

# Regulatory Framework For Mobile Financial Services

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## **Abstract:**

Regardless of the details of a 'mobile-money' regime, mobile operators take increasingly part in mobile financial services, playing a crucial role in expanding the business. From a regulatory and supervisory point of view, the question must be answered whether the execution of mobile financial services is so close to a deposit-taking activity (as the provider starts acting in a bank-like manner) that compliance with banking regulation is a matter of public interest. In any case, the growing importance of mobile financial services providers implies that telecommunications regulators and banking regulators will inevitably have to coordinate their activities and share information and know-how. India would be an ideal place to become an experimental 'legal laboratory' tackling the difficult question of when banking regulation should be applied to providers of mobile financial services and to what extent the specificities of mobile financial services imply a different regulatory treatment. It is in the interest of both the private providers and the public to make the offering of mobile financial services a reliable, safe, and promising business that acknowledges the importance of customer protection.

**Keywords:** mobile banking, mobile payment, telecommunications vs. banking regulation

## **Introduction**

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The use of mobile phones in order to effectuate financial transactions is prone to increase significantly in the near future. According to the International Telecommunication Union (ITU), the number of mobile cellular subscriptions globally is likely to reach five billion in 2010. This development is at least in part driven by an increased take-up and advancement of mobile banking services around the world. The growth of mobile financial services does not only depend on technological advances but also on consumer confidence in the provided services.

In the industrialised countries, the additive model applies, meaning that mobile financial services constitute a further (suitable) channel for customers already demanding financial services. In the developing world, the transformative model aims at offering these services to customers that have previously not been involved in financial services transactions.

While the achievement of mobile financial services facilitates access to payment and banking transactions—especially for areas without an established net of (physical) banks—, it may also involve certain risks. If mobile financial services providers perform depository-like functions, the threat of large depositor losses has to be met by according means of depositor protection. Furthermore, mobile financial services providers, particularly if they operate on a global scale (perhaps by liaising with an international financial group), may become so large and interconnected over the years that their failure could cause disruptions within the wider financial markets. This threat is perhaps even more distinct than with respect to 'conventional' providers of banking services as the channels of risk distribution may be less 'visible' in the mobile world compared to financial institutions with physical branches and subsidiaries.

These considerations reveal how essential it is to clearly define the scope of mobile banking and payment services in the larger context of the financial industry. More specifically, mobile financial services could, if not handled properly, turn into a new

shadow banking system, undermining government supervision and the rather comprehensive regulation of traditional banking. Finally, there are private law issues that should be given due consideration in the discussion on mobile financial services to provide for appropriate consumer protection, especially with regard to sensitive data.

## **1. Elements of Mobile Financial Services**

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The development of mobile financial services depends on the economic circumstances as well as on the suitability of the legal framework regulating the services' application. The user- friendliness of the offered services is certainly a key aspect of the success of mobile financial services. The idea of handling financial transactions through mobile phones attracts customers due to its sheer convenience. Economically speaking, mobile financial services will only be widely used if they imply a reduction of costs in comparison with the traditional financial services tools. On the one hand, WAP (wireless application protocol) technology has become an appropriate technique for customers since the transmission speed has increased substantially in the past years. On the other hand, it is essential that providers of mobile financial services obey the quality objectives of simplicity, inexpensiveness, and timeliness. To promote customer confidence in the provided services, data security should be a focal point of attention of mobile financial services providers.

Mobile financial services encompass two main types of business activities, namely mobile payment and mobile banking:

- (1) Services providers engaged in the mobile payment business fulfil an intermediary function between buyers and sellers (often in e-commerce or m-commerce transactions) by facilitating the purchase of goods or services with the help of mobile devices. Two basic mechanisms of mobile payment can be distinguished: First, the easiest way of implementing the data transfer is by charging mobile payments directly to the phone bill. In this case, the mobile operator only acts as an intermediary arranging for payments to be made to a third-party supplier. Second, mobile payments can also be settled through customers' prepaid accounts. However, in this second setting, it may cause difficulties to clearly identify an account as a prepaid account as the demarcation line between prepaid and deposit accounts becomes increasingly blurred.

