

## **Mobile Money: Profitability Analysis Using ACTA Framework**

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**Abstract:** *Mobile Money also known as M-Wallet system offer a multiple options , as a locomotive for financial inclusion, and as an evolving markets business opportunity for providers. Billions of individuals and millions of small businesses in developing economies today lack access to savings and credit. facilities Success in financial inclusion needs approaching these users with products that go beyond payments and can significantly improve people's financial .literacy. Providers who can do so profitably can tap into untouchedmarkets. To uncover how digital payments providers can capture these opportunities while benefiting people currently without access to financial services, some of institutes have examined the actual financial and transaction data of a sample of m-Wallet providers.*

*Key findings can be listed as follow;*

- *Highly profitable due to scale but lot more spending required on infrastructure and systems*
- *Regulations proved to be main obstacles*
- *Opportunities for providers will increase as M-Wallet business models evolve with time.*
- *To grab the potential opportunity, business leaders need to be more productive partners than rivals.*

**Keywords:** *ACTA Framework adjacencies, cash-in-cash-out (CICO), Mobile Money*

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### **I. Introduction:**

M-Wallet system offer a multiple options as a locomotive for financial inclusion, and as an evolving markets business opportunity for providers. Billions of individuals and millions of small businesses in developing economies today lack access to savings and credit. They transact exclusively in cash, have no safe way to save and invest their money, and must rely on informal lenders and personal networks for credit. Success in financial insertion needs reaching these individuals and small businesses with products that go beyond payments and can significantly improve their financial lives.

For digital financial service business leaders, M-Wallet can be a gateway into enormous unexplored markets. Digital finance has the potential to reach over 1.6 billion new retail customers in evolving economies and to reach the volume of loans for individuals and businesses by \$2.1 trillion. The providers of these products have capability to gain potential new revenue streams and to increase their balance sheets by as much as \$4.2 trillion, in aggregate. By building digital finance capabilities, companies will grow new business models ranging across new forms of more data-based financial services, micropayments, and entirely new digital businesses. Some questions still unanswered;

How will the M-Wallet value chain work in practice? What do we know about consumer behavior?

To answer some of these questions we need to understand how digital payments providers can capture the opportunities while benefiting those without access to financial services, we have analyzed the actual financial data of a sample of M-Wallet providers, all on a blinded basis. We relied on proprietary data from six institutions for detailed benchmarking analysis, and also analyzes publicly available data. Some of the providers we studied and analyzes were subscale, capturing under 25 percent of their markets and only a small amount of transaction volume; others were operating at scale as the major players in their markets. The companies examined also ranged in degree of maturity i.e . duration in financial market , from under five years in operation to over ten years.

Significant Capital investment before enabling the profitable revenue

Payments systems realize significant benefits of scale when fixed costs become small on a relative basis and when network effects are utilized —both for individual providers and at the market level. We estimate on the basis of above scale, M-Wallet can be a 35 percent-margin business. But small providers may need to spend over two times what they earn just to maintain their size.

Providers will break even once they see sufficient value flowing through their systems. For the providers we observed, the break-even point occurred at \$2 billion to \$3 billion in annual transaction value and corresponded to total system revenue of roughly \$20 million to \$30 million.

