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The Next Global Disruptive Innovation: Can Mobile Money Make the Journey Upmarket to Disrupt the Financial Services Industry?

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The Next Global Disruptive Innovation: Can Mobile Money Make the Journey Upmarket to Disrupt the Financial Services Industry?

David Myerson *

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I. INTRODUCTION

Post 2008 financial crisis, more and more people are being drawn to start-ups and the promise of fortune that being an entrepreneur can provide. As these people flock to Silicon Valley, it is the modern-day gold rush. In the wake of computer giants, social media giants have sprouted up, and now so has ride sharing. The buzz word being thrown around all of these billion-dollar ideas is disruptive. Every new entrepreneur is looking to disrupt a current market with his or her life-altering idea. Obviously, not everything can be disruptive, but are all of the ideas gaining traction being labeled as disruptive truly disruptive? The answer is no. Disruption has become one of the most overused terms when discussing innovation and it has also become one of the most incorrectly used terms.

This paper examines the development of the transformative innovation of mobile money in the developing world. Mobile money is a product that first sprouted up shortly after the turn of the century and has been experimented with in over forty developing countries around the world. Half of the world's population does not have access to a bank account and mobile money seeks to include this forgotten half in the financial services industry. Mobile money allows users to deposit cash at a local agent, who then puts an equal amount of credit on the user's mobile phone. That user can then use his or her mobile handset to conduct financial transactions such as transfers, bill payment, loan re-payment, or just be an alternative currency holding place to underneath the mattress.

If half the world is not plugged in to the financial network, there is a staggering amount of economic activity being left on the table. Mobile money has the ability to bring all of these individuals into the network and push economic activity to new heights. Seems pretty amazing, so the question becomes is mobile money disruptive? Analyzing mobile money through the lens of disruption theory, first promulgated by Professor Clayton Christensen of Harvard Business School, this paper will look beneath the surface of mobile money, examining both the economic and regulatory factors, to see if mobile money is a true disruptive innovation.

II. AN OVERVIEW OF DISRUPTION THEORY AND ITS PROPER CONTEXT AND USAGE

Today's start-up world is full of glitz and glamour, where entrepreneurs and venture capitalists alike label the next new "it" technology a disruptive innovation. But is this a correct label?¹ Professor

¹ Clayton M. Christensen et al., *What is Disruptive Innovation*, 93 HARV. BUS. REV. 44,

Clayton Christensen of Harvard Business School, one of the innovators of disruption theory, certainly thinks the label in most cases is likely incorrect.² If the innovator of disruption theory thinks the label is incorrect, then what actually constitutes a disruptive innovation? According to Christensen, disruption occurs when incumbents in an industry begin to move upstream by providing current or improved products and services to their most demanding customers (generally the most profitable too), which allows the company to make higher profit margins.³ By doing so, the incumbents ignore certain segments of the market, commonly the low-end where profits are small.⁴ New entrants see the low-end as exposed and enter the market, offering products and services that meet the specific needs of these customers.⁵ It is likely that the customer base of the incumbents view the offerings of the new entrants as inferior and a poor fit for their current needs, so the incumbents do not respond to the threat to profitability posed by the new entrants.⁶ New entrants will then attempt to move upmarket and offer the same performance to the incumbent's customer base.⁷ It is when the mainstream customers of the incumbents start adopting the new entrant's products and services in volume that disruption has occurred.⁸ Therefore, new technology that solves a need or helps businesses engage their customers in more meaningful ways is not per se disruptive, disruption is about the process.⁹

There are two ways for new entrants to enter the market: by establishing a low-end foothold or by creating a new market foothold.¹⁰ A low-end foothold develops when incumbents continue to enhance their products and services to meet the need of their most demanding customers, and as a result often far exceed the needs of their less demanding customers in the low-end.¹¹ This allows new entrants to introduce just "good enough" products which are typically less expensive and appeal to the more price sensitive low-end consumers.¹² The new market foothold develops because the new entrant creates a new market where there was not one in the first place.¹³ The new entrants are able to convert "nonconsumers into

45 (2015) ("Unfortunately, disruption theory is in danger of becoming victim of its own success.").

² *Id.*

³ *Id.* at 46.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 47.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.* at 47.

consumers.”¹⁴

It is difficult for managers of incumbent companies to spot a disruptive innovation because the potential revenues for the market are small, and the products and services are not what current customers are asking for.¹⁵ Additionally, mainstream consumers are not likely to use disruptive products in a way they know or understand because the new product has attributes that are unattractive to the mainstream consumers and these attributes do not perform as well at first.¹⁶ A great example of this is how Apple disrupted the personal computer market with their continued development of the iPhone.¹⁷ At first, the iPhone was a sustaining innovation in the smartphone market, but by changing their business model, Apple was able to connect application developers with end consumers and change what mainstream consumers use as a main point for accessing the internet, thus disrupting the personal computer market.¹⁸

An important piece to disruption theory is that it is a process.¹⁹ Often, pundits misapply the theory because they are looking at a new product or service at a fixed point in time, but the path from gaining foothold in the low-end, moving upmarket, and eventually displacing an incumbent is what classic disruption theory is about.²⁰ Christensen is basically qualifying new entrant’s strategic position as access-based, where customers are segmented, and although the needs of these customers are similar to other customers, the best way to service the segmented customers is different.²¹ He highlights Uber as a perfect example of the misapplication of disruption theory because Uber lacked an access-based strategic position, opting for more of a variety-based position, where Uber could use its technological advancements to offer a distinctive set of activities to a segment of the market.²² Thus, Uber lacked the same type of process over time that is seen in traditional disruption theory.²³ Uber is a great example because without

¹⁴ *Id.* at 47.

¹⁵ Joseph L. Bower & Clayton M. Christensen, *Disruptive Technologies: Catching the Wave*, 7 HARV. BUS. REV. 43, 47 (1995).

¹⁶ *Id.* at 45.

¹⁷ Christensen et al., *supra* note 1, at 50 (highlighting Apple’s creation of a new market for internet access).

¹⁸ *Id.*

¹⁹ *Id.* at 48.

²⁰ *Id.*

²¹ Michael E. Porter, *What is Strategy?*, 74 HARV. BUS. REV. 61, 65-67 (1996) (Porter asserts that strategic positioning can be broken into three buckets that are not mutually exclusive: variety-based positioning, where firms produce a sub-set of the overall products in the market; needs-based-positioning, where firms focus on a particular customer group by serving all their needs; and access-based-positioning, where firms focus on providing services to a segment of the market that does not have access to the current offerings in the market).

²² *Id.* at 7.

