Mobile Money
for the Unbanked

True Money and M-PESA: Two Unique Paths to Scale

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The author would like to thank Tanaphon Manavutiveth and Piyachart Ratanaprasartporn from True for sharing details about True Money, and for their hospitality during site visits to Bangkok. Thanks also to Neil Davidson, Seema Desai, Camilo Tellez, Marina Solin, Gavin Krugel from GSMA, Ignacio Mas-Ribo from Bill & Melinda Gates Foundation, and Pauline Vaughan from Safaricom, for providing helpful comments on this paper.

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Thailand's True Money is a success story that merits closer attention. Launched in 2005, True Money is now used by 6 million customers, and the system processes over US$900 million in electronic payments and 120 million transactions per year. While True have since introduced innovative services like Touch SIM, the world's first RFID-embedded contactless payment solution, it's their approach to scaling an e-wallet and payment service that's of most interest from a financial inclusion perspective.

This review will describe the True Money model and compare their approach to the industry's best known success story, M-PESA. While the latter model is already being widely replicated (and for good reason), this comparison will identify circumstances in which True's approach should likewise be considered by others introducing mobile money.

Why the True Money Story Matters

It's tough to find a deployment that's reached M-PESA-like scale: the most recent figures suggest that the Kenyan system now counts over 8.6 million customers and processes USD$3.5 billion in P2P transfers per year. By comparison, True Money isn't as large, but it's certainly larger than most. And perhaps more importantly, True Money offers a success story that is remarkably different from M-PESA. Whereas M-PESA's path to scaling a *money transfer* offering has been well documented, there are fewer cases of deployments reaching scale with *payments* offerings, as True has. And True didn't just launch a completely different service than M-PESA – they did so in a very different way, first launching an e-wallet, and then a complementary agent network 2 years later.

This review will examine how True Money and M-PESA approached service design, customer experience, marketing, distribution and bank partnerships, and explore the rationale behind True's decisions on their unique path to scale.

Service Offering

Marketed as a way to 'top up, pay, transfer and withdraw', today True Money consists of an e-wallet that can be loaded by cash card[1], bank account, or credit card and a network of 8,000 bill payment agents known as True Money Express (TMX). Customers use the e-wallet and TMX agent network primarily to buy airtime, pay for True Group service, pay bills, and to a much lesser extent, transfer money. This focus represents a significant departure from M-PESA, which has been designed, marketed and most commonly used as a money transfer service. True's decision to focus on airtime purchase and bill payments was made partly in recognition of the competitive money transfer market in Thailand, which is saturated by low-cost bank and postal offerings, but more so to satisfy needs stemming from True Group, the parent company to which True Move belongs. True Group is a converged communications provider that offers mobile, landline, cable television, internet, WIFI, and online gaming services. In creating their e-wallet, True was partially responding to a critical internal problem: how do we make it easier for customers to buy our various prepaid services? Safaricom, on the other hand, is a pure play mobile network operator. They launched M-PESA to capture an external market opportunity that would deliver benefits to their core mobile metrics. Thus, True and Safaricom *initially* deployed mobile money for considerably different purposes.

[1] In Thailand the phrase 'cash card' effectively refers to what some other countries refer to as 'scratch cards'

Of course, over time both services evolved. By virtue of their scale, M-PESA has become a payment tool for just about anything. Similarly, True Money has evolved from a payment tool for True Group services to one that is used for different types of non-True Group bills, each with a unique business case (discussed later, and analyzed in Exhibit 1).

Customer Experience

To activate a True Money e-wallet, customers register over the air by entering their 13-digit Thai ID number and creating a PIN. True Money is an STK application that has been embedded on all True Move SIM cards since 2005, so a large portion of True Move customers can register quickly and easily. Once activated, an e-wallet can be loaded in three main ways: through a linked bank account or credit card, by an electronic transfer from a TMX agent (similar to an M-PESA agent selling e-money), or from a True Money Cash Card. Cash cards are by far the most popular option: even though the majority of Thais are banked, few people are willing to go through the effort of linking their bank account or credit card to the e-wallet.

