

A Taste of Virtual Currency: Air4Cash and Cash4Air

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Mobile telephony really makes the case for being the primer of a disruptive technology that has had a major impact the way people communicate eliminating the constraints of space and time. From simple voice communications, through short messages, and Web browsing, taking photographs and exchanging video clips, and accessing various instances of information services in the areas of education, health, agriculture, financing and commerce, the small mobile phone devices with ever growing computational and communication power has transformed the lives of millions regardless of the place where they live and work. It is a cross-cutting technology, through social and geographical barriers, through artificial gender and educational limitations, the technology has empowered those that for many years have been on the margins of the informational, or for that matter any revolution.

The generative and creative potential of the mobile technology has found more than a fertile ground in the developing world where new modes of usage and subsequently services have emerged. The world of commerce and banking for those excluded from any formal system has opened up and the introduction of mobile phone payments present a significant opportunity to integrate more users within the established financial systems in the developing world. Besides enabling services that can improve the performance of small businesses, mobile payments afford an opportunity to integrate more users within the traditional banking systems at a reasonable cost. While some case studies of successful implementations have started to emerge across the developing world from the Philippines to Kenya, they are still much smaller in scale compared to other existing payments systems, despite the surging growth in both the coverage of the mobile networks as well as the number of mobile subscribers.

The need for new infrastructural investments would be limited because the bulk of infrastructure is already in place—mobile networks and the large number of mobile phones in the hands of subscribers. New investment may come in the form of novel point of sale systems, where the use of mobile phones is undesirable and creating clearing-houses for participating entities to settle their balances. Buying and selling airtime or credit for mobile phones has created an enormous distribution network of phone kiosks and airtime vendors that can be leveraged, while the popularity of prepaid systems and buying airtime in small flexible denominations have initiated people into micro payments. Experiences with using airtime as an alternative to cash or a mechanism for transferring money over distances will also lower the acceptance barrier for mobile payments, which will facilitate the adoption of more elaborate financial systems and services.

The simplest solution for mobile payments might involve legitimising the use airtime as alternative currency or money transfer mechanism. This requires that it is easy to change airtime back into cash, a transaction that has a got a number of challenges. One of these is the monetary value that is lost in the airtime distribution channel through various commissions and taxes, how to recoup these losses in the reverse transfer does require some novel solutions. A common solution in the developed world—the "mobile wallet," where bills for other items purchased by the consumer are added to their monthly mobile phone bill are not interesting in the context of the developing world where prepaid solutions predominate. A more relevant emerging solution is the creation of a separate account or "mobile wallet" in the mobile operator's system similar to that used to track airtime—except this one only tracks virtual money, separating the airtime and the virtual money. This mitigates some of the limitations of using airtime as cash, but also introduces complexities of its own, paramount amongst these issues of security.

Conversely, we shall need to successfully negotiate a myriad of policy and regulatory obstacles. Mobile operators are currently regulated by telecommunications regulators, but mobile payments do touch on the realm of financial and banking regulators. While the two regulatory arms have worked independent of each other until now, there will be increased need to harmonise their activities as well as to build up their institutional capacity to cope with the resulting social, technological and economic changes. The

need to protect users in a dynamic environment will be paramount, while creating conducive environment for innovation and exploration.

It is expected that mobile payments will introduce new business models. From most case studies to-date, these tend to be dominated by either network operators or banking institutions, locking out the competition. An ideal solution would be to evolve open business models that can accommodate multiple stakeholders and create truly "transformational" solutions. But the challenge for policy makers and regulators is how to coordinate the interests of such diverse stakeholders without permitting their entrenched interests to derail such a process.

Successful mobile payments have the potential to revolutionise payment systems in the developing world and provide a foundation for mobile commerce. As governments and mobile operators strive to facilitate more people to acquire mobile phones, increasing the potential customer base for mobile payments, there is need to devise new ways to uniquely identify individual identity in a phone-sharing environment without creating unnecessary bureaucratic procedures. This will help protect users' privacy and money, provide secure mobile systems and prevent fraud and provide an avenue to leverage many of the elaborate procedures that have been developed to address Anti-Money Laundering and Combat Financing of Terrorism (AML/CFT) in the regular banking arena.