GSMA

# Mobile Money for the Unbanked

Building, Incentivising and Managing a Network of Mobile Money Agents:
A Handbook for Mobile Network Operators

# Incentivising a Network of Mobile Money Agents

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# Incentivising Mobile Money Agents

This is the second section of a handbook on agent networks developed by the GSMA. Other sections discuss building agent networks and ongoing network management, and there is an accompanying article on the regulation of agent networks. The complete handbook can be found at http://www.mmublog.org/agent-networks.

## Introduction

In this section we seek to answer a broad question: how can mobile network operators design a set of incentives that encourage agents to become active and productive participants in mobile money distribution? This is important because agents are at the frontline of every mobile money deployment: if they don't sign up customers, no customers sign up; if they don't hold float, customers can't transact; and if they aren't reliable, the mobile money service won't be seen as reliable. Since incentives are a powerful way to shape agents' behaviour – to encourage them to recruit customers, to hold float, and to build customers' trust – it is important to get those incentives right.

That, however, is difficult. If operators pay agents too little, agents will not support the service (essential because mobile money is intangible, unlike fast moving consumer goods, which act as advertisements for themselves when sitting on the shelf). If operators pay agents too much, they will destroy their business model, which is predicated on the cost advantage of using a network of agents to serve customers compared to, for example, formal bank branches. And if operators pay agents for the wrong things, they will incentivise agent behaviour that undermines, rather than supports, the health of the mobile money service.

We have prepared this document to guide operators as they put agent incentives into place, and to offer ideas to operators who are considering changing agent incentives. We focus on setting commissions, but it should be stressed that, from the agent's perspective, the commissions that he earns are just one of the incentives that he benefits from. The volume and size of transactions that the agent is able to handle – which the operator can influence through its spending on advertising and other kinds of marketing – and the effect that serving as a mobile money agent has on foot traffic and hence the sales of other products in an agent's outlet – are the other parts of the equation that determine how much an agent earns.

## What is the process for establishing an agent commission model?

### Understanding agents' requirements

**In every deployment we know of, agents are paid on a variable (commission) basis. The commissions that operators pay agents must, at a minimum, be generous enough to persuade agents to invest in float, learn and remember relevant processes, and serve mobile money customers.** Agents are almost always in some other line of business before signing on to a mobile money platform, so agents must perceive the return from serving as a mobile agent to be at least as good as any other line of business that they might get into.

**The first step in setting commissions, therefore, is to analyze the economics of the business of a typical agent.** Since many potential mobile money agents sell airtime, and since both airtime and mobile money are offered by the same operator, many operators and agents assume that the return from serving as a mobile money agent should be comparable to that of selling airtime. But that isn't necessarily true. Imagine that a retailer, which already sells airtime, is trying to decide whether or not to invest $250 into becoming a mobile money agent. The best alternative to doing so is probably not simply investing in $250 more worth of airtime inventory, since the constraint on most retailers' airtime sales is not supply but demand. Given the wide availability of airtime in most emerging markets, it's reasonable to assume that the return that retailers get from selling airtime is high enough to justify their investment in a level of inventory that allows them to meet existing demand most of the time. If that's the case, the relevant alternative to serving as a mobile money agent is probably not airtime but something else – and that, for many retailers, is fast-moving consumer goods.

The right starting point, then, is for operators to ensure that serving as a mobile money agent offers a superior return to agents when compared with selling their least profitable or slowest moving inventory. This analysis requires a significant amount of field research – talking to potential agents about their business, understanding how they evaluate opportunities, and so on. But it is only through this process that operators can be sure that the commission structure they offer the channel is sufficiently compelling.

To perform this analysis, operators will need to estimate the size and volume of transactions that agents will be called on to perform and the ease and frequency with which agents can restock their balances of cash and electronic value – since the faster an agent can restock, the less capital he will have to tie up in float. These are the variables that the operator has significant control over – by introducing aggregators, for example, operators can make it faster and easier to restock their balances – but this, of course, introduces additional costs into the model. Operators also need to estimate parameters like the value of agents' (or their employees') time,[1] their cost of capital, and their alternative investment opportunities, all of which are variables over which operators have no control.

