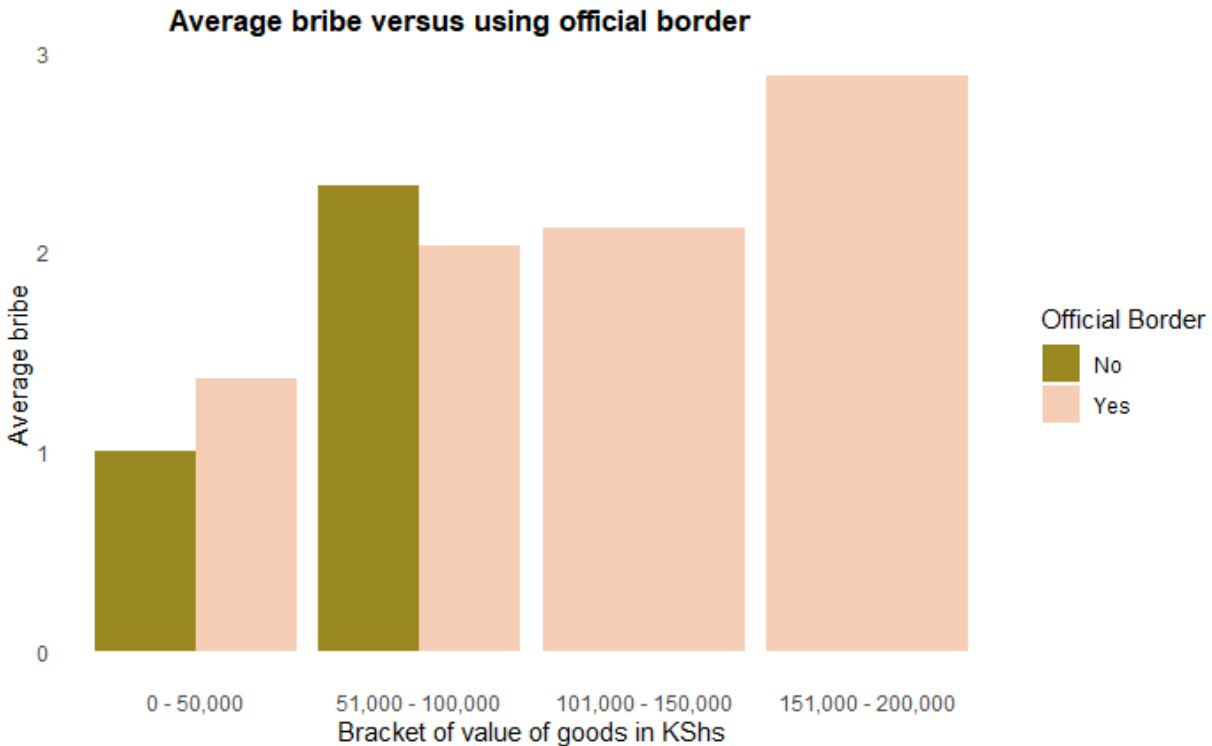
Using logistic regression we analyzed the relationship between the bribe amount paid (independent variable) and comfort of the trader (dependent variable). The relationship was found to be statistically significant. For each level of more bribe paid (e.g. from 0 to 1-50 KShs), the logit of the comfort of the trader decreases 0.4 on average on a 0-1 scale (not comfortable - comfortable). The higher the bribe is, the less comfortable the trader. This suggests that the data provided from a crowdsourced reporting platform could help us better understand the dynamics of corruption including its gender and spatial dimensions.

EXIT SURVEY RESULTS

We had excellent response rates for the exit interviews and were able to interview 80 of the 87 traders who were users of the reporting tool and 107 or the 112 traders who did not end up using the tool. The vast majority of traders felt like the reporting feature was worthwhile; however the non-users had some problems accessing the platform.

USER RESULTS: FREQUENCY AND EASE OF REPORTING

Sixty one percent of the traders said that they reported every week with 19% reporting every two weeks and smaller percentages reporting about once a month or less (Figure 7).
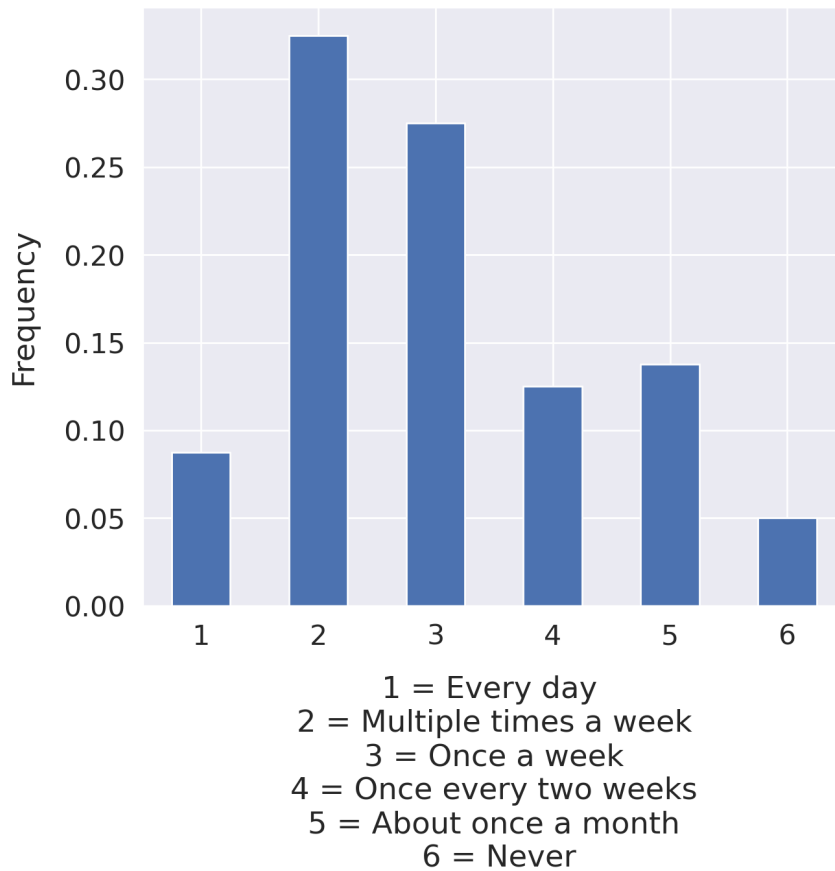
Figure 7: Frequency of Reporting (Users)

How often did you end up reporting on the Busara Trader Experience Questions?

1 = Once a week
2 = Once every two weeks
3 = About once a month
4 = One or two times total
5 = Don't Know
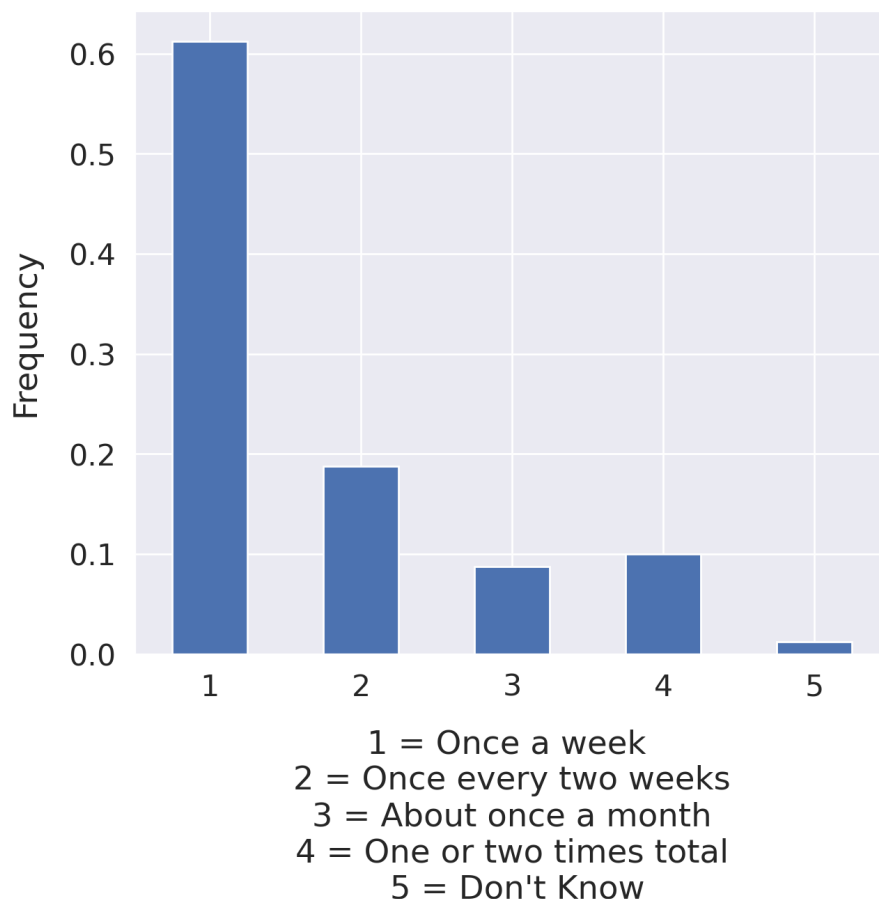
We also found that over 30% of the users accessed the Sauti platform multiple times a week and thus, were experienced users of the app which they said they found helpful (Figure 8). Key reasons cited amongst those who reported not using the app frequently were 1) that they were not trading as much because of COVID hardship and border closures (six traders) 2) lack of time, being busy and forgetting (six traders), 3) having phone or network problems (three traders), 4) having not much to report (one trader) and reported only if there was a challenge (one trader) suggesting that the border experience platform was seen as a kind of complaints mechanism by this trader. One interesting response was that "I didn't see the need to keep reporting without getting feedback." This suggests that providing such feedback, whether in the form of a phone conversation or new information would help sustain reporting.

Figure 8: Frequency of Reporting Platform Use (Users)

How often do you usually access Sauti by dialling *716#
to get information about trade (i.e., not reporting)?