²³ See Christensen et al., *supra* note 1, at 48-50.

the access-based strategic position, servicing the needs of customers at the low-end, Uber cannot move upmarket in the way that is required to meet the requirements of Christensen's disruption theory.²⁴ Labeling an innovation correctly becomes important for incumbents in an industry because disruption theory has empirically been shown to significantly be more accurate predicting which new businesses will succeed and pose a threat in the future.²⁵

In terms of mobile money, the framework for disruption theory is present because mobile money is a transformative product that is meeting the needs of an ignored segment of the market (unbanked population), and the incumbents (financial service companies) are increasingly working with technology companies to develop additive products and services to their most demanding customers.²⁶ As will be demonstrated, mobile money providers have focused on the segmented part of the market (the unbanked) and have strategically positioned themselves to provide the similar services that all customers need in the financial services industry, but in a different way.²⁷ The question then becomes, can mobile money providers move upmarket and truly disrupt the financial services industry? This is an important question because if mobile money can prove to be disruptive, the way consumers interact with financial products will be forever changed, and overall economic activity will increase substantially around the globe.²⁸ Moreover, mobile money could contribute to closing the wealth gap that exists between developing and developed countries, which also could increase global economic activity through international trade.²⁹

III. MOBILE MONEY SERVICE CASE STUDY: A LOOK AT M-PESA'S SUCCESS IN KENYA

During 2007, Safaricom launched a mobile money service called M-

²⁴ See *id.* at 48-51 (highlighting Netflix as a better example of disruption theory because what made Netflix disruptive was the process it undertook, going from a mail service (providing little value) to a streaming service, which provided so much value that it got Blockbuster's core customers to adopt).

²⁵ *Id.* at 60.

²⁶ Shanthi Elizabeth Sente, *Transformative Technology in Microfinance: Delivering Hope Electronically*, 13 U. PITT. J. TECH. L. & POL'Y 1, 8-9 (2012).

²⁷ Porter, *supra* note 21 (the ultimate determination on disruption will be whether mobile money can move upmarket, or if unwilling to meet the demands of increased regulations; mobile money providers hold their strategic positioning as a low-end provider in the financial services vertical segment).

²⁸ See Daniel Runde, *M-Pesa and the Rise of the Global Mobile Money Market*, FORBES (Aug. 12, 2015), <https://www.forbes.com/sites/danielrunde/2015/08/12/m-pesa-and-the-rise-of-the-global-mobile-money-market/54954dff5aec>.

²⁹ See Otiato Guguyu, *World Bank Study Says Inequality Narrowing*, STANDARD DIGITAL (Oct. 4, 2016), <https://www.standardmedia.co.ke/m/article/2000218311/world-bank-study-says-inequality-narrowing>.

Pesa in Kenya.³⁰ At the time, about eighty percent of the Kenyan population did not have bank accounts (“unbanked”).³¹ Safaricom originally developed M-Pesa as a micro-finance tool that would allow lenders an easier way to collect payments that were due on the money they loaned out.³² However, during a pilot program, it was discovered that users were mainly transferring money to one another instead of making loan repayments.³³ After further research, Safaricom noticed there was a sizeable opportunity to create value for individuals to have a reliable, efficient, and inexpensive way to remit money to family members in other parts of the country.³⁴ Safaricom decided to pivot and rolled out a new product that allows users to: “check their account balance, make deposits and withdrawals, pay bills, purchase mobile phone credit, and transfer money to other users.”³⁵

Safaricom is the leading telecommunications provider in Kenya, and in 2007, when it launched M-Pesa, it had over seventy percent of the market share.³⁶ While a vast majority of the population consisted of unbanked individuals, Kenya had a high percentage of the population that had access to a mobile phone, estimated at around fifty-five percent.³⁷ Safaricom’s near monopoly market share and the high penetration of mobile phone devices are key demographics that led to Safaricom’s launch of M-Pesa, but Safaricom’s ability to quickly establish a network of authorized agents, allowing convenient public access to M-Pesa is the driving force behind M-Pesa’s growth.³⁸ At the time M-Pesa launched, there was an access issue with the traditional financial industry infrastructure; Kenya had fewer than one thousand automatic teller machines (ATM), less than seven hundred bank branches, and fewer than six hundred Western Union locations (many of which were in the banks).³⁹ Thus, individuals would store cash under their mattresses, and if they needed to send money to someone, they would typically pay a bus driver to deliver the money, pay a friend or neighbor to make the delivery, or take

³⁰ Olga Morawczynski, *Exploring the Usage and Impact of “Transformational” Mobile Financial Services: The Case of M-PESA in Kenya*, 3 J. E. AFR. STUD. 509, 509 (2009).

³¹ William Jack et al., *Monetary Theory and Electronic Money: Reflections on the Kenyan Experience*, 96 ECON. Q., 83, 84 (2010).

³² Morawczynski, *supra* note 30, at 510.

³³ *Id.*

³⁴ *Id.* at 510-11.

³⁵ *Id.* at 509.

³⁶ Tavneet Suri et al., *Documenting the Birth of a Financial Economy*, 109 PROC. NAT’L ACAD. SCI. U.S.A., 10257, 10257 (2012) (Safaricom’s near monopoly is a unique factor that has allowed M-Pesa to scale dramatically in Kenya, but has led to problems scaling in foreign countries where telecommunication market conditions are more competitive).

³⁷ Morawczynski, *supra* note 30, at 511 (citing a 2008 study).

³⁸ Suri et al., *supra* note 36, at 10257 (at the time of the study in 2012, Safaricom had established over 30,000 registered agents, but according to their website that number is not over 40,000 showing continuous rapid growth).

³⁹ *Id.*

the risk of sending through the post office.⁴⁰ By quickly establishing thousands of agents throughout the country, Safaricom was able to bridge the access gap, which led to M-Pesa's dramatic early growth and adoption.⁴¹

Mobile money differs from mobile banking in that mobile banking allows current banking customers to conduct transactions through a mobile platform, whereas mobile money users are not required to have a bank account.⁴² Subscriber identity modules (SIM) cards store customer value on users' phones, which doubles as the user's identity verification, as opposed to a traditional bank account number.⁴³ A Mobile Network Operator (MNO) issues the notational equivalent value on the user's SIM account, while the corresponding cash value gets collected by agents and then it is typically stored in a bank.⁴⁴ The user then uses his or her mobile device to access the notational value on the SIM card and can direct payment or transfer instructions.⁴⁵

The lifecycle of a M-Pesa transaction would look similar to the following scenario. Customer walks into her local M-Pesa agent, which can be a Safaricom authorized dealer; another retailer such as a gas station, supermarket, and convenience store; or selected banks and other micro-finance institutions.⁴⁶ The agent is responsible for registering the customer into the M-Pesa network.⁴⁷ After registration, the customer will deposit with the agent a certain amount of cash, which the agent receives and places an equal amount of credit onto the customer's SIM card on her mobile handset.⁴⁸ The agent is then responsible for holding the cash and then depositing it into the bank to be held on a more permanent basis.⁴⁹ Once being registered and having deposited cash, the customer is free to send or receive cash from another user, pay bills and loans, or make an international transfer.⁵⁰ The customer, at a later point, can also use the agent to make a withdrawal from her M-Pesa value and receive cash from the agent, and the

⁴⁰ Morawczynski, *supra* note 30, at 510.