**Finally, operators should not overlook the possibility that, by serving as a mobile money agent, retailers can increase foot traffic and thus sales of other goods in their shops.** This effect – which will probably be strongest once a critical mass of users has started transacting, but before the market is completely saturated with mobile money agents – provides incremental revenue for agents at no additional cost to the operator.

## Building a viable business model

The economics of the agent's business will therefore dictate the floor of the range of commissions that operators must offer. **The ceiling, on the other hand, will be a function of the operator's overall mobile money business model.** That is, commissions must be set such that operators can achieve their financial goal for the mobile money service.[2] Operators therefore need to carefully model the commissions they plan to offer, making prudent assumptions about usage and scale, before approaching potential agents with a value proposition. (Of course, these assumptions will sometimes be incorrect, and operators may decide that they need to adjust the commissions they offer in response – see "Can incentives be changed?" below.)

### How are the economics of airtime reselling different from serving as a mobile money agent?

It is natural for potential agents who currently sell airtime to evaluate the opportunity to serve as a mobile money agent by comparing it to the business of selling airtime. However, there are many reasons why it is not possible to simply compare the margin that retailers earn on airtime with the commissions that are paid out for facilitating cash-in / cash-out transactions. Operators need to be proactive in helping agents to understand these differences, and to put forward a value proposition that is compelling on its own merits.

**First, the cash flows are usually different.** As soon as an airtime reseller is able to sell airtime to a customer, he has not only recouped his original investment but also earned his profit margin. In contrast, mobile money agents often receive their commission weeks after performing a transaction. This is less attractive from an agent's perspective since he has to wait a long time for his profit but more attractive in the sense that a lump of many aggregated commissions may appear more valuable than an ongoing stream of very small commissions.

**Second, the frequency with which agents can restock their cash and electronic value balances is not the same as the frequency with which airtime resellers can restock their inventory of airtime.** In general, the less frequently an agent can restock the supply of any of good, the higher the margin he will need to earn in order to make stocking that good worthwhile. In some markets, agents can access cash or electronic value more frequently than they can restock airtime. But even setting aside this possibility, the fact that airtime agents

[1] A quick, but useful, way to assess whether operators are giving agents a compelling value proposition is to compare the average daily wage of an shop employee with the commissions from the number of transactions that employee might reasonably be able to facilitate in a day. The value of the commissions needs to exceed the daily wage (to account for the shop owner's investment of capital) in order to justify signing up as an agent. For more information, refer to 'The Economics of Branchless Banking', by Ignacio Mas 2009.

[2] An operator's financial goal for mobile money may or may not be profitability; some operators are content for mobile money to break even or even lose some money because they believe that mobile money services will decrease churn, increasing revenues voice and text revenues to an extent that value is created for the business as a whole.

can perform both cash-in and cash-out transactions allows them to make more efficient use of their inventory than is possible with airtime. Imagine an agent who predominantly performs cash-in but also the occasional cash-out. Every cash-out transaction he performs enables him to perform another cash-in of equivalent value on the same original investment in float. (Indeed, an agent who performed a perfect balance of cash in and cash out would never have to restock at all.) In contrast, once airtime is sold, it's sold; agents cannot make money by accepting returns and then re-selling the airtime to someone else.

**Third, mobile money agents in net receive areas can exploit the synergy between their existing retail business, which generates "cash in the till", and serving as a mobile money agent, which requires cash inventory to facilitate cash out.** The larger this synergy is, the less investment the agent will need to make in cash float. In contrast, retailers do not accumulate airtime in the normal course of their business.

**Fourth, the increase in foot traffic, and therefore in sales of other goods, that agents enjoy when offering mobile money is potentially greater than that effect when offering airtime,** since in every market there are substantially fewer mobile money agents than airtime resellers – at least in the early days of a deployment.