1 = Every day
2 = Multiple times a week
3 = Once a week
4 = Once every two weeks
5 = About once a month
6 = Never

Ninety-one percent of the users had no difficulties answering questions on the reporting platform (Figure 9). The small percentage that did have problems pointed to challenges estimating the value of goods, noting the category was also too broad, and some mentioned payment of bribes with one trader saying "I was worried about what will happen if I say I paid bribe". However, it seems that the majority viewed "kitu kidogo" as part of trading life and were comfortable with reporting what they paid, which once again reinforces the idea that monitoring of these payments through mobile phone-based reporting is feasible and would allow tracking of changes in dynamics and an evaluation of whether anti-corruption measures might be working.

Figure 9: Difficulty in Answering Questions (Users)

Did you find it difficult overall to answer the questions on the
Busara Trader Experience Questions by dialling *716*20# on Sauti?


1 = Yes
2 = No
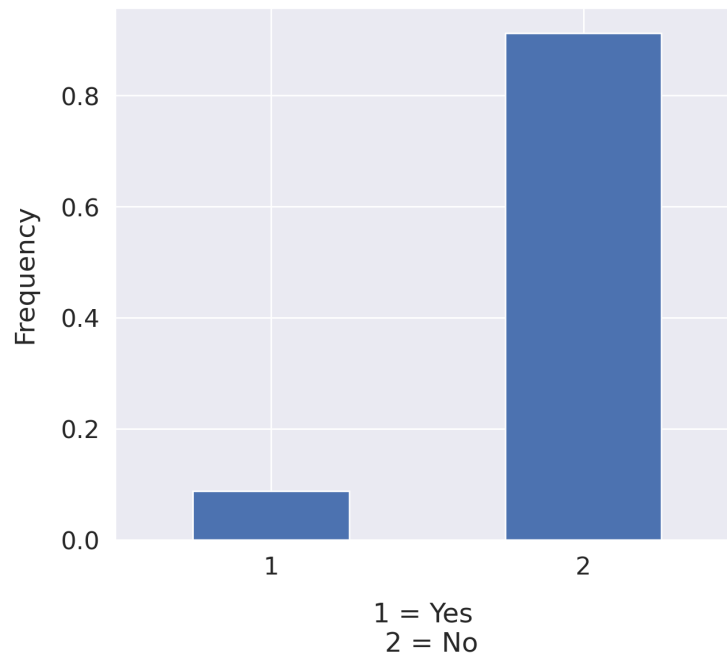
Those who did have challenges mostly did not know how to answer some questions (three traders), felt the compensation was too little (one trader) or had problems accessing the survey (one trader).

When asked "were there some specific questions that were particularly hard to answer?" and given some examples of the questions only a small number of traders answered in the affirmative citing prices but perhaps meaning value of goods since we do not ask for prices (one trader), value of goods (hard to calculate or category too broad), comfort of trip (unsure of how to respond) and payment of bribes (two traders). . When asked if they ever had concerns or feel hesitant about answering the questions, the vast majority again answered no (Figure 10).

Figure 10: Hesitancy in Answering Questions (Users)

Did you ever have concerns or feel hesitant about answering the trader questions?


1 = Yes
2 = No
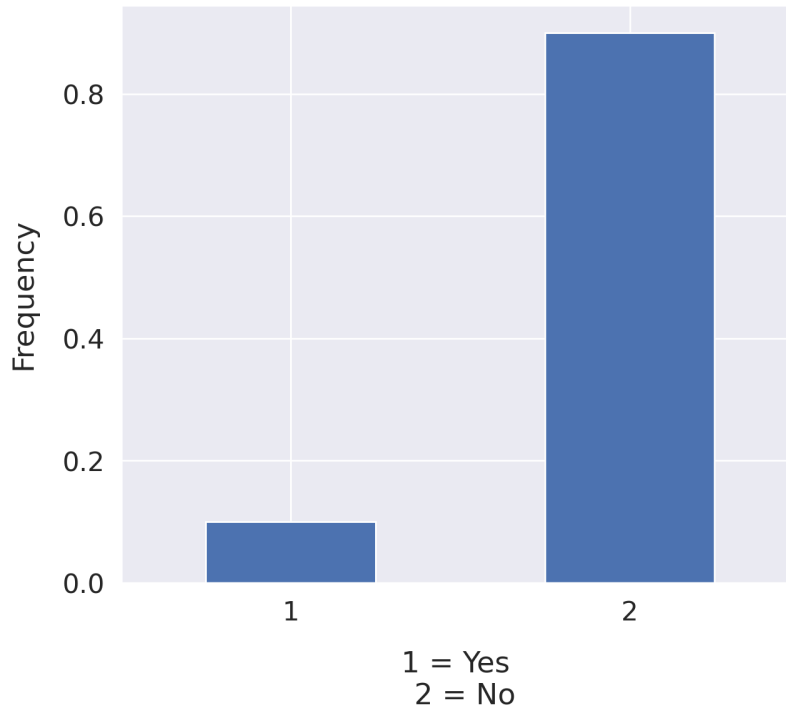
The 9% who said yes to this question revealed that, besides a concern with not understanding the question (one trader), wondering whether they should answer if they hadn't traded (one trader) and worries about confidentiality (one trader), a number of traders felt the questions repetitive (two traders) and also sensitive (two traders). Specifically, a trader noted that the "sensitive questions had to do with money, for example how much you pay to cross the border" and one trader explicitly "had a problem with being asked what was paid in a bribe" while one did not think this was sensitive but felt asking about the customs fee and then the bribe was confusing. Interestingly, despite the concern raised by one trader about confidentiality all traders were satisfied that the information by phone was private and secure.

We also wanted to specifically get more information on whether a trader reported paying an "extra amount" at the border and how traders perceived this "extra amount" which could be understood as a bribe.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

24

Figure 11: Reporting Paying an Extra Amount (Users)

Did you ever report paying an extra amount at the border?

1 = Yes
2 = No
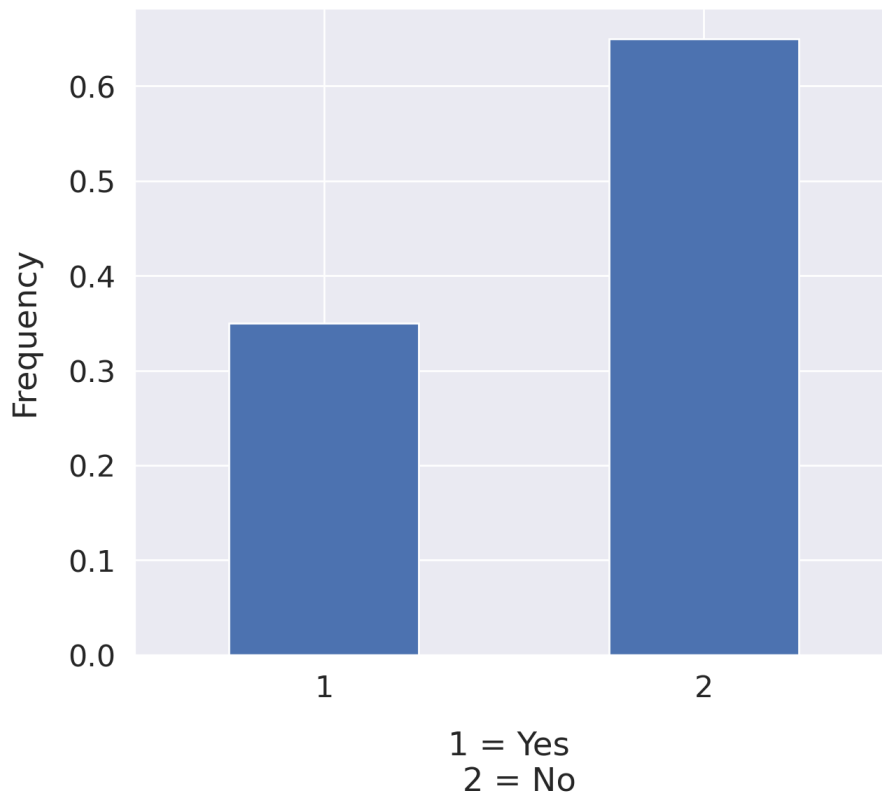
Most did not report paying an extra amount. Thirty-five percent or 28 traders, however, did report paying an extra amount over the reporting period (Figure 11).

Figure 12: Fairness of Paying Extra Amount (Users)

If yes, did you ever think it was fair?

1 = Yes
2 = No
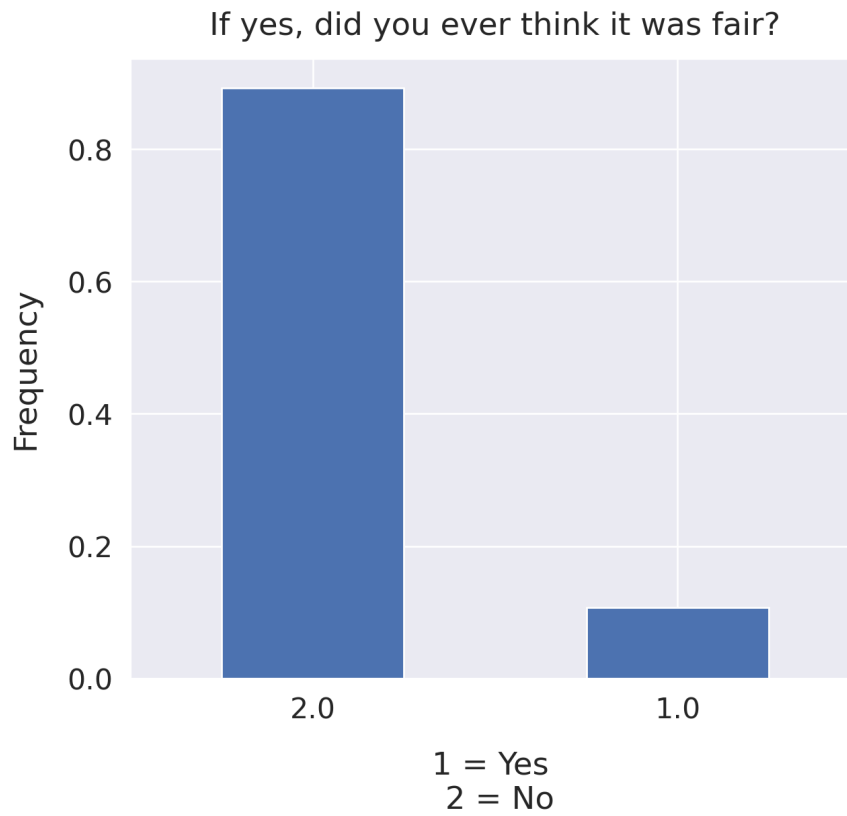
Among the traders who had reported paying extra, most thought that the payment was unfair but most did not want to explain why (Figure 12). Seven traders did give reasons for why they thought it unfair (see box below).