In the developing world, innovative mobile-money schemes have emerged, which offer their services in various fields and for multi-faceted purposes. For example, 'Safaricom'— Kenya's largest mobile operator—launched the money transfer service 'M-PESA' in 2007. M-PESA, besides its primary use to transfer money, allows customers to execute daily payments for everything from school fees to taxis rides; more recent applications also concern health insurance premiums and similar kinds of payments. M-PESA's concept enjoys great popularity in Kenya: In 2009, it had already seven million subscribers out of a 38 million population.

- (2) Mobile banking includes the whole range of services in which a banking activity is involved, including mobile accounting, mobile brokerage, and the complementary service of mobile financial information. Mobile accounting encompasses transaction-based banking services revolving around a standard bank account. Mobile phones are used to make money remittances, give payment instructions, execute payment transactions, or cancel orders. Mobile banking is gaining momentum in the developing world: For example, MTN—a South-Africa-based telecommunications company—launched a mobile accounting service in Uganda in March 2009 that allows the execution of transactions through text messages and the storage of money on mobile devices. Mobile brokerage, in contrast, refers to intermediary services in both capital markets and markets for goods and services. For example, the Danish

Saxo Bank provides through the 'SaxoMobileTrader' a flexible trading platform, enabling customers to trade in various capital markets. 'Google Trader' is a marketplace application which allows customers to buy and sell goods and services through their mobile phones via text messages. Further examples of mobile brokerage providers are 'TradeNet' in Ghana and 'CellBazaar' in Bangladesh. Lastly, mobile financial information, as a complementary service, helps customers to execute mobile financial transactions more smoothly. For example, 'First Direct', with headquarters in the United Kingdom but branches around the world, sends mini-statements as text messages alerting customers to keep their accounts up-to-date.

In the developing world, the substantial growth in mobile financial services depends to a large extent on the fact that mobile phone penetration and the use of mobile phones are much higher than the availability of cash machines and bank branches. It is likely that the facilitated access to financial services will increase the overall customer basis in the financial industry and reveal some of the latent potential of developing financial markets. In fact, one can expect that the use of mobile devices will raise the potential of developing financial markets to compete with established global financial markets.

The fundamental social and economic benefits resulting from mobile financial services, however, should not make blind in view of the legal risks inherent in such development. In other words, mobile-money schemes must be organised and regulated in such a way as to ensure that financial markets function soundly and efficiently. In particular, it has to be ensured that mobile financial services and their providers do not cause or increase systemic risks. Furthermore, mobile financial services must meet certain standards with regard to consumer protection. However, such regulations should seek to hamper innovation and growth of the mobile financial services industry only to the extent that is indispensable to provide for financial stability and consumer protection.

## **2. Appropriate Legal Framework**

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International regulatory frameworks have not yet established a specific supervisory regime for mobile financial services, and national regulators are generally reluctant to intervene in a promising business for less developed countries and, in particular, rural and remote areas. Designing the regulatory and supervisory regime depends less on the use of mobile telephony to undertake banking transactions than on the targeted banking activity, such as deposit taking or brokerage. Nevertheless, regulators and supervisors in both the finance and the telecommunication sector should be aware of several distinctive features in mobile banking.

Since the regulatory regime for rendering financial services is regularly more elaborated and encompasses more stringent structural and behavioural 'guidelines' than the legal framework in the telecommunications sector, the key question concerns the possible application of banking law on a mobile financial services provider. Very commonly, the competent financial market authority is entitled to specify the scope of banking business executed by a financial institution and to issue banking licenses as a condition to enter the financial services market and to carry out a regulated activity. Whether mobile financial services and their providers are considered as being subject to banking regulation thus depends on the determination of what constitutes a banking activity on the one hand and on the definition of banks on the other hand. The core principle in banking law is expressed in the notion that only banks are authorized to publicly take deposits and grant credits; correspondingly, depositor protection is an important aspect of banking regulation.

