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THE SOCIAL MEANING OF MOBILE MONEY

Navigating digital payments, savings and credit in the global South

Janaki Srinivasan

7.1 Introduction

If we are indeed in the middle of a Digital Revolution, finance constitutes an important site where this revolution and its innovations are taking place. Nor is this a recent development: for a while now, digital technologies have pervaded the world of formal finance, especially at the backend, as studies of banking automation and high-frequency automated trading desks amply demonstrate (Zuboff, 1989; MacKenzie, 2014). While interested in the use of digital technologies in the world of finance, this chapter focuses on a somewhat different subset of financial technologies and sites of their use. Shifting the emphasis from the formal providers and institutional users of financial tools, this chapter looks at the end-users of these tools as they engage in their everyday financial transactions at their homes, communities, markets and banks by integrating formal, informal, familiar and unfamiliar financial channels (or what has elsewhere been referred to as the world of “low finance” (Musaraj & Small, 2018, p. 5; Roy, 2018, p. 20)). The chapter examines how the value of monetary technologies is constituted, their use integrated with that of non-digital artefacts and their use shaped by the innovativeness of their users in practice. The chapter goes on to show how, far from operating neutrally, access to and use of digital money technologies is shaped significantly by social relations and power structures. Ultimately, this chapter is an attempt to highlight how low-income populations especially in the Global South have been navigating – or failing to or resisting – the brave new world of digital payments, savings and credit.

In the context of what this chapter is interested in, technological innovations in finance have formed a significant aspect of programmes of financial inclusion, themselves a key part of the “renewal of development” and of the “ongoing reinvention of the developmental state in several countries of the Global South” (Roy, 2018, p.20).¹ The goal of a majority of such programmes is to bring a greater proportion

of the global population into networks of formal banking (Gates Foundation, 2019; Maurer et al., 2013; Musaraj & Small &, 2018; World Bank, 2014).² Besides these initiatives, private firms trying to create a profitable business venture have also built and leveraged digital financial platforms and services, and promise their potential users reduced transaction costs, higher efficiency and convenience in their financial transactions (Bharadwaj et al., 2019; Francis et al., 2017).

While much of the vision described above sees lowered costs, increased efficiency and convenience as inherent to the technologies it promotes, I take a somewhat different route in this chapter. Drawing on an established tradition in economic sociology and anthropology, I turn instead to a view that emphasises the relational work involved in rendering financial and monetary transactions (whether digital or non-digital) valuable in specific contexts (Guérin et al., 2019; Zelizer, 2012). Using examples from across the world in the spaces of digital payment, savings and credit (and focusing particularly on mobile money), this chapter will examine how and why people decide to leverage these tools in their relational work and with what implications for other aspects of their life. While taking the possibilities offered by new technologies seriously, this chapter foregrounds the circumstances, creativity and constraints that users bring to technology use in the hope that this framing will help designers of technology and policy as they grapple with ways to offer realistic choices and value to a more diverse population.

The chapter begins with a review of the literature on the “social meaning of money” in the digital era. Next, we work through the giving, receiving and saving of money in the digital era using several examples of mobile-based financial services that draw on empirical research from researchers spanning the globe. Throughout, the chapter considers both users and non-users of digital technologies, and practices before and after the introduction of mobile-based interventions. The chapter concludes by flagging some of the themes raised about the social meaning of money in the digital era.

7.2 The social meaning and life of money in a Digital Age

A central debate in economic sociology and anthropology has been to understand how the social shapes the economic. There is a profound range of answers to be found to this question within the field (Steiner, 2009). Polanyi argues, for instance that traditionally and historically, an economy was embedded in a society and social relations (Polanyi, 1944). It was only with the coming of the idea of a self-regulating market – where the needs of the market dictate how society is organised – that the economy became disembedded from society. For Polanyi, this movement towards commodification could only result in corrupting the social sphere and social relations. Others argue that the social and the economic have never been, nor will ever be, separate spheres of living (Steiner, 2009; Zelizer, 2011). In this telling, economic transactions are always also fundamentally social interactions that aim at “creating, maintaining, symbolizing, and transforming meaningful social relations” (Zelizer, 2012, p. 149). Furthermore, these interactions “are shaped by and constitutive

of broader structural forces, which combine norms, values, power relations and resource distribution” (Zelizer, 2012, p. 149).

On the definitions, features and role of money³ more specifically, too, Dodd points out a variety of conceptions that exist: thus, money has been variously called

the universal commodity form (Marx 1982: 162 and ch. 2), *a claim upon society* (Simmel 2004: 177), *diffuse social media* (Zelizer 1997: 21), *a social technology* (Ingham 2004: 1; Smithin 2008: 36), *an instrument of collective memory* (Hart 2001: 243), *a generalized symbolic medium* (Parsons 1968), *a social process of commensuration* (Maurer 2007: 126) and *a communal illusion* (Karatani 2003: 203) (Dodd, 2014, p.8).

Zelizer’s (2011) work also argues that:

people employ money as a means of creating, transforming, and differentiating their social relations. Instead of a single, fungible money that reduces social relations to a thin common denominator, they show us the integration of differentiated monies into the whole range of interpersonal ties.

(p. 89)

Using empirical examples from her study of housework, insurance, welfare schemes and intimate economies, Zelizer points to the many ways in which people earmark money and adopt symbolic distinctions and practices to make the proper destination of money obvious (Zelizer, 1979, 1985, 1994, 1997, 2005, 2011). They might treat money that is otherwise identical (say, two currency notes of the same denomination) differently because of where it came from or needs to go: dubiously earned money might go to charity, while money that came from welfare payments might be directed towards food or rent. To further make the point that “not all dollars are created the same,” Zelizer (2011, p. 93) notes that “a housewife’s pin money or her allowance is treated differently from a wage or a salary, and each surely differs from a child’s allowance” in terms of the uses that it can acceptably be put to. It is in these ways that money acquires a “social meaning” and a “social life.”