⁴¹ *Id.* at 511 (Safaricom also strategically priced M-Pesa to be cheaper than the alternative options, allowing M-Pesa to have a competitive advantage on price and convenience).

⁴² Joseph Kariuki Nyaga, *Mobile Banking Services in the East African Community: Challenges to the Existing Legislative and Regulatory Frameworks*, 4 J. INFO. POL'Y 270, 274 n.17 (2014).

⁴³ *Id.* at 274.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ SAFARICOM, (last visited Feb. 21, 2018)

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ Kieron Monks, *M-Pesa: Kenya's Mobile Money Success Story Turns 10*, CNN (Feb. 24, 2017, 9:26 AM), <http://www.cnn.com/2017/02/21/africa/mpesa-10th-anniversary/index.html>.

agent charges a small commission for the withdrawal, much like an out-of-network ATM here in the United States.⁵¹

Mobile money distinguishes itself from innovations in developed countries because it is a transformative innovation.⁵² Transformative products are able to “integrate unbanked populations into the formal financial sector.”⁵³ In contrast, the advancements made in the United States, for example, such as Venmo, Apple Pay, and mobile banking apps are additive innovations.⁵⁴ Additive products provide existing financial sector customers with new and more convenient channels to conduct transactions.⁵⁵

IV. ANALYZING THE KEY DEMOGRAPHICS THAT GIVES RISE TO SUCCESSFUL MOBILE MONEY VENTURES

Mobile money is not exclusive to Kenya, as M-Pesa is just one example, highlighted because of the unique circumstances that has led to its success, but the mobile money industry is in fact much broader.⁵⁶ The key demographics that have given rise to mobile money are: large percentage of population is unbanked due to access issues, high percentage of mobile phone users who are technologically savvy, and lack of alternatives for meeting the financial needs of the poorest consumers.⁵⁷ Since the early 2000s, there have been dozens of mobile money initiatives launched in over forty developing countries around the globe.⁵⁸

While M-Pesa has been the most successful service to date expanding to other countries in East Africa, India, and Eastern Europe, SMART Money in the Philippines was the first mobile money service to market, and was launched in the early 2000s.⁵⁹ The Philippines possess a unique geographic makeup given that it is a country made up of over 7,500 islands.⁶⁰ This poses a similar access issue to the one seen in Kenya because only two thousand islands are inhabited and only half of those contain a

⁵¹ SAFARICOM, *supra* note 46.

⁵² Sente, *supra* note 26.

⁵³ *Id.* at 9.

⁵⁴ *Id.* at 8-9.

⁵⁵ *Id.*

⁵⁶ Lauren Dunn, *What Leads to a Mobile Banking Program's Success?: A Comparison of M-Pesa and EKO India Financial Services*, J. PUB. & INT'L AFF. 108, 109 (2015).

⁵⁷ *See id.* at 110-15.

⁵⁸ *Id.* at 109.

⁵⁹ *Id.*

⁶⁰ Sophia Hasnain et al., *Mobile Money in the Philippines: Market Conditions Drive Innovation with Smart Money and GCash*, GSMA, June 23, 2016, <https://www.gsma.com/mobilefordevelopment/programme/mobile-money/mobile-money-philippines-market-conditions-drive-innovation-smart-money-gcash-philippines-becoming-mobile-money-innovation-hub/>.

bank branch.⁶¹ Furthermore, the Philippines has over seventy percent unique mobile phone subscribers, which is higher than Kenya's fifty-six percent.⁶² Mobile money, led by SMART Money, joined by GCash in 2004, has gained tremendous penetration in the Philippines because of the access issue and high acceptance of mobile phone subscribers.⁶³ Additionally, like Kenya, the Philippines has a high SMS literacy, which provides trust in the system because users have confidence that the transfer will be conducted in a secure way.⁶⁴

South Africa is another example where mobile money service is finding success. Wizzit, established in 2004 by independent entrepreneurs and backed by South African Bank of Athens, helped lower the percentage of unbanked people in South Africa from forty-two percent in 2004 to twenty-three percent in 2016.⁶⁵ In South Africa, similar to other countries where mobile banking has taken roots, Wizzit has replaced cash as the primary way to conduct transactions.⁶⁶ The rural population had limited access to traditional banks due to lack of locations and the difficulty associated with travel to a bank.⁶⁷ Wizzit mitigated the access gap by creating a solution that allows customers to conduct transactions without visiting a bank branch; consumers can make deposits via partnered ATM machines or through the South African Post Office.⁶⁸ Wizzit, and mobile money in the broader context, served the key demographics segmented within the market by closing the access barrier that exists with traditional financial services in developing countries.⁶⁹

V. PROGRESSIVE REGULATORY FRAMEWORK AS THE KEY TO SUCCESSFUL MOBILE MONEY GROWTH: A LOOK AT KENYA'S REGULATORY TREATMENT OF M-PESA

When analyzing mobile money success, there are some key demographics that are necessary to support mobile money growth.⁷⁰ These demographics are: high mobile phone penetration, large percentage of

⁶¹ *Id.* (36% of the municipalities do not have a bank branch).

⁶² *Id.*

⁶³ GROUPE SPÉCIALE MOBILE ASSOCIATION (GSMA), *MOBILE MONEY IN THE PHILIPPINES—THE MARKET, THE MODELS AND REGULATION* (2012), <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/Philippines-Case-Study-v-X21-21.pdf>.

⁶⁴ *Id.*

⁶⁵ AfricaMe-Team, *Wizzit: The Mobile Application Servicing South Africa's Underprivileged*, AFR. MIDDLE E., Sept. 8, 2016, <http://africa-me.com/wizzit-mobile-application-servicing-south-africas-underprivileged/>.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ WIZZIT INT'L, <http://www.wizzit-int.com/mobilebanking.html> (last visited Nov. 9, 2017).