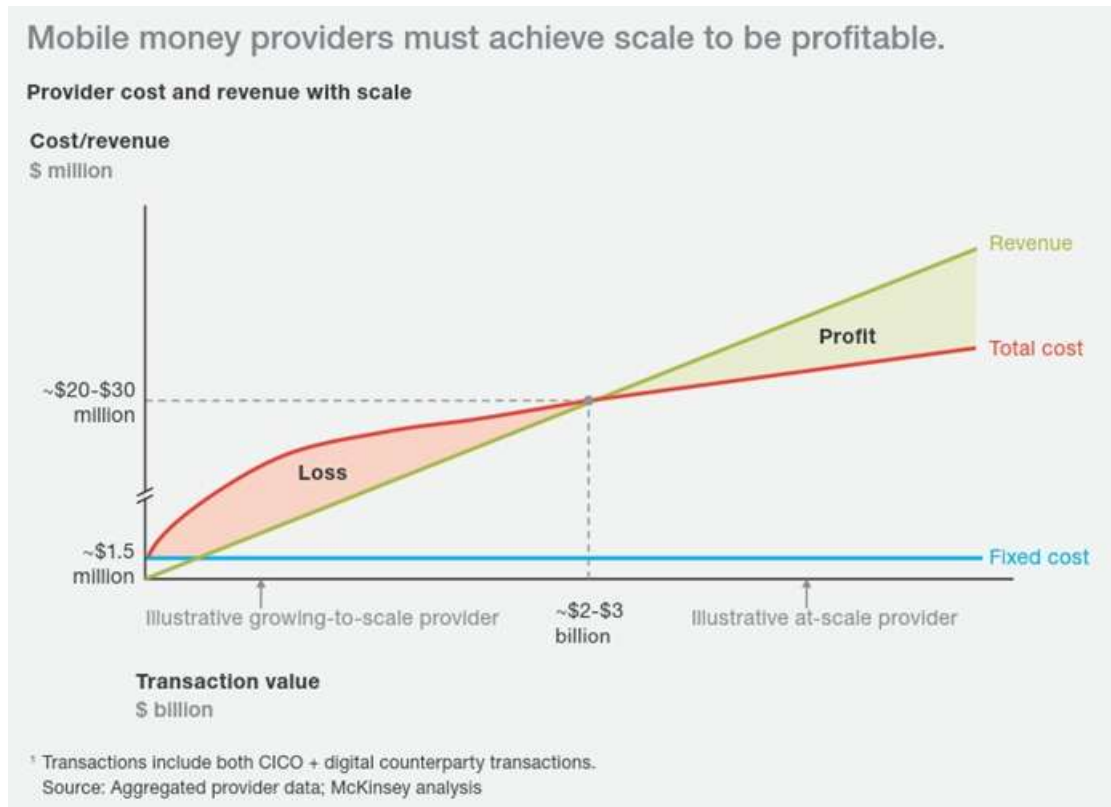


Fig 1:

M-Wallet involves fixed investment but unit costs decrease as more value flows through the system. The most significant fixed-cost component is the IT infrastructure required for transactions processing, which includes software licensing fees. Overall, our benchmarking indicates that IT represents around \$1.5 million in annual cost which is significant for a smaller provider but relatively feasible once a system has more than several hundred million dollars of annual flow, generating well in excess of \$1 million dollars in annual revenues. On the other hand, providers who support many lines of business—like MNOs and banks—leverage existing staff and buildings as they grow their M-Wallet offering, effectively marginalizing these spend components.

To gain the benefits of scale, however, providers must invest significant amount and with considerations of long term returns. This strategy can be proved right with the example of Alibaba and Google. These firms have invested significantly in long-term growth and to capture the major market share, even when this investment results in immediate losses. Since a rosy end- state business model means little without the ability and appetite to foot the initial bill, successful providers will draw on their own reserves, find long-term investors, or look to partner.

**Regulations:** Hindrance or Catalyst for profitable and trustful business.

allet provider profitability and ability to scale is impacted by Regulatory decisions . Regulation has potential to influence following factors:

- The ability to grow and maintain a customer base
- To build and sustain a high-quality agent network
- To develop critical capabilities and infrastructure
- To offer products beyond basic payments (Figure 2).

Since large-scale digital finance promotes financial inclusion and boosts GDP both at same time. Financial regulators should consider the impact of regulation on M-Wallet provider economics as part of the balance among multiple factors including financial system stability, customer interests, broader policy aims, and macroeconomic considerations.

Success factors	Example types of regulation	Potential to...	
		Reduce profitability	Slow growth
Grow and maintain customer base	Tariff caps on cash-out transactions	✓	
	Arduous KYC requirements or process	✓	✓
	Transaction and account balance limits		✓
Build and sustain agent network	Agent fees	✓	
	Onerous agent registry requirements	✓	✓
	Restrictions on who can be an agent		✓
Develop basic infrastructure and products beyond payments	Requirements that deposit funds be held in trust, escrow, or similarly restricted manner		✓
	Required firewalling of mobile money and other business IT systems	✓	✓
	Specific and complex licensing for each product	✓	

Source: McKinsey interviews and analysis

Fig 2:

An example demonstrate how regulation can impact the economics of M-Wallet providers. First, tariff caps intended to make services affordable to poorer users can hinder profitability and make growing the customer base more difficult. Caps on fees reduce how much a provider earns from an individual transaction or cash withdrawal and, in some cases, can make the difference between a profitable business and a money-losing one. For the business models we studied, for instance, capping cash-out tariffs at \$0.25 each would shift overall provider margins from 35 percent to roughly -5 percent. Even when tariff caps do not make a type of transaction unprofitable, they increase the transaction value required through the system for a provider to be profitable overall. They may also make some customer segments unappealing for providers to serve, if the expense to reach them outweighs the benefit from gaining more users.