In his recent work, Nigel Dodd has employed the term “social life of money,” to get at this idea that “money’s value, indeed its very existence, rests on social relations between its users.” (Dodd, 2014, p.8). To the extent that the social life of money lens pays attention to social relations, it also allows us to examine the “historical, cultural, political, and institutional factors” that have shaped these relations (ibid). Furthermore, because social relations are always “complex and dynamic, variable and contested,” such a lens also enables us to better understand how power relations shape the features and working of money “as a social form” (ibid).

Examining the social meaning or social life of money in this fashion allows us to ask interesting questions about the introduction of digital tools in our economic transactions and our use of money. Is a digital gift voucher valued exactly the same as a paper one of the same amount? How about an object that is monetarily the same worth as the gift voucher? Is paying an employee a salary using digital means

the same as using a cheque? Is a migrant returning home more likely to wire her remittances in ahead of herself, or to carry home a sheaf of physical cash to hand over to her family in person? (And would this change if the migrant were a man?) In this chapter, I use this heuristic and lens of the social meaning of money to better understand how the introduction of digital money has shaped how we earn, save, pay or spend money, and to examine people's "monetary ecologies" ("assemblages of technologies, objects, animals, people, relationships, forms of property, and methods of record-keeping that, together, make up the world of value and exchange in people's everyday lives") and their "monetary repertoires," ("all the ways people might use, deploy, or manipulate the components of their monetary ecology") in the Digital Age (Maurer 2007, 2015; Tankha, 2016, p. 97). More specifically, how does all of this happen in regions of the Global South where the rhetoric about digital payments suggests that it will make money available and accessible to more people, at lower costs and more conveniently?⁴ This way of understanding digital money use (or non-use) allows us to shift our focus in three ways:

- from the inherent value of monetary technologies to how this value is constituted in practice within specific constellations of norms, values, power relations and resource distribution
- from the use of digital platforms to the integration of their use with non-digital artefacts in practice
- from the innovativeness of technology design to the innovativeness of its users (Maurer 2006).

7.3 Understanding the social meaning of mobile money

I begin by categorising people's everyday monetary transactions into the provision/giving, receipt and saving of money. Giving would include paying for products or services, donations or gifts, remittances and repaying loans, among others. Meanwhile, receipts of money could be subdivided into income or entitlements, gifts or loans. The final category includes anything that is put away with the hope of retrieving it in the future, potentially with a higher value: it would therefore include money that is saved and that which is invested or lent for profit.

The boundaries between these categories are porous and they are not exhaustive: after all, one person's giving of money will likely be another's receipt of it; sending someone money might simultaneously act as an investment for one's future, etc. Rather than find the best categorisation, the goal here is a workable categorisation that captures as many diverse moments in the circulation of money as possible, and from a person's point of view (rather than a financial institution's). So, we will move through these categories one by one, using examples to illustrate how people use a variety of digital, non-digital and mixed monetary channels to carry out their everyday activities and construct social meaning in varied monetary transactions and in different geographies. I draw heavily on the work done by Fellows and affiliates of the University of California Irvine's Institute for Money, Technology

and Financial Inclusion (IMTFI) studying mobile money use around the world using ethnographic techniques. I supplement it with other research where relevant.⁵ Before I get to these cases, I explain mobile money and the rationale for it in somewhat more detail.

In 2019, the industry body Global System for Mobile Communications (originally Groupe Spécial Mobile) or GSMA reported 290 live mobile money services in 95 countries, 372 million active accounts and 1.9 billion processed daily by the mobile money industry (GSMA 2020). Figure 7.1 indicates the regional growth in the services that year.

Mobile money (i.e., money stores connected to your mobile phone) has become popular for a variety of reasons. Since the early 2000s, as it became clearer that the World's poor were not part of formal banking networks and that banks had been unsuccessful in reaching out to them, mobile financial services, mobile banking and mobile money⁶ started being seen as tools to democratise access to capital, given the broader availability of mobile phones compared to bank branches in many parts

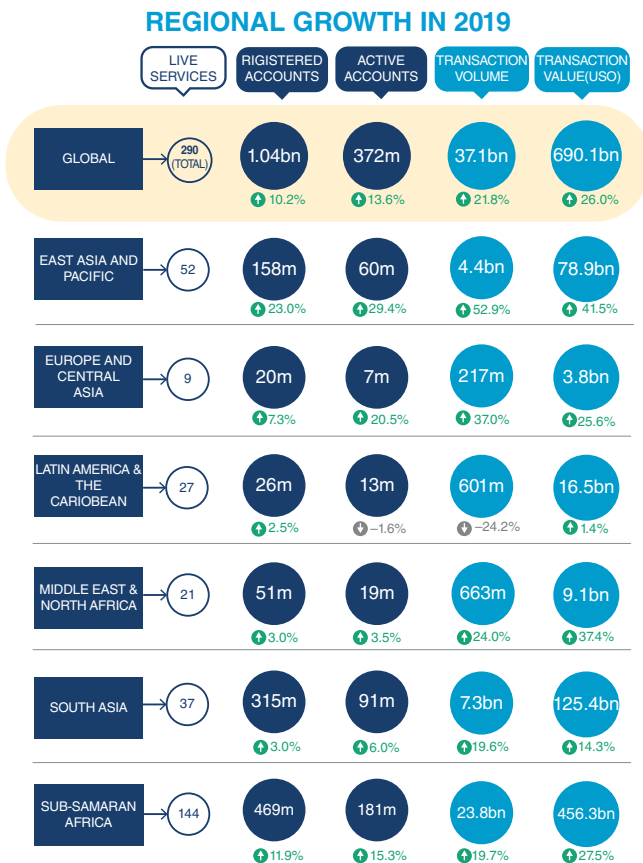


FIGURE 7.1 Regional growth in 2019.

Source: GSMA (2020, p.4).

of the Global South. Mobile money was also seen as a more secure way to transfer value than by moving cash. Because it was digitally transmitted, the transaction costs of using mobile money (or doing mobile banking) were perceived to be lower than that of using paper currency, which had to be printed and replaced periodically, and also incurred costs in being transported from place to place whether by institutions or individuals.⁷ Finally, there was hope that the convenience and feasibility of secure mobile banking would encourage people to save and also open up options for credit that were earlier unavailable to them.

