Digital Financial Inclusion of Women: An Ethical Appraisal

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Abstract

Digital finance presents great hope for the financial inclusion of women. At last, more women may enter the world economy and benefit from financial products and markets as others have for generations before them. However, the risks of digital finance as a method to achieve financial inclusion are not insignificant – including personal security issues such as vulnerability to scams, and inappropriate products for their financial circumstances. There are also broader implications for communities and society. Despite increased financial inclusion globally

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L. San-Jose et al. (eds.), Handbook on Ethics in Finance, International Handbooks in Business Ethics, https://doi.org/10.1007/978-3-030-29371-0_34
and improved access to digital financial services, inequality and inequity across societies in both developed and emerging economies persists.

The risks and consequences of the growth and spread of digital finance must therefore be anticipated and mitigated in order for women to achieve financial inclusion and ultimately financial well-being.

Through an ethical analysis of digital finance as a method to achieve financial inclusion of women, this chapter concludes that policy makers, established financial institutions, new providers, NGOs, and philanthropists engaged in the development and promotion of digital finance should recognize a concurrent responsibility to actively mitigate the forces that could threaten the well-being of women. Women with money are set to grow as an economic force. Given the right protections, all of society stands to benefit from women finally gaining the power that money affords.

**Keywords**

Financial inclusion · Digital finance · Financial well-being · Ethics

**Introduction**

Despite significant advances in technology and new ways of providing financial services, almost one third of adults worldwide are still considered “unbanked” according to Demirgüç-Kunt, Klapper, Singer, Ansar, and Hess (2018). The unbanked adults have a bank account neither at a financial institution nor through a mobile money provider. While account ownership is almost universal in high-income advanced economies, it is very different in developing economies where almost all the unbanked live. Demirgüç-Kunt et al. (2018) observe that nearly half of those who remain unbanked live in seven major emerging economies, including China and India.

Those in the poorest households are more likely to be unbanked, as they live without any formal banking services such as the ability to receive and make payments or secure insurance (World Bank 2017). With women most affected by poverty, they are overrepresented among the unbanked in most economies, developing and developed (Molinier and Quan 2019).

The reality of having no access to financial services is that payments are received in cash or, in some cases, not at all. Almost half of women in developing countries do not have formal identification, as compared with one-third of men. Having no identification often means that women are not recognized for their contribution through a formal and legitimate payment system.

**The Digitization of Financial Services**

Digital disruption affects all sectors of the economy, especially the services sector, and none more so than the financial services. Digital finance characterizes products,
applications, processes, and business models that have transformed the traditional operating model in financial services (European Commission 2020).

Digital finance offers individuals and small businesses the ability to connect to financial service providers on the internet or through mobile devices such as smartphones. They can then make and receive payments, initiate transfers, borrow, and invest money using service applications that were not previously available. Investment in these new technologies, by large established institutions and new market players, has been significant. As a result, there has been an increase in access to financial services in both developed and developing economies, and in efficiencies for the global financial system.

The International Monetary Fund (IMF) Financial Access Survey (2019) – a global database on access to, and use of, basic financial services – noted that “traditional banking is changing.” The IMF reported global growth of just 1% in commercial bank branches, with negative growth in high-income countries in contrast to 20% growth in low- and middle-income countries. Rather than indicating a decline in access to financial services, these observations indicate a change in the way people are accessing banking services with a clear shift to internet and mobile banking. Although the growth of mobile and internet banking is not as high in low- and middle-income countries, it is still significant in terms of the future of financial services.

Hope That We Can Improve the Lives of Women

Digital finance has presented great hope for the inclusion of more of the world’s population in local and global economies, particularly for women. McKinsey (2015) estimated that comprehensive participation and integration of women in the economy could add $12 trillion to global GDP by the end of a decade.

Recognizing financial inclusion as crucial to eradicating poverty and inclusive economic development, the Global Partnership for Financial Inclusion (GPFI 2013) agreed on the following three indicators to capture financial inclusion:

1. Access to financial services
2. Usage of financial services
3. Quality of the products and the service delivery

Financial inclusion of women is about more than economics as many have hopes that the uptake of digital financial services by women will finally reduce inequality and the inequity that exists across the globe.

Various positive possibilities have been identified and promoted, such as digital financial services lifting women, their families, and communities out of poverty by drawing them into the financial system in numbers not seen before and not considered possible through traditional banking services. There is the opportunity for dignified life through recognition as citizens and workers for the first time, and security through managing and controlling their own money, thereby reducing
opportunities for theft and loss. Relieved of the burden of traveling for days to pay bills and collect wages, women might experience the freedom to use their time for other pursuits, grow their personal wealth, and reach financial prosperity.

Financial inclusion through digital financial services has been on the agenda for some time. At the 2015 World Bank Group–International Monetary Fund Spring Meeting, both institutions adopted targets to improve financial inclusion and achieve universal financial access by 2020. This commitment was made in partnership with the public and private sector.

Billionaires like Bill and Melinda Gates talk of helping women “unleash their power to control their own economic futures” (see Hendriks 2019) by investing in financial inclusion. Influential leaders like Kristalina Georgieva, Managing Director of the International Monetary Fund, also agree to this view. She argues that “financial inclusion through technology could achieve the same for women in business what the curtain achieved for women in music” (Council on Foreign Relations 2018), that is, address gender bias and increase participation by women (Goldin and Rouse 1997).

The Right Path

This chapter provides a critique of the financial inclusion of women through the advance of digital finance in both emerging and developed economies. Through an ethical analysis that focuses on financial well-being, equality, and equity, it becomes evident that digital financial services alone, and left unmitigated, will not deliver the benefits of which so many are hopeful.