The M-PESA customer experience differs from that of True Money in terms of registration process and approach to loading the e-wallet. Whereas True Money users register over the air, Safaricom requires each prospective M-PESA user to visit an agent and present formal ID. With 14,000 M-PESA agents, this is not overly burdensome and is actually helpful in establishing a critical connection between customers and the agent network. That is, once registered, customers can instantly load their e-wallet electronically at an M-PESA agent – because registration and account loading occur at the same location, it's easier to get customers transacting quickly.

Because M-PESA focused on *money transfer*, they've had to tackle a complex customer experience challenge that True, with a greater focus on *payments*, have not. That is, making it convenient for customers to convert e-money back to cash. [2] Given how important this feature is to the M-PESA customer experience, it's difficult to make a fair comparison between the two services in this area.

Marketing

Just as the True Money and M-PESA service offerings are completely different, so too are the ways in which each has been promoted. Unlike M-PESA, True does not use their TMX agents to register new customers, nor have they invested heavily in mass marketing.[3] Instead, they have employed two tactics that were not seen in Kenya: convergence-based cross promotion, and strategic engagement with the airtime dealer network.

Convergence-Based Cross Promotion

True aggressively leverages their position as a converged communications provider to drive adoption of the True Money e-wallet. For instance, True offers a service called True Life Free View (TLFV), which allows True Move (mobile) customers to get free access to True Visions (cable TV) if they pay their bill using the True Money e-wallet. TLFV customers can then also use their True Money e-wallet to order additional pre-paid channels, nearly in real time. This 'convergence-based cross promotion' has played a big role in the success of True Money, delivering more than 1 million e-wallet customers. This strategy is not one that Safaricom could have pursued alone, because as a pure play mobile operator, they have no other media properties to leverage for cross promotion.[4]

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[2] Today, e-value can only be converted back to 'money' by sweeping it into a linked bank account, or by closing the account altogether and paying an 8% cash-out fee at a True corporate store.

[3] The decision not to invest in mass marketing was made in light of budget constraints.

[4] To compensate, Safaricom work with many bill issuers, including hospitals, schools, airlines, etc.

Strategic Engagement with Airtime Dealer Network

The top tier of Safaricom and True's airtime distribution networks have played dramatically different roles in Kenya and Thailand respectively when it comes to promoting mobile money. Kenyan airtime 'superdealers' have (accurately) identified the threat that the system poses to their scratch card businesses and have chosen not to contribute, in any way, to the promotion of M-PESA. In Thailand on the other hand, top-tier airtime dealers have been integral in promoting True Money Cash Cards. In fact, it would be difficult for True Money to succeed without their support, given that the cash cards they distribute are the source of the bulk of the value that's loaded into True Money e-wallets. Roughly 80% of airtime dealers and retailers now stock the multi-purpose True Money Cash Card rather than multiple single-purpose prepaid cards as they did in the past. Had True's airtime dealers, sub dealers and retailers not agreed to this transition, True Money Cash Cards simply would not have the broad distribution needed to be effective.

True's ability to persuade their dealers to make this massive change is impressive, but even more so considering that dealers earn a *lower* commission from True Money Cash Cards than from the True Move airtime cards they previously sold. The key to making this successful transition was in first persuading dealers that the comparatively smaller commission offered from each True Money Cash Card would be more than offset by higher volumes. True delivered on the promise of higher volumes by partnering with multiple Thai businesses that sold services on a prepaid basis, and persuading them to accept True Money as a method of payment. For instance, True have positioned the True Money Cash Card as a method of payment for online games, a massive prepaid market in Thailand. By doing so, True provided the dealers, sub dealers and retailers with volume that they previously would not have captured by simply selling prepaid airtime scratch cards.