The poster-child of mobile money, M-PESA, was launched in 2007 by Safaricom, Kenya's largest mobile network operator. It drew on an innovation by users who sent and received remittances in the form of airtime minutes to their friends and family elsewhere (Morawczynski, 2009; Rea & Nelms, 2017). Building on that functionality, M-PESA was designed to allow its users to perform a variety of financial transactions using their mobile phones: transfer money to other users, pay bills, check their account balance, make deposits and withdrawals and purchase mobile phone credit.⁸ By converting their cash into a form of electronic value issued by Safaricom, M-PESA hoped to offer a range of benefits in an environment where access to formal financial services and banking systems remained low and difficult.⁹ Its vision included reducing the "risk of theft or loss, convenience and privacy" (Eijkman et al. 2010, 220). Two years into M-PESA's launch, Kenya had more mobile money accounts than bank accounts.¹⁰ Twelve years after its inception, in 2019, M-PESA continues to be popular, with over 37 million active customers, nearly 396,000 active agents operating across 7 countries and 11 billion transactions in 2018.¹¹

7.4 Giving money: Remittances, payments and repayments using mobile money

7.4.1 Remittances

Research over the years indicates that the most popular use of M-PESA continues to be for peer-to-peer transfers (Alampay & Moshi, 2018; Mbiti and Weil, 2011; Morawczynski, 2009; Dubus & Van Hove, 2019), rather than for payments, or for savings.¹² A large portion of these remittances involve urban migrants transferring money to rural family (although this is by no means the only path that remittances take (Rea & Nelms, 2017)).

How does M-PESA work? Unlike in its iconic advertisement,¹³ mobile phones do not allow cash to magically float from a remitter's phone directly to their intended recipients. Instead, for a money transfer to happen, the remitter would first fill up their mobile wallet by paying a mobile money agent the equivalent in Kenyan Shillings. The agent would then initiate the M-PESA transfer on their phone, charging the appropriate transfer fee and using the number of the receiver as the destination. At the other end, the receiver would typically take this phone receipt to a mobile money agent, who would "cash out" this amount, transferring digital currency from the M-PESA wallet to their own e-float and

handing back cash in its stead (Jack and Suri, 2011). Deposits attracted no fees, while withdrawals and transfers did.

Many studies of the M-PESA model emphasise the centrality of the agent to this whole process (there were 10,000 of them in Kenya by 2009 and 400,000 of them in 7 countries by 2019)¹⁴ – there needs to be a dense enough network of them, they need to be perceived as trustworthy by both the company and the customer, be able to build customer trust in the brand and also to help users with the money transfer process itself (Eijkman et al., 2010; Maurer et al., 2013; Mas & Morawczynski, 2009; Morawczynski, 2009; Dubus & Van Hove, 2019). Morawczynski points out how mobile money agents played a crucial role in the aftermath of an urban riot in Kibera, Kenya, in 2007 when, as an agent put it, “Guys had no other way of getting money” at the time (Morawczynski, 2009). Their importance also varied seasonally: in the rural region of Bukura, for instance, it gained significance during the “hungry months” when the food stock in farms from the previous harvest would have depleted and farmers were looking for funds from their relatives to replenish these stocks (Morawczynski, 2009). Interestingly, Morawczynski points out that what customers trusted in this process as not the agent but the brand of Safaricom which they had known for a while. The centrality of mobile money agents is specific neither to M-PESA nor to Kenya. In Karachi, Pakistan, an EasyPaisa agent points out how trusted he is and why: “I am doing this business as a mohalla dari (someone with neighbourhood ties). Most of the time customers just come and hand over the cash for a domestic transfer, and they don’t even ask for a receipt” (Baig, 2017). In Delhi, India, too, users of Eko financial services held one of the agents who they knew from their neighbourhood store in such high regard that if they experienced network downtime during a transaction, they left their money with him – with no receipt or marker – in the faith that he would complete the transaction once the network was running again (Ghosh, 2013). Globally, mobile money companies themselves have recognised the crucial role played by agents for their business and brand, and attend to their agent networks with “constant investments of money, time, and attention” (Maurer et al., 2013, 63).¹⁵

The role that agents play in mobile money transactions illustrates the “social meaning of money” in several ways. As the examples above illustrate, mobile money agents leverage their social knowledge of and networks within their community for a variety of ends – besides persuading people to use their services and platform, they also do KYC and client verification. The processes of cashing in, cashing out or performing a transfer of currency are all through interactions between customer and agent that are as social as they are economic.

The introduction of mobile money and mobile money agents has changed people’s experience of receiving money in some ways. Both EasyPaisa agents and the workers in Karachi who send money on EasyPaisa say that workers feel out of place inside banks with their “glasses, screens, people in ties and suits, waiting in queue” and because they feel they “do not have any knowledge of the banking system...do not know the method of how to send money” (Baig, 2017, p. 10).¹⁶ Mobile money shops, on the other hand, feel like “neighbourhood stores” to whose agents workers

can return in case they have doubts or, say, if they miss a confirmation message from EasyPaisa and would like it resent (Baig, 2017, p. 10). These are functions that agents may be tasked upon to perform, day after day, in the interest of maintaining their relations within their neighbourhood.