As far as the offering of mobile financial services is concerned, the question must be answered whether the execution of mobile financial services is so close to banking

activity (and the provider in fact act in a bank-like manner) that compliance with banking law is a matter of public interest. Two different settings can be distinguished:

- (1) If a mobile operator charges customers through their phone bill in the process of collecting a payment for a provider of goods or services, the mobile operator acts as a mere intermediary. The operator takes the risk inherent in the particular transaction as far as the aspect of proper execution is concerned; furthermore, remuneration may depend on a scheme of sharing a part of the gain with the content provider. However, the key function of the mobile operator is to make the financial transaction between the provider of goods or services and the customer possible without being directly involved in the deposit-taking business.
- (2) If the mobile operator creates prepaid accounts to facilitate the execution of payments, the activity typically implies a certain deposit-taking function. The mobile operator's risk is not any more limited to the proper execution of the particular transactions, but it bears certain counterparty risks with regard to its customers' ability to meet their financial obligations. The use of prepaid accounts as such does not necessarily constitute a banking business; however, a grey area begins as soon as high amounts are deposited on such an account for longer periods or if it is used for investment purposes. A mobile operator also acts in a bank-like manner if it pays the customers interest on their accounts or reinvests the money received in other businesses or capital markets. Under such circumstances, the activities of mobile operators resemble banking activities, and the balance sheet of the operator may begin to look similar to a bank's balance sheet.

Obviously, a clear and easily applicable demarcation line between sheer intermediary services of mobile operators and a deposit-taking function does not exist, even though it would be desirable with regard to avoiding legal uncertainty. In particular in the developing world, mobile-money schemes have developed outside the regulated banking sector, which is only unproblematic as long as mobile-money schemes limit the balances they raise and do not pay interest when these balances are used like savings accounts. Nevertheless, problems might occur in the case of irregularities, such as financial fraud, or bankruptcy of the mobile financial services provider. In the latter case, customers would certainly call for depositor protection, which could only be made available under an established financial supervisory system.

At any rate, regulators should seek to avoid that financial institutions try to associate with mobile operators as a means of circumventing the stringent banking regulations. The recent financial crisis has demonstrated (like many of its predecessors) that the emergence of a shadow banking system—executing bank-like functions without being subject to banking regulation and supervision—has the potential to destabilise the entire financial industry in case of market disruptions. However, it may be difficult for banking regulators to capture on their own the novel use of mobile devices to execute financial services in an appropriate way. At least with regard to the technical issues, banking regulators clearly rely on the knowledge of the telecommunication regulators.

Therefore, the establishment and institutionalisation of co-operation and information sharing between the telecommunications regulator, supervising the provision of value-added services by a mobile operator, and the banking regulator, supervising the deposit-taking business of a provider, will be essential for effective supervision of mobile financial services providers in the near future. The legal framework of mobile financial services should encompass an inter-related regulatory approach which recognises the distinctive features of telecommunications and financial services requirements. For instance, the consumer identification process in mobile financial services should be more formal than for buying a Subscriber Identity Module card

(SIM card) but less rigorous than for opening a bank account.

The development of mobile financial services is not yet being reflected in the regulatory framework at the global level, nor has it been given due consideration in the ongoing international discussions on regulatory reforms of the financial system. It is to be expected that India—as a technologically advanced country with large rural areas—has both economic and political interests in advancing the business of mobile financial services that may help underpin India's position as an emerging financial market. For these reasons, India appears to be an ideal place for conducting research on the creation of a regulatory framework that does not unreasonably hinder the innovation of mobile financial services but takes into account the need for adequate customer protection.

### **3. Private Law Issues**

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In the contractual relations between the mobile financial services providers and the customers, three aspects play an important role:

- (1) Data security must reach a high standard: On the one hand, mobile providers should under normal circumstances not be allowed to disclose personal data to third parties. On the other hand, data security implies that mobile providers prevent unauthorised persons from misusing personal data. The security issue is crucial to the success of the provided services since the customers want assurance that the wireless communications are not intercepted as they may contain rather sensitive information about customers' asset and income situation. Therefore, mobile operators must take technical and organisational measures to protect the processing of personal data via the mobile network. For example, after having executed a mobile financial transaction, the mobile transaction number (mTAN) process would have to involve a transaction confirmation through the mobile phone. In addition, typical malware scenarios are to be tackled and risks of falsified websites should be mitigated.
- (2) Mobile financial services providers need to use reliable methods for the verification of customers' identity and authorisation, such as the implementation of a Public Key Infrastructure (PKI). For the time being, the application of digital signatures is still remote and alternative measures such as PIN numbers, passwords, and smart cards do not reach the same level of security. In the future, biometric technology, fingerprints, and voice recognition may become promising tools for identification. In India, pilot projects aim to introduce fingerprints in mobile banking to support illiterate people in undertaking banking transactions. Apart from the technical issues, the 'know-your-customer rule' must also apply in relation to mobile financial services. In particular, mobile operators should be obliged to verify—before taking up a business relation—a customer's risk profile and financial situation. Further-reaching identification may be necessary in case of a suspicion of money laundering or similar crimes, including an obligation to report such suspicion to the responsible authority according to the international money laundering standards.
- (3) However, consumer protection goes beyond data security and customer identification; it begins already before the business relation with the mobile operator is taken up. To establish market discipline it is of utmost importance that customers can take informed decisions. Transparency requirements, accompanied by appropriate fiduciary duties of mobile providers, would be appropriate means of covering customers' information needs. Consumer protection is also in the interest of the providers of mobile financial services; if the providers acquire customer confidence, customers adapt to the mobile provision of financial services more easily.

Consequently, in order to further develop mobile financial services, much concern must be directed towards the creation of an environment which fosters customer trust in the respective services and ensures market integrity. Failure to do so could hinder a successful advancement of mobile banking and payment and, perhaps worse, threaten financial stability. Consumer confidence is a fragile good that gets quickly lost and is hard to be won back. Furthermore, a loss of confidence is not necessarily confined to a particular provider or the mobile financial sector but may have negative implications for the financial services industry in general.

#### **4. Outlook**

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Regardless of the chosen regulatory model and the density of supervisory rules, it cannot be overlooked that mobile operators take increasingly part in mobile financial services. Insofar, mobile operators play a crucial role in the expansion of the financial industry. From a regulatory and supervisory point of view, this appreciation implies that telecommunications regulators will inevitably have to coordinate their activities and share information with financial regulators. Quite often, financial institutions and mobile operators arrange for an outsourcing of the front end of the deposit-taking business. Even if regulatory regimes do not contain explicit prohibitions, regulators should be very cautious in respect of financial institutions' attempts to outsource deposits to agents due to the risk of regulatory arbitrage and loss of reputation of the financial services sector.

Typically, customers first execute mobile payments, and they would not demand other mobile financial services if they were not satisfied with the execution of mobile payments. Mobile financial services may thus enjoy positive externalities from the success of mobile payments in the light of the customers' expectations. Consequently, the specific aspects relating to consumer protection play a particularly important role in situations in which mobile operators try to serve as financial institutions by granting credit for micro payments. If mobile operators are allowed to provide mobile phone holders with a loan, legal provisions have to apply to ensure compliance with the customers' needs. Notably, legal frameworks must protect consumers against unfair or misleading practices.

Beyond the ongoing attempts to regulate mobile financial services and their providers at the national and regional level, it is essential for several reasons that certain core standards apply on a global scale. First, at latest since the recent financial crisis it has become apparent that fundamental differences between national financial regulatory regimes lead to regulatory arbitrage, thus threatening the goal of international financial stability. It can be expected that the development of mobile financial services will change the global 'financial services landscape' and potentially increase competition between financial institutions located in different national jurisdictions. In such an environment, it is likely that financial institutions will seek to circumvent costly compliance with national regulations in order to avoid disadvantages in competition compared to rival financial services providers. Second and more practically, mobile financial services do not involve much stationary infrastructure, and mobile operators can—as their name implies—operate from different and varying places in the world. If they are not associated with a 'partner' financial institution, it will be almost impossible to capture mobile operators with nationally-oriented regulation or supervision.

The core standards to be introduced internationally for mobile financial services providers especially relate to anti-money laundering provisions and depositor protection. International attempts to combat money laundering are useless if they are only applied to selected providers of financial services as sparing mobile financial services providers will likely promote regulatory arbitrage. Furthermore, expansion of mobile financial services providers into deposit-taking activities must come along with appropriate depositor protection—be it through an extension of existing depositor protection schemes for

banks or the establishment of special schemes for the mobile financial services sector.

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