⁶⁹ *Id.*

⁷⁰ See Nyaga, *supra* note 42, at 275-76.

unbanked individuals, competitive pricing when compared to the alternatives, and consumers' skill level with mobile technology.⁷¹ However, there are cases of developing countries that contain the same demographics that have failed to see substantial growth in mobile money usage (the next section addresses these cases).⁷² A major difference between successful mobile money adoption and more choppy growth is how the individual countries central banks regulate mobile money.⁷³

The Central Bank of Kenya (CBK) has been lauded for its flexible and innovative approach in addressing mobile money, especially given how difficult it is to regulate because of the overlap between telecommunications and banking.⁷⁴ Two key regulations that contributed to M-Pesa's growth are the low requirements to open an account and the classification of mobile money as a non-banking activity.⁷⁵ A user only is required to have a national identification card, which is issued to all Kenyan citizens, or a passport to open an M-Pesa account.⁷⁶ In contrast, the process for opening a bank account is much more tedious.⁷⁷ The low barrier to creating an account supports mobile money adoption because it keeps the access requirement to a minimum.⁷⁸ Mobile money would not be able to provide any value to its consumers if it made opening an account just as difficult as opening a traditional bank account.⁷⁹ Even when banks lowered initiation fees and waived identification requirements, consumers still chose not to establish bank accounts because they lacked trust in the banking system and MNOs were able to provide more value.⁸⁰ Furthermore, banks were not able to leverage the low barriers to entry like MNOs because banks still could not bridge the access gap.⁸¹

The most influential step the CBK took to support mobile money growth was to not over-regulate when Safaricom launched M-Pesa. Instead, the CBK worked with Safaricom, keeping an ongoing dialogue about how mobile money was being used by consumers, before coming up with

⁷¹ *Id.*

⁷² See *Models of Mobile Banking: The RBI's Approach to the "Transformational" Model of Mobile Banking is Justified*, 45 *ECON. & POL. WEEKLY* 7,7 (2010).

⁷³ See Nyaga, *supra* note 42, at 284-86.

⁷⁴ *Id.* at 275.

⁷⁵ William Jack & Tavneet Suri, *Risk Sharing and Transaction Costs: Evidence from Kenya's Mobile Money Revolution*, 145 *AM. ECON. REV.* 183, 187 n. 9; see *supra* note 72.

⁷⁶ William Jack & Tavneet Suri, *Risk Sharing and Transaction Costs: Evidence from Kenya's Mobile Money Revolution*, 145 *AM. ECON. REV.* 183, 187 n. 9.

⁷⁷ *Id.*

⁷⁸ See, Suri et al., *supra* note 36 (discussing how a key to M-Pesa's success was establishing a network of agents to bridge the access gap).

⁷⁹ See J. Brock Smith & Mark Colgate, *Customer Value Creation: A Practical Framework*, 15 *J. MARKETING THEORY & PRAC.* 7, 10 (2007) (the ease of opening an account would qualify as functional/instrumental value).

⁸⁰ Dunn, *supra* note 56, at 112.

⁸¹ Porter, *supra* note 21.

sensible regulations that met the needs both sides.⁸² Safaricom did not want to have the CBK over-regulate in fear of regulations stalling growth momentum; the CBK wanted to implement financial inclusion in a responsible manner that did not promote fraud, anti-money laundering, or harm the consumer in any way.⁸³ In fact, Safaricom reached out to the CBK prior to launching M-Pesa in an effort to work with the regulators, which led to financial inclusion for the roughly forty percent of the country that were unbanked.⁸⁴

Prior to launch, the CBK and Safaricom went back and forth over the details of Safaricom's business plan, and, in late 2006, Safaricom provided the CBK with a detailed risk mitigation plan.⁸⁵ Upon reviewing the plan, in early 2007, the CBK determined that M-Pesa was not banking activity and issued a "Letter of No Objection" to Safaricom for M-Pesa.⁸⁶ The classification as non-banking activity allowed M-Pesa the flexibility to choose its agents, which was key to M-Pesa gaining penetration in such a short time period.⁸⁷

The CBK did not remain idle after issuing its Letter of No Objection.⁸⁸ It continually monitored M-Pesa, and in the midst of fraud allegations, ordered an audit of M-Pesa's activities.⁸⁹ Shortly after the audit, the CBK adopted measures in 2009 to allow agents, as third parties, to conduct business on behalf of banks.⁹⁰ The 2009 regulation also prohibited Safaricom from locking up agents exclusively,⁹¹ which allowed for greater consumer protection by promoting competition.⁹² With agents free to work with multiple mobile money providers, and banks allowed the freedom to work with any agents, the CBK opened the door to banks competing with Safaricom.⁹³ This was in response to banks' lobbying efforts for more

⁸² Simone di Castri & Lara Gidvani, *The Kenyan Journal to Digital Financial Inclusion*, GSMA, Aug. 1, 2013, <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/MMU-Infographic-The-Kenyan-journey-to-digital-financial-inclusion.pdf>.

⁸³ *See id.*

⁸⁴ *See id.*

⁸⁵ *See id.*

⁸⁶ *Id.*

⁸⁷ *See Models of Mobile Banking*, *supra* note 72.

⁸⁸ David E. Rodrigues Gonçalves, *Financial Inclusion in Peru: Lessons From Kenya's Regulatory Approach on E-Money*, 21 U. MIAMI INT'L & COMP. L. REV. 31, 34-36 (2013).

⁸⁹ *Id.* at 35.

⁹⁰ Republic of Kenya, The Kenya Finance Act (2009), accessed May 3, 2019, <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/MMU-Infographic-The-Kenyan-journey-to-digital-financial-inclusion.pdf>.

⁹¹ Republic of Kenya, The Kenya Competition Bill (2009), accessed May 3, 2019, <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/MMU-Infographic-The-Kenyan-journey-to-digital-financial-inclusion.pdf>.

⁹² *Id.*

⁹³ *See also* di Castri & Gidvani, *supra* note 82.

regulation of mobile money.⁹⁴ The CBK faced significant tension balancing the policy concerns of promoting innovation to support financial inclusion, protecting consumers, and preventing unfair competition. Their response—to not over regulate, but allow more competition instead—was extremely innovative.⁹⁵

In 2013, the CBK took additional steps in their regulation efforts by drafting an E-money regulation framework.⁹⁶ The CBK again, did not over regulate, but instead issued fifteen broadly worded clauses that outlined basic concepts of how mobile money should operate.⁹⁷ Additionally, the CBK instituted a ten percent tax on fees Safaricom charges, which was good timing because they waited for wide spread adoption instead of taxing too soon and taking away M-Pesa's cost advantage.⁹⁸ In response to the tax, Safaricom raised M-Pesa's pricing to match the increase and pass off the expense to the consumer.⁹⁹ However, this did not affect usage because M-Pesa had already made itself irreplaceable in Kenyan society.¹⁰⁰ No one decision made by the CBK is dispositive in the growth of M-Pesa in Kenya, but the series of decisions made over the course of several years were instrumental in promoting financial inclusion.