The social meaning of money also becomes apparent when we pay attention to the senders and receivers of mobile money transfers. As Zelizer (2011, p.167) notes, “economic transactions repeatedly serve to create, define, sustain, and challenge our multiple intimate relations” and remittances reinforce this idea. Morawczynski explains that besides their direct economic function, remittances from migrants to their families back home (a practice that predates mobile money) were also the migrant’s way of telling their rural relatives that they had not forgotten their obligations to their family (Morawczynski, 2009). Maintaining ties with their rural relatives, in turn, also proved to be a social security net for the migrants when they faced economic difficulties themselves. Before the introduction of mobile money, these transfers of money took place using formal money transfer mechanisms; through kinship and hawala networks; with those who were traveling from the city to that village, including bus drivers and companies; or by the remitter visiting the village (Baig, 2017; Koblanck et al., 2017; Morawczynski, 2009; Oreglia & Srinivasan 2017, 2019). In most cases, these transfers involved a per-transfer fee and also transport costs for the receiver, which meant that frequent transfers or transfers of small amounts of money typically proved too expensive. Wherever the introduction of mobile money made sending money cheaper, it has resulted in migrants transferring money more often.¹⁷ In the Kenyan M-PESA case, it was smaller amounts than before, sent multiple times and overall added up to more than what they were sending before (Morawczynski, 2009). It also became easier to send money at short notice, such as in case of an emergency (Morawczynski, 2009; Nandhi, 2012). This, in turn, meant the family back in the village did not have to borrow money from their local relatives and neighbours, or risk “losing their honour” in the process (Baig, 2017, p.11; Morawczynski, 2009).

But what a convenient money transfer mechanism has also meant is that urban migrants return home less often, which can fray relations (Morawczynski, 2009). In parallel, because it has become easy for people to reach out to more (and more distant) relatives to ask for money during lean periods, mobile money customers also worry about the increasing demands placed on them by “distant cousins who are struggling” to send them money. People confessed that they have had to devise new strategies and were struggling to maintain these rural relatives that they could not afford. Some even wanted to stop using M-PESA for this reason.

The social meaning of money is also determined by who has access to it and who doesn’t. With mobile money too, who is excluded from it tells us something about the social relations in a society.¹⁸ Thus, if we take the Kenyan example, it was the lower income individuals in a population who typically had nobody sending them money and, consequently, had no use for M-PESA or could not afford it; it was women whose husbands feared they would “hassle him for money” or “use

to it call and receive money from other men” who had no access to M-PESA (Morawczynski, 2009, p.517).¹⁹

7.4.2 *Payments and repayments*

While M-PESA in Kenya has led the world in terms of its adoption for remittances and transfers, it is used relatively less for payments. Moreover, that 91% of all circulating value in the global mobile money system is in P2P transfers reflects that this is a broader global trend, though payments are now growing in the Global South (GSMA 2020). Payments bring the question of cash front and centre. Even with the cases of remittances we encountered, cash is a big part of the story: the digitally transferred money is mostly cashed out quickly.²⁰ But with payments, it is impossible to not to discuss the physicality of cash and how that has shaped the social meaning of money.

In my research among fishing communities in south Kerala in 2016, I found almost no use of mobile money for a variety of reasons on both supply and demand sides (Oreglia & Srinivasan 2017, 2019).²¹ But in addition to these, there were other reasons that had to do with certain attributes of cash. The universal acceptability of cash as payment at all kinds of establishments, including small ones, was an important one. As a fisherman pointed out to me, if he wanted to buy himself a drink after long days at sea, he wanted to make sure his payment for it was accepted without question. At the beach where fish auctioning took place, too, all transactions of sale and purchase of fish took place with cash. What cash allowed here, especially for the smaller scale actors, was to negotiate over the availability of change and use that, occasionally, to get away with paying a lower price for a batch of fish. In Kerala, as in the Kenyan case, there were reports of migrant fishermen who were using mobile money to transfer remittances back home. Other than that, mobile money was mostly unheard of and unused, including among people who otherwise used mobile phones regularly. What I found in Kerala reflects our familiarity with cash, which makes it “Virtually irreplaceable” (Dalinghaus, 2019). Because we assume everyone will accept it and we know how to use it, the costs for learning to use it or using it to pay anyone are virtually nil for an individual. Furthermore, some of the attributes of cash and commonly held understandings of how it functions have become part of how we value money and negotiate around it. For instance, we recognise that it is tangible:

If one rolled up one’s cash and kept it in a bra, tied it in the corner of a cloth, or kept it in a repurposed plastic or tin container, one knew where it was at all times, and could access it easily.

(Dzokoto & Aggrey, 2017)

The understanding that exact change may not be available, etc. too have become part of how we value money and negotiate around it. Furthermore, these interactions over cash – that are by necessity, face-to-face – can sometimes build relationships as the next example illustrates.

A study of loan repayments among autorickshaw drivers in Bangalore, India, compares how the process of loan repayment looks different when it uses cash versus when it uses mobile money (O'Neill et al., 2017). The first method involved paying back a loan by meeting a loan officer, while the second allowed the driver to directly transfer an amount using Airtel Money. A key point that O'Neill et al. make is that the encounters around repayment were not merely economic transactions. Instead, they also acted as occasions where the loan officer built a relationship with the driver and his family. Often, it was through these interactions that drivers were gently persuaded to repay on time, or to set aside larger amounts every day. It was also because this relationship existed that loan officers understood the driver's precarious economic circumstances and that drivers ensured they kept their loan officers updated if their circumstances forced them to delay a payment. If these interactions reduced, which it did for the drivers who opted to pay directly using mobile money, this relationship became weaker, bad repayment practices were not caught till much later, and the ability of the officer to persuade the driver also dropped. In effect, each repayment was collectively achieved through the words and actions of many actors, including the driver, their family and neighbours and loan officers. When the mode of repayment changed, so did these relationships, actions and, in consequence, the repayment itself.

Thus, under the broad category of "Giving Money," we see how existing social networks, power relations and trust in specific individuals, communities, institutions and technologies have shaped how mobile money is used and by who. Moreover, the various examples of payments, remittances and loan repayments also show how mobile money is leveraged alongside other financial technologies including cash, rather than replacing them. Finally, the varied ways in which mobile money has been deployed by individuals towards shaping their relationships in particular ways (as the remittances examples powerfully illustrate) also highlight the innovations brought about by the users of these technologies.

7.5 Receiving money: Income and loans

7.5.1 *Income*

In addition to infrastructural²² and other reasons, the symbolic value of cash shapes how people wish to receive money. Says a make-up kit trader in Makola, Ghana:

When I make my sales, at the end of the day, I want to sit down and count the money. Then, my self-esteem is enhanced. And then I also feel that I am working. But if the money is on a machine like the mobile thing we are talking about, it doesn't make sense to me. There is [more] power and some good feeling in holding cash than there is with numbers on your phone or on a card.

