Mobile Money for the Unbanked

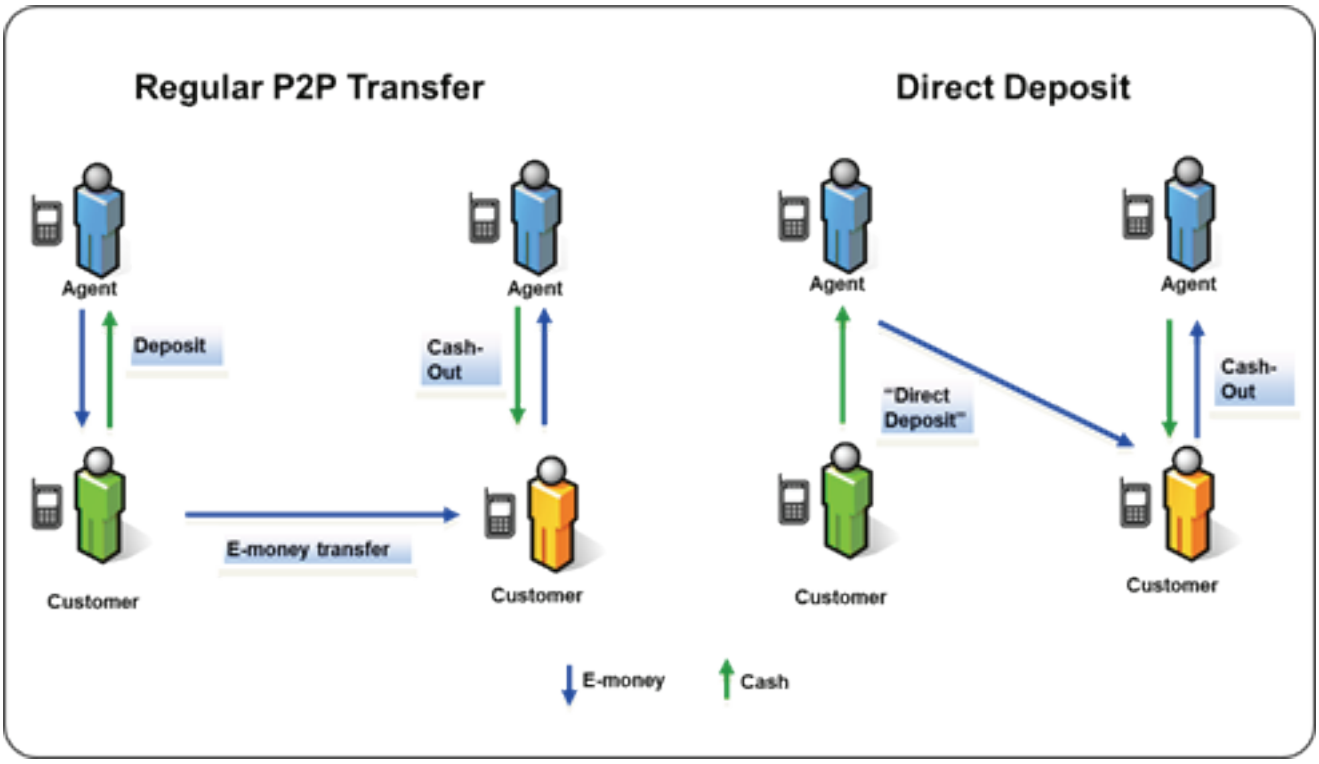
SPOTLIGHT

This MMU Spotlight discusses the significance of 'direct deposits' to mobile money operators and how they can be addressed.

Target audience: Mobile money managers and those involved in mobile money agent network management in wallet-based services. The direct deposit challenge does not apply to pure OTC (over-the-counter) operators.

What is a direct deposit?

Direct deposits are the circumvention of the intended flow of a P2P transfer. A direct deposit occurs when the customer initiating a P2P transfer hands the agent cash, but provides them with the mobile number of the recipient rather than their own. The agent deposits the funds directly into the recipient's account, allowing the sender to avoid the P2P transfer fee. In doing so, the agent has essentially turned a mobile wallet service into an over-the-counter (OTC) transfer service.



Why do direct deposits happen?

The perpetrator of the direct deposit can differ: A customer might trick an agent into thinking the recipient phone number is his or her own to avoid the P2P transfer fee. On the other hand, the agent might be enabling this abuse by offering direct deposits to customers (possibly for an unofficial fee). Alternatively, direct depositing could be a failing of customer or agent education, with either or both party perceives this method to be the appropriate way to transfer money. Perhaps the customer or the staff at the agent outlet might not understand the proper transaction flow. This might especially be the case if customers are illiterate, uncomfortable with the mobile money interface, or have forgotten their PIN.