While there's no question that True has been more effective than Safaricom in leveraging their airtime dealers for the purpose of promotion, it's not yet clear whose strategy will be more effective in reducing airtime commission costs. The True Money Cash Card has reduced True's distribution cost by a small fraction[5] to True's *entire* mobile base. M-PESA, on the other hand, has reduced Safaricom's cost of distributing airtime by 7.5%[6] (nearly the entire amount) – but only for the 19%[7] of customers who now buy electronically.

M-PESA provides more valuable lessons on engaging agents and instilling trust

While True offers valuable lessons in terms of how to *promote* a mobile money service, they offer little in terms of how to persuade customers to *trust* it. Customers *inherently* trust scratch cards, so encouraging them to load their e-wallets using True Money Cash Cards was comparatively simple next to the feat accomplished by M-PESA, who persuaded customers to load electronically. One of the key tactics used by Safaricom to instil trust in M-PESA was ensuring that each agent recorded their transactions in a log book to provide customers with a much needed tangible transaction record. As True attempt to encourage their base to abandon scratch cards in favour of electronic loading, they are using a similar approach: TMX agents either issue receipts for transactions completed on an electronic terminal, or record any transaction completed on a mobile in a log book.

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[5] Undisclosed, but less than 1%

[6] This figure is illustrative. The actual amount saved equals the percent Safaricom would have paid airtime dealers, less the cost of facilitating cash in and out, plus the cost of physical card production.

[7] Mas and Ng'weno: Forthcoming Paper

Distribution

True used their existing card distribution network to make the True Money Cash Card widely available, but they never planned to use the cash card model to support *all* the services on their roadmap. And for good reason. Early on they recognized that, for some services, True Money Cash Cards would simply not be a profitable distribution solution. This ultimately led to the creation of the TMX agent network. But why did True come to see cash cards as unprofitable? In short, they examined the cash card business case individually for two prospective services: non-True Group bill payments, and money transfer.[8]

Non-True Group Bill Payments

While cash cards are a profitable way to facilitate payment when True is able to charge *bill issuers* a percentage fee that exceeds their cost of card production, distribution, and channel commissions embedded in the True Money Cash Card, the business model breaks down when their only revenue source is a transaction fee *paid by the customer*. In this case, the cost of physically producing, distributing and paying out dealer commissions for True Money Cash Cards exceeds the fees True could reasonably charge, given the level of competition for something like a utility bill payment (see Exhibit 1 for full analysis).

Money Transfer

True also found that cash cards made it essentially impossible to facilitate P2P transfers profitably while still offering a compelling customer value proposition. That is, True would have to charge customers an extremely high fee to cover the high cost of cash card production, distribution, channel commissions embedded in the True Money Cash Card, in addition to a commission for the agent performing cash-out. In total, the cost of simply facilitating a US$30 cash-in via a True Money Cash Card would have been at least 5 times higher than doing so electronically using the M-PESA model.

Ultimately, True's desire to penetrate the massive third party bill payment market in Thailand prompted them to augment their distribution strategy and create the True Money Express (TMX) agent network in 2007. The TMX network has since grown to over 8,000 agents and has enabled True to grow considerably in the bill payment segment and somewhat in money transfer by addressing the limitations of cash cards.

While they're both massive, the True Money Express and M-PESA agent networks have very little in common. And for good reason – True and Safaricom *require* very different forms of support from their agent network by virtue of their different focuses. In Thailand, TMX agents are required to process bill payments and sell True services. In Kenya, M-PESA agents are required to, above all else, ensure the system is liquid by buying and selling e-money, while also driving growth by registering new customers. Thus, since True Money agents are tasked with providing an entirely different set of services than M-PESA agents, it's not surprising that True's approach to structuring the network, managing liquidity, and selecting agents differs markedly from the one chosen by Safaricom.