Unlocking Financial Inclusion for Women

Economic development creates new market opportunities for (in)formal financial institutions, reaching out to the unbanked, although not necessarily to the unbankable. At the same time, the presence of a formal financial system with traditional financial institutions – banks and markets – is often deemed to be a prerequisite for successful economic development. Economic development requires financial development and vice versa, see Levine (1997). Regardless of the causality – for example, DFID (2004) and Hossein and Kirkpatrick (2005) argue that financial sector development is in fact a prerequisite for economic growth and financial inclusion – we do observe a global improvement in financial inclusion over time, accelerating in the last few decades. This acceleration is driven by, or coinciding with, double digit economic growth rates in emerging developing economies like India and China.

The potential benefits of financial access, and more broadly financial inclusion, are well documented. Financial inclusion can provide people with the opportunity to transition from subsistence living to full-fledged economic participation. Welfare measures like health and social/cultural well-being can improve alongside economic
prosperity. Yet, while financial inclusion has improved globally for both men and women, the gap between male and female inclusion has persisted. According to Demirgüç-Kunt et al. (2018, p. xii), “Still, in most of the world women continue to lag well behind men.” Only in the last decade or so did we observe women catching up – in high-income economies more so than in developing economies. We attribute this improvement to widespread access to mobile banking as the single most effective technological innovation unlocking financial inclusion. Demirgüç-Kunt et al. (2018, p. 25) suggest that these are “…early signs that mobile money accounts might be helping to close the gender gap.” However, access is only one dimension of financial inclusion.

Of course, the introduction of mobile banking has not been the only change over this period of improving women’s financial inclusion. The last decade – book-ended by the 2008 global financial crisis and the 2020 COVID-19 crisis – saw unprecedented economic growth with historically low unemployment levels and increased women’s participation in the labor force. A surge in global economic activity was particularly prominent in low-income developing economies. Women’s participation in the (formal) labor force increased significantly. Millions of people were lifted out of extreme poverty and started using informal and formal financial services. This demand-pull for financial services was matched by a supply-push. Both traditional providers (local and global banks) and new entrants (shadow banks and Fintechs) seized the market opportunity. The delivery of financial services at scale and low cost became feasible with digital technology.

When inferring the positive relationship between digital financial services and women’s financial inclusion, we need to account for contributing factors that share a positive impact on women’s financial access. We also need to take a closer look at the key features of mobile banking technology that are particularly relevant for women, and might explain the unique role of digital finance in unlocking women’s financial inclusion.

Other Factors That Contribute to the Financial Inclusion of Women

There are a range of factors that can improve the financial inclusion of women. These include increased education, workforce participation, economic development, and the legal and regulatory context. In addition, there are behavioral factors specific to women that should be understood in order to effectively tailor financial products and services to achieve inclusion.

Education and Workforce Participation

Increasing women’s education and workforce participation are significant contributing factors to improving financial inclusion. There is a strong positive correlation between a woman’s education and her employment and income. The World Bank (2018c) notes that women with secondary school education earn almost twice as much as those with no education at all. UNESCO in alliance with the development agencies like UNICEF, the World Bank, UNFPA, UNDP, UN Women, and UNHCR,
agreed on the mission to transform lives through education, thereby recognizing the crucial role of education to unlock economic development (UNESCO 2016).

The Malala Fund (2018) promotes girls’ education as “the world’s best investment.” The fund emphasizes the need to provide girls with quality education to prevent shortage of educated workers that may have serious consequences in the labor markets and economies. The nature of education also matters, as Argentina’s President Macri (2018) stated in his address to the World Economic Forum, “The G20 should help ensure that technological change will not increase exclusion or social disintegration. Education is at the centre of this debate: the future will require substantial investment in training and updating skills.” According to Atkinson and Messy (2013), it is financial education that will be the key to financial inclusion through improved financial literacy.

In 2014, the G20 agreed on a target of 100 million additional women in the labor force, significantly reducing gender inequality (Bracht 2014). At the 2017 G20 Labour and Employment Ministers Meeting, it was noted that there was progress toward reducing the gap but also signaled that stronger efforts were required (Commonwealth of Australia 2017).

The prioritization of workforce participation was recognized by the adoption of the 2030 UN Agenda for Sustainable Development, with signatories committing “to achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value” (Sustainable Development Goal SDG 8, target 8.5) and “to achieve gender equality and empower all women and girls” (SDG 5) (Sustainable Development Goals Knowledge Platform 2020).

Increased women’s workforce participation has clear benefits for the women and their families. Economic independence derived from participation in the paid workforce allows women to have increased control of their lives, provide financial security for themselves and their family, and save for retirement. The financial independence that results from workforce participation has also been identified as an important factor in assisting women to leave violent relationships (Costello et al. 2005).

Increasing workforce participation is an economic priority of many countries. Intergenerational reports mention the positive impact on economic productivity and prosperity, and diminishing reliance on the provision of welfare. A report by the Commonwealth of Australia (2015) notes, “If we are to achieve these goals we need to encourage those currently not in the workforce, especially older Australians and women, to enter, re-enter and stay in work, where they choose to do so.”

Workforce participation varies considerably across countries. The differences are driven by a range of factors including economic development, education levels, access to child care, and social norms.

According to the International Labour Organisation (ILO 2018), women’s labor market participation rates are catching up with those of men in most developed countries. However, according to the ILO (2017), the labor market gender gap persists globally, especially in the Middle East, Northern Africa, and Southern Asia where restrictive gender and cultural norms are a factor in reducing the options
for women to seek paid employment. As the number of women enrolled in formal education increases, which initially can lead to a delay in their entry into the labor market, there is hope that the gap will eventually narrow as participation increases, and financial inclusion will follow.