**Fifth, although airtime margins are usually fixed on a percentage basis, commissions on mobile money transactions usually vary depending on the size of the transaction.** As such, it is hard to make a direct comparison without knowing the distribution of transaction sizes that an agent will perform.

Before approaching potential agents (or channel intermediaries, like super dealers) who are already involved in airtime distribution about the possibility of playing a role in mobile money, operators need to understand each of these points, and be able to clearly articulate to agents why serving as a mobile money agent makes good business sense for them. Nevertheless, operators should not be surprised if many potential agents find the economics of mobile agency less appealing than that of airtime reselling. In that situation, operators in many markets have found that retailers outside the airtime distribution network are more likely to enthusiastically sign up to serve as agents in the early days – but that as soon as those agents start to prosper, traditional airtime retailers (and distributors) are quick to revise their opinion about the value of serving as a mobile money agent. This process is accelerated in markets where customers can top-up their airtime balances using their e-wallet. When airtime resellers realize that customers have begun to do this, they often decide that capturing the commission on cash-in as a mobile money agent is better than being disintermediated from airtime sales altogether even though operators are typically able to set these commissions lower than corresponding airtime margins for most transaction values.

### What are the transactions for which agents are paid?

Usually, agents are paid for every transaction which they facilitate, which, in most deployments, are cash-in, cash-out, and customer registration. **As a general principle, the mobile money agent should make money on every transaction he performs.** This is because agents can pick and choose which transactions to perform, and it would be very frustrating to customers if agents refused to facilitate certain transactions because they were not sufficiently profitable for the agent. The operator, however, shouldn't mind losing money on individual transactions, so long as the overall business model makes sense. This is what enables operators to subsidize certain transactions (most typically cash in, which is free for customers but for which the agent still earns a commission) but then recoup that value in other transactions (most typically money transfer, for which the customer pays and the agent is not compensated).

#### Customer registration

**Agents usually get a flat fee for registering new customers.** This is not simply to grow the customer base; it is also to give agents a significant revenue opportunity from the very beginning of a deployment – with the expectation that, as the market matures, commissions from cash-in / cash-out transactions will begin to replace those for customer registration. **This requires a major upfront investment on the part of the mobile network operator.**

**In many cases, however, this fee, or a part of it, is paid out only after the customer has performed her first transaction – to eliminate the incentive for agents to sign up users who never intend to use the service and/or to fail to educate customers about how to use the service after signing up.** But even that is not foolproof; several deployments have found that some agents induce customers to perform a very small transaction right after registration (say, a cash-in followed immediately by a cash out) so that they get their commission – after which the customer may never use the service again. If the cost to the customer to register for the service is less than the commission that the agent earns for signing her up, this risk is especially acute, since the agent can simply subsidize the customer's registration charge (and perhaps even share a bit more), keeping the balance of the commission for himself. To minimize this risk, Zain in Tanzania has adopted an even more elaborate commission for agents who sign up new customers to Zap: a third of the approximately US$1 commission is paid to the agent after customer verification, but the remainder is paid only if the customer does 5 transactions in a 6 month period after registration.