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

26

REASONS WHY EXTRA PAYMENTS ARE CONSIDERED UNFAIR

1. Inequities

"Other traders were passing without paying anything. The officers harassed me to get that amount. I did not give it willingly."

"The amount being charged was not equal."

2. Reduces profits

"Commodity prices are high and demanding money makes us reduce our profits."

3. Creates informality, unpredictability and lack of transparency

"It is a forced informal process with no accountability like receipts."

"The amount is not regulated and one can pay any amount suggested by border officials."

4. Illegal and Corrupt

*"It is corruption which is against the law."*

"I was forced to pay an extra amount and that wasn't fair. That's like a bribe."

"It wasn't fair because I had to give a bribe even after paying the amount I was required to pay."

The three traders who responded that the extra amount was fair remarked that "It is a way of appreciating the cop who may not have received anything the whole day", "my goods were taken so the option I had was to pay so that my goods can be released" and "it is necessary to make our business engagements easier and seamless". What this illustrates is that within the cross border trading community attitudes differ around the moral economy of paying bribes and these attitudes may also be contextual; arbitrary and above average extraction leads to a sense of injustice but when a situation arises (confiscated goods or the need for facilitation) a bribe becomes an instrument to get something done or solve a problem. It is worth noting that the injustice of the extra amount was the dominant feeling among this particular set of traders.

We also wanted to understand what counted as an "uncomfortable trip" since this was a very general term. The vast majority did not have uncomfortable trips (61 traders) while 19 had uncomfortable trips (Figure 13).

Figure 13: Reporting an Uncomfortable Trip (Users)

Did you ever report an uncomfortable trip?

1 = Yes
2 = No
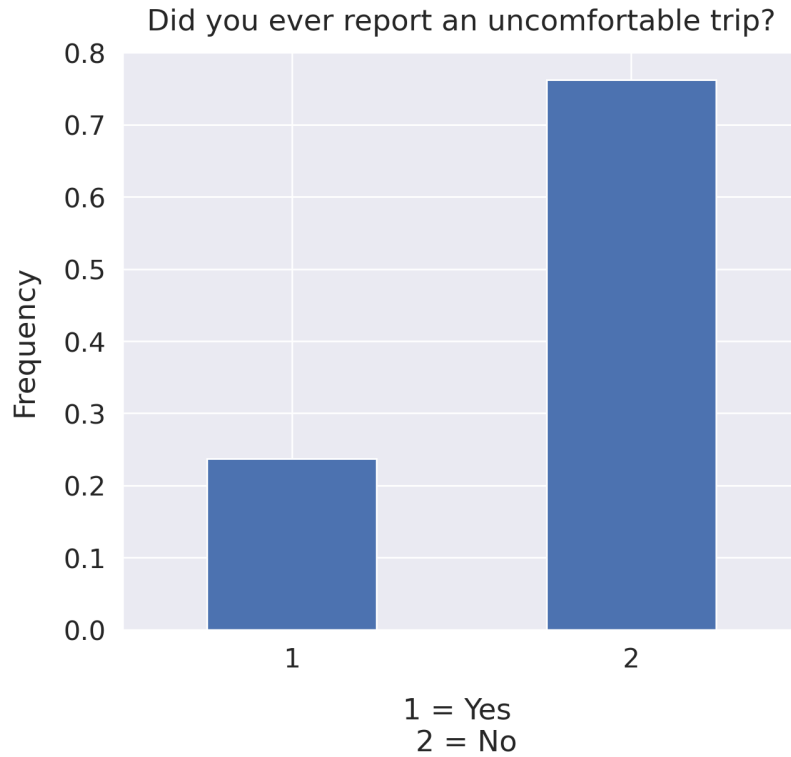
"Uncomfortable" appeared to be linked to serious harassment issues and in one case, a serious human rights violation leading to the death of a broker at the hands of the police (summarized in the box below). The Kenyan traders pointed to Ugandan police multiple times as a source of fear and in one case, deadly violence.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

28

REASONS WHY A TRIP WAS DEEMED UNCOMFORTABLE

1. Harassment when extracting bribes

*"I met Ugandan officials while crossing the borders who took me to
a room and demanded money from me. It was scary and traumatizing."*

"I encountered bad cops who demanded exorbitant bribes."

*"When I was crossing the border from Uganda to Kenya, I was asked to pay a bribe by police.
Yet I had every documentation that was required. This experience made me feel like I was being harassed."*

2. Arbitrary or unexpected border rule changes

*"An unfavorable regulation was introduced at the border prompting
the exporters and importers to close the borders making it difficult for us to get goods."*

3. Confiscation of goods

"I had to pay an extra amount so my goods could be released since I used a panya route."

4. Poor conditions, violence and human rights violations experienced
when avoiding paying bribes/by using informal routes or money changers

*"Prices of transport increased, then we also had to use a longer and bad road while crossing to
avoid paying kitu kidogo."*

"We used a longer and rough route because we had to dodge the officers who were taking bribes."

"I was given fake currency by the money changers at the crossing point."

*"One Ugandan police officer once shot dead my broker
while crossing with goods via the alternative route 'panya route'.*

5. COVID harship

"Traveling during COVID times was very tiresome and I spent more on the goods."

INCENTIVES AND THEIR IMPORTANCE

The next set of questions were designed to explore the different possible models for keeping a reporting platform running and particularly, the importance of different kinds of user incentives. When asked the question of "when you answered the cross border trade experience questions, did you receive compensation?", with the exception of three traders, traders stated that they received compensation. When asked how important this was to them, almost half said it was "very important" with the same percentage saying it was "important". A small number, 7.5%, said it was "somewhat important". No trader chose "not at all important" (Figure 14).

Figure 14: Importance of Compensation (Users)

How important was the compensation to you?

1 = Very important
2 = Important
3 = Somewhat important
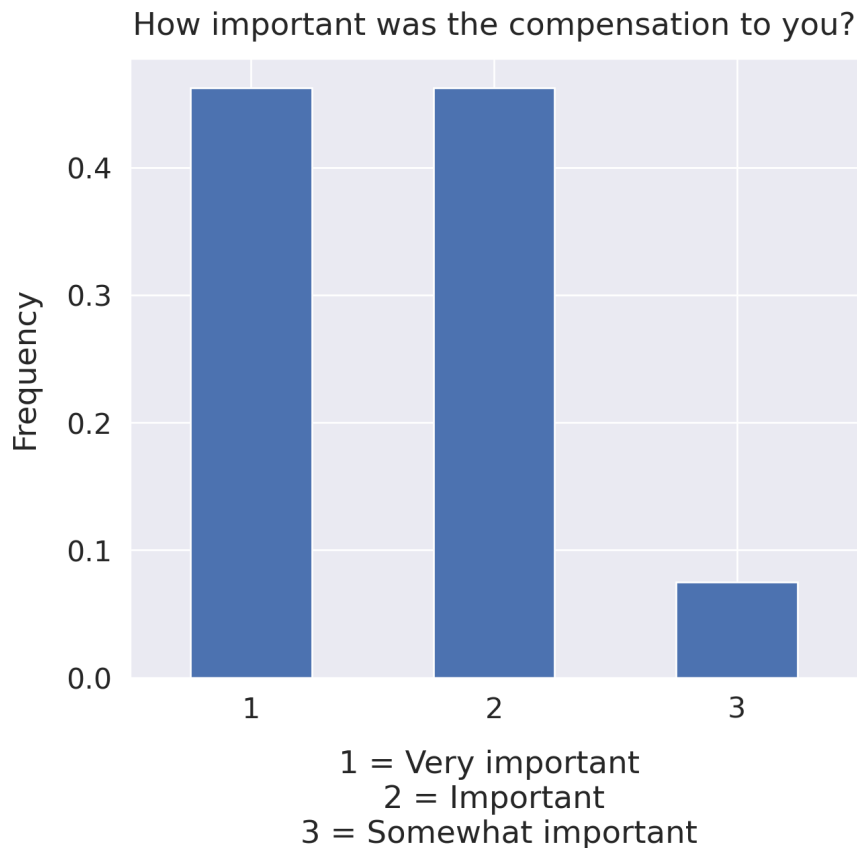
When asked whether traders would be likely to answer these questions if they were not compensated. Thirty seven and a half percent said that compensation is unnecessary but that traders were less likely to report. Forty percent of the traders felt that compensation was unnecessary but that traders would be less likely to report at the same frequency. Twenty-one percent of the traders said compensation was necessary and one trader did not know (Figure 15).

Figure 15: Necessity of Compensation for Reporting (Users)

Do you think traders would be likely to answer these questions if they were not compensated?
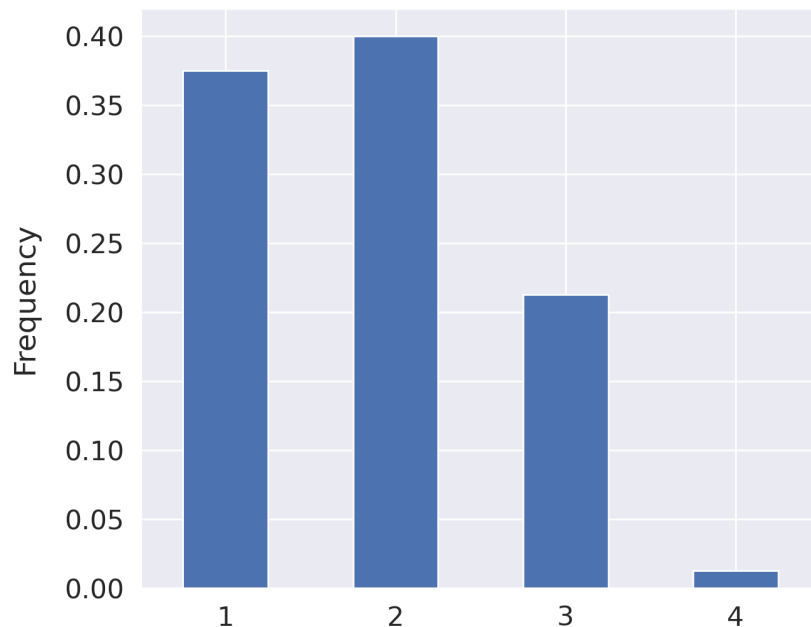
1 = Compensation unnecessary but traders less like to report
2 = Compensation unnecessary but traders less like to report same frequency
3 = Compensation necessary
4 = Don't know

We next explored whether traders might continue to report border experiences in exchange for information from other traders that might be useful to them. With this in mind, we asked about their own willingness to share information if it was anonymized. Eighty-one percent of the traders felt that they would report if they got information on how other traders are experiencing their trips with the remaining saying they would not (Figure 16).