VI. M-PESA'S INABILITY TO CAPTURE THE SAME EXPONENTIAL GROWTH IN INTERNATIONAL MARKETS: A LOOK AT THE MORE STRINGENT REGULATIONS AND THEIR IMPACT

Based off the lessons that Safaricom has learned from M-Pesa in Kenya, they have strategically targeted markets with the same or similar demographics that led to success in Kenya.¹⁰¹ However, M-Pesa has not reached the same level of success as they have with their initial launch.¹⁰² While all of these countries have high unbanked populations and high percentages of mobile phone users, M-Pesa faced significantly tougher landscapes in countries outside of Kenya.¹⁰³ The question becomes, is M-

⁹⁴ AFI Case Study, *Enabling Mobile Money Transfer: The Central Bank of Kenya's Treatment of M-Pesa*, 2010, <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/MMU-Infographic-The-Kenyan-journey-to-digital-financial-inclusion.pdf> at 3.

⁹⁵ See Gonçalves, *supra* note 88, at 34-35.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ See di Castri & Gidvani, *supra* note 82.

⁹⁹ *Id.*

¹⁰⁰ *Id.* (over sixty percent of the population has used M-Pesa to transfer money and over ninety percent trust the system).

¹⁰¹ See Gabriella Mulligan, *Can M-Pesa Travel Outside Kenya?*, AFR. BUS., Nov. 2014, at 42.

¹⁰² *Id.*

¹⁰³ See *id.*

Pesa a product of circumstances where all the links in a strategic positioning formed a competitive advantage, or is there something else that has prohibited M-Pesa from gaining similar traction outside of Kenya?¹⁰⁴

In 2011, M-Pesa launched in India.¹⁰⁵ On the surface, the opportunity for M-Pesa was quite clear, India is a country where the unbanked includes half of the over one billion people, and it is the second largest mobile phone market in the world with over nine hundred million active users.¹⁰⁶ So why has growth been so difficult for M-Pesa in India? There are demographic factors that exist in India that are different from those in Kenya. Mainly, Vodafone, who owns Safaricom, is the second largest mobile operator in India.¹⁰⁷ As previously mentioned, Safaricom, at the time they launched M-Pesa, had a near monopoly on the mobile market in Kenya.¹⁰⁸ This one difference has had a large impact because of the fact that transfers are much easier when conducted over the same mobile network.¹⁰⁹ Even though being the second largest operator in India is a hurdle, it is not the determinative factor in why M-Pesa has struggled to gain acceptance.¹¹⁰

The biggest blow to M-Pesa was the Reserve Bank of India labeling mobile money as a banking, rather than telecom service, which requires compliance with stricter rules.¹¹¹ As such, the Reserve Bank of India requires M-Pesa to partner with a bank because the bank acts as a principal with the local agents, and is thus responsible for acts or omissions of the agents when a consumer is harmed.¹¹² Moreover, M-Pesa does not have the same freedom to choose its agents as it does in Kenya, which makes it much more difficult to scale quickly.¹¹³ Additionally, the Reserve Bank of India requires a lengthy identification process in order to “cash out” with an agent and convert M-Pesa credit to cash.¹¹⁴ The far stricter regulatory landscape has proven to be extremely limiting to M-Pesa’s growth in India. These stricter regulations prove to be a huge threat to profitability for M-Pesa because they eliminate the value that M-Pesa creates over alternative

¹⁰⁴ See Porter, *supra* note 21.

¹⁰⁵ James Crabtree, *M-Pesa’s Cautious Start in India*, FIN TIMES, Dec. 28, 2012, <https://www.ft.com/content/a09c0f68-4a9a-11e2-9650-00144feab49a> at 10.

¹⁰⁶ *Id.* (“If only a fraction of these customers sign on, India could easily become the world’s mobile money leader.”).

¹⁰⁷ *Id.*

¹⁰⁸ Mulligan, *supra* note 101.

¹⁰⁹ Telecom models only allow users to transfer with people on the same network, not working with as large a base is troublesome.

¹¹⁰ See Crabtree, *supra* note 105 (“A cautious regulatory framework is causing concern too and leading some to worry that India’s mobile money revolution might not get going after all.”).

¹¹¹ *Id.*

¹¹² *Models of Mobile Banking*, *supra* note 72 (in contrast, M-Pesa agreements do not require Safaricom to be liable for the acts or omissions of its agents in Kenya).

¹¹³ *Id.*

¹¹⁴ See Crabtree, *supra* note 105.

options for unbanked individuals to conduct transactions.¹¹⁵ M-Pesa scaled quickly in Kenya because Safaricom was able to quickly set up an extensive network of agents to bridge the access gap, users were able to transfer money in a more affordable and safer way, and the user on the other side of the transaction is able to easily cash out at his or her local agent using the SIM card on his or her mobile device as identification.¹¹⁶

Mobile money struggles in the face of heightened regulations that exist in many countries around the world. However, there are over two and half billion people in the world that are unbanked, and just about half of them have cell phones, so there is a tremendous opportunity for mobile money to include these people in the financial services industry.¹¹⁷ How then should mobile money look to grow internationally outside of these pockets of success within individual countries?

An interesting case study is that of Peru, where, in 2013, the Peruvian government regulated e-money before either a bank or MNO attempted to launch in its country.¹¹⁸ The regulations take a standard approach by defining e-money, what entities are authorized to conduct e-money transactions, establishing rules for non-bank issuers, transaction limits, and consumer protection protocols.¹¹⁹ Furthermore, the telecommunications agency of the Peruvian Government, OSIPTEL, imposed further regulations that promote fair competition for non-bank e-money issuers.¹²⁰ Additionally, the Peruvian regulations called for a more strict registration process for setting up an e-money account.¹²¹

By establishing a clear regulatory framework, before mobile money launched, Peru established, in 2015, the world's first national mobile payments system called BIM.¹²² The Peruvian government partnered with over thirty financial institutions and mobile networks to create a mobile payments platform that operates across all banks, mobile networks, and ATMs to fully incorporate its large unbanked population.¹²³ In the first month, before fully being rolled out, BIM signed up over twenty-three

¹¹⁵ See Smith, *supra* note 79. The value M-Pesa creates is providing a more affordable alternative to consumers, and the increased costs of complying with regulations inhibits M-Pesa's ability to successfully be more affordable.

¹¹⁶ See Suri et al., *supra* note 36.