### Commissions for customer registration agents

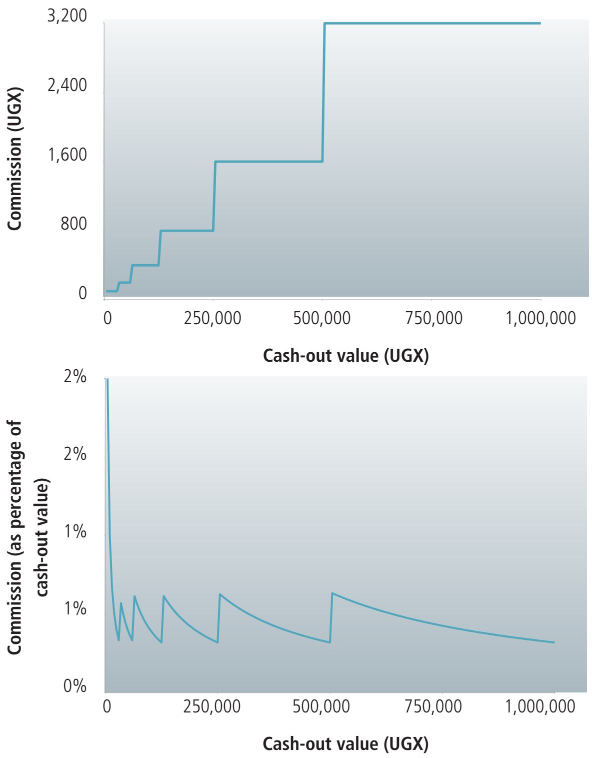
Operators that use customer registration agents need to consider the particular financial requirements that its customer registration agents are likely to have. Experience in Uganda and Cambodia has shown that paying full-time customer registration agents solely on a commission basis is possible, but that **it is important to pay commissions such that successful customer registration agents are able to earn an attractive wage** (given their skills and labour market conditions) in total; otherwise, they will quickly churn – wiping out any investment the operator has made in training that agent.

As discussed above, care should be taken to incentivise customer registration agents to only sign up customers that have a demand for the services offered on the mobile money platform and to educate them about how to use the service after registration – this should include pointing out cash-in/cash-out agents in the vicinity with whom the customer can begin transacting. If operators make a large part of the commission contingent on customer behaviour in the future, however, they need to bear in mind the cash-flow requirements of customer registration agents in the meantime (who, after all, have no revenues from another business that most cash-in/cash-out agents can count on). Some operators have offered new customer registration agents a small stipend that tapers off over time to solve this problem.

## Cash in and cash out

**In the majority of deployments, agents are paid for facilitating both cash-in and cash-out transactions.** Usually, as transaction values increase, commissions increase in absolute terms but decrease as a percentage of the total. This structure ensures that agents are sufficiently compensated for performing even very small-value transactions. For example, these charts illustrate the commission that MTN MobileMoney agents earn in Uganda for performing cash-out transactions (there are approximately 2,000 Ugandan shillings to the US dollar):

**Cash-out Commissions, MTN Uganda**



These lines are not smooth because MTN Uganda, like many other mobile money service providers, sets commissions in tiers:

| Cash-in Value (UGX) | | Agent Commission (UGX) |
|---|---|---|
| Minimum | Maximum | |
| 5,000 | 30,000 | 100 |
| 30,001 | 60,000 | 200 |
| 60,001 | 125,000 | 400 |
| 125,001 | 250,000 | 800 |
| 250,001 | 500,000 | 1,600 |
| 500,001 | 1,000,000 | 3,200 |

The principal advantage of setting commissions in tiers is that it allows operators to offer agents a more generous margin on low-value transactions than larger-value ones. Without doing this, agents would receive extremely paltry commissions for handling small value transactions, which could discourage them from performing them. But this can in turn set up an incentive for agents to encourage customers to "split" a transactions into multiple, small value transactions. MTN Uganda have designed their agent commissions for cash-in to make it difficult for agents to do this: agents would have to convince customers to split any given transaction into at least three pieces in order to increase their total commissions, and customers would have good reason to resist this because they would pay much more in tariffs that way.

The most common alternative to paying commissions based on tiers is to pay agents the same percentage of value transacted regardless of the size of the transaction. This eliminates the incentive to split transactions, and can be supplemented with a minimum commission for both cash in and cash out, which ensures that agents are properly compensated for facilitating even small value transactions.[3]

In many deployments, agents earn commissions for cash out that are one and a half to two times higher than for performing cash in. Operators tell us that this is what agents demand. One possible explanation is that agents who primarily perform cash-in transactions are likely to be in dense, urban areas, allowing them to do a higher volume of business and to replenish their stock of e-money easily. Agents who primarily perform cash-out transactions are more likely to be situated in rural or semi-rural areas where they will handle fewer transactions and find it more time-consuming to replenish their stock of cash frequently. Therefore, it will be necessary for them to earn a higher margin on the transactions that they do perform relative to the agents whose primary business is cash in.