(Adamba et al., 2016, p.9)

This "good feeling" is not restricted to incomes earned through the provision of a service.²³ It is also true for instances where one receives money through entitlements²⁴

and gifts/donations. Individuals may also base their preference to receive money in a particular form for reasons of visibility. Thus, female recipients of a social protection programme in Niger preferred a mobile transfer of value to them than cash because it “was less observable to other household members, thereby allowing them to temporarily conceal the arrival of the transfer” (Aker et al., 2016). On the other hand, church donations in Ghana were preferred in cash because cash lends itself well to a public, material display of the donation, which was found socially desirable at church (Dzokoto & Appiah 2014).

Thus, the value of a particular form of money (cash or mobile money), and the desirability of its being visible or invisible in that context, was itself shaped by existing social relations that dictated who had control of money and the status associated in that community with earning in specific ways or contributing to particular causes.

7.5.2 Loans

A somewhat different category of receiving money than an income or gifts is loans, where there is an expectation that the amount loaned will be returned, mostly with interest and within a stipulated time period. While loans may be disbursed and/repaid using mobile money (we saw an example of this in Section 7.4.2), the very approval of loans can also be done using digital means. The term “digital credit” typically covers both activities and I will be exploring its social meaning in the rest of this section.

Most digital credit products involve small, short-term loans that are disbursed directly to customers over a pre-existing mobile money ecosystem (Francis et al., 2017). In 2012, in partnership with the Commercial Bank of Africa (CBA), Safaricom launched M-Shwari, a digital saving and loan service that would “operate over the rails of ... M-PESA” (Bharadwaj et al., 2019). A key attraction of M-Shwari’s loan product was the availability of small, short-term loans (30-day loans with 7.5% monthly interest rate) even to those without a banking or credit history. In the first 40 days of M-Shwari, CBA onboarded 1 million customers; in 3 months, it had 3 million customers.²⁵ M-Shwari has over 25 million customers with 10,000 new customers on average per day and by mid-2018, M-Shwari had dispersed loans worth 230 billion Kenyan shillings (Donovan & Park, 2019). M-Shwari now operates under different brand names in Tanzania, Uganda, Rwanda and Cote d’Ivoire as well.

Not all digital credit services are operated by established players in the mobile money ecosystem and there are now a variety of Fintech start-ups whose selling point is their alternative credit score. Catering to customers who don’t possess traditional credit scores, these companies use a customer’s digital footprints to compute an alternative credit score that decides whether or not a loan will be approved. The data collected for this purpose span the range from a history of mobile phone usage, including phone calls, text messages, airtime purchases, data use and mobile money transactions, to the number of contacts on the contact list, whether contact

names are stored by both first and last names, locations traversed regularly, interests, browser history, apps, Wi-Fi network use and even mobile phone battery levels (Donovan & Park, 2019; Francis et al., 2017).²⁶ One such digital credit company is Tala, which offers credit to people without a formal credit history.²⁷ It does so almost instantaneously using two categories of alternative data: Android device data and behavioural data. Machine learning techniques, trained on historic user data, determine the weights of individual data points. For those who have already taken a loan with Tala, future lending decisions depend heavily on repayment behaviour. Tala's loans range between \$10 to \$500 and it has lent over \$1 billion to more than 4 million customers by 2019.²⁸ Its services are now available in Kenya, Philippines, Mexico and India.

These examples also illustrate why digital credit is perceived to be an improvement on traditional credit mechanisms: since it leverages existing mobile money ecosystems, and disburses credit digitally, transaction costs are lowered (Francis et al., 2017; Jack & Suri, 2011). The process is quicker and can be done remotely because of the digital disbursement and vetting of applications. Finally, digital credit products use mobile phone and other data to generate a credit score, which can allow those without traditional credit scores or collaterals to access formal credit. Several concerns have also been raised about the boom of digital credit, including the dangers of overborrowing and indebtedness, privacy, exclusion and discrimination (Cook & McKay, 2017; Donovan & Park, 2019; Francis et al., 2017; Hurley & Adebayo, 2016; Kusimba et al., 2017). I arrive at these points indirectly, by examining how social meaning was and is attached to the whole process of taking a loan. The question becomes interesting in the era of digital credit for at least two reasons. While economic and social interactions can be hard to separate, the use of digital footprints and alternative credit scores explicitly brings more of an individual's social life into credit scoring than traditional credit scoring which relied on data about their economic transactions alone. Alternative data now explicitly and directly affect what is often bracketed as people's "economic" lives, including their credit score, the feasibility of their loan and general economic health. Additionally, and particularly since people don't always know that data from other parts of their life are being used to gauge their credit score and process their loan, digital credit mechanisms may also have repercussions for their social relationships.

Take the case of Praxides, a 29-year-old farmer in Kenya who uses M-Shwari to obtain quick loans to fund her firewood selling business, for emergencies including illness, or to help stranded friends with transport (Kusimba et al., 2017). She successfully raised her credit limit by performing a careful dance between borrowing and repayments (now 7500 shillings or \$75, up from 2000 shillings or \$20). In the process, she borrowed not only from M-Shwari but also leveraged her social networks (including her friends, her savings group and her M-PESA agent) for helping her with timely repayments:

Once she asked this agent to deposit 4000 shillings in her account so she could pay this amount to M-Shwari. After she repaid the 4000 from the M-PESA

agent's loan, she borrowed 4500 from M-Shwari again to pay the agent back. She now owed M-Shwari 4500 after paying back the agent 4000 but had another 30 days to repay

(Kusimba et al., 2017, p.8)

Praxides' story is not an unusual one, neither for the way she uses her social networks for economic goals and her economic transactions towards achieving social goals, nor for her borrowing from one source to repay another. Noting that many people in Kenya are now borrowing from one digital credit company to repay another, Donovan argues the reason this behaviour is different than pre-digital credit times is that earlier, everybody was both creditor and lender (Donovan & Park, 2019). This led to some flexibility in the transactions and the possibility for negotiation between creditor and debtor. Now, everyone was only a potential debtor (and not to each other but to a credit company), which reduced this possibility of negotiations.²⁹