Finally, required firewalling of M-Wallet and other business IT systems can discourage growth and add cost, thereby reducing profitability. Several countries require such a firewall to protect M-Wallet customers against control failures outside of the M-Wallet business—in the voice and data business of an MNO, for example— where financial services regulators typically do not have oversight. Controls might fail to protect against risk events including cyber breaches, external identity theft, or illicit activity on the part of employees. However, such IT requirements can be costly to implement overall and contribute to fixed costs that are hard for small providers to shoulder.

## II. ACTA Framework

The four-part “ACTA framework” is a simple way to understand payments system activities and the underlying market dynamics and economics.

The first „A” stands for accounts, and the associated activities cover the primary relationship that a customer has with a provider, including opening new accounts and maintaining existing ones. Accounts provide a secure, accessible store of value. Mobile money accounts are an example, as are standard current accounts (also known as checking accounts).

The „C” stands for cash-in-cash-out (CICO). To use the payments system, customers must be able to deposit and withdraw cash into and from their payments accounts. For mobile money, most CICO activities occur at individual agents. This is the activity in which mobile money most differs from traditional banking, for which CICO occurs at more costly ATM and branch channels.

„T” signifies transactions, or direct transfers of funds between accounts, including those initiated by mobile phone as well as over-the counter transfers initiated at individual agents. The final „A” stands for agencies, which are activities, both

financial and nonfinancial, that generate non-payments revenue for payments system providers. Financial adjacencies include interest earned on balances held, and the spread between the interest that the institution pays on savings accounts versus what it charges for loans. Nonfinancial adjacencies include strategies to help companies acquire new customers, reduce customer attrition, cross-sell services, improve collections, or power other businesses with consumer insights. These revenue streams are vital for overall payments systems economics.

**M-Wallet Business Model: Time is solution to all problems**

allet providers make money by charging customers for four types of activities:

- Activities associated with opening and maintaining the account
- CICO services
- Transactions between two accounts
- Adjacent activities tied to the M-Wallet wallet

A provider is profitable only when total revenues from the underlying activities exceed total associated costs. Looking forward, even more significant opportunities are awaiting; This increase in digital transactions will boost the bottom line. New business models will give payments providers access to entirely new revenue streams. In today's M-Wallet business models, CICO drives provider economics (Fig. 3). For at-scale providers, it represents roughly 60 percent of profits and accounts for the largest share of both revenues (70 percent) and costs (80 percent). Since margins on CICO are relatively slim, at 20 to 30 percent, even small cost reductions can impact overall economics and cost increases can make players unprofitable.