Figure 16: Exchange of Information as an Incentive (Users)

Do you think traders would be likely to answer these questions in exchange for information on how other traders are experiencing their trips?
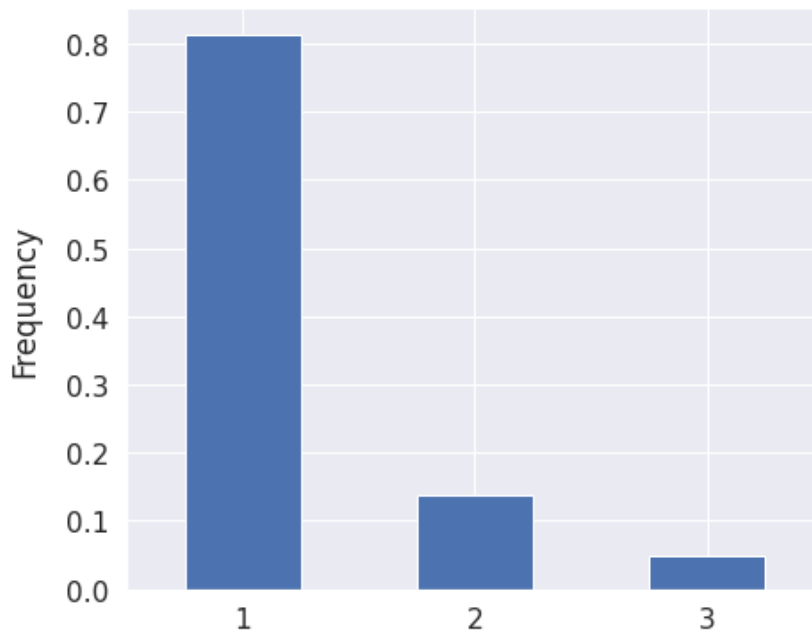

1 = Yes, this info is useful and they will fill out the survey
2 = Yes, this info is useful, but not enough to ask to fill out the survey
3 = No, info not useful

In addition, 95% of the traders (76) said that they would share information anonymously with other traders, if other traders would do the same. Only two traders said no with one noting that "I do not believe that the information can be entirely anonymous." Two others said they did not know (Figure 17). Seventy-one traders who answered that they were willing to exchange information in this way offered comments as to why this was the case. These can be broken down into a number of categories: to learn from others and benefit from their experiences ("because we will be able to learn from each other in terms of experience and thus better our trade") or help other traders and their businesses ("This information could also be helpful to other traders. It could assist them make decisions when doing business."). One trader noted that it would "tell fellow traders concerning police harassment and bribes." A few traders noted that information does not need to be anonymous, while others felt more secure that it was. One trader noted that "the information will be secured so I will have confidence to speak on what's happening while trading across the borders," and another said that "this will help in my security since some dealings in the border are too sensitive to report". All of the traders answered that they would like a feature on Sauti that summarizes other traders' experiences so they could compare with their own. This also presents another option for making the reporting platform sustainable; potentially by sharing aggregate information and making the platform useful to traders, it could be sustaining it without having to pay compensation. Compensation plus information might lead to robust and consistent reporting.

Figure 17: Willingness to Share Information Anonymyously (Users)

Would you be willing to share your information anonymously with other traders who also share their information with you anonymously?
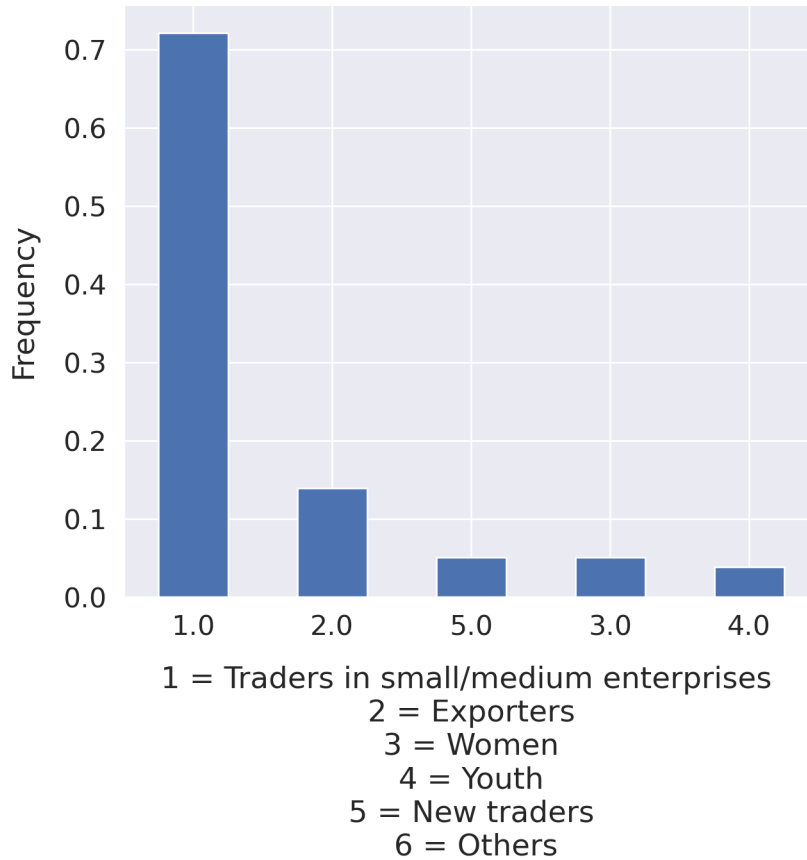
1 = Yes
2 = No
3 = Don't know
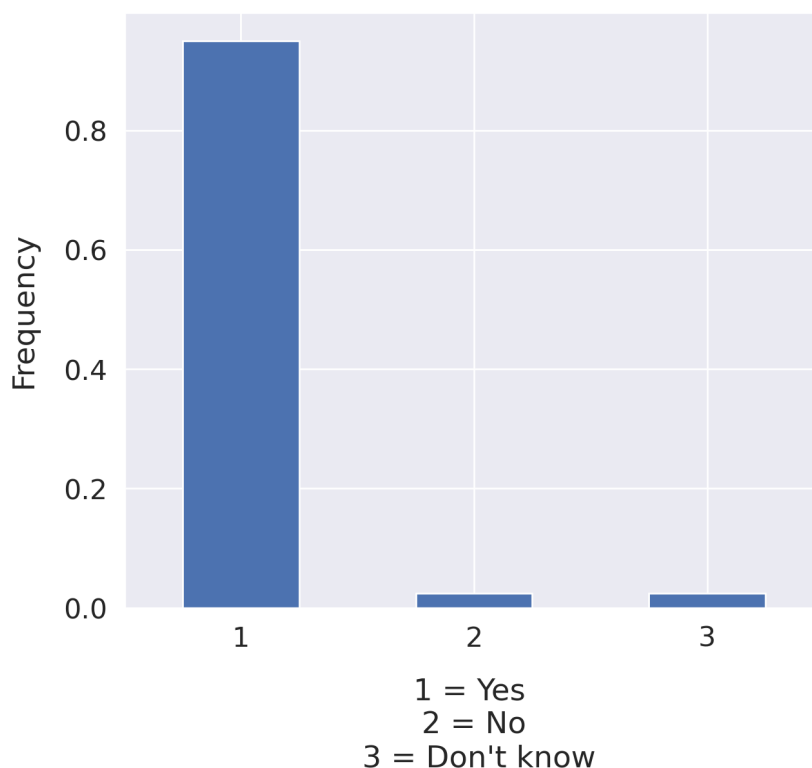
When asked if there are other kinds of information we should collect, the vast majority felt that there was little else for the reporting feature to ask that would be helpful. One trader did note that we might ask more about "difficulties that traders are facing while doing cross border trade" and another said "the challenges we are constantly facing at the border like corruption. It is a serious concern as it affects our profits." Another felt that we should ask about leveraging smart card technologies to expedite service crossing the border. Currently, long lines form at the borders and a smart card would speed up processing of documents as well as allow for traders to pay using a border mpesa paybill.

All of the traders surveyed said they wanted Sauti to continue collecting data on border crossings. Comments that noted features beyond the reporting platform like exchange rates or prices suggest that some traders were expressing their overall view about the Sauti platform and all its features. Many expressed the importance of up-to-date information on what is going on at the borders. Some, however, highlighted the interactive nature of the reporting tool and the crowdsourcing of data. One noted that "the data collection process will be a good avenue for Sauti to network with the traders" and another confided "I feel traders should have a platform to interact with themselves and with Sauti."

All but one of the traders felt that the reporting feature will be useful for other traders. When asked which kind of traders might use this reporting feature and why, 72% mentioned traders in small/medium enterprises and 14% mentioned exporters and 5% new traders (Figure 18).

**Figure 18:** Which Traders will use the Reporting Feature (Users)

If yes, which traders do you think might use this reporting feature and why?

1 = Traders in small/medium enterprises
2 = Exporters
3 = Women
4 = Youth
5 = New traders
6 = Others

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

34

Finally, we asked a set of questions about reporting, formal complaints mechanisms and government response to gauge how well these traders felt current complaints mechanisms were working and how in comparison they felt about the crowdsourced reporting mechanism and its potential effects. Eighty-five percent of the traders on the survey have not used a government complaint mechanism (Figure 19).

