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# Strengthening Consumer Participation in the VAT Lottery in Rwanda

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# Today

1. Context of Rwandan EBM Lottery
2. Findings from Consumer Incentives Survey
3. Compare alternative consumer incentives schemes



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# Rwandan EBM Compliance Gap and EBM Lottery

# B2C EBM Receipts Overview

	Average Per Month (Jan-Nov 2017)	Total (Jan-Nov 2017)
<b>EBM Receipts (#)</b>		
B2B	494,449	5,438,938
B2C	1,915,175	21,066,924
<i>Share B2C</i>	79%	79%
Total	2,409,624	26,505,862
<b>Average VAT Due per EBM Receipt (RwF)</b>		
B2B	48,245	530,698
B2C	4,985	54,834
<i>Share B2C</i>	9%	9%
<b>Total VAT Due from EBM (RwF Millions)</b>		
B2B	23,848	262,332
B2C	9,563	105,190
<i>Share B2C</i>	28%	28%
Total	33,411	367,521

# Current B2C VAT Compliance Gap

- ❖ VAT Total Theoretical Liability (VTTL) =  
(VAT tax payment / receipt issuing rate)

	Average Per Month (Jan-Nov 2017)	Total (Jan-Nov 2017)
<b>VAT Compliance Gap (B2C, RwF Million)</b>		
VAT Due Currently (B2C)	9,563	105,190
Theoretical VAT Liability (B2C)	31,197	343,165
<b>Compliance Gap (B2C)</b>	<b>69.3%</b>	<b>69.3%</b>

# Rwanda EBM Lottery

**Rwanda Revenue Authority initiated EBM lottery to encourage citizens to request receipts (boost reporting by firms and close compliance gap)**

- Large prizes every 4 months (car, motorbike, phone)
- Consumers could submit receipt information via SMS
  - Required entering three separate codes
  - So people often put in the wrong information (e.g. wrong receipt number, SDC code, amount paid).
- First needed to sign up online to register “lottery account”

**Initially take-up high but decreased over time so that only 4% of receipts were being submitted during lottery periods**

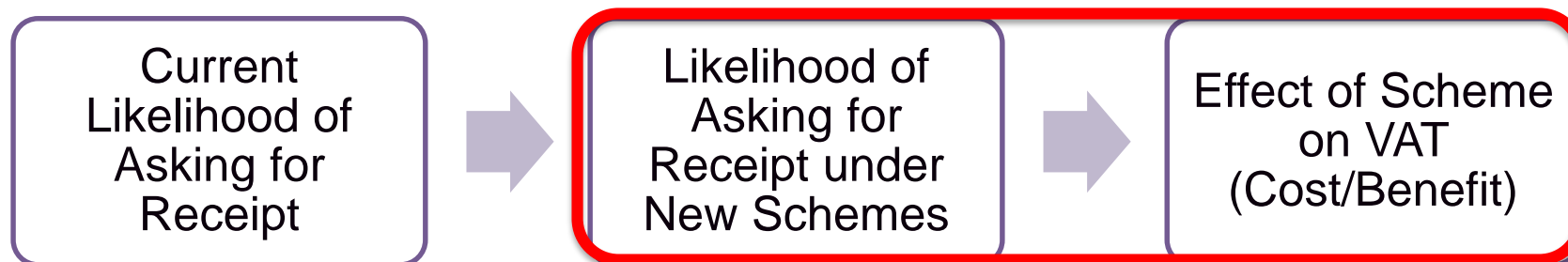
- In 2017, RRA requested researchers to investigate
  - Causes of low participation in lottery
  - Potential effectiveness of alternative consumer incentives