Also different is how news of credit now reaches people. In Kenya, which has at least 5 digital credit platforms, the business model includes constant “nudges, exhortations, and incitements to borrow” at “extraordinary rates” (Donovan & Park, 2019). Precisely because these loans are so easy to access, less financially sophisticated borrowers – the demographic targeted by digital credit – may be tempted to take out high-interest loans (Donovan & Park, 2019; Francis et al., 2017). At the other end, once a loan has been taken, the creditors are also able to follow up more aggressively on repayment, which they do in Kenya given the high rates of delayed payment. Furthermore, these missives might not be restricted to stressful and embarrassing repayment reminders; apps can call the defaulter’s “bosses, parents, and friends to shame defaulters into repaying” (as was done by Okash) or might also affect the loan prospects of the defaulter’s “trusted network” of contacts, which makes them less likely to qualify for a Lenddo loan (Donovan & Park, 2019; Hardeman, 2012). In conjunction with the setting up of credit reference bureaus (CRBs) in Kenya, these high defaults have led to the widespread blacklisting of borrowers: a report found that 2.7 million Kenyans had been negatively listed by CRBs by 2017, many due to Fintech loans (Donovan & Park, 2019). Furthermore, as is happening in other parts of the world, these reports are not being used only by loan appraisers but by others including would-be employers (Hurley & Adebayo 2016).

Thus, digital credit – the data points it captures,³⁰ the ability to qualify for it, and to repay it – all carry social meaning. As with other mobile money services, exclusion from digital credit can (and often does) stem from existing social inequities and, in turn, also carries social meaning, particularly in view of the severe consequences of default.³¹ Supplementing these credit scores with other measures of creditworthiness, consumer education and stronger consumer protection regulation have been proposed as some of the ways to begin to address these grave concerns (Donovan & Park, 2019; Francis et al., 2017).

Overall, this section shows that much like with “Giving Money,” the category of “Receiving Money” too is heavily shaped by social relations and the symbolic

value of different forms of money. The digital credit examples, in particular, tried to argue that the innovations in calculating credit scores have rendered the links between “the social” and “the economic” explicit in the Digital Age. Much like the examples of differential access and exclusion in the previous section, here too, we saw that exclusion – and the consequences of exclusions – are linked to longer histories of inequity. A second point to emerge from Section 7.5.1 in particular (and also foreshadowing Section 7.6) was how the value of money – or even the value of a specific feature of money (for instance, the relative visibility or invisibility of a specific material form of money such as cash) – is not inherent to it; rather, even this value (the desirability of money remaining invisible or being made visible) emerges from the social relations in which it is embedded.

7.6 Savings

Finally, I come to the social meaning of money in savings. Anthropologists have long pointed out how savings and investments take a variety of forms, including cash, livestock and precious metals (Maurer, 2010; Rea & Nelms, 2017).³² How does the introduction of mobile banking expand and further complicate this range of mechanisms?

For the first example here, I return to Eko financial services in India (Ghosh, 2013; Ghosh and Bajpai, 2013; Nandhi, 2012). Eko’s mobile banking services were launched in 2007 in partnership with the State Bank of India (SBI). It worked on the Indian “bank-led branchless banking model” by which NGOs, self-help groups, civil society organisations and microfinance institutions are allowed to conduct and complete financial transactions on the bank’s behalf. Eko has grown tremendously since its inception and provides banking services to people with no access to formal bank accounts by working with a network of agents – chemists, grocers, airtime vendors (Nandhi, 2012). Based on her study of the Eko mobile banking savings account in Delhi, Nandhi finds that the people she surveyed considered Eko a good savings option because it reduced the transaction costs involved in going to a bank to deposit cash, allowed them to save even small amounts and brought down the temptation to spend by keeping their money away from them and their homes. In a classic reflection of Zelizer’s point, Nandhi’s study finds that people use multiple savings systems in parallel, earmarking each for a specific purpose. Thus, “cash at home” and “cash on person” were used for everyday expenses on food, daily transportation and other basic needs; “committee/kitty contributions” are used for buying assets or to cover festival or ceremonial expenses; finally, “money at home” and “Eko savings” were generally spent on recurring educational expenses. Finally, various savings practices were themselves interconnected: some users first made a deposit into their Eko accounts, which was then routed to make timely payments for their monthly savings contributions (payments to kitty, or insurance premiums).

The idea of trust comes up repeatedly, especially when discussing saving services.³³ As with the remittance services, the role of the brand and agent play a huge role in whether customers trust a savings service. Agents can go to great lengths to

build this trust in their workings. Besides leveraging the brand of the trusted public-sector banks that they offered their services in partnership with, Ghosh points to examples where Eko agents signed and stamped paper receipts, including on borrowed slips from the bank to supplement the unfamiliar SMS receipts customers received from Eko and to invoke a bank-like environment to generate credibility (Ghosh, 2013). Trust doesn't end at the level of a financial institution either – in parts of the DRC, Ethiopia, Myanmar and Russia, among others, saving within the formal banking system and/or in government-backed currencies itself might be considered a bad idea, because the banking system or governments have proved unstable or acted unpredictably in the past. In these cases, people opt to save in the form of illiquid assets such as livestock or precious metals, or in cash but at home (Hassen, 2016; Koblanck et al., 2017; Oreglia & Srinivasan, 2017; Tyukhtenava, 2010; Rea & Nelms, 2017). These historical concerns shape how much/whether people are willing to save using mobile money services, where money is denominated in the national currency.

Finally, the need to keep savings visible or invisible also shapes the form in which people choose to save. Multiple examples of mobile money savings suggest that women held their “secret savings” on these platforms because their fathers or husbands could not monitor them (Kusimba et al., 2017; Morawczynski, 2009).³⁴ On the other hand, when contributing to local savings groups known as *chamas* in Kenya, many people preferred to make their contribution in cash “because in the public meetings, it is better to display one's contribution” (Jazzolino & Wasike, 2015).