Figure 19: Use of Government Complaint Mechanism (Users)

Have you ever used a government complaint mechanism for a problem?
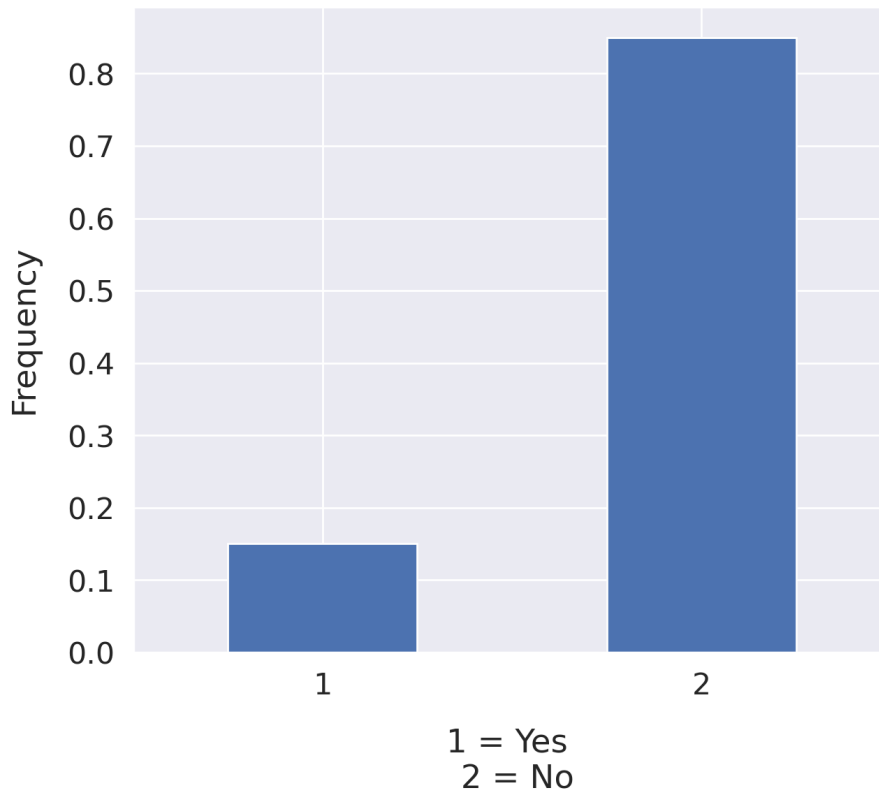
1 = Yes
2 = No

Those who responded in the affirmative did not give information on which one. A few traders mentioned municipal offices (two traders), Department of Social Services (one trader), Police (two traders), Market Chairman who complained to customs (one trader), Law courts (one trader) and Customs (one trader). Three traders made a comment about harassment during COVID, two pointing to police and one to customs officials as well.
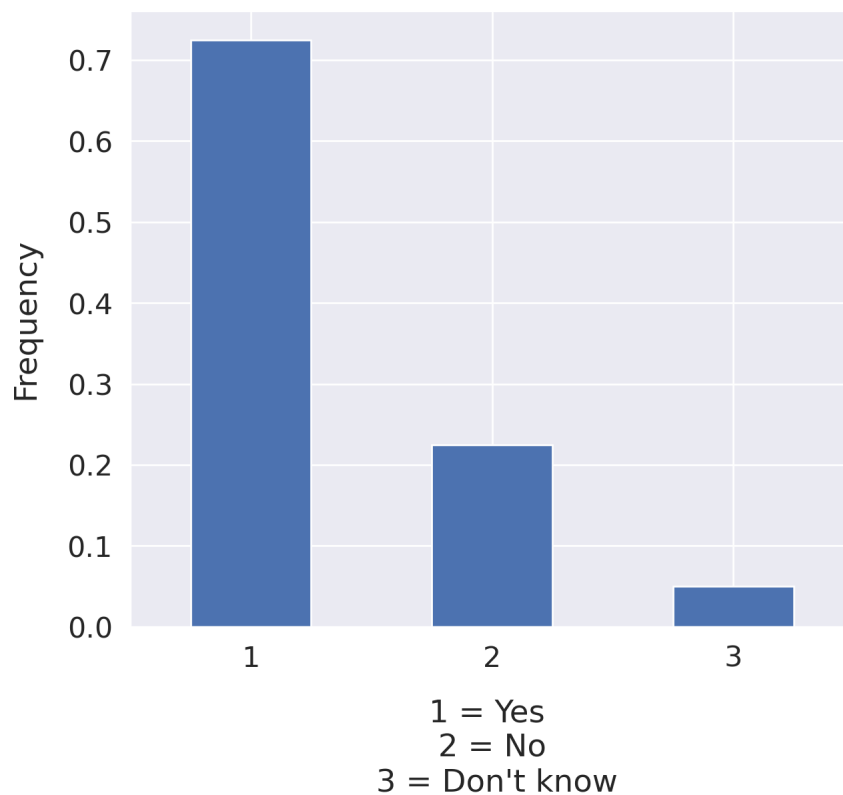
Figure 20: Complaints System Efficacy (Users)

If yes, do you think it made a difference?

1 = Yes
2 = No
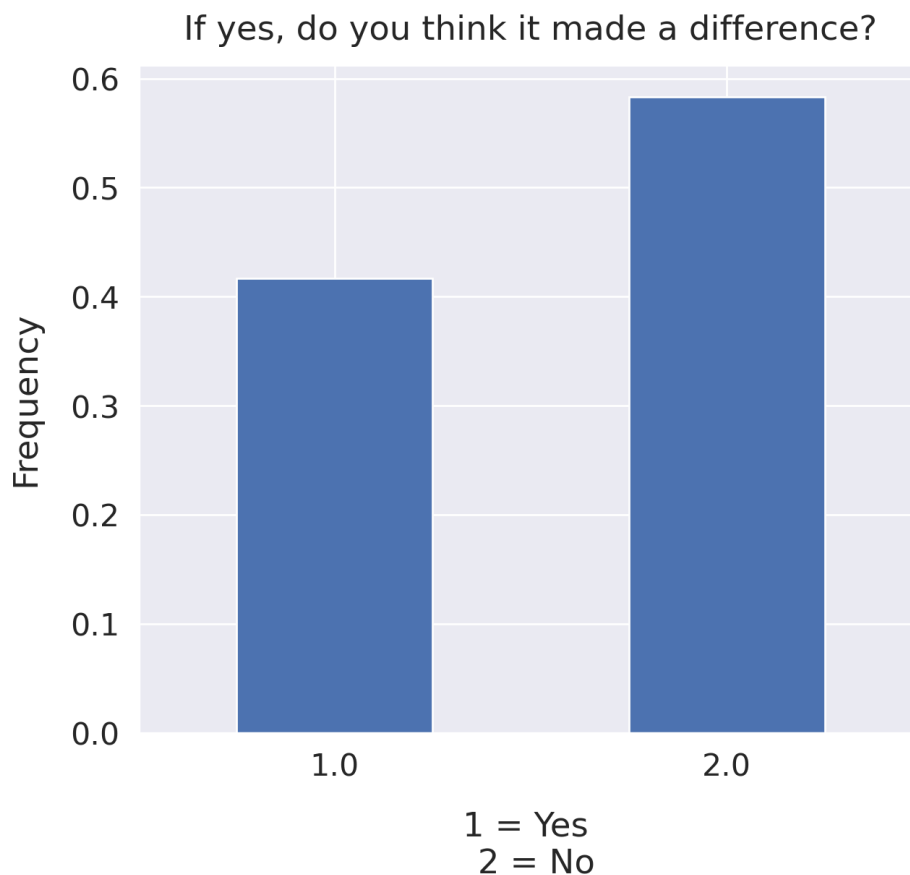
When asked whether the complaint mechanism used made a difference, 58.3% said no with the remaining saying yes (Figure 20). In one additional comment, one trader noted a particular problem when complaining: "There are alot of uniformed officers at the border who collect bribes from traders and once you get to report this, they claim that they're fake. The problem is how can you differentiate the fake from real since they're all in uniform?" Clearly, this points to some of the weaknesses in current reporting and complaint mechanisms at the border.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

36

Do you think that the government should get direct information
from the traders on the quality of border service?

1 = Yes
2 = No
3 = Don't know

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

37

Seventy-three percent of traders felt the government should get direct information from traders on the quality of their border service (Figure 21). The main reasons and selected quotes are summarized in the box below.

REASONS WHY THE GOVERNMENT SHOULD GET DIRECT INFORMATION FROM TRADERS

1. Government gets better, direct information about the challenges (16 traders)

"Traders would be able to articulate their grievances or issues that they go through better than other agencies. The wearer of the shoe, in this case the trader, knows where it pinches most."

"The government will be able to get primary information which is authentic and unaltered and therefore be in a position to make decisions that have a meaningful impact on the traders."

2. It would help reduce corruption (14 traders)

"This will help reduce harassment and exploitation of traders by intermediaries and government officials."

"It will help reduce corruption because those receiving the complaints and feedback are different from those on the ground."

3. It would help to get faster and more efficient responses (8 traders)

"For them to respond quickly whenever an issue is raised."

"Direct feedback from traders enables the government to respond appropriately to the pressing matters raised by traders in a timely manner."

4. Improve services at customs (8 traders)

"The government will intervene and ensure quality services are offered in the border, eg stop the border officers from confiscating the traders goods."

"It would help improve the services we are getting at customs."

We then asked which particular government agencies need more direct feedback from traders, and the Kenya Revenue Authority came up the most (19 traders), with Security/Police (nine traders), border officials more generally (six traders), Customs bosses (five traders), Ministry of Trade (three traders), Anti-corruption authority (two traders), Immigration (one trader), and Kenya Bureau of Standards KEBS (one trader). Trade unions were mentioned by five traders even though they are not government agencies and finally nine traders who felt that government agencies should get direct information were not clear on which agencies should get it. When asked if traders felt that these agencies would change any of their behaviors that cause discomfort if they knew traders were reporting on them, 61% said yes, 35% said no with three traders or 4% uncertain (Figure 22).