¹¹⁷ Tim Cooper et al., *Mobile Money in Peru: Assessing the Opportunity*, GSMA MOBILE MONEY FOR THE UNBANKED PROGRAMME (2015), <http://www.intermedia.org/wp-content/uploads/2015/02/GSMA-MMU-Peru-Report-English-.pdf>.

¹¹⁸ Gonçalves, *supra* note 88, at 36-37.

¹¹⁹ *Id.*

¹²⁰ *Id.* at 37.

¹²¹ *Id.* at 42-43.

¹²² APOLITICAL, https://apolitical.co/solution_article/perus-mobile-payment-system-brings-banking-services-millions/ (last visited Nov. 2, 2017). APOLITICAL, https://apolitical.co/solution_article/perus-mobile-payment-system-brings-banking-services-millions/ (last visited Nov. 2, 2017).

¹²³ *Id.*

thousand users, far surpassing the eight to ten thousand projected.¹²⁴ At the time of launch, BIM already had over ten thousand service stations where users could deposit and withdraw cash, making adoption extremely easy.¹²⁵ By establishing a joint venture, led by the government, most banks and mobile operators feared they would be left out, so they joined the project allowing the consumers to benefit tremendously from the lack of rivalry.¹²⁶ As recently as last year, BIM was adding over twenty thousand new users per month, and has over four-hundred thousand users in total, conducting hundreds of thousands of transactions each month.¹²⁷

The Peruvian experiment proved that it can succeed, and the idea has already spread to nearby Paraguay, who is working to bring their key stakeholders together within the next eighteen months to create a similar joint venture.¹²⁸ Given M-Pesa's long standing issue of inoperability across networks, which has been solved recently, it appears that a joint venture may be the path forward for sustainable mobile money growth internationally.¹²⁹

VII. THE ADVANTAGES AND DISADVANTAGES OF THE DIFFERENT BUSINESS MODELS FOR MOBILE MONEY SERVICES OPERATIONS: A LOOK AT TELECOM AND BANK-LED VENTURES

Before reviewing the opportunity for mobile money in developed countries where there are stricter regulations, it makes sense to quickly touch upon the different models for running a mobile money service. This is especially true given the example of a joint venture in Peru.¹³⁰ There are two types of mobile money platforms: a telecommunications (telecom) led model and a bank-led model.¹³¹ In general the telecom-led model offers greater flexibility to scale because MNOs do not have to comply with the same strict financial regulations, but in terms of scaling internationally, regulators prefer bank-led models because of their fiscal stability.¹³²

Telecom-led models, like M-Pesa in Kenya, use a mobile phone's SIM card to store information and SMS services to execute transfers over its telecom network.¹³³ Telecom-led models are preferred by consumers because of the convenience they provide through the large system of agents

¹²⁴ *Id.*

¹²⁵ *Id.* (similar to M-Pesa in Kenya, BIM's large network of agents bridged the access gap leading to easy adoption).

¹²⁶ *Id.*

¹²⁷ BANKING TECHNOLOGY, <http://www.bankingtech.com/815942/perus-first-mobile-money-wallet-bim-lessons-learnt/> (last visited Nov. 2, 2017).

¹²⁸ *Id.*

¹²⁹ APOLITICAL, *supra* note 122.

¹³⁰ *Id.*

¹³¹ *See* Sente, *supra* note 2625, at 15-19.

¹³² *Id.*

¹³³ Cooper et al., *supra* note 117116.

that can be established.¹³⁴ However, a serious drawback to the telecom-led model has been the issue of inoperability between networks, meaning that both users have to be on the same mobile network in order to conduct a transfer.¹³⁵ In a situation like Kenya, where Safaricom has a near monopoly on the mobile market, the telecom-led model works great because all the users on the one dominant network neutralizes the cross network issue.¹³⁶ Vodafone, the parent company of Safaricom, has found that without such a dominant position in the mobile market, international growth can be difficult, as previously discussed with M-Pesa's slow growth in India.¹³⁷ Telecom-led models are also popular because they are able to leverage the marketing, product development, and agency management expertise of the MNOs.¹³⁸ In contrast, banks struggle in this department because they lack trust in the community and the ability to monitor agents.¹³⁹ Another criticism of the telecom-led model has been security, especially when it comes to withdrawals and identification.¹⁴⁰ Proponents of bank-led models have continuously cited this as a reason to prefer a bank-led model because "banks are best positioned to provide banking products."¹⁴¹ M-Pesa has countered this problem recently with an improved security enhancement that requires a user to have a picture taken when he or she register his or her SIM card, allowing agents to reference that photo from M-Pesa's database and connect it to the SIM card making deposits and withdrawals.¹⁴² This feature is designed to curb any fraudulent activities, anti-money laundering, or terrorist financing.¹⁴³

The alternative option to a telecom-led model is a bank-led model, which has been successful in countries such as Pakistan, with their mobile money product Easy Paisa.¹⁴⁴ The advantages of a bank-led model are: financial stability through increased trust in the liquidity of the bank, users can transact with one another across mobile networks, and there is greater

¹³⁴ *Id.* (no regulations, so flexibility to choose agents leads to scale).

¹³⁵ *Id.* (this has recently been overcome by some MNOs).

¹³⁶ Mulligan, *supra* note 101. There is no incentive to cooperate with other telecom companies as they are also looking to establish their own mobile money product.

¹³⁷ See Crabtree, *supra* note 105.

¹³⁸ See Sente, *supra* note 26.

¹³⁹ See Kanika Saigal, *Banks and Telcos Do Battle in Mobile Money Revolution in Africa*, EUROMONEY (June 24, 2015), <https://www.euromoney.com/article/b12kn7sx3pbnlh/banks-and-telcos-do-battle-in-mobile-money-revolution-in-africa>.

¹⁴⁰ See Mugambi Mutege, *Safaricom Goes for Photo IDs to Block M-Pesa Fraud*, BUS. DAILY (July 10, 2017), <http://www.businessdailyafrica.com/corporate/companies/Safaricom-photo-ID-agents-M-Pesa-fraud/4003102-4008158-1sep6kz/index.html>.

¹⁴¹ Matina Stevis & Patrick McGroarty, *Africa's Top Bankers: Mobile Phones*, WALL ST. J., Aug. 16, 2014, at B1.