In addition to the points made in the Sections 7.4 and 7.5 about how social relations shape mobile money access and use, the “Savings” examples show how end-users (and agents!) of mobile money innovate new practices, including maintaining multiple savings systems or building customer credibility, and skilfully integrate these into their monetary ecologies and repertoires.

7.7 Conclusion: Inclusion with choices?

Rather than focus on the inherent value of digital financial services, this chapter has attempted to show how their value is constituted in practice in cases pertaining to mobile money. Towards that goal and drawing on a variety of cases from around the world, I have foregrounded the practices of users and their particular structural circumstances, the concurrent use of new financial technologies and existing ones and the innovativeness of users in leveraging the entire monetary repertoire available to them. Applying “the social meaning of money” lens to understand how people give, receive and save money in a Digital Age has allowed us to better understand how and why the promise and pitfalls of mobile money play out in practice.

The three shifts in focus that the chapter promised – from the inherent value of monetary technologies to how this value is constituted in practice within specific constellations of norms, values, power relations and resource distribution; from the use of digital platforms to the integration of their use with non-digital artefacts in practice, and from the innovativeness of technology design to the innovativeness of

its users – have been highlighted throughout the chapter and the various sections on Giving, Receiving and Saving money. Instead of revising these examples and arguments, here, in the conclusion, I would like to further highlight two themes that emerged from the analysis undertaken in the chapter that foregrounded the social relations between the users of money: the working of intermediaries and infrastructure in a mobile money ecosystem; and the visibility/invisibility of monetary transactions. Both themes underscore that good design (whether of technology or policy) cannot afford to deny political economy or power relations in its conception or deployment. Additionally, they are informed by Dodd's claim that because social relations are always "complex and dynamic, variable and contested," and "open to renewed ...critical questioning," the social relation-centric approach to understanding (digital) money adopted here should allow us to ask urgent (and normative) questions about the "social and political features" of a desirable monetary form (including mobile money) (Dodd, 2014, p.9). The themes of Infrastructure and Visibility offer us an opening precisely to raise such provocative questions about digital and mobile money.

Infrastructure and intermediaries have been recognised as critical elements of a functioning mobile money ecosystem. Our analysis confirms their importance but emphasises the relational and dynamic nature of both. Physical infrastructures need to be maintained, as do relationships with mobile money agents and loan officers; neither can be taken for granted. Furthermore, the same infrastructure and intermediaries that smoothen the process for some, can be barriers and reasons for exclusion for others. Thus, interacting with mobile agents sitting in a neighbourhood shop makes transactions easier – but only for those who are able to visit that shop and face no taboos in interacting with an adult male. The infrastructure of alternative credit scores makes it much simpler to receive a loan – but only if you have deep enough digital footprints and the "right" data. Understanding who a mobile money infrastructure is meant for, and whose needs are obscured by it, is therefore critical for thinking about inclusion.

A second theme that emerges pertains to visibility and choice. As several of the examples presented in this chapter illustrated, people desire different levels of visibility for their monetary transactions and associate diverse technologies as more or less intrusive in this context. In view of this, it is important that future monetary technologies and policy respect this need for invisibility and for variety in technology, as well as the flexibility to choose between them. The current focus on digitising the world can sometimes forget this need for choice. Drives for financial inclusion and cashlessness are cases in point. "Financial inclusion," as we understand it today, focuses on official, formalised banking services – doubtless, such inclusion brings some value. But Baig (2017) notes that this inclusion is often accompanied by making unofficial – but prevalent – channels of circulation illegal/invalid. Furthermore, participation in these networks simultaneously exposes people to new risks (including traceability and overborrowing), with few options to opt out. The drive for cashlessness is another example that shows the high stakes of failing to build in flexibility and choice. Any effort at building digital financial services, must therefore keep in mind

that it is the marginalised (arguably, the targets of many financial inclusion ventures) who are hurt the most by upending the practices and networks of negotiating value that they have cultivated over a lifetime.

Notes

- 1 The Indian government's National Mission for Financial Inclusion (NMFI) or Pradhan Mantri Jan Dhan Yojana initiated in August, 2014 is a case in point. See <https://financialservices.gov.in/financial-inclusion>.
- 2 The idea of Financial Inclusion is part of several of the UN's Sustainable Development (<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>). The World Bank's Global Findex tracks financial inclusion efforts since 2011 (<https://globalfindex.worldbank.org/>), while its Universal Financial Access 2020 goal tracks its goal of enabling 1 billion of the 1.7 billion unbanked adults to be banked by 2020 (<https://ufa.worldbank.org/>). The Gates Foundation's Financial Services for the Poor works with governments and other players on similar goals (<https://www.gatesfoundation.org/what-we-do/global-growth-and-opportunity/financial-services-for-the-poor>).
- 3 Following Maurer, we take a broad definition of money that includes not just legal tender but also quasi-currencies, alternative currencies, and a range of objects of wealth and value that sometimes serve some or all of money's classic functions (Maurer, 2010).
- 4 I follow the substantive, rather than the formal, meaning of an economy, which maintains that "economic systems do not follow universal laws but vary from culture to culture" (Dodd, 2014, p. 285; Guérin et al., 2019; Polanyi 1977). Furthermore, in this view, an economy "takes shape through a wide range of processes, practices and behaviours that people deploy on a daily basis, not only to make a living but also to give meaning to their life" (Guérin et al., 2019, p.2).
- 5 In the interest of full disclosure, the author has been an IMTFI Fellow twice.
- 6 See Donner (2007) for terms and definitions related to M-Banking.
- 7 More recently, the COVID moment has also raised concerns around cash and the transmission of infection, given that it requires many people to physically handle it.
- 8 How exactly mobile money and mobile wallets work in practice depends on local regulations. For instance, mobile wallet companies may be telco-led or bank-led. They may also be open, closed, or semi-closed, which decides whether or not customers have the option to "cash out" the digital value, i.e. they can exchange the digital value back to cash at the agent's (Maurer et al., 2013; Rea and Nelms, 2017, p.8).
- 9 In 2006, 18.5% of Kenyans used formal services, 8.1% semi-formal services (such as those provided by microfinance institutions), 35% the informal sector (rotating savings and credit associations, etc.), while 38.3 % were completely excluded (Dubus & Van Hove 2019).
- 10 This no longer held by 2017, when banking accounts overshoot mobile money accounts by 30% (Cook and McKay, 2017).
- 11 <https://www.vodafone.com/what-we-do/services/m-pesa> (last accessed May 16, 2020).
- 12 Though M-PESA users appear to have been saving more than they did before (not necessarily on the M-PESA platform).
- 13 Video available at <https://www.youtube.com/watch?v=nEZ30K5dBWU>.
- 14 Globally, the number of registered mobile money agents grew 18% in 2018 to reach 6.6 million, 57% of them active on a monthly basis (GSMA 2019).
- 15 None of this is to suggest that agent fraud isn't common (McKee et al., 2015). In fact, it is precisely because many opportunities of fraud exist and stories abound that mobile money companies treasure a trusted agent.