The harm of direct deposits

Direct deposits are problematic for a few reasons:

- Lost direct revenue: Although MMU does not have an industry-wide figure, benchmarks from a few deployments suggest direct deposits might comprise a significant part of P2P transfers. One service provider estimates that 40% of their P2P transfers occur through direct deposits rather than through the proper means. In a typical charge structure (such as the one shown in the table below), this might represent over 20% of net[1] P2P revenue lost to direct deposits.
- Stunted registration rates: When a direct deposit option is available, users may choose not to register for mobile money. In addition, agents may be tempted to skip the lengthy customer regis tration process and push customers toward direct deposits instead.
- No "stickiness" benefit: Direct depositors are not compelled to have an operator's SIM in their phone to send money so operators miss out on the GSM uplift and churn reduction associated with mobile money.
- Missed opportunity for customer education and promoting new use cases: Customers learn by doing. Understanding how to operate the mobile money interface is important for introducing new products and use cases. Direct deposits may be poisoning the potential for future product innova tion.
- Loss of customer-level information: The operator might have problems of compliance with AML/CFT regulation and KYC requirements, and won't have the ability to understand or analyse their customer activity.
- Agent abuse: Agents can use direct deposits as a platform to charge unofficial fees.

> *"We may be losing up to 40% of our P2P transfer fees to direct deposits."*
> – Mobile money operator

Figure: Sample revenue loss from direct deposit from Safaricom M-PESA's charge structure

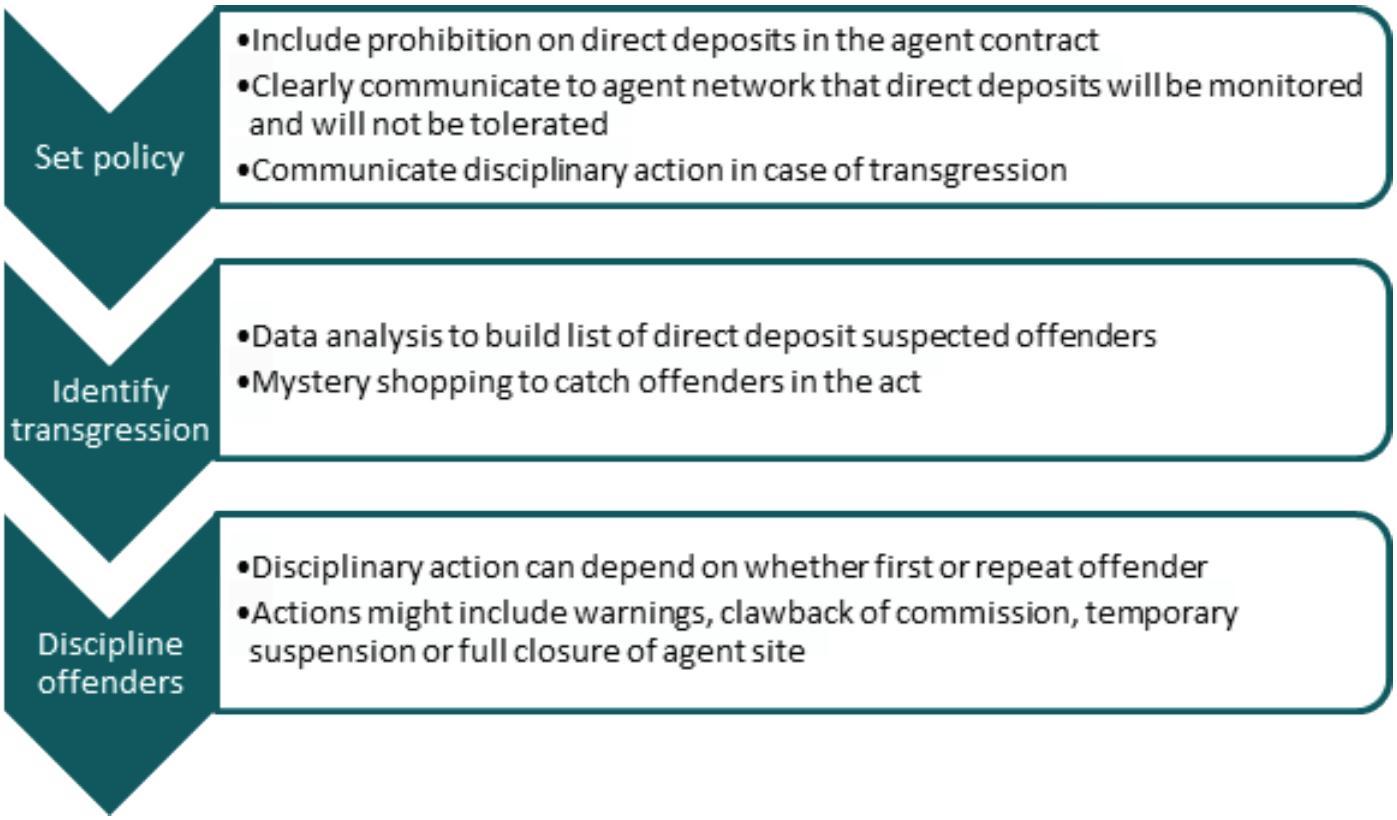
Transaction band (KSH)	A. Net revenue from deposit and withdrawal – fees less commissions	B. P2P transfer fee	C. % of total net revenue lost in event of direct deposits [A / (A+B)]
100 – 2,500	0	30	100%
2,501 – 5,000	10	30	75%
5,001 – 10,000	25	30	55%
10,001 – 20,000	65	30	32%
20,001 – 35,000	60	30	33%