**The Legal and Regulatory Context**

Discriminatory laws also impact financial inclusion. The World Bank Group’s *Women, Business and the Law* (World Bank 2018b) maps what it calls the “hidden laws” that impact the economic empowerment of women. Laws relating to inheritance, property rights, business, employment, equal pay, marriage, reproductive health, and human rights can hinder or facilitate financial inclusion.

The World Bank (2018a) gives an example where constrained access to and control over property severely limits women’s ability to provide collateral when applying to borrow. Another example of the gender gap is in having identification, which denies women to open a bank account where formal identification is required. Progress in addressing and removing these legal barriers is a significant contributing factor in increasing financial inclusion for women.

**Economic Development and Macroeconomic Growth**

Allen, Demirgüç-Kunt, Klapper, and Martinez-Peria (2016) nominate a range of economic development factors that ultimately determines the level of financial inclusion. Those factors extend from the quality of institutions, good governance, and access to reliable information to a sound regulatory environment. The World Bank Development Research Group (Allen et al. 2016) noted that the relationship between financial inclusion, inequality, and macroeconomic growth has not been well understood due to the limited availability of historical data. Analysis of the factors shaping macroeconomic growth and inclusion require data collected over long time periods. Until recently, data on financial inclusion has not been available on a comparable, global level, limiting the ability to assess impact (Demirgüç-Kunt et al. 2017). However, as data collection and analysis becomes more advanced, we anticipate that the links between economic development factors, macroeconomic growth, and financial inclusion will be better understood.

**Behavioral Factors**

Historically, there has been much focus on the supply of financial services, rather than the demand and behavioral factors that impact financial inclusion. More recently, economists and those in management and leadership positions have turned to better understanding the behavioral factors that impact decisions and therefore either accelerate or hinder progress toward financial inclusion for women.

Those behavioral factors are identified by behavioral scientists, borrowing from the disciplines of economics, sociology, psychology, and neuroscience. They uncover a long list of behavioral barriers that explain why people may be reluctant to effectively engage with financial services providers, and ultimately fail to achieve financial well-being. In a World Bank (2014) report, Jim Yong Kim (then President
of the World Bank) stated that “Recent research has advanced our understanding of the psychological, social and cultural influences on decision-making and human behavior and has demonstrated that they have a significant impact on development outcomes.”

This World Bank (2014) report also explains how minor considerations (like context, convenience, and salience) may have the potential to significantly tweak life’s decisions on education, health, or even whether to start a business. The World Bank therefore recommends that financial development services do not just consider which interventions are necessary, but specifically address their implementation in light of behavioral factors.

Although this work is still in the early stages of theoretical development, we anticipate there will be a growing understanding of the significant role of behavioral factors in achieving financial inclusion for women. By better understanding how women digest information, how choices are made and preferences expressed, action can be taken accordingly. Products and services can then be designed to close gaps and accelerate progress.

Historically, factors specific to individual households at the microlevel have received little attention in research studies. Those working in the field have noted that very few studies have attempted to explore the behavioral finance tendencies that influence the usage of financial services, although a study by Thomas and Natarajan (2018) indicated that Low Income Households (LIH) prefer to use informal financial services despite being aware of its limitations. As late as 2018, researchers pointed to a “dearth of research on LIH and on the role of behavioural factors in financial inclusion” (Thomas and Natarajan 2018).

Behavioral factors that impact financial inclusion include the following:

- **Trust in the financial institution:** A study by Dupas, Green, Keats, and Robinson (2012) observed that rural Kenyans list a lack of trust when deciding not to use the services of a local bank, despite being granted a fee waiver for those services.
- **Loyalty:** A study by Napier, Melamed, Taylor, and Jaeggi (2013) observed loyalty to informal financial products and services due to their social dimension.
- **Social proof and approval:** A study by Chetty, De Villiers, Dudar, and Smit (2018) noted that individuals may be influenced by members of their own gender groups, consistent with literature on peer effects influencing women.

According to a study by Datta and Desai (2018), a Tanzanian bank that adjusted its communication approach according to behavioral factors showed the potential for accelerated financial inclusion. Client engagement improved markedly for those clients who received communications that were behaviorally adjusted. Especially the notion of loss aversion (whereby losses are perceived more negatively than gains are perceived positively) improved engagement significantly.

There are other behavioral factors unique to women that position them well to manage their money and grow their wealth. However, these are rarely the topic of discussion in the research literature or in public commentary. They include:
• **Attitude to money:** In a speech by its President, the World Bank (2010) suggests that child survival rates improve when the mother is in charge of household income. A study by Morgan Stanley (2015) shows that when women have extra money, they are more likely than men to invest it responsibly, providing long-term financial security with ethics. Women are also more likely to embed personal values in their investment decision-making. As a result, women invest proportionally more in ethical funds than men do. This led Morgan Stanley (2015) to conclude that women carefully traded off investment returns against the (positive) impact their investments might have.

• **Attitudes to saving:** A study by Vanguard (2015) shows that, on average, women save more than men irrespective of age and earnings. That characteristic prepares women better for home ownership. Riemer (2013) confirms that single women in the USA bought their own homes at twice the rate of single men. Riemer also finds that Australian women not only buy their own homes, they are more likely to own them outright. A habit for saving makes women more resilient to mortgage stress and maintain payments even if interest rates increase. As a result, women benefit from the long-term appreciation in home values.

• **Attitudes to risk:** Studies have concluded that women tend to take fewer risks with money. This risk-averse approach can lead to steady gains. In an analysis of spending and investment habits by Betterment (2015), women are found more likely to follow a low risk strategy to achieve long-run financial goals. Women are also less prone to gamble according to Wong, Zane, Saw, and Chan (2013), avoiding a financially destructive cycle. Women tend to seek advice and factor that advice into their decisions (more so than men), also serving to minimize risk (Betterment 2015).