**Zain Zap cash-in/cash-out commissions**

Zain has also adopted the tiered model for its Zap service, but with a few key differences that are closely related and which, taken together, offer a strikingly different value proposition to agents than Safaricom does with M-PESA. First, Zain charges customers for cash in as well as for cash out. Second, Zain allows agents to keep 100% of the tariff they charge the customer for each transaction. Third, although Zain recommends a set of tariffs for cash in and cash out to its agents – and communicates them to customers – they recognize that some agents will modify these, and Zain's ability to control this is limited. As such, agents can charge more or less depending on their supply or e-money and cash and customer demand, and they can negotiate different tariffs with different customers. Finally, customers pay tariffs in cash to the agent.

What are the implications of Zain's approach? First, it's a simplified business model for both the operator and the agent. Zain doesn't make or lose any money on cash in and cash out; instead, it makes money on transfers and other customer-initiated transactions. Similarly, the agent captures all of the value that he creates by performing cash in or cash out, and he gets it in cash right away. It also allows Zain to focus its communications on their low transaction fee, typically US$0.12 per transaction, and position Zap as an affordable payment instrument.

On the other hand, the quality of the customer experience with Zap is potentially variable. By allowing its agents to set their own commissions, Zain permitted what probably happens to some extent even in deployments in which it is officially prohibited: agents increasing commissions when demand for electronic value or cash is especially high. In a theoretical world, this should result in optimal pricing – after all, agents can also offer discounts when demand is low – but in the real world, customers can view this practise as predatory. Part of the appeal of mobile money services that offer established prices is the simplicity

[3] One relatively minor disadvantage to this approach is that, assuming the operator charges customers tariffs which are based on tiers, the operator's gross margin will vary substantially by transaction.

and transparency of that arrangement to customers. As such, operators considering the Zap model should carefully consider whether the advantages outweigh the disadvantages.

### Other agent commissions

Sometimes, operators choose to pay agents other commissions. Vodacom Tanzania, for example, gives agents a commission every time customers whom they registered buy airtime using M-PESA. This commission was established to reduce resistance to M-PESA by agents and aggregators who worried that their customers might stop buying airtime directly from them once they had signed up for M-PESA. The problem with this approach, from an operator's perspective, is it erodes some of the value that is created by migrating customers from purchasing airtime from agents to doing so on the mobile money platform. In most markets, operators do not pay such a commission, but some elect not to promote the ability to top up using the mobile money platform so as not to antagonize their channel.[4]

### Does every agent have the same commission structure, or do they vary?

Paying every agent the same commissions is the norm, but there are exceptions. For example, operators can agree to offer more generous commission structures to agents with many outlets (for example, a chain of petrol stations) because signing up such agents allows the operator to quickly scale up its network.

In the "Building Agent Networks" chapter of this guide, we discussed how mobile money providers may someday appoint different categories of agents, allowing certain agents to specialize in especially large or especially small transactions. It is very likely that, if and when this occurs, such agents would need to earn different commissions, based on their differing cost structures.

### Can incentives be changed? Why and how would they be?

An important driver of the success or failure of a mobile money deployment in financial terms is the commissions that operators pay agents. If operators set commissions too low, potential agents will find the value proposition insufficiently appealing, and the operator will struggle to sign them up. But if operators set commissions too high, operators may find that they are unable to achieve sustainability for the overall deployment. (This can easily occur if an operator's initial assumptions about other costs, revenues, and volumes turn out to have been overly optimistic.) However, reducing commissions risks alienating the agents whom operators rely on not only to deliver their mobile money service, but to promote it.