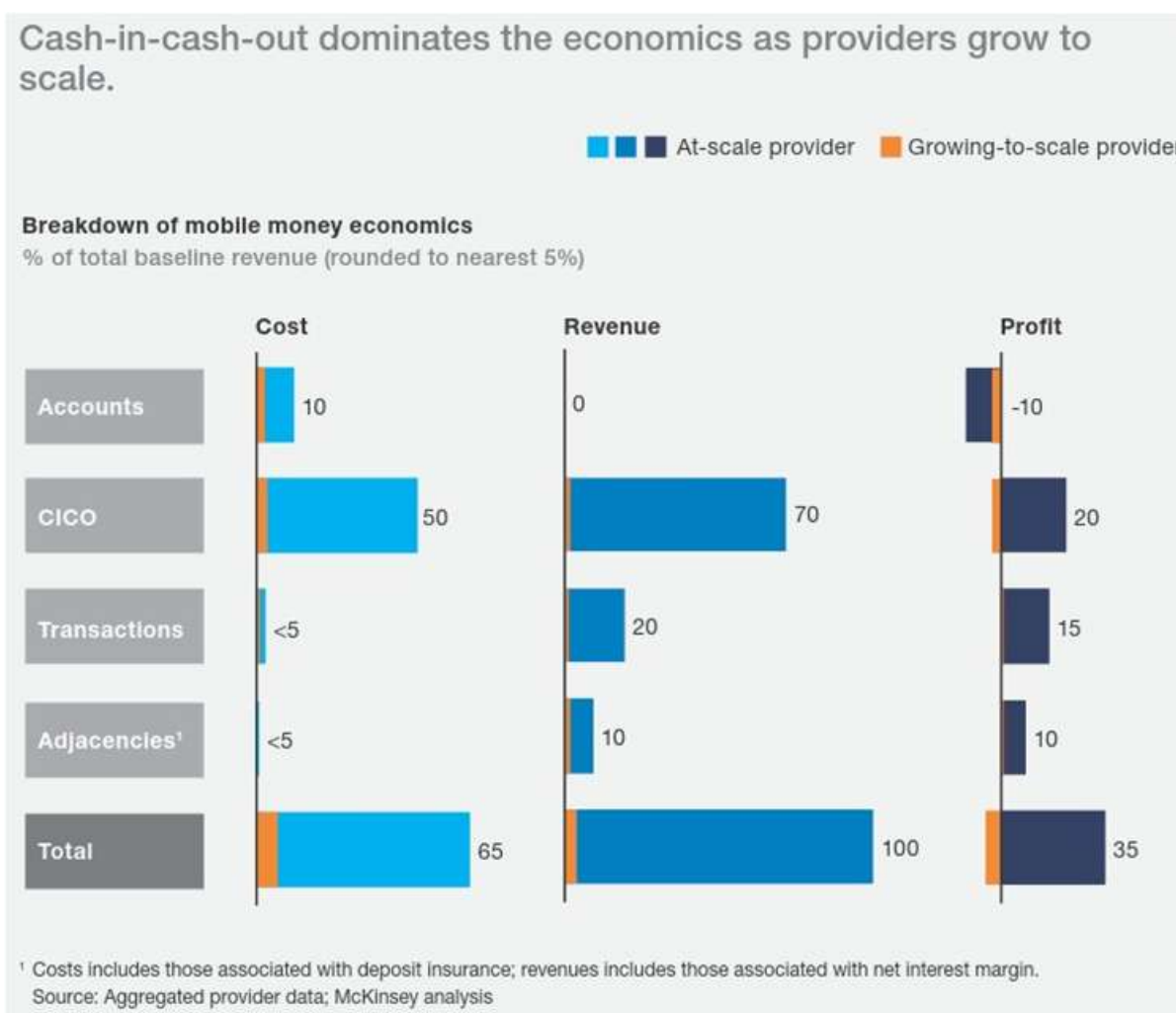


Fig 3 :

While innovation on CICO cost structure could be game-changing, caution is critical; since agents play a central role in acquiring and maintaining customers, changes in CICO structure could require meaningful increases to customer acquisition costs.

Account-related activities are the second-largest contributor to M-Wallet system costs around 15 percent of the total outlay (or 10 percent of total revenues). These costs are associated with opening and maintaining accounts and stem primarily from marketing. Regardless of model, marketing costs may need to be higher than this average for acquiring down-market customers who are more difficult to reach and who may be less prone to switching behavior quickly.

Today, transactions represent around 20 percent of total revenues. Margins on transactions can exceed 75 percent thanks to fees that are large compared to the low costs to the provider, due to automated systems and digital user interfaces.

As a result, providers stand to improve profitability meaningfully by increasing the number of digital transactions for every time cash is put into the system (Fig. 4). All evidence indicates that cash and thus CICO will not disappear anytime soon. Even in Norway, for example, the country with the largest share of digital payments globally, 17 percent of all payments are transacted in cash.<sup>3</sup> Thus, to improve profits, providers should look to grow digital transactions even if it means also increasing the number of CICO transactions.