There are a range of behavioral factors that impact the financial inclusion of women. When properly understood, financial services can be tailored accordingly, and financial inclusion can become a more likely outcome.

**Unpacking Digital Finance**

In order to better understand the potential of mobile banking and digital finance to improve financial inclusion for women, we need to unpack the key features of digital finance. Digital and technological disruption affects many hitherto face-to-face delivered services, perhaps none more so than financial services. Early manifestations of digital finance like ATMs, EFTPOS terminals, and automated equity trading systems were introduced by the financial institutions (banks and asset markets) for cost saving purposes rather than fundamentally changing their business model. The financial institutions “controlled” the introduction of expensive new technology initially, further raising the barriers to competitive entry, as indicated by Clemons (2015).

Financial deregulation in the 1980s turned banks worldwide into conglomerate financial institutions. At the same time, they found cost reductions by providing
basic retail services through ATMs and closing branches (see Gujral et al. 2019), yet charging fees for using these services. This business model opened an opportunity for Fintech entrants specializing in retail business lines not considered core to the conglomerate business and strategy of the traditional banking institutions.

Increased adoption of digital technology has seen a proliferation of new retail financial services and products from mobile banking to Peer-to-Peer (P2P) lending; from crowdfunding to online financial literacy programs all the way to general financial robo-advice apps on a smartphone. A common feature of digital financial technology is its provision of low-cost financial services to a vastly larger customer base than what was previously possible within the constraints of geographical proximity to branches.

As is sometimes the case with innovation (Braun and Herstatt 2008), many traditional financial institutions were slow to adapt to new technology, secure in their market share position. However, as Fintech start-ups increasingly succeeded in attracting market share, those financial institutions started to focus their attention on the new technologies.

The disintermediation of financial services – characteristic of many Fintech innovations (think P2P or Blockchain) – has been the key to offering those services at much lower cost. But this became only possible after the introduction of technological platforms facilitated by the Internet and by smartphone technology, offering massive benefits of scale at extremely low cost. Traditional banking and bank branches all of a sudden look like they are stranded, stuck in physical space. For example, the COVID-19 pandemic has accelerated the transition to mobile banking, to the point where even ATMs may become obsolete.

Physical presence has since been supplemented by a virtual presence. However, shutting down or reimagining physical assets represents a costly transition for large traditional banks. This has resulted in the following three distinct business models:

1. Banks providing smartphone apps and internet banking directly to their customers
2. Third-party services providers (like Google Pay, WeChat, or Alipay) using smartphone apps linked to their customers’ bank accounts
3. Mobile networks (like Xinja or QPay) operating altogether independently from financial institutions, also known as digital or neo-banks

Ironically, the retail customers that the banks are now targeting with their smartphone banking apps are the same customers many previously considered low value customers. These are also the customers who are most likely to be affected by the closure of bank branches and increasing account fees, yet many rely on these basic financial services.

Unlike the banks, the third-party providers and independent providers, such as Fintech start-ups, do not bear the burden of stranded physical assets and their access to low cost digital platforms has significantly reduced the entry barrier. As a consequence, competition has increased and Fintechs are constantly “reinventing” their service and products for market share gain, leading to a flood of finance and banking apps, specifically mobile banking services.
So, what are the common characteristics that distinguish the digital finance sector from traditional finance providers? According to Donovan (2012), the International Finance Corporation attributed in excess of 50 characteristics that explained the increase in mobile money services. Key features of digital financial services include:

- **Low cost (following initial investment)** – Virtual, cloud-based digital platforms are cheap and can easily be scaled up.
- **Digital intermediation** – Eliminating layers of physical service providers through operational process transformation (e.g., credit rating agencies, brokers, and financial planners replaced by digital verification and robo-finance, respectively).
- **Monopolistic competition** – Product differentiation through new features and technological upgrades and brand prominence; platform/brand dependency linked to customer loyalty and inertia to switch.
- **Competition for market share** – Reaching out to cohorts that were thus far ignored (the unbanked and financially excluded); enhanced by customer data analytics (tracking use of integrated linked accounts).
- **The presence of “unknown” digital providers** – Lacking substantive track records in financial services, which would normally create a trust issue for customers (suggesting that people trust new digital finance technology more easily than finance professionals).
- **Focus on customer ease of use** – Remote access and mobility enhance the customer experience through digital transformation (connectivity of smartphone, social media, and internet).
- **Attempts at customer personalization** – Services can be tailored to customer interests, needs, and suitability to personal circumstances (which can be a distinguishing feature in monopolistic competition).
- **Integrated personal finance system** – Linking payments to browsing, social media, and e-commerce.
- **A patchwork of applicable regulation** – Uncertainty and compliance cost due to multiple regulatory oversight (e.g., financial services regulation paired with mobile network regulation) as well as regulatory “sandpits” that allow Fintech innovators to experiment.
- **Presence of dominant global operators** – Reflecting global brand power (consider companies like Alipay, Ant Financial, Google Pay, PayPal, and WeChat wallet) scale benefits and global market coverage into developing countries.
- **Tendency for ethical claims** – Digital financial technology is less likely to have conflicts of interest (although algorithmic bias exists); business model (and purpose) is to be inclusive, making technology available to all.

So how do these features of digital finance translate into the improved financial inclusion of women? Donovan (2012) summarizes the three most important factors in the IFC (2011) mobile money study as competition, regulation, and customer ease of use. First, mobile banking competition needs to ensure that the service is complementary to existing sources of financial support (family, cooperatives, savings, and loans utilities), rather than crowd them out. Women seek new layers of service in
addition to the traditional financial infrastructure, not substitute for existing providers. Second, regulation needs to create a safe environment for women’s engagement with the digital service provider. To improve women’s financial inclusion, regulators need to provide the necessary protections for the vulnerable and often less than financially literate women. In particular, minimizing fraud and risk of theft should take priority in a financial “safety net.” Third, the digital finance provider needs to tailor its service to the needs and circumstances of women – to overcome entrenched distrust of financial institutions that offer a one size fits all, tailored to men’s needs and circumstances. Trust needs to be established early on in the customer engagement to ensure financial access turns into financial activity and financial inclusion.