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ See Sente, *supra* note 26, at 19 (regulations require banks to operate mobile money so telecom bought a bank to have access to a banking license).

access to other banking products, which promotes even greater financial inclusion.¹⁴⁵ The downside has been lack of extensive network of agents leading to a decrease in convenience for the consumer and lack of trust in traditional banks.¹⁴⁶ However, it is conceivable that a bank-led model is more apt at pursuing international growth because it does not face the same regulatory risks as a telecom-led model and it can overcome the barrier of stricter government regulations.¹⁴⁷

Both models have their advantages and disadvantages, which is why the joint venture experiment in Peru is so intriguing.¹⁴⁸ A joint venture can leverage the expertise of both the banks and the MNOs, while working alongside government regulators to come up with a solution that is convenient yet still possess the necessary consumer protection safeguards. This type of model has real potential to spread internationally, even into developed countries that have an established banking network.

VIII. REGULATORY FRAMEWORK IN DEVELOPED COUNTRIES AND HOW THE FRAMEWORK IS SO FOCUSED ON CONSUMER PROTECTION, IT PREVENTS TRANSFORMATIVE INNOVATION: A LOOK AT THE UNITED STATES

Now that there is an understanding of the different models of mobile money that have been used, it is prudent to see how these different models would be treated by a strict regulatory scheme, such as the United States', to see if mobile banking can gain traction in countries that only have a smaller percentage of unbanked populations. In order for mobile money to be disruptive it would have to gain traction in developed countries where mainstream consumers of financial products conduct business. The United States has a well-developed financial regulatory framework that takes consumer protection extremely seriously, making it a good example to analyze.¹⁴⁹ Additionally, the United States has approximately nine million (seven percent of the population) unbanked households, and twenty-four and half million underbanked households (twenty percent of the population), meaning there is a potential market for mobile money.¹⁵⁰ While the market opportunity isn't as big as developing countries, the promising growth over the last decade for mobile money services indicates

¹⁴⁵ Cooper et al., *supra* note 117.

¹⁴⁶ Saigal, *supra* note 139.

¹⁴⁷ See Sente, *supra* note 26, at 19.

¹⁴⁸ See APOLITICAL, *supra* note 122.

¹⁴⁹ The US has numerous governmental agencies to oversee the providing of financial products and services to consumers, this paper examines the Bank Secrecy Act and The Dodd-Frank Act, as well as the Consumer Financial Protection Bureau and the Financial Crimes Enforcement Network.

¹⁵⁰ FDIC, <https://www.economicinclusion.gov/> (last visited Nov. 9, 2017) (the survey defines underbanked as households who have a checking or savings account, but also obtain financial products and services outside of the banking system).

there is potentially a sizeable market in the United States.¹⁵¹ The opportunity also exists for mobile money to garner the attention of the population that uses traditional financial services products if it can position itself to add value to gain adopters.¹⁵²

Beginning with a telecom-led model, it is clear this model would struggle the most to deal with a regulatory framework like the United States' system. The Bank Secrecy Act (BSA), would classify mobile money providers as a money service business (MSB), which requires compliance with certain administrative and reporting requirements.¹⁵³ These requirements include:

- developing an effective anti-money laundering (AML) program;
- designation of a person to assure day-to-day compliance with the BSA;
- incorporate internal policies and controls to assure compliance with the BSA;
- provide education and training to personnel;
- conduct independent reviews to monitor and maintain the AML program; and
- exhaustive reporting requirements.¹⁵⁴

Not only do the increased administrative and reporting requirements significantly increase costs, but also the designation as a MSB increases a providers liability because they come under the oversight of both the Financial Crimes Enforcement Network (FinCEN) and the Consumer Financial Protection Bureau (CFPB).¹⁵⁵ The Dodd-Frank act created the CFPB, which is legislation passed in response to the 2008 financial crisis.¹⁵⁶ The CFPB has both supervisory and enforcement authority over MSBs.¹⁵⁷ Supervisory authority allows the CFPB to formally investigate an MSB; while enforcement authority allows the CFPB “to bring an enforcement action against an MSB for its acts and practices involving consumers.”¹⁵⁸

¹⁵¹ GSMA, STATE OF THE INDUSTRY REPORT ON MOBILE MONEY [PINCITE?] (2017) https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/03/GSMA_State-of-the-Industry-Report-on-Mobile-Money_2016.pdf.

¹⁵² Christensen, *supra* note 1.

¹⁵³ U.S. Dept. of Treasury Fin. Crimes Enforcement Network (FinCEN), <https://www.fincen.gov/money-services-business-definition> (last visited Nov. 9, 2017).

¹⁵⁴ Internal Revenue Service, <https://www.irs.gov/businesses/small-businesses-self-employed/money-services-business-msb-information-center> (last visited Nov. 9, 2017) (the reporting requirements include reporting cash transactions that exceed \$10,000 a day to any one person and automatic reporting of suspicious activities).

¹⁵⁵ FinCEN, *supra* note 153.

¹⁵⁶ Edward V. Murphy, Cong. Research Serv., R43087, Who Regulates Whom and How? An Overview of U.S. Financial Regulatory Policy for Banking and Securities Markets 20 (2015).

¹⁵⁷ Lexology, <https://www.lexology.com/library/detail.aspx?g=1782ec39-7cc8-4ac2-9931-26b771686e9f> (last visited Nov. 9, 2017).

¹⁵⁸ *Id.*

FinCEN is part of the United States Treasury Department, and is responsible for monitoring compliance with BSA and prosecuting those that fail to comply.¹⁵⁹ While this paper mainly addresses federal regulations, while analyzing the United States, it is worth mentioning that each state has its own regulations that must be complied with, mainly each state (except Montana) requires a MSB to license in that state to conduct business across state lines.¹⁶⁰

The BSA also poses a problem for a telecom-led model because of the identification requirements surrounding transactions.¹⁶¹ As mentioned earlier, one of the key regulatory advantages that Kenya provided M-Pesa, was the softened identification requirement for opening an account and conducting transactions.¹⁶² Preventing fraud and money laundering has long been the basis for proponents of increased regulation of mobile money.¹⁶³ Although, M-Pesa has taken steps recently to increase the level of identification required, it does not rise to the level of the BSA.¹⁶⁴

M-Pesa's struggles in India are evidence that a telecom-led model would struggle also in the United States because telecommunication companies lack the ability to handle the administrative and reporting requirements involved with offering a financial product, and they have shown an unwillingness to absorb the risk of liability for the acts of their agents.¹⁶⁵ Under the Dodd-Frank Act, a mobile money provider would be liable for the acts of its agents, and a simple allegation of unfair, deceptive, and abusive practices (UDAAP) from a consumer is all the CFPB needs to open an investigation and potentially bring an enforcement action against the mobile money operator.¹⁶⁶ This is obviously a significant amount of risk, much more risk than the regulatory schemes in Kenya and the Philippines enforced on their telecom-led mobile money products.¹⁶⁷ Therefore, it appears that telecom-led models are more a product of key demographics and a progressive regulatory authority in order to promote adoption. It is thus evident that a telecom-led model would most likely not have the capabilities to be a disruptive innovation on the global scale

¹⁵⁹ See FinCEN, <https://www.fincen.gov/resources/statutes-regulations/guidance/application-fincens-regulations-persons-administering> (last visited Nov. 9, 2017).