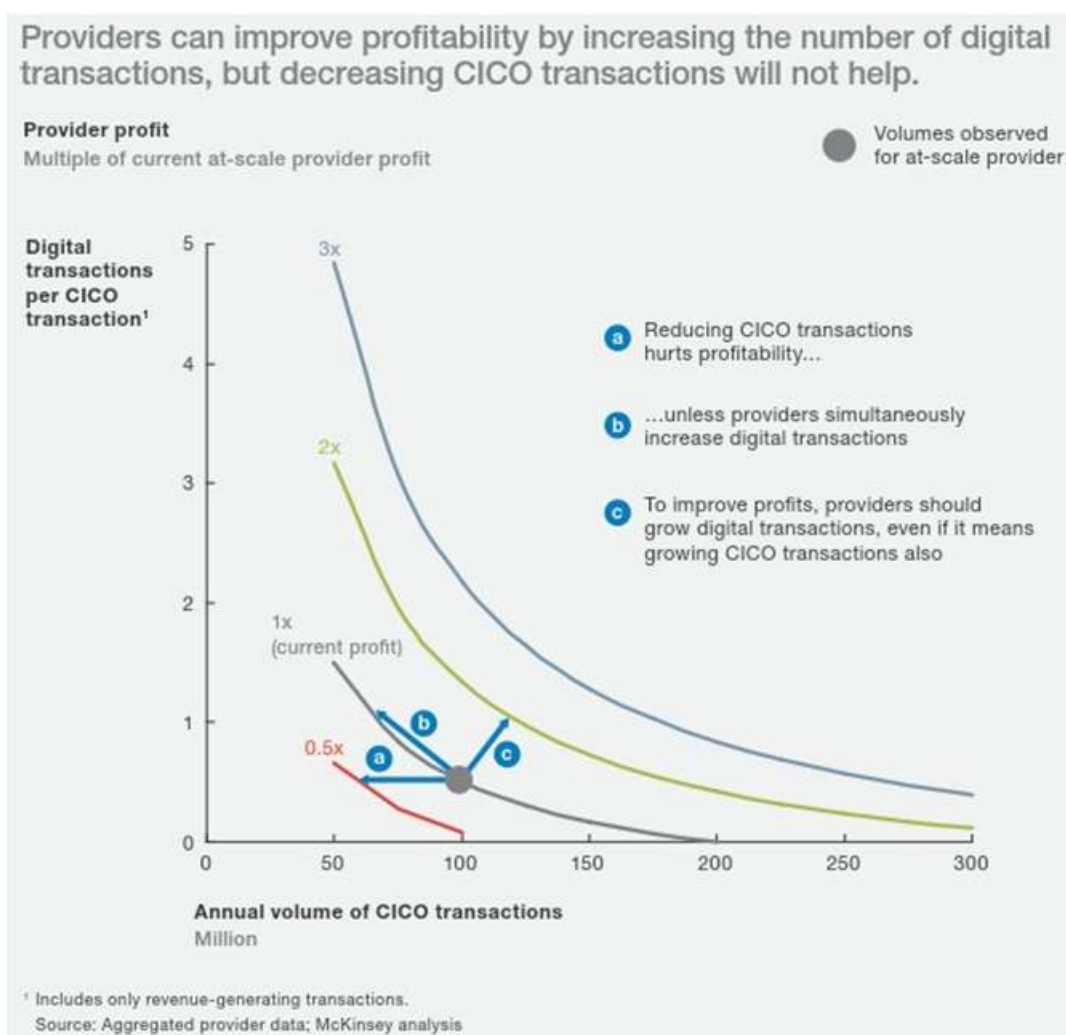


Fig 4:

Finally, adjacencies remain a largely untapped opportunity, contributing only 10 percent to both total revenue and total profit at most providers. New economic models that leverage payments offer huge potential. M-Wallet offers providers the opportunity to enhance existing business models and to develop new ones beyond standard digital payments—including new forms of more data-based financial services, micropayments, and entirely new digital business models.