The reality remains that there are gender-specific economic and market factor barriers that impact achieving financial inclusion for women. These barriers have complex cultural and socioeconomic aspects that cannot be underestimated.

According to Demirgüç-Kunt, Klapper, Singer, Ansar, and Hess (2018), one billion financially excluded adults globally own a mobile phone and approximately half a billion have internet access. There is, however, a significant gender gap in internet usage and it is growing wider. The gap is largest, at 31%, in the least developed countries. Mobile phones are crucial to increasing access to digital finance. However, again there is a gender gap in mobile phone ownership. Demirgüç-Kunt et al. (2018) estimate that women in low- and middle-income countries are 10% less likely to own a mobile phone than men.

Even when women do own mobile phones, they tend to use them less frequently than men. Demirgüç-Kunt et al. (2018) estimate that women are 26% less likely to use mobile internet and 33% less likely to use mobile money. Their marital status is also a factor, with single women sometimes discouraged from owning and using a mobile phone and married women having their use monitored and controlled by their husband or their father and brothers. This demonstrates the interconnected nature of technological and social factors that must be understood in order for digital financial services to change lives for the better. In addition, there are other factors at the individual, local, and global level that must be mitigated in order for digital finance to deliver all that it promises.

An Ethical Assessment of Digital Finance

Digital technology has transformed our interaction with the financial services sector. In developed economies, individuals no longer have to venture to their local bank branch to pay bills, withdraw money, or get a loan. They can do all these things wherever and whenever they want or need to by simply accessing finance, banking, and payment services online or on their mobile devices. This transition to convenient “virtual banking” has also attracted new providers (in addition to the traditional bank virtual offerings) for individuals to choose from. It has even been suggested that this technological disruption heralds the “democratisation of finance (source: https://www.bbva.com/en/new-banking-
ethics-created-digital-transformation/).” Finance accessible for everyone with no one left behind, and with customer interest at heart. Targeted advertising (for example: *With a presence in seven sub-Saharan countries, Atlas Mara aims to be a positive disruptive force in the markets in which we operate by leveraging technology to provide innovative and differentiated product offerings, excellent customer service and accelerate financial inclusion in the countries in which the Company operates. Source: www.atlasmara.com*) can create the impression of financial inclusiveness and financial well-being as the ultimate purpose of digital banking. However, can we be sure that increased financial access due to digital finance will really increase the financial well-being of women?

In the previous section, we identified and evaluated the traits of digital finance that make it more likely for women to engage and become financially included. Low cost, customer focused regulation, and ease of use are most prominent among those traits. But there are some features of digital finance that could spell trouble for women previously financially excluded. These features are not usually admitted or even recognized by the financial service providers or their customers.

Take for example disintermediation in mobile P2P (Peer-to-Peer) lending services. Mobile borrowing transaction costs are lower than for personal loans at a bank. Note that the personal loan interest rate may be lower at a bank, but the bank would not normally extend personal loans to the financially excluded! Yet, by directly connecting borrowers to lenders, the P2P platform has shifted responsibility and risk from the now absent intermediary (who assumed that risk in exchange for a fee or premium) to the counterparties in the loan. Regulatory supervision of the intermediaries – including an ombudsman for customer recourse – has been replaced by caveat emptor. Now consider that this P2P platform is available as a mobile app that can be downloaded free of charge from the app store. When these P2P platforms are targeted to the most vulnerable and disadvantaged customers – those with limited or no access to traditional lending services, and lacking in financial literacy, would they be able to recognize and evaluate the risks, and fully understand the terms and conditions?

Financial literacy (or lack thereof) is a key concern in using digital finance to unlock financial inclusion. While financial literacy is globally on the rise, there is still considerable dispersion across countries and basic financial literacy rates are still at best around 75% in countries with high financial inclusion rates for women, see Preston and Wright (2019). Among women, financial literacy rates are on average 10–20% less than among men. Hasler and Lusardi (2017) document evidence of a persistent gender gap in financial literacy across the world. Fonseca et al. (2012) find that financial decision-making in households depends on the relative financial literacy of the household members. Given the persistent gender gap, this suggests persistent financial exclusion of women. Digital finance may seem like a pathway to fast track financial inclusion, but without adequate financial literacy or digital literacy (OECD 2018) women will be disproportionately exposed to the ethical pitfalls of digital finance.

In this section we will take a closer look at those pitfalls by considering the ethical signposts of equality, equity, fairness, duty of care, prudence, loyalty, suitability, and
the absence of conflicts of interest. First, we will discuss whether improving financial inclusion is the ethically right thing to do. Compare this, for example with the sudden availability of online gambling opportunities in disadvantaged and vulnerable communities that were previously gambling free. Certain types of inclusions are obviously not desirable from (most) ethical perspectives. Only an ethical utilitarian could possibly arrive at a positive outcome for allowing the most vulnerable improved access to gambling.

For financial inclusion to have a positive impact on women’s well-being that extends to positive externalities for their families and communities, digital finance platforms need to take ethical responsibility for their customers’ use of their services. An independent assessment of ethical and social impact could filter out the predatory and high-risk apps among the many that deliver a valuable service to financial inclusion. If self-regulation fails (for example, due to excessive forces of competition), a customer well-being focused, government legislated entity should be established to fulfill that role.