**One solution to this dilemma is operators sometimes consider to build in some flexibility into the business model from the time of launch.** This entails putting together a compelling set of commissions together for agents, but making sure that at least some components of that package are clearly identified as short-term promotions that can be extended or withdrawn at the discretion of the operator. For example, operators may offer agents special bonuses for customer acquisition in the first few months after going to market. Or they may increase cash-in and cash-out commissions for a limited time, to reward agents who keep float on hand even in the early days, in which transaction values are likely to be low. Then, as volumes increase, operators can assess whether commission should be readjusted.

Even after launch, operators who make liberal use of such time-limited promotions can quickly respond to emerging issues throughout the lifecycle of the deployment. **Many operators have developed sophisticated trade promotion strategies in their airtime distribution business, and mobile money teams can tap into this expertise for ideas about how such promotions can be useful in mobile money as well.**

### What are commissions for aggregators and masteragents?

Aggregators (defined in this document as an entity responsible for recruiting agents) are typically paid a flat fee of up to US$100 for signing up agents, while masteragents (who manage agent's ongoing liquidity) earn a proportion of the commissions that agents under their aegis earn. In exactly the same way as with commissions paid to agents for signing

[4] Of course, operators who completely bypass their airtime distribution network when setting up a mobile money agent network do not face this channel conflict.

up new customers, operators should be careful not to skew the balance of incentives for aggregators / masteragents too far toward agent recruitment, as they are likely to succeed only in growing a very large network of inactive agents. Rather, aggregators / masteragents should reap the bulk of their reward from the ongoing share of commissions earned by their agents – which will encourage them to sign up good agents to begin with. Of course, operators should model the stream of gross receipts (i.e., tariffs less commissions) they expect to realize from an average agent before deciding how much of that value to share with aggregators for signing up the agent.

Some operators dictate how commissions between masteragents and agents are to be split; others allow masteragents and agents to negotiate this. In Kenya, Safaricom have recently decided to insist that masteragents share 80% of commissions earned with the agent, although sometimes in the market that percentage was lower (70%) because the masteragents were investing more time in cash management. In one market, Afghanistan, M-Paisa agents can be left with just 50% of commissions earned when the aggregator / masteragent has put up the start-up capital required for float. (The reduction in the fraction of commissions which they are entitled to keep is thus in lieu of interest being paid to the aggregator / masteragent for the loan of start-up capital).

### How do commissions get paid out?

There are three different mechanisms for paying out commissions, and some variation in how long after a transaction the associated commission is paid:

| Timing | Instrument |
|---|---|
| ■ In arrears (lump sum)<br>■ Immediately after transaction | ■ Electronic value<br>■ Cash<br>■ Bank transfer |

Both Zain and True Money, (a Mobile Money service offered by Thai mobile operator True Move) pay commissions immediately after transactions have been completed. True pay them in electronic value. In the Zap model, agents are entitled to collect 100% of the tariff they charge the customer, and they take that payment in cash.

In contrast, agents for all of the Vodafone Money Transfer deployments are paid commissions monthly in arrears. At the end of each month, the operator tallies up the commissions that are owed to all of the agents of each masteragent, then transfers them, in electronic value, to the masteragent; in turn, the masteragent is responsible for disbursing the fraction of the commission due to individual agents.

In MTN MobileMoney in Uganda, commissions can be paid in two ways, depending on the agent's preference: immediately, with the value transferred into the agents e-money account; or at the end of the month, with the value transferred into the agent's bank account. Typically, it is larger agents, with more sophisticated reconciliation processes, that prefer the latter.

One advantage of paying commissions in lump sums in arrears is that they may seem more valuable to agents than many small individual commissions. Another is that such commissions can be held back if the operator finds that an agent has earned them fraudulently. But the disadvantage is that agents have to wait a long time to earn a profit from mobile money. Agents seem to vary in their preference along this dimension, both within and across markets, so MTN Uganda's ability to do both allows them to suit the preferences of any potential agent.

The main advantage of paying commissions on the mobile money platform is that it encourages them to roll those commissions into their stock of electronic value.

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