**Acquire market by partnering new ventures and acquiring new skills**

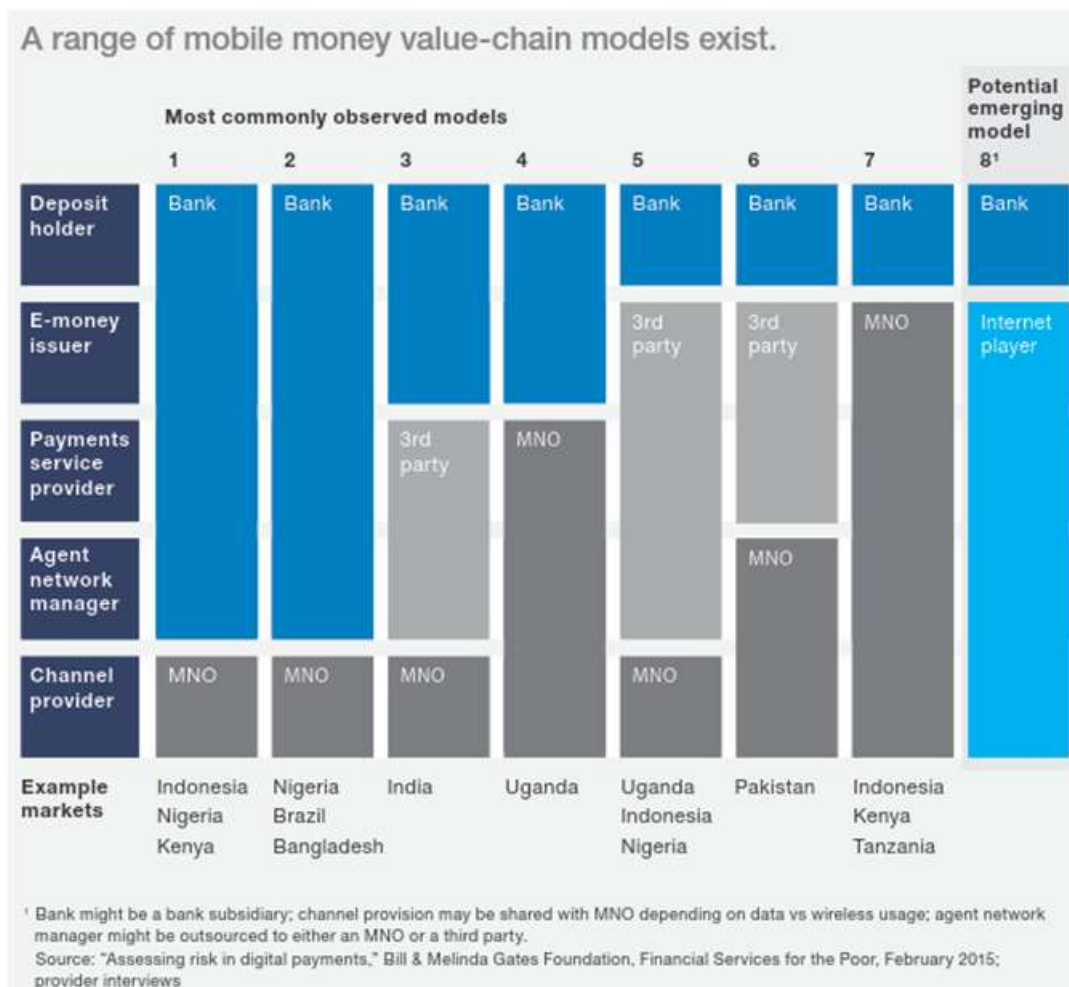
There is a range of value chain models but not all are equally well suited to foster profitable growth or to take advantage of evolving M-Wallet business models. Every model is different but there are typically five main roles across the value chain.

These roles are as follows:

- Deposit holder,
- E-money issuer,
- Payments service provider,
- Agent network manager
- Telecommunications channel provider.

Entities like bank, MNO, or other third-party provider—plays each of the five main roles varies by country, and sometimes within a single country. In all value chains of which we know a bank or other depository institution plays the role of deposit holder and an MNO plays the role of telecom provider. Banks, MNOs, or third-party providers can play each of the remaining three roles (Fig. 5).

Today, no single type of provider—banks, MNOs, or Internet providers—has all of these skills (Fig. 6). For example, MNOs can leverage their existing agent and cash distribution networks to achieve costs for CICO that are roughly 40 percent lower than those of banks, comparing growing but still subscale M-Wallet services.



On the other hand, MNOs have no experience or existing capacity holding deposits as part of financial intermediation. Recipes for overall success could include a bank-MNO partnership or an established Internet player acquiring an agent distribution network. Example include Equity Bank's partnership with Airtel and Standard Bank's partnership with MTN.