Nonetheless, when we consider whether the growing inequality and inequity in (effective) financial inclusion can be arrested, we obviously first need to narrow the entrenched gender gap in financial and digital literacy. Digital finance has opened the door to women’s participation and ownership of their financial affairs. But it is not enough in itself.

Is Digital Financial Inclusion a Good Thing?

In evaluating the impact of digital finance on women’s financial inclusion, we made the intuitive assumption that equitable financial inclusion is in fact desirable. Questioning that assumption raises a number of questions. Is financial inclusion a necessary condition for women’s financial well-being? Is financial inclusion always beneficial to financial well-being? Does it also improve the financial well-being of the family, the community, and the economy? And what about the more broadly defined mental, physical, and social well-being?

Before we can infer the well-being benefits of women’s financial inclusion, we need to be clear what is meant by financial well-being. Muir et al. (2017) define financial well-being according to three interrelated financial dimensions:

- **Meeting living expenses and saving for emergencies**
  - To satisfy basic needs, paying off debts, and covering unexpected expenses
  - To manage future shortfalls

- **Feeling and acting in control of one’s finances through**
  - Understanding one’s financial position
  - Active financial decision-making

- **Feeling financially secure**
  - To be satisfied with current circumstances
  - Provides lifetime prosperity
These three dimensions map into McKinsey’s (2020) five-point financial inclusion diamond: making everyday transactions, accessing credit, planning ahead for big goals, insurance against key risks, and accumulating long-term wealth.

Demirgüç-Kunt et al. (2018) list the benefits of financial inclusion as

1. **Improving income earning potential**
2. **Managing financial risk**
3. **Reducing the cost of receiving, saving, or paying money**
4. **Accumulating savings and making productive investments**
5. **Reducing corruption and improving efficiency in government transfers**

From this list, we can now see how financial inclusion – progressing from access to basic financial services, to financial risk management, and ultimately to saving and investing for the future – improves financial well-being. In many developing countries, this means an opportunity to escape from entrenched poverty, particularly if financial inclusion allows women to invest in the health of their family (improving physical well-being), education of their children (enhancing mental well-being), and business opportunities (creating economic well-being). These dimensions of well-being interact and feedback on each other to further improve overall well-being. Consider an investment in a mature age financial literacy class. The educational experience improves mental well-being and builds financial skills that improve financial well-being, or an investment in a child’s health (physical well-being for the child and mental well-being for the mother) leads to a more productive life (economic well-being).

But is financial inclusion a sufficient condition or even a necessary condition for well-being? To address that question, we need to look at the ethical implications of digital finance:

**Lack of Knowledge and Understanding: Financial and Digital Literacy**

It would appear that the spread of digital finance has overtaken the growth in financial literacy. For example, “…it may be difficult for mobile banking [in India] to act as a vehicle for financial inclusion…despite plummeting [cost]…the penetration rate for mobile phones…far outnumbers that of bank account holders in India…” OECD (2011, p. 141). Providing vulnerable and financially illiterate individuals with the tools to borrow, invest, and spend seems reckless at the least. Without a clearly stipulated duty of care, the digital finance providers like any other financial service provider will not necessarily act in the best interest of their customers at all times.

**Information Asymmetry: How to Choose the Right Digital Platform?**

In highly competitive markets (which applies to both financial services and mobile phone providers), customers will be presented with choices and a range of products. At present there is no globally agreed framework that helps customers make informed choices – particularly if their information set is constrained to the app
store or the internet. The impact of the informational disadvantage can be compounded by a lack of financial and digital literacy.

**Confusing Needs and Wants: Impulse Buying and Other Behavioral Concerns**

Even financially literate customers are susceptible to making mistakes in financial decision-making. Behavioral biases can drive customers away from rational considerations (see, for example, Datta and Desai (2018)). Digital finance makes acting on those biases easier and can lack a “reality check” by a traditional banking professional enacting prudence in their duty of care for the customer. Wijland, Hansen, and Gardezi (2016) discuss the potential of “nudging” modifications to mobile banking apps as a means of unbiasing young people’s engagement with mobile banking.

**Being Financially Responsible**

As individuals reach financial independence they are likely to have increased responsibility and obligations in financial decision-making. If the financial circumstances (and outcomes) subsequently deteriorate, this may cause severe mental anguish, without a knowledgeable network of financial service providers to offer face-to-face support. The experiences with digital microfinance (see Mader 2018) – where the suicide rate was linked to a vicious cycle of indebtedness – are a sad point in case.

**Privacy and (Un)wanted Insights**

Digital finance allows the providers to “learn” from their customers’ financial behavior to an extent that was never feasible before. Data analytics provide insights into spending, saving habits and social media use. Some products and services have become particularly adept at determining customer “wants.” This can lead to unwanted manipulations, e.g., women who fall behind in their mobile loan repayments being targeted by payday lenders or by lay-by shopping apps. However, learning about customers is not necessarily a bad thing if done with consent, transparency, and full disclosure, as it may improve tailored financial solutions that account for customer suitability and circumstance.

**Vulnerability to Fraud and Scams**

Poor people in many developing countries, already struggling with the impact of natural disasters and health-related pandemics, are simultaneously being targeted by online fraudulent activity taking unfair advantage by exploiting their vulnerability.

To illustrate, a research report by the Consultative Group to Assist the Poor (2016) found that 83% of people surveyed in the Philippines had been targets in mobile phone scams, with one in five losing money while in Tanzania, 27% had been targeted and 17% fallen victim.