[2]

Preventing direct deposits

The below diagram outlines a three step process through which mobile money operators have reduced the number of direct deposits in their deployments.

1. In many charge structures, MNOs make money from both withdrawal margins (fees minus commissions) and the P2P fee itself. This benchmark is based on the proportion of net revenue (less agent commission) that an MNO might earn from the P2P transfer fee in a typical charge structure.
2. M-PESA charging structure in 2009 from "http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/03/keystompesassuccess4jan69.pdf." Note: Charging structure has since changed.



Setting direct deposit policy:

Service providers need to clearly establish with their agent network that direct deposits will not be tolerated and make clear the disciplinary action that will be taken in the event of transgression. For service providers that have historically turned a blind eye to direct deposits, this part of the agent regulations may need to be reemphasized. Agents should not be able to credibly claim ignorance on the policy.

Identifying transgression:

Identifying direct deposits can be tedious, but is an important part of addressing the problem. Generally, MNOs have employed a combination of 1) back-office analysis on transaction data to identify possible offenders and 2) mystery shopping to catch offenders in the act.

Identification methods from transaction data usually start with customers and then work backward to the agents. A leading indicator for a customer that is receiving direct deposits is a large number of deposits and withdrawals with no corresponding P2P transfer received. Other corroborating evidence that help build the case:

- The withdrawal happened soon after the deposit (usually within 24 hours)
- The withdrawal and deposit happened at different agents in distant locations

Table: Identifying direct deposits through a customer transaction log

Transaction type	Amount	Date	
Receive P2P	100	March 1	
Buy airtime	10	March 1	
Withdraw	90	March 2	
Deposit	80	May 20	← Suspected direct deposit
Withdraw	80	May 20	

It should be noted that some of these customers may be using mobile money for storage of cash (which would be difficult to distinguish from a direct deposit in the transactions logs), so this type of analysis is not a "smoking gun." But it can allow operators to build a list of suspects. Once specific customer transactions have been identified, the agents who processed them can become a target for mystery shopping

Mystery shopping allows operators to know for certain whether an agent offers direct deposits to their customers. The operator simply needs to send a mystery shopper to any suspect agents to request for a direct deposit ("can you please deposit these funds onto this phone number?").

Operators have also experimented with various forms of technology to pre-empt direct deposits. This might include requiring the customer phone to confirm a deposit at an agent or requiring that the customer phone be on the same base station as the agent. Both of these approaches have faced usability challenges, and were not recommended from the operators that tried them.

Disciplining offenders:

Service operators have relied on various forms of disciplinary action, which is summarized in the table below. Generally a warning is the least severe response, with commission claw-back or suspension of the agent account seen as more drastic measures.

Table: Approaches to direct deposit identification and disciplinary action

MNO	Monitoring approach	Agent penalty for first transgression	Agent penalty for subsequent transgressions
MNO A	Daily transaction log monitoring	Warning, possible claw back of commission	Currently nothing, but stiffer penalties under development
MNO B	Mystery shopping	Warning	Warning has been sufficient so far
MNO C	Periodic transaction log monitoring and mystery shopping	Claw back deposit commission	Close the agent
MNO D	Mystery shopping	Temporary suspension of agent account	Temporary suspension has been sufficient so far