Ultimately, providers' eagerness to provide M-Wallet and adjacent products will depend on the

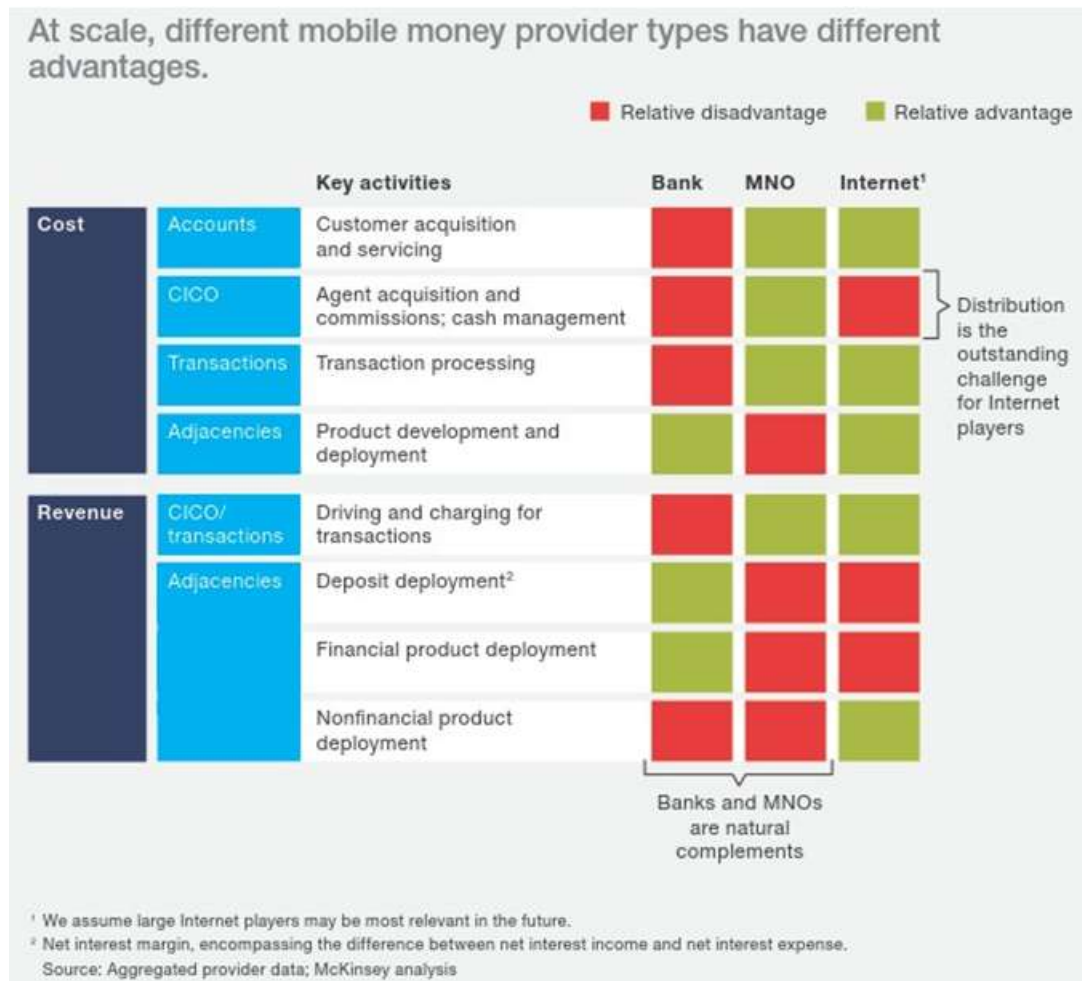


Fig 5:

benefits and tradeoffs doing so presents to their core businesses. Companies will look to participate in M- Wallet only in those ways that provide higher returns than the other opportunities that they have to grow their businesses.

**III. Conclusions:**

allet is a convenient option among many digital advances that have made lives easier for people in developed markets. For billions of individuals, and millions of small businesses, in evolving markets, M-Wallet is a lifeline, bringing the benefits of financial services to those who currently lack access, and thus enabling them to take initial steps toward healthier financial lives.

From the analysis following points can be depicted:

- The up-front investment is significant; because scale is the key determinant of ultimate profitability.
- Few current providers possess the capabilities which can be utilize to fully seize current and future opportunities. These providers need to develop these capabilities quickly or partner and acquire firms that have required skills to make use of opportunities.
- Finally, successful providers will maintain a dual focus: a clear view on drivers of M-Wallet in economics today, and a forward-looking perspective on the potential for new, innovative financial services and products and adjacent revenue streams.

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