The Economist (2020) reported that globally expanding mobile financial services facilitated access to cheap and reliable financial services to thus far unbanked people. As an example, the innovative mobile money provider M-Pesa (operating in Tanzania) transacts billions of dollars annually. Disappointingly, those mobile financial services do also attract criminals and fraudulent activity.
**Neo-finance Regulation**

These ethical concerns combined raise doubts as to whether digital finance and financial inclusion – if left to their own devices – inevitably lead to financial well-being. Why have mobile financial services not been able to effectively self-regulate? After all, monopolies and oligopolies self-regulate to “control” access by new entrants. Yet, in the monopolistic competitive digital finance market, self-regulation appears not to be a priority, indicating perhaps a reluctance to bear the cost of the regulatory burden (Wallace et al. 2000). As the digital finance market matures, regulators would therefore be wise to progressively shut down the “regulatory sandbox” and assume its regulatory duty. Whereas traditional financial regulation focuses on systemic market problems and finance professionals’ behavior, we believe that “Neo-finance” regulation should instead focus on customer’s interests and (biased) behaviors. Through information and education that includes financial and digital literacy, we are much more likely to see the inclusion–well-being nexus come to fruition.

**Does Financial Inclusion and Digital Finance Really Improve Equality and Reduce Inequity?**

Much of the commentary on digital financial inclusion assumes that digital finance is “good.” The focus of studies and data collection is therefore on growth in access to digital financial services, the range of services offered, and infrastructure and regulation developments to support continued expansion. There is less focus on whether technology and digital finance actually improves financial well-being or leads to less inequality and more equity across society.

In order to assess whether financial inclusion improves inequality, we can look to advanced economies where financial inclusion is common and digital financial uptake is already widespread to places where there is access to a wide range of services and infrastructure and regulation is generally supportive. Even with these foundations in place, a divide remains between men and women, and rich and poor. For example, income inequality is a major political issue in the United States, despite being the birthplace of many of the digital financial innovations that are being enthusiastically promoted as solutions to inequality elsewhere.

Contrary to much public commentary and general understanding, the digital economy has been found to accelerate inequality (White 2015). While there are examples of women advancing in wealth accumulation in developed economies, significant divides across these societies remain. This suggests that financial inclusion through digital financial services does not necessarily have the transformative effect hoped for and championed by those in the development community, the philanthropists, and the financial service providers.

In a “review of reviews,” Duvendack and Mader (2018) evaluated the evidence on economic, social, behavioral, and gender outcomes from financial inclusion and concluded that “On average, financial services may not even have a meaningful net positive effect on poor or low-income users, although some services have some positive effects for some people.”
Duvendack and Mader warned of the “fragile” results of financial inclusion and recommended treating positive reports with caution. It is evident that further analysis is needed to better understand the factors that impact financial inclusion and might bring us closer to equality and improved equity.

The Importance of Saving
An area that should be highlighted for positive outcomes is savings. In contrast to other financial products, such as the provision of credit, savings have been identified as having both immediate positive outcomes and a positive impact on poverty measures (Steinert et al. 2018). As demonstrated in the section on Behavioral Factors, women have a good record in relation to saving. According to Vanguard’s (2019) How America Saves Report, women are more likely to save than men, even when they earn less. However, saving and financial products that encourage saving behavior do not appear as a priority for financial service providers.

Learning from Past Initiatives Designed to Accelerate Financial Inclusion
Much economic development activity over the last two decades has focused on credit, specifically microcredit, extending very small loans to the poor. Microcredit was widely promoted as a tool for development that could alleviate poverty by providing opportunities for entrepreneurship and promoting empowerment of women (Robinson 2019). After decades of promoting microcredit, in 2006, Muhammad Yunus and the Grameen Bank were jointly awarded the Nobel Peace Prize for their efforts through microcredit to create economic and social development (Nobel Prize 2006).

However, when the development impact of microcredit was formally evaluated by Demirgüç-Kunt, Klapper, and Singer (2017), it showed only a mixed effect for low-income recipients of microcredit. In a study of three villages in Bangladesh, Banerjee and Jackson (2017) found that microfinance increased indebtedness and worsened economic, social, and environmental conditions in impoverished communities. Banerjee and Jackson concluded that microfinance is a “discredited model” that promised more than it delivered. Findings like these have led to the more recent shift from loans to account ownership and the provision of a range of financial services. If we are to learn from past initiatives, we should be careful in promoting and focusing efforts singularly before the impacts and interrelations are properly understood.

The Limits of Digital Technologies
According to Wei (2019), the World Economic Forum confirmed that digital technology was not invented to tackle inequality, acknowledging there was a risk it could actually widen existing economic and social disparities. Qureshi (2019) references the simultaneous rise in income inequality and introduction of digital technology, with income inequality increasing in most advanced economies since the advent of digital disruption. Qureshi concludes that more inclusive outcomes from digitization are possible but require improved policies.

In order to achieve better outcomes, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP 2018) recommends that countries should ensure that technological progress does not exacerbate inequality. UNESCAP
identifies investment in infrastructure, capabilities, and learning as pillars of this policy focus. Importantly, such policy needs to be framed in the context of persistent accumulation of wealth. The revision and enforcement of competition law, intellectual property protection, and the agency of customers should be key policy areas underpinning future digital innovation.

**What We Know from the Advance of Technology in Developed Economies**

Brei, Ferri, and Gambacorta (2019) provide evidence that income inequality and wealth disparities have increased despite financial growth. While an increase in bank and market activity initially reduces income inequality, the impact can then reverse as financial activities increase beyond a threshold. Brei et al. conclude that the recent (digital) development of financial markets could well have produced an increase in income inequality.

Guellec and Paunov (2017) explore the sources of these inequalities and conclude that digital innovations may have contributed to magnifying “market rents.” As those market rents mostly go to investors and high net worth individuals, they disproportionately benefit high-income groups. The result is increased income inequality. In addition, labor-saving technology can replace jobs that otherwise paid well, forcing impacted workers to move to lower paid jobs (Hernaes 2017). Rather than closing gaps, technology can widen inequality and lead to further division.