Structure the Network

The TMX agent network has just one tier, whereas the M-PESA network has two. That is, each individual TMX agent buys e-money and is paid their commissions directly and in real time from True, whereas M-PESA 'sub-agents' have a direct relationship with (and are paid at a later date by) 'master agents', who in turn have relationships with Safaricom.[9] While the obvious drawback of this multi-tier agent network structure is that commissions must be split between two parties, Safaricom designed this model to address factors that True don't face given their service offering focus. The first is a need to create a strong network of rural agents with good liquidity to support the urban-rural domestic money transfer flows. To address this challenge, Safaricom target the master agent tier and have implemented rules to ensure each master agent has a balance of

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[8] In some markets, Value Added Tax (VAT) rules also make scratch cards a difficult distribution solution.

[9] In the case of M-PESA, each sub-agent must have a relationship with a master agent or aggregator. Thus, their entire agent network is structured in multiple tiers. In the case of True Money, many TMX agents have direct relationships with True. In some select cases, a TMX agent will report to another larger agent and share their commissions with them.

urban and rural sub-agents. This rule helped Safaricom create a strong rural presence and ensure each master agent is able to balance their e-money liquidity needs between urban and rural sub-agents. The second unique factor Safaricom faced is the lack

of banking infrastructure in Kenya. Whereas almost all TMX agents had individual bank accounts prior to joining the system, many valuable prospective M-PESA sub-agents did not. With a two-tier agent network, sub-agents are able to buy and sell e-money at the bank branch of their master agent, regardless of whether they are banked.

Manage Agent Liquidity

TMX agents manage their e-money liquidity directly with their corporate banking provider, whereas M-PESA sub-agents manage e-money liquidity using both non-bank options (i.e. buying and selling e-money at the retail store of their master agent) and bank options (i.e. buying and selling e-money at the bank of their master agent, or from a superagent). While True's liquidity management challenge is comparatively simple given that they only need to solve for e-money liquidity, their approach is still innovative. When a TMX agent needs to top up their e-money balance, they use a True Money application on their mobile to transfer the required value of money from their business bank account to their TMX e-wallet. Balances are updated immediately and, with True accounts at most big banks in Thailand, agents are only required to pay an intrabank money transfer fee which is typically less than one percent.

Agent Selection Criteria

Because TMX agents do not yet provide cash-out services, True does not need to screen applicants for their cash positions. Instead, they simply select prospective agents that are banked (to enable the liquidity management solution) and on the merits of location – the more traffic a prospective agent gets, the more likely they are to see a high volume of bill payments and mobile airtime top-up. This task is dramatically simpler than the one Safaricom faces, who above all else must select and retain only those agents with good cash liquidity – or face an erosion of trust in the system.

Bank Partnerships

Banks make the same two core contributions in the models of M-PESA and True Money: they mirror the value of outstanding e-money issued by a mobile operator in a pooled account, and they contribute to the management of liquidity.[10] But while banks play similar roles for both deployments, the approaches taken by Safaricom and True to engaging bank partners has been slightly different.

Rather than choosing one single bank partner, True chose to work with most commercial banks in Thailand as a means of supporting their e-money liquidity management solution.[11] In effect, their multi-bank partner strategy enables any prospective TMX agent to quickly buy e-money using an application on their handset, regardless of which bank they happen to have an account with.

True's multi-bank partner strategy has drawn mixed reactions from banks themselves. On one hand, banks do earn revenue from processing an intra bank money transfer service each time a TMX agent reloads their e-wallet (i.e. when money is sent from the account held by a TMX agent to the account held by True at the same bank). However, some banks contend that once a TMX agent has loaded their wallet, the subsequent services they can provide may cannibalise bank offerings and offset any revenue they stand to earn. For example, in a hypothetical scenario where the TMX agent loads Bt1,000 onto an e-wallet, they pay the bank a fee of Bt10 for the money transfer and can facilitate 5 bill payments of Bt200 each for customers before they need to reload their e-wallet and pay the bank another fee. Had those TMX customers paid their bills instead through the bank's bill payment service, the bank would have earned revenue from each individual bill payment.

[10] True attained a license from the Bank of Thailand in 2005 to issue e-money as a non-bank. They also hold a payments/collection license, issued by the Revenue Department.