# Overview

## 1. Describing Sources of EBM Compliance Gap



## 2. Gauging Effects of Consumer Incentives Schemes





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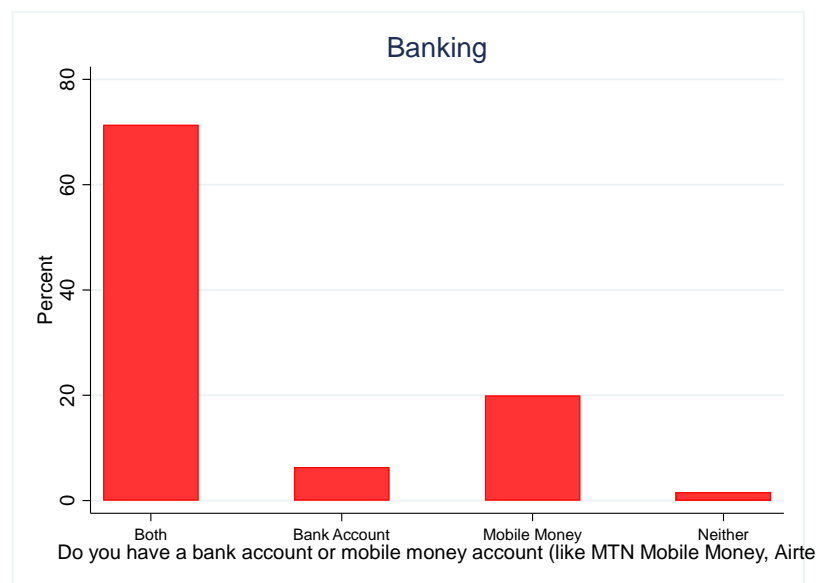
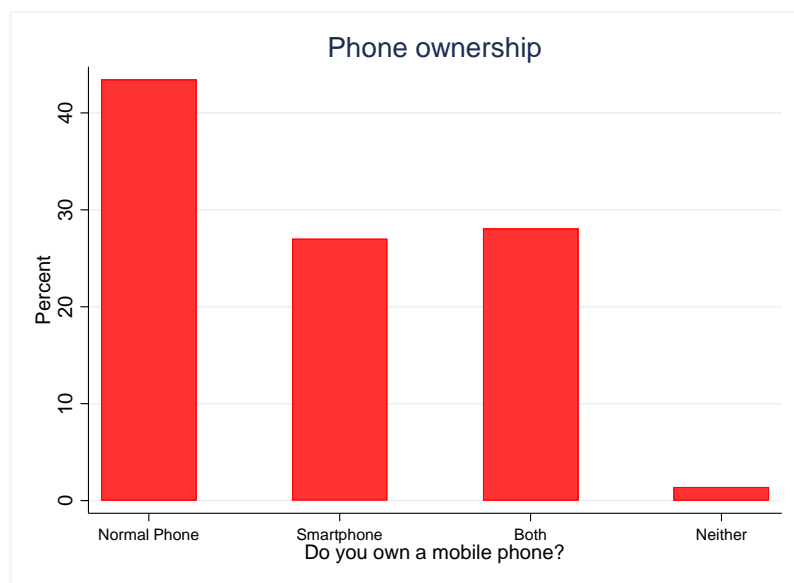
# Consumer Incentives Survey



# Consumer Incentives Survey

- **Interviewed 566 consumers in November 2017**
  - Focused on high EBM intensity areas and consumer-facing shops (wholesale/retail, services, accommodation/food service)
- **Goals of survey to understand:**
  - *(1) Barriers to obtaining receipts*
  - *(2) Low participation in EBM receipt lottery*
  - *(3) Whether alternative consumer incentives more effective*

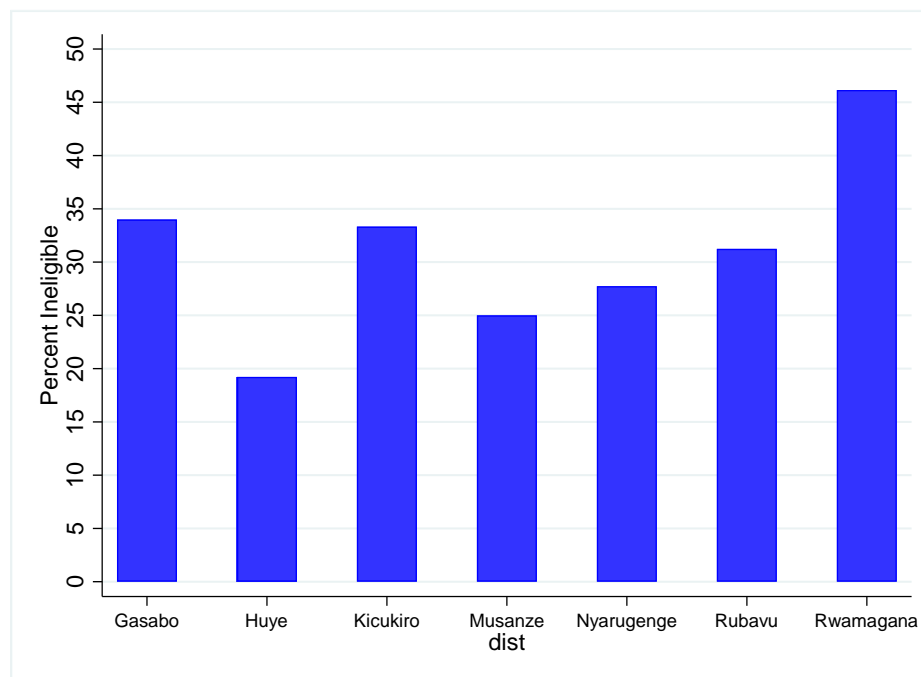
# Fact 1: Potential eligibility was high for *usage*