Figure 22: Efficacy of Monitoring (Users)

If these agencies knew traders were reporting on their experiences, do you think they would change any of their behaviors that cause discomfort?

1 = Yes
2 = No
3 = Don't know
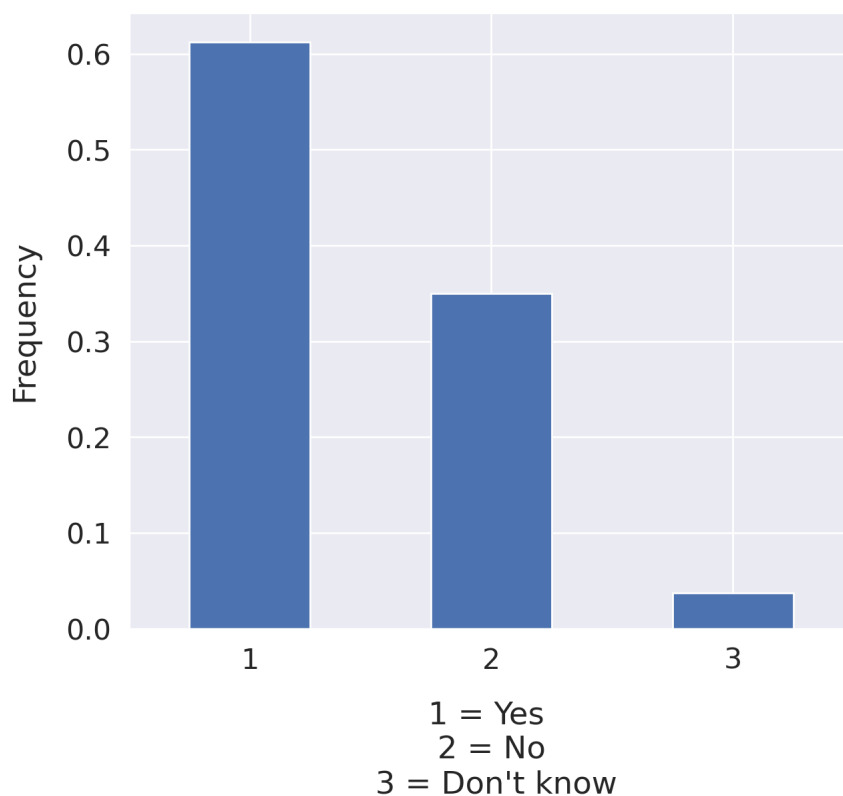
This suggests that a majority of traders are supportive of community monitoring efforts using mobile phones and an expansion of social accountability mechanisms using direct data from traders. Indeed, when asked if traders felt that customs borders should be graded by traders based on their service, the vast majority of traders responded in the affirmative (Figure 23).

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

39

Should formal customs borders be graded (like excellent, good, poor service)
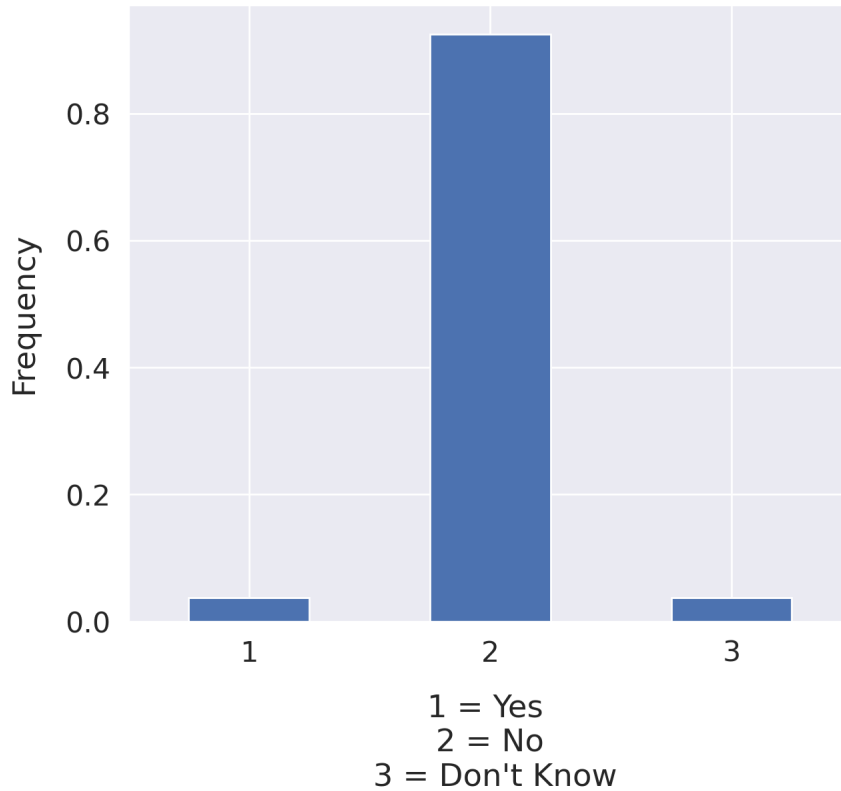by traders based on the quality of their service?
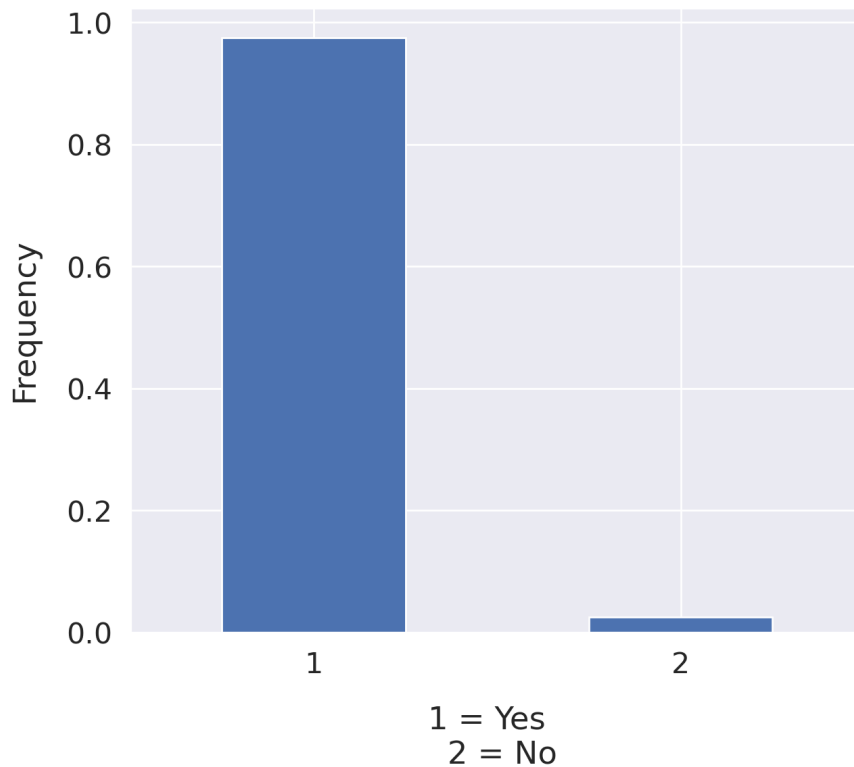
NON-USERS OF THE REPORTING PLATFORM

We asked a number of questions to see if non-users of the platform were trading to better understand why they did not report. The vast majority, 70%, reported trading with most crossing the border at least once a month but did not report on these crossings. When asked whether they tried to report but ran into problems, with the exception of a few traders, most said no. It is clear that these traders were not Sauti users generally with 51.4% reporting never using the platform. Most claimed that the training about the platform was adequate and 58% said they knew there was a number to call for help but never did.

We also explored if these traders felt hesitant to answer questions because they feared that the information would be too sensitive; 92.5% did not see this as a problem (Figure 24). We also asked whether the traders felt the information was safe and secure and found similar results with 90% of traders feeling it was and a small number saying no or that they did not know.

Figure 24: Hesitancy to Answer (Non-Users)

Did you at any time feel hesitant to answer questions because you feared that the information would be too sensitive?

1 = Yes
2 = No
3 = Don't Know

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

41

We also asked whether they were aware that reporting did not cost anything and almost seventy-eight percent% said yes (Figure 25). It is possible that some of the traders did not report, because they felt it would incur a cost to them. Indeed, when the traders who did not know it was free were asked whether knowing this would have increased the likelihood of reporting, they all agreed.

Figure 25: Awareness that Platform Use is Free (Non-Users)

Were you aware that the reporting function did not cost you anything?
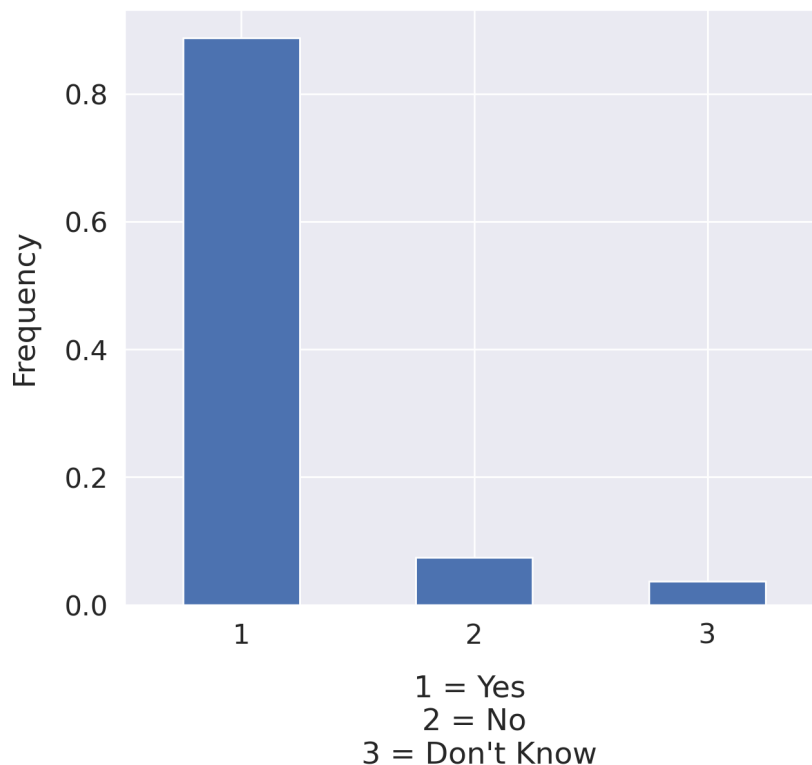