- 16 Other studies from Sri Lanka and India too highlight how specific social groups (the poor, the rural poor, indigenous communities, Dalits) feel discriminated against by bank officers (Colombage 2010, Guérin et al. 2019: 10; Rea & Nelms 2017).
- 17 This is not true everywhere. In Myanmar, for instance, communication charges remained prohibitive (Oreglia & Srinivasan, 2017).
- 18 GSMA finds, for instance, that women are still 33 per cent less likely than men to use mobile money, 10% less likely to own a mobile phone and 20% less likely to own a smart phone (GSMA, 2019, 2020).
- 19 Dalinghaus points out how the focus on digital payments and cashlessness ends up excluding rural areas, the elderly, disabled citizens, refugees, asylum seekers, non-citizens, and even tourists in Sweden (Dalinghaus, 2019). Thus, exclusion is not confined to the Global South though that is our focus in this chapter.
- 20 It was only in 2019 that for the first time, digital transactions even represented the majority of mobile money flows (57%). Even then, 69% of all incoming transactions and 63% of all outgoing transactions were in cash (cash in and cash out) (GSMA 2020).
- 21 These included: telecom companies who were unsure how aggressively to market their mobile wallets because of changing regulations; semi-closed wallets that could not be cashed out, so the value on them had to be spent digitally; Kerala's existing network of banks, ATMs and money transfer institutions, which meant cash was not actually hard to access.
- 22 Infrastructural constraints are a significant factor shaping people's choices, though that is not our focus here. A tailor in Gamashie, Ghana said he always insisted on cash payments from his customers. This was because he did not wish to spend a long time waiting to convert mobile money to cash (which happened often because of network issues), while his own customers waited in his shop (Adamba et al. 2016, 9).
- 23 Even in those cases where it is not up to an individual what form they receive their income in, they might try to convert it back to cash as soon as possible. When M-Paisa was used to pay government salaries in Afghanistan (which reduced costs for the employer), most employees withdrew their salaries in cash soon after they were deposited (though this reduced after some time) (Blumenstock et al., 2015).
- 24 Cashless cards have been issued for welfare payments of mainly Aboriginal residents of the Northern Territory in Australia (Coddington 2018). These cards restrict where the recipients can shop and what bill they can pay when (Dalinghaus 2019). While this initiative does not use mobile money, it is a useful example to understand why, this card is simultaneously seen as a restriction to funds, mobility and participation in economic life by the community in question.
- 25 <https://www.temenos.com/community/success-stories/cba/>
- 26 See also the websites of M-Shwari, Tala and Lenddo from where most of these examples of data points have been drawn.
- 27 <https://tala.co/about/>
- 28 <https://techcrunch.com/2019/08/21/tala-series-d-india/>
- 29 When everyone was both creditor and debtor, *why* someone was offered a loan was also better understood. With alternative credit scores today, there is opacity in why someone is offered a loan while others are rejected. Further, because of a lack of regulation in this space in most geographies, there are few opportunities for redressal.
- 30 Further, examples from elsewhere (ZestFinance in the US, for instance) indicate that the data points being used in alternative scores do not need to be directly exclusionary; thus, the score might be based on bad punctuation or grammar, but these characteristics are likely to reflect "low education, which is highly correlated with class and race" (Hurley and Adebayo 2016).

- 31 The gender gap in digital credit (despite concerted efforts from the business and development fronts to fight it) is a good example. Kenyan women, for instance, comprise just 37% of the digital credit user base, a gender gap of 26% (Chatterjee et al., 2019). Studies on the early adoption of digital credit indicated that these products were adopted by those with deeper digital footprints – young, male, urban, educated, stably employed, bank account holders, and those who reported being able to cover their basic expenses and save (Cook and McKay 2017; Costa et al. 2015).
- 32 There is also the concept of relational savings – how investing in relationships often acts as a reliable savings mechanism especially for vulnerable populations (Guérin et al., 2019).
- 33 Ghosh and Bajpai find that people evaluate Eko's Remittance and Savings services quite differently (Ghosh & Bajpai, 2013), with customers reacting much more adversely to any failure and mistakes related to the savings service than for the remittance service. They attribute this difference partly to the amounts involved and to the long-term relationship entailed in the savings service.
- 34 The point here is not that mobile money is inherently invisible, while cash is inherently visible, but that a money form's visibility/invisibility, as well as the need for either, draws from the social context. For instance, a large number of Indian housewives put away whatever they are able to save from their household expenses for a rainy day. This stash of cash, which they keep for their security, is "invisible" in their context because it is untraceable and out of the gaze of their family. This cash became painfully visible and noticeable after the Indian demonetisation happened in November 2016, because it now had to be exchanged for valid currency at a bank or deposited, and (depending on the amount) even have a tax paid on it. See Dalinghaus (2019), Jilinskaya-Pandey, M & de Zamaróczy (2019) and <https://www.theguardian.com/global-development/2016/dec/22/india-cash-crisis-women-bear-brunt-finances-families-undone>.

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