- Vast majority of consumers have phones, bank and mobile money accounts
  - This implies that 'eligibility criteria' is a smaller constraint for alternative reforms

# Fact 1 (ii) : Lower potential eligibility for *sign-up* because of lower internet use

- Defining eligibility for a consumer incentive program sign-up that requires:
  - sign-up/register online
  - *and* have phone + bank/mobile money account
- Leaves 31% on average ineligible (because don't use the internet)
  - Variation across country in who would be eligible



\* Note: Out of Kigali respondents were lottery participants, so may be more savvy than the average Kigali respondent chosen on the street, therefore, actual eligibility may be lower outside of Kigali than estimated here.

# Fact 2: Mis-information about eligibility of firms (for requesting receipts) was high

- The “real” reason (VAT taxpaying status) for eligibility is not the most cited reason by HHs
  - Only 39% of HHs think that VAT tax payment is the correct eligibility criteria
  - On the other hand, 56% (23%) think that large (all) shops are required to have an EBM machine

**Table 2: Which Businesses are Required to Use EBMs?**

Type of Business	Percentage Reporting
VAT taxpaying shops	39.1%
Large shops	56.1%
Small shops	3.3%
Non-food shops	10.0%
All Kigali shops	3.7%
All shops	22.7%
Don't know	3.1%