1 = Yes
2 = No
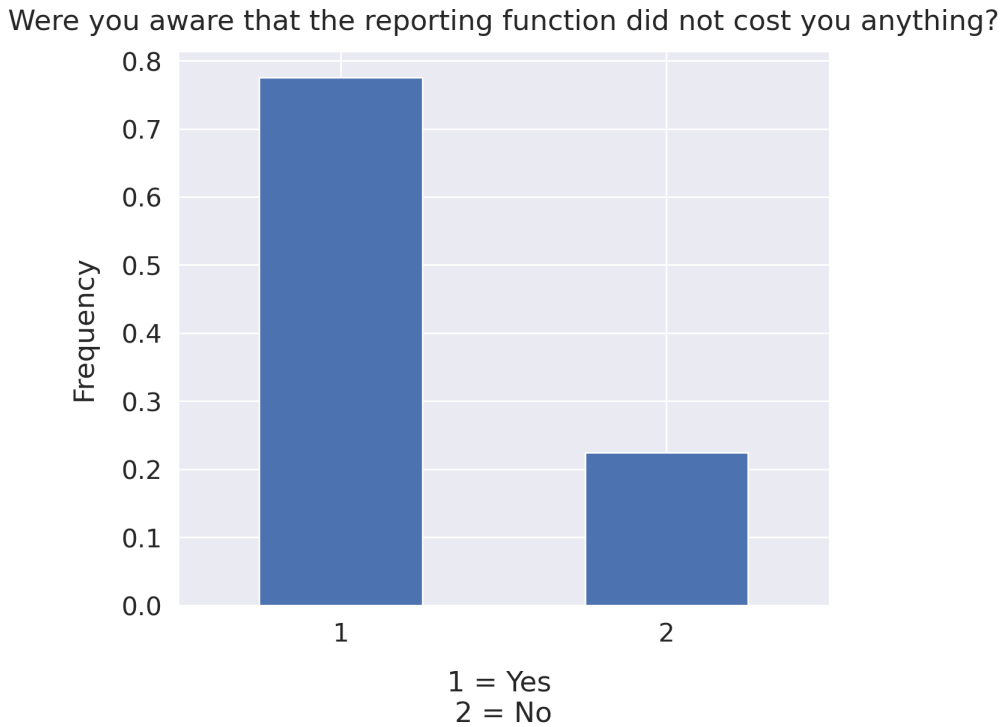
When asked if they were also aware that they would receive compensation, 72% said yes. The remaining 28% who said no said if they had known they would have been more likely to report. In total, 18 respondents both did not know that the reporting did not cost them and on top of it could result in compensation, and this no doubt created a strong barrier to participation.

Finally, we asked some of the same questions as the users to explore attitudes that give an indication of the propensity to share in the future. As with the users, the vast majority, 89% saying they would be willing to share information with other traders anonymously if these actions were reciprocated (Figure 26).

**Figure 26:** Willingness to Share Information Anonymously (Non-Users)

Would you be willing to share your information anonymously with
other traders who also share their information with you anonymously?

1 = Yes
2 = No
3 = Don't Know

Those who responded in the affirmative did not give information on which one. A few traders mentioned municipal offices (two traders), Department of Social Services (one trader), Police (two traders), Market Chairman who complained to customs (one trader), Law courts (one trader) and Customs (one trader). Three traders made a comment about harassment during COVID, two pointing to police and one to customs officials as well.

Also similar to the platform users, the vast majority of these traders wanted to see Sauti continue with the border experience reporting platform even though, unlike the users, they had not reported. The vast majority of these traders (95%) have not used a government compliant mechanism (Figure 27) although those few who did use it mostly suggested it made a difference. This contrasts strongly with the reporting feature users who were more skeptical of the impacts of the existing complaints mechanisms, an interesting difference in the two groups.

Figure 27: Use of Government Complaint Mechanisms (Non-Users)

Have you ever used a government complaint mechanism for a problem?

1 = Yes
2 = No
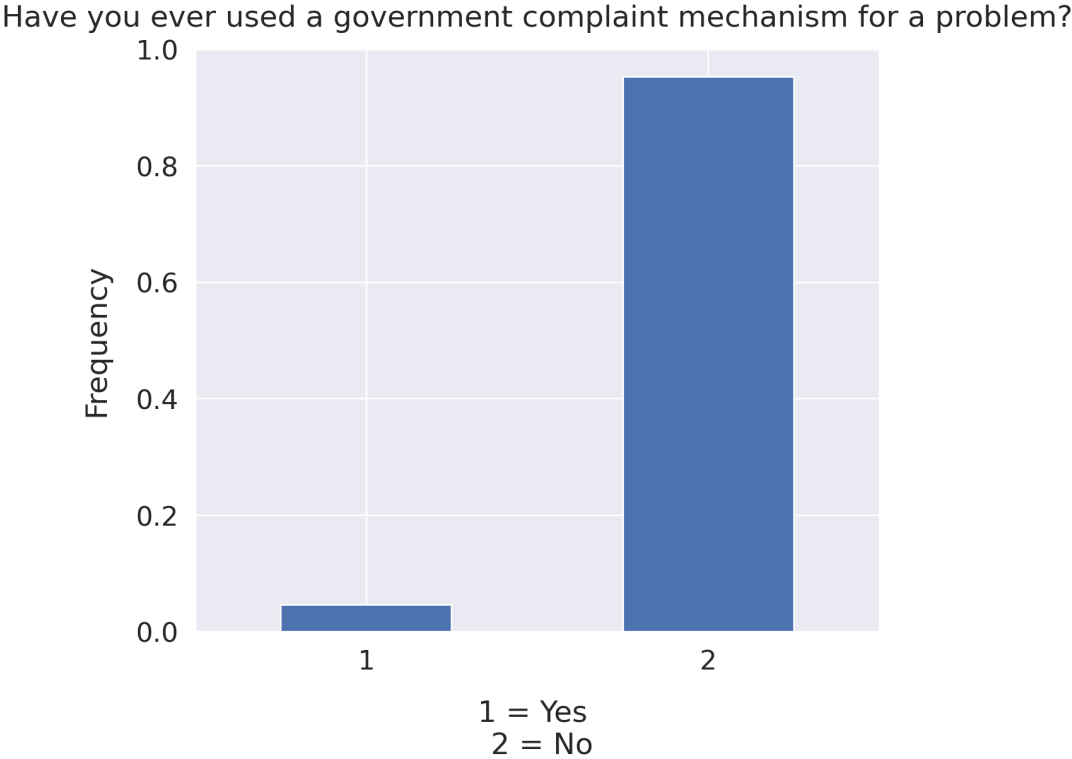
Like the platform users, these traders both wanted the government to get direct information from traders (seventy-five percent) and the vast majority (ninety-eight percent) thought formal customs borders should be graded by traders based on their quality of service.

CONCLUSIONS

Overall, this experiment has revealed the promise of crowdsourced reporting of border conditions by cross-border traders. It has also shown the barriers to the wider participation in reporting needed to produce high quality and representative data. We have shown that a significant number of traders used the basic border reporting feature on a mobile USSD platform and provided meaningful data on their trading experiences although in this small study we were not able to do quality control checks. Nevertheless, we found that the data on bribes tracked closely with those from large surveys (Klopp et al. 2021b) and provides rich material for exploring corruption and harassment in more detail and over time. It also appears that once the platform becomes familiar and incentives in place, reporting can become sustained and routine, leading to a valuable new data source for research and policy.

Younger more educated traders were more likely to use the platform which suggests the importance of careful onboarding and checking in with traders on the platform to get wider participation. COVID made this type of onboarding impossible during the time over which this experiment was conducted, but as we emerge from this pandemic and in person discussions are possible, more engagement and experimentation around crowdsourcing border experience data will become possible, and appears to hold promise. Further, over time as mobile phone technology both improves and becomes more familiar to more traders, reporting propensity is likely to increase, as long as privacy and security of data transmission can be safeguarded and incentives are in place.

Our results also showed that the community framing in the reporting prompts did not seem to have an impact on reporting frequency, although calling and conducting small surveys did prompt people to report showing the importance of broader engagement. In line with observations in the literature on crowdsourced reporting (Sjoberg et al 2017, Zinnbauer 2015), traders clearly indicated that they would understandably like to see something tangible out of the reporting whether in the form of small amounts of compensation, information exchange and/or presumably enhanced social accountability.

It is worth emphasizing how valuable the interviews with traders have been to this work. It was important to ask traders themselves what they thought about the idea of border experience reporting and the potential to support community monitoring of borders: as all of the kinds of interventions emerging out of this work rely on the traders and their understanding and support. Although it is quite possible that traders responded in ways they imagined that we wish to hear or in ways that they felt would encourage more interventions with tangible benefits like compensation, many of the explanations by traders for their answers revealed concrete ideas for why reporting and monitoring could be useful and impactful to try.

This experiment started out as an idea for an RCT. One very strong critique of RCTs coming out of African scholarship and policy circles is that participants are experimented on and informed consent is often problematic (Muller, Chelwa and Hoffman 2019). As the original idea of a RCT for this experiment got pared down with the pandemic, we added ways for traders to be part of the collaboration and dialogue. Surveys where participants are given a chance to share reflections and give input into the usefulness of potential interventions and the study itself are important ways to make experiments more of a collaboration. Such collaboration would be critical for implementation of any interventions based on this research. For example, any attempt at border trade service provision ratings based on direct trader feedback would rely on consistent robust border experience reporting by large numbers of traders.

In conclusion, we recommend that advocates working to improve conditions of cross- border traders explore further collaborations with traders to develop robust and reliable bottom up reporting systems using mobile phones as well as ways that traders can share information and interact. Further experiments should be done to explore how to improve and sustain reporting and to use this process to work with traders, government agencies and civil society to develop genuine community monitoring strategies or, at minimum, improved, more transparent complaint mechanisms and service quality feedback mechanisms. Rating systems, direct delivery of data from large numbers of traders to relevant oversight bodies, and the wider knowledge among border actors that monitoring is ubiquitous and in the hands of all who have phones may help shift some of the balance of power back to traders. This experiment suggests, given the potential benefits to traders and border governance, this is indeed worth a try.