[11] Number of bank partners not disclosed, but it is in excess of a dozen.

Because the value of e-money in circulation is reflected cumulatively in many banks, True has not made any *one* bank a big winner by way of increased float balances.[12] Safaricom, on the other hand, initially chose to mirror the amount of M-PESA e-money in circulation at a pooled account at one bank, the Commercial Bank of Africa (CBA), providing this partner with a windfall of deposits. In effect, this approach has provided Safaricom's one bank partner with a very strong value proposition by way of opportunity to monetize float. However, as the M-PESA account came to account for such a significant portion of CBA's assets, Safaricom and hence M-PESA customers became exposed to CBA default risk. Thus, recently Safaricom moved to maintain some balances at Standard Chartered Bank.[13] Even with a couple select bank partners, the principle of providing value through increased deposits should still apply.

And beyond providing a windfall of incremental deposits to CBA and Standard Chartered, Safaricom recently moved to engage other commercial banks to help in the process of liquidity management. In principle, this move is similar to True's approach of leveraging existing bank infrastructure to help address liquidity challenges. But Safaricom's approach has been somewhat different.

Safaricom's efforts began in early 2009 with the creation of the 'superagent' function. Superagents are banks that have partnered with Safaricom and enable sub-agents to buy and sell e-money at any of their branches. These superagents play an important liquidity management role by providing sub-agents with more options to conveniently access a bank branch. That is, a sub-agent can choose to manage their liquidity at *any* branch of *any* of Safaricom's 6 superagents, rather than a branch of the one bank that their particular master agent may be affiliated with. This bank partnership model has helped Safaricom grow their agent network.

Conclusion

True's success vividly illustrates how market conditions, customer needs, and operator assets shape the nature of the mobile money opportunity in every market. Most importantly, their success story is a great example of an operator *responding* to market conditions. But what makes Kenya so different from Thailand? Above all else, infrastructure. Thailand has sophisticated banking infrastructure (i.e. branches, ATMs), whereas Kenya, by comparison, does not. Thailand has a far-reaching ID system, whereas Kenya, by comparison, does not. These two differences alone beget differences in service offerings, with money transfer ripe for Kenya, but less interesting in Thailand, as well as differences in distribution strategy and initial customer segment focus.

Each success story is impressive in its own right. That two very different offerings can succeed so well suggests that both merit study – and that all operators should work to define a strategy that is responsive to the context in which they operate.

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[12] This is the case specifically for TMX. In theory, True could mirror the value of all e-money issued through True Money Cash Cards in one particular bank.

[13] Mas and Ng'weno, Forthcoming Paper

Exhibit 1

Bill Type	Example	Revenue Model	Distribution Solution & Rationale
True Group	True Visions (TV)	Internal Transfer	True Money Cash Card and e-wallet
Prepaid bill	Online Games	Percentage of voucher value (i.e. 15% of a Bt200 gaming credit) paid by the bill issuer. The actual percentage varies with the top-up volume committed and delivered by the bill issuer.	True Money Cash Card and e-wallet *Why it makes sense for bill issuer:* Small bill issuers lack the market power to distribute their own proprietary card, and it is more economical for them to use True Money as a source of funds than to create their own (i.e. convenience stores would charge a higher % fee than True for stocking their card). *Why it makes sense for True:* Because the % fee True earns from these bill issuers exceeds the cost of producing and distributing a cash card, the True Money Cash Card can be profitably used as a payment tool.
Postpaid bill	Utility Company	Transaction fee paid by the customer or in some cases, the bill provider.	TMX Agent Network *Why it makes sense for bill issuer:* Provides their customers with an additional payment point, for no (or minimal) additional cost to the bill issuer. *Why it makes sense for True:* Because the potential customer revenue from processing a utility bill payment is typically less than the cost of producing and distributing a cash card, True cannot use the True Money Cash Card. Instead, they process these payments with the TMX agent network electronically, which eliminates the cost of physical card production, distribution and high commissions.