# Fact 3: Where did the chain break, from initial purchases to (final) receipts in hand?



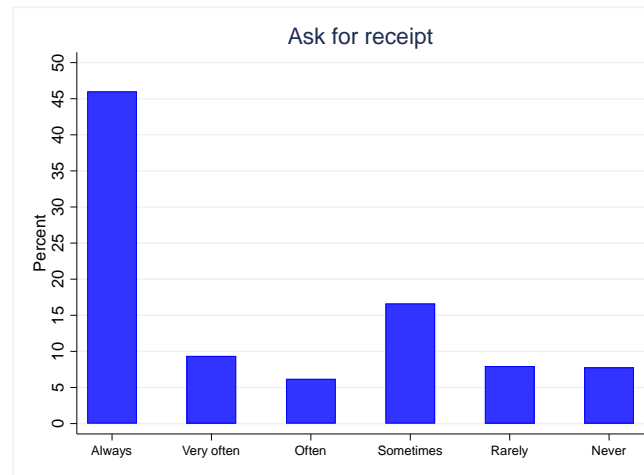
*Link (1): Shopping in EBM stores*

Approximately 59% of purchases made from stores with EBMs

**Caveat:** Respondents were selected from high EBM-intensity areas



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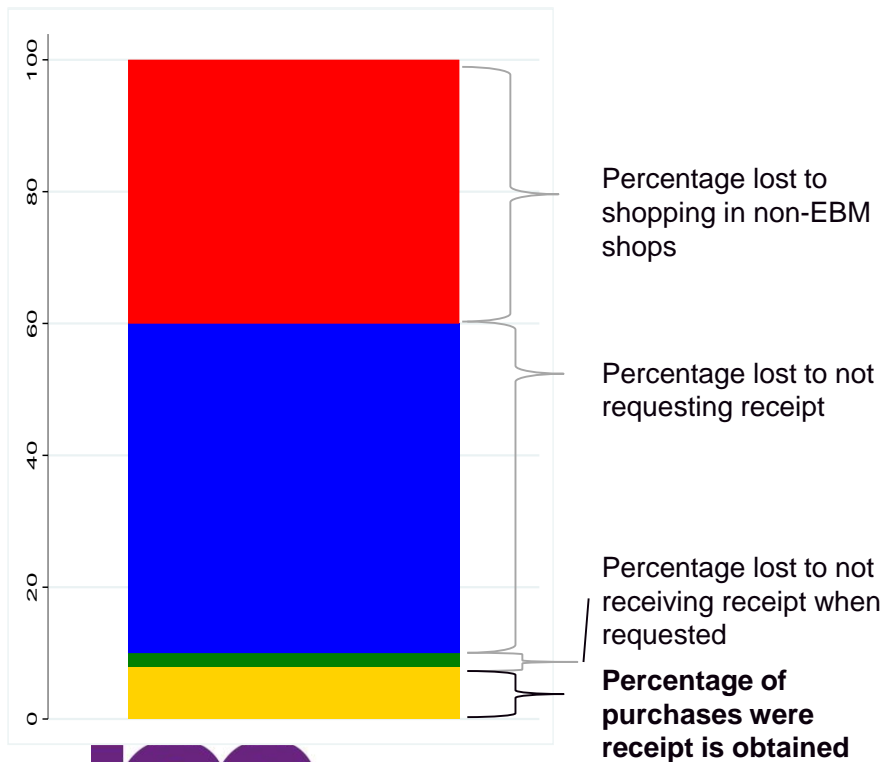
*Link (2): Asking for receipt*

45% of respondents say “Always ask for receipt”

More conservative estimate: ~30% to account for the bias

**Approximately, consumers in Kigali (in high EBM-intensity areas) request receipts approximately 15% of the time**

# Fact 3: Where does the chain break, from initial purchases to (final) receipts in hand?



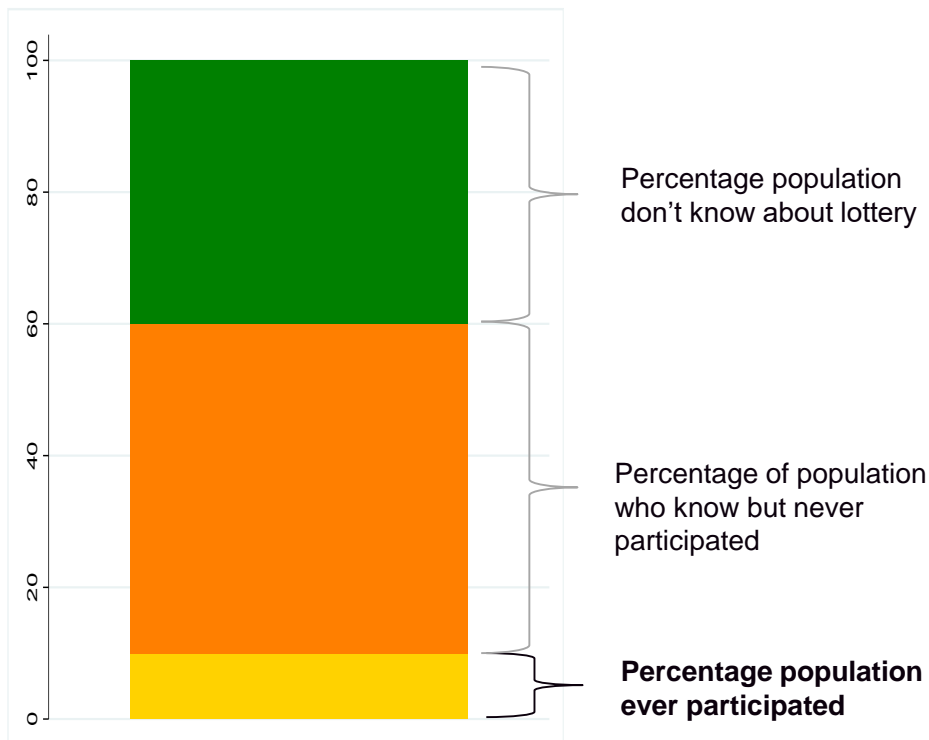
Chain of obtaining receipt breaks down in the **first two links**:

1. Consumers make purchases in non-EBM shops (lose 40%)
2. Consumers do not request receipt (85% of remaining 60% = lose 40%)

Percentage remaining is where “chain” does not break

**Approximately 8% of purchases end with a receipt in hand**

# Fact 4: Where does the chain break, from potential to final lottery participants?



Chain of obtaining receipt breaks down equally in **both links**:

1. Consumers don't know about lottery (40%)
2. Consumers that know don't participate (84% of remaining 60% = 50%)

Percentage remaining is where "chain" does not break

**Only 10% of Kigali consumers (in high-EBM-intensity areas) ever participated in the lottery**

# Potential Effect of New Consumer Incentives Schemes



# Consumer Incentive Types Analysed

Type of incentive	Detail
Lottery	Monthly Reminders
	Enter Phone Number (Simplified Entry)
	Double Number of Prizes
	Many Small Prizes
	Cash Prizes
	Frequency (Monthly Lottery)
VAT Rebate	Rebate (10% of VAT due)
	Rebate (30% of VAT due)

# Consumers Ranking of New Schemes

Rank	Consumer Incentive	Detail	Top Priority
1	<b>Tax Rebate (3%)</b>	<i>Having tax rebates of approximately 3% of the total value of your EBM receipts)</i>	<b>26.2%</b>
2	<b>Many Small Prizes</b>	<i>Having many more (small) prizes.</i>	<b>19.8%</b>
3	<b>Increase Frequency</b>	<i>Having monthly prizes instead of prizes every four months.</i>	<b>16.6%</b>
4	<b>Double Number of Prizes</b>	<i>Increasing the value of the lottery prizes.</i>	<b>10.4%</b>
5	<b>Monthly Reminders</b>	<i>Increasing transparency by sending monthly summary of the amount and total value</i>	<b>10.3%</b>
6	<b>Enter Phone Number</b>	<i>Simplifying the requirements to participate by not having to send text messages</i>	<b>7.3%</b>
7	<b>Cash Prizes</b>	<i>Having cash prizes instead of in-kind prizes</i>	<b>6.5%</b>
8	<b>Tax Rebate (1%)</b>	<i>Having tax rebates of approximately 1% of the total value of your EBM receipts</i>	<b>0.0%</b>
	<b>Don't Know/No Answer</b>		<b>2.8%</b>

# Estimated Benefits (Pro-Rata 2017) on B2C VAT Revenue (over current EBM Lottery)

Type	Incentive	Upper Bound	
		Effect Size	VAT Revenue (RwF Million)
Lottery Revision	Monthly Reminders	10.6%	12,133
	Enter Phone Number (Simplified Entry)	7.5%	8,558
	Double Number of Prizes	9.8%	11,220
	Many Small Prizes	10.6%	12,177
	Cash Prizes	9.8%	11,261
	Frequency (Monthly Lottery)	12.4%	14,243
VAT Rebate	Rebate 1% Sales Price (5.56% VAT due)	9.0%	10,380
	Rebate 3% Sales Price (16.67% VAT due)	12.2%	14,031

## Estimated Costs (Pro-Rata 2017) (over current EBM Lottery)

		Upper Bound
Type	Incentive	VAT Costs (RwF Million)
	Monthly Reminders	0
	Enter Phone Number (Simplified Entry)	0
Lottery	Double Number of Prizes	33.9
Revision	Many Small Prizes	0
	Cash Prizes	0
	Frequency (Monthly Lottery)	101.7
VAT	Rebate 1% Sales Price (5.56% VAT due)	836.8
Rebate	Rebate 3% Sales Price (16.67% VAT due)	3,117.4



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# Summary and Food for Thought

# Food for Thought

- **Lessons from Rwanda**
  - Whether most consumers can easily participate is the simplest but most crucial barrier
  - Consumer incentives need to be high enough to overcome costs of “hassle” and price penalties
  - Very different incentive schemes (lottery vs. rebate) appeared to offer similar gains with very different costs
  - Pilot testing and iterating solutions ideal: test small and build!

**Diagnosing the constraints (and solutions) present in the Zambian context key to identifying appropriate program**

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