46

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

ACKNOWLEDGMENTS

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

47

REFERENCES

Ang Y. 2020. "Unbundling Corruption: Revisiting Six Questions on Corruption". *Global Perspectives,* 1(1). https://doi.org/10.1525/gp.2020.12036

Banerjee A., Banerji R., Duflo E. Glennerster, R. and Khemani S. 2010. "Pitfalls of Participatory Programs: Evidence from a Randomized Evaluation in Education in India" *American Economic Journal: Economic Policy 2* (1): 1-30

Bjorkman M. and Svensson J. 2009. "Power to the People: Evidence from a Randomized Field Experiment of a Community-Based Monitoring Project in Uganda" T*he Quarterly Journal of Economics* 124 (2): 735-769.

Buntaine M. T., Skaggs J. T. and Nielson D.N. 2019 "Escaping the Disengagement Dilemma: Two Field Experiments on Motivating Citizens to Report on Public Services." *British Journal of Political Science* 51 (2): 685 - 705 https://doi.org/10.1017/S0007123419000322

Buntaine M. T., Jablonski R., Nielson D. N. and Pickering P. 2018. "SMS texts on corruption help Ugandan voters hold elected councillors accountable at the polls" *Proceedings of the National Academy of Sciences.* June 26, 2018 115 (26) 6668-6673; first published June 11, 2018; https://doi.org/10.1073/pnas.1722306115

EASSI (Eastern African Sub-regional Support Initiative for the Advancement of Women). 2012. "Women Informal Cross Border Traders in the EAC Region." Working Paper https://eassi.org/wp-content/uploads/2019/07/Action-Research-on-Women-Informal-Cross-Border-Traders-WICBTs-in-the-EAC-region-by-EASSI.pdf

Fjeldstad, O.-H., Filho, E., and Raballand, G. 2020. Corruption in Customs: How can it be tackled? *In Enhancing Government Effectiveness and Transparency: The Fight Against Corruption.* World Bank: 122–134.

GSMA (Global System for Mobile Communications). 2019. Mobile Industry Report for Sub-Saharan Africa. Accessed at https://www.gsma.com/subsaharanafrica/resources/2019-mobile-industry-report

Grossman G., Platas R.M. and Rodden J. 2018. "Crowdsourcing accountability: ICT for service delivery" *World Development* 112: 74-87. Accessed at https://www.sciencedirect.com/science/article/pii/S0305750X18302286.

Hadley, L & Rowlatt, M. 2019. 'Innovating Past Data Collection Obstacles for East Africa's Women Cross-Border Traders: Evidence from Sauti East Africa'. Paper presented at the Annual Research and Policy Symposium on Trade and Development 2019 Symposium. Nairobi, Kenya, 29-30 May, 2019.

Institution for Social and Policy Studies. 2021. Why randomize? | Institution for Social and Policy Studies. Yale University. https://isps.yale.edu/node/16697

Kanyam, D A, Kostandini G and Ferreira S. 2017. "The Mobile Phone Revolution: Have Mobile Phones and the Internet Reduced Corruption in Sub-Saharan Africa? *World Development* 99: 271-28.

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

48

Klopp, J, Trimble M and Wiseman E. 2021a. "Corruption, Gender and Small-Scale Cross-Border Trade in East Africa: A Review" *Development Policy Review* https://doi.org/10.1111/dpr.12610

Klopp, J., Canagarajah, R., Wahome, L., Barasa, B., & Trimble, M. 2021b. Covid Impacts, Corruption and Small-Scale Cross-Border Trade in East Africa. Working Paper.

Lesser, C and Moiśe-Leeman, E. 2009. Informal cross-border trade and trade facilitation reform in sub-Saharan Africa.Trade Policy Working Paper 86. Paris: OECD.

Marquette, H., & Peiffer, C. 2018. Grappling with the "real politics" of systemic corruption: Theoretical debates versus "real-world" functions. *Governance,* 31(3), 499–514. https://doi.org/10.1111/gove.12311

Mbate, M. 2018. Who bears the burden of bribery? Evidence from public service delivery in Kenya. *Development Policy Review,* 36: 321-340. https://doi.org/10.1111/dpr.12311

McIntosh, T., Higgs, C. and Turner, M. 2017. To whistleblow or not to whistleblow: Affective and cognitive differences in reporting peers and advisors. *Science and Engineering Ethics.* https://doi.org/10.1007/s11948-017-9974-3.

Molina, E., Carella, L., Pacheco, A., Cruces, G., & Gasparini, L. 2016. Community monitoring interventions to curb corruption and increase access and quality of service delivery in low- and middle-income countries: A systematic review. *Campbell Systematic Reviews,* 12(1), 1–204. https://doi.org/10.4073/csr.2016.8

Muller, SM., Chelwa, G., Hoffman, N. 2019. "Randomised trials in economics: what the critics have to say" 10 December 2019. *The Conversation.* https://theconversation.com/randomised-trials-in-economics-what-the-critics-have-to-say-128538

Muralidharan, K., Niehaus P., Sukhtankar S., and Weaver J. 2021. "Improving Last-Mile Service Delivery Using Phone-Based Monitoring." *American Economic Journal: Applied Economics,* 13 (2): 52-82. https://www.aeaweb.org/articles?id=10.1257/app.20190783

Ng'asike, O. P., Hagmann, T., & Wasonga, O. V. 2020. Brokerage in the borderlands: The political economy of livestock intermediaries in northern Kenya. *Journal of Eastern African Studies.* 15 (1): 168-188.

Olken BA. 2007 "Monitoring Corruption: Evidence from a Field Experiment in Indonesia" *Journal of Political Economy* 115 (2): 200-249.

Raffler P., Posner D. and Parkerson D. 2020. "Can Citizen Pressure Improve Public Service Provision?" Poverty Action Lab Working Paper. Accessed at http://piaraffler.com/wp-content/uploads/2020/10/Citizen-Pressure_Oct2020.pdf

Sauti. 2017. 'Customer Discovery Report'. Accessed 9 December 2019. http://sautiafrica.org/wp-content/uploads/2017/03/Sauti-Africa-WEB-Customer-Discovery-Report.pdf

Shim D. C. and Eom T. H. 2008. "E-Government and Anti-Corruption: Empirical Analysis of International Data" *International Journal of Public Administration* 31(3):298-316

Shim D. C., Eom T. H., Eom Hondeghem A. and James L. P. 2009. "Anti corruption Effects of Information Communication and Technology (ICT) and Social Capita" *International Review of Administrative Sciences* 75(1): 99-116.

Siu, J. 2019. 'Trade Costs, Trade Facilitation and Formalisation of Trade: Evidence from One-Stop-Border-Posts in Uganda', International Growth Center Working Paper F F-43435-UGA-1 Accessed at https://www.theigc.org/wp-content/uploads/2019/07/Siu-2019-Working-paper.pdf

Sjoberg F. M., Mellon J., and Peixoto T. 2017. "The Effect of Bureaucratic Responsiveness on Citizen Participation" *Public Administration Review.* 77 (3): 340-351 https://doi.org/10.1111/puar.12697

Srivastava S. C., Thompson S. H. T, and Devaraj S. 2016. "You Can't Bribe a Computer: Dealing with the Societal Challenge of Corruption Through ICT" *MIS Quarterly* 40(2):511-526.

Strand, C. and Hatakka M. 2017. "Mobile Phones as a Citizen-Controlled Anti-corruption Tool in East Africa - A Literature Review". 14th International Conference on Social Implications of Computers in Developing Countries (ICT4D), May 2017, Yogyakarta, Indonesia. 753-764,

Tyson, J. 2015. Effect of Sub-Saharan African Trader Corridors on vulnerable groups, Development in Practice, 28:4, 562-573.

Tyson, J. 2018. One-stop border posts and informal livelihoods in Busia, Kenya, Development in Practice, 28:4, 562-573.

Wiseman, E. 2020. Trade, Corruption and Covid: Evidence from Small-Scale Traders in Kenya. Working Paper. University of California: Berkeley.

Zinnbauer, D. 2015. Crowdsourced Corruption Reporting: What Petrified Forests, Street Music, Bath Towels, and the Taxman Can Tell Us About the Prospects for Its Future. *Policy & Internet, 7*(1), 1–24. https://doi.org/10.1002/poi3.84

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA

50

APPENDIX

Demographic Questions

What is your age?

What is your gender?

What is your nationality?

What is your highest level of education?

Have you crossed the border in the last two weeks?

Which type of phone are you currently using?

Is this the phone you are using to answer the trader survey questions on Sauti?

If not, why? (hint: borrowing a friend's phone?)

Feedback Questions
This section seeks participant's experience with the Sauti platform

Have you accessed the Sauti Platform on *716# since we sent you the SMS?

How often do you respond to the trader survey questions?

If no, please tell me why?

Have you experienced any challenges accessing the questions on the Sauti platform?
(Probe to find out why they haven't been able to dial the code and answer the questions.
Time, airtime, have not crossed the border so cannot answer the questions)

If yes, what are the challenges?

If other, what is the challenge?

Are the questions on the platform easy to answer and understand? Yes. If no, explain why?

If no, please tell me why?

Is there anything we can do to make the platform user friendly to answer the questions or it is easy/manageable to use already?

Explain.

Have you received airtime reimbursement after answering the questions?

CONTACTS

JACQUELINE M KLOPP
Columbia University, Co-Director at the Center for Sustainable Urban Development
jk2002@columbia.edu

BRIAN BARAZA
Busara Center for Behavioral Economics
brian.baraza@busaracenter.org

DAVID OREGA
Sauti East Africa
david@sautiafrica.org

For more information on this project, go to: https://ace.globalintegrity.org/projects/trading/

52

SMALL-SCALE CROSS BORDER TRADERS, CORRUPTION AND MOBILE PHONES:
A CROSS BORDER TRADE REPORTING EXPERIMENT FROM KENYA