**Unintended Consequences of New Technologies**

Qureshi (2019) notes that much technological innovation in financial services has focused on trading and asset management of most value to the already wealthy without significant benefit to economic productivity. Innovative financial technology has in fact distorted market competition by concentrating market power in a “winner-takes-most” manner. Customers, community, and local economy lost out against increasingly powerful financial service providers.

Haskel and Westlake (2017) identify that digital technologies encourage the rise of dominant firms due to first-mover advantages, scale economies, network effects, and the ability to leverage big data. Globalization then reinforces the scale economies by facilitating easy access to markets in emerging economies.

Stewart (2015) finds that real economic growth has not kept pace with financial growth. In the past half century, bank and financial institution lending has outstripped economic growth three to one. Extrapolating that observation suggests that further financial growth might actually obstruct real economic growth and thus worsen inequality.

And so, we find ourselves in a situation where private wealth has grown and poverty remains, all while digital financial technology finds its way into economies across the globe.

**Wealth Concentration and the Role of Philanthropy**

Some may counter the rise of private wealth and wealth concentration by pointing to philanthropy as having a role in redistribution and in addressing societal issues. Yet
again, inequality remains despite new modes of philanthropy such as entrepreneurial philanthropy, planetary philanthropy, venture philanthropy, innovative philanthropy, and hybrid philanthropy.

According to Laskowski (2011), philanthropy arises from increasing inequality caused by intense financialization of the economy. Ironically, philanthropy itself has been affected by financialization. Trusts and foundations are in fact financial constructs that can be marketed as tax-offsets for the wealthy. That makes philanthropy sit uneasy with a genuine desire to reduce inequality.

Philanthropy was once predicted to be the “salvation of capitalism” (Acs 2013). More recently we have seen a critical lens applied to this claim (Rogers 2013), with a call for more focus on the social context in which wealth concentration and the subsequent wealth gap is generated. Other criticisms include the undue influence of philanthropists on policy making, the use of public funds, and a lack of accountability when programs fail to reach their goals or have unintended negative consequences.

Most recently, as inequality has become hard to ignore, particularly as a result of the COVID-19 pandemic, there have been calls for structural change rather than relying on philanthropy to fund solutions. Dasgupta and Kanbur (2011) conclude that in the context of reducing inequality, philanthropy and direct redistribution (through taxes) are better viewed as complementary, rather than substitutes.

Philanthropists, most notably Bill and Melinda Gates, are playing a role in funding and promoting initiatives designed to increase financial inclusion through digital services. However, a critical lens needs to be applied to such activities, to ensure the underlying causes of inequality are simultaneously understood and addressed, rather than aggravated or exacerbated. According to Kauflin and Adams (2019), a Forbes magazine headline, “The $100 Trillion Opportunity: The Race to Provide Banking to the World’s Poor,” should stand as a warning against potential underlying motivations of philanthropists, venture capitalists, and those who advise them.

Conclusion

Despite concerted efforts from governments, NGOs, financial institutions, and philanthropists, a large part of the world’s population remains financially excluded. Women are vastly overrepresented among those who do not have access to common financial services such as savings accounts, loans, and payment systems – let alone investment services or financial advice.

Digital finance has arrived with the promise of unlocking women’s financial inclusion on a global scale. More women than ever before are given the opportunity to fully participate in the world economy, with some being recognized as “people” for the first time. With access to a range of financial products and services, women can make their money grow, start to plan for a financially secure future, and benefit from global markets as others have for generations.

However, the ethical implications of digital finance are not insignificant. Accessing digital financial services and entering global financial markets increases vulnerability to
manipulative targeting and scams. Instead of advancing equality, financial inclusion can lead to increased inequality and inequity in society. If not understood and mitigated, this could mean that efforts to achieve the financial inclusion of women are ultimately unsuccessful despite the hopes and efforts by many.

Women’s financial inclusion is not just a matter of fairness and equality. It is about making the world a better place for families, communities, and society. Billions of people, across borders and socioeconomic divides, are already customers of digital finance. Women, however, warrant special consideration. We must turn our attention to protecting women not only because of the historical financial disadvantage from which many emerge, but also because of the distinct ways in which women spend and think about money. When money is in short supply, women prioritize expenditure on their children, food, accommodation, and education to protect their families and communities in their immediate needs. When money is in abundance, they prioritize responsible saving and investment to address future needs. Recognition of these tendencies to “do good” with money, demands the financial empowerment of women as critical to economic development on a global scale.

Many policy makers and established financial institutions, along with Fintech entrepreneurs and philanthropists, are engaged in initiatives designed to bring women into the world of finance. Digital technologies – from electronic payment systems to digital wallets – can assist women in making their mark in the world economy, to which they have long contributed, but not always benefited from. Digital finance can make that contribution transparent throughout supply chains, which means that many female workers will have the opportunity to progress from the informal to the formal economy. More than that, women would finally be recognized financially for their economic contributions. Through digital payment systems women can make deposits and transfers that previously involved days of travel to a distant bank branch. Digital finance, when designed well and effectively regulated, can strengthen financial autonomy.

However, the risks resulting from digital finance are both local and global. They could range from local issues, such as password protection and hacking, or impulse buying and investing in high risk investment schemes, to global cross-border conflicts which could involve the suspension of trade agreements affecting digital services, as well as susceptibility to global volatility, financial crises, and cyber-attacks. This chapter proposes that those who are facilitating and promoting the introduction of digital finance should recognize a concurrent responsibility to actively mitigate the forces that could threaten the benefits of financial inclusion for women. Only then will financial inclusion actually improve financial well-being and bring us closer to equality and a more equitable society.

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