¹⁶⁰ Banking Technology, <http://www.bankingtech.com/752532/fintech-in-the-us-where-is-regulation-headed/> (last visited Nov. 9, 2017)(on the other hand, banks are not required to be separately licensed, which leads to many partnerships with fintech companies and promotes the creation of additive products that continue to ignore the unbanked).

¹⁶¹ Bank Secrecy Act, 31 U.S.C § 5311 (1970).

¹⁶² See Jack, *supra* note 75, at 187.

¹⁶³ Sente, *supra* note 26.

¹⁶⁴ See Mutegi, *supra* note 140.

¹⁶⁵ See *Models of Mobile Banking*, *supra* note 72 (one of the struggles of M-Pesa in India has been the requirement of liability for the acts and omissions of agents).

¹⁶⁶ Lexology, *supra* note 157.

¹⁶⁷ See *Models of Mobile Banking*, *supra* note 72.

because it cannot overcome a strong, well established regulatory framework.

Turning to a bank-led model, there is much more opportunity for banks to make the push for mobile money growth internationally.¹⁶⁸ Banks are in a better position than telecommunication companies to meet the demands of increased regulations in countries who have a more developed regulatory landscape.¹⁶⁹ Since banks already offer financial products to the public, they have the internal infrastructure already established to meet the demands of increased reporting requirements, which can significantly decrease risk of being fined for non-compliance.¹⁷⁰ Additionally, banks do not have to rely on a transaction revenue model, which allows them to offer mobile money services at a more affordable price.¹⁷¹ Banks can earn revenue through traditional banking methods, such as lending, deposits, and insurance products.¹⁷² A potential side-effect of a bank-led model is that it promotes financial inclusion because banking services become more accessible to those who have previously been unable to take advantage, providing banks with an incentive to focus more on the low-end of the market.¹⁷³

The bank-led model does have some drawbacks in terms of international growth. In developing countries, banks still need to get over the hurdle of lack of consumer trust in the banking system.¹⁷⁴ In United States, banks do not seem interested in serving the approximately thirty-five million unbanked or underbanked people; instead they seem focused on creating additive products for already existing customers (discussion about the state of the U.S. financial tech market is in the next section).¹⁷⁵ Moreover, banks need a way to get around having to rely on the telecommunication companies in order to get their mobile money product running on customers cell phones.¹⁷⁶ One example is Equity Bank in Kenya, trying to compete with M-Pesa, which provides customers with another SIM card that inserts into the customers phone on top of the existing SIM card, and users can access their account through the new SIM card.¹⁷⁷ This bridges the access gap because users do not need to visit a branch to conduct a transaction.¹⁷⁸ However, this is not a perfect solution

¹⁶⁸ See Saigal, *supra* note 139.

¹⁶⁹ See *id.*

¹⁷⁰ See *id.*

¹⁷¹ *Id.* (Equity Bank has already made M-Pesa slash prices by 67%, analysts say this is a more sustainable method for growth)

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ See Mutegi, *supra* note 140.

¹⁷⁵ Senthe, *supra* note 26, at 8-9.

¹⁷⁶ Stevis, *supra*, note 141, at B1.

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

because it is an extra step required in order to open an account, and as it has been seen, just the slightest barrier to convenience has proven to be difficult for growth.

Looking at the pros and cons of both the telecom-led model and the bank-led model, while also assessing the success of the joint venture trial in Peru, it appears that a joint venture would be best to gain traction in a developed country such as the United States. Telecommunication companies can leverage their expertise in marketing, product development, and they have an established network of brick and mortar locations all over the country.¹⁷⁹ While banks can leverage their compliance infrastructure to meet the increased regulatory requirements. If the government got involved as well, (it appears they have interest given their biannual survey of the unbanked and underbanked) it can work with both the telecommunication companies and the banks to provide the best possible service to allow every member of society a chance to be included in the financial system.

IX. CURRENT STATE OF THE FINANCIAL TECHNOLOGY (FINTECH) MARKET IN THE UNITED STATES: A STORY OF ADDITIVE INNOVATION

Since there is an argument that mobile money has a market in the United States, given the number of unbanked or underbanked people, it makes sense to examine the current state of the fintech market in the United States to see whether mobile money can be a true disruptive force.¹⁸⁰ As it stands right now, “much of the innovation in fintech is really in the delivery system, rather than the product itself.”¹⁸¹ Meaning, most of the recent innovations in fintech have been focused on speeding up the process of monetary transmissions.¹⁸² Examples include: Apple Pay, Android Pay, Masterpass, Samsung Pay, Venmo, and Zelle Pay. To use any of these “innovative” services, a customer must have a bank account (or credit/debit card) linked to the services so the fintech company does not have to register as an MSB.¹⁸³

It is worth noting that the United States is not taking the lead in terms of fintech regulation, that distinction belongs to the United Kingdom.¹⁸⁴ The United Kingdom’s Financial Conduct Authority (FCA) has authorized a “fintech sandbox,” which allows start-ups and current market participants to offer a product or service to a limited consumer base before having to

¹⁷⁹ Sente, *supra* note 26.

¹⁸⁰ See Christensen, *supra* note 1.

¹⁸¹ BANKING TECHNOLOGY, *supra* note 160.

¹⁸² *Id.*

¹⁸³ See Credit Slips, <http://www.creditslips.org/creditslips/2014/09/apple-pay-and-the-cfpb.html> (last visited Nov. 9, 2017).

¹⁸⁴ BANKING TECHNOLOGY, *supra* note 160.

meet the applicable regulations.¹⁸⁵ The FCA's experiment, launched in 2016, allows for consumers to decide if the cutting edge of the fintech market can be useful for them, while allowing for innovation through the use of beta testing.¹⁸⁶ While this seems like a creative way to balance the promotion of innovation with consumer protection, critics claim that the risk of consumer harm far outweighs the need for such innovation, and thus the experiment is dangerous.¹⁸⁷

After examining the current state of the fintech market, the opportunity for mobile money to be a disruptive force does exist.¹⁸⁸ Due to the stiff regulatory framework previously discussed, fintech companies are partnering with banks so they don't have to register as a MSB and they can leverage the compliance expertise of the banks.¹⁸⁹ The partnership with banks also makes sense for fintech companies because the majority of the population has a bank account, so in order to quickly disseminate their service into the market and grow, it makes sense to provide a service that most of the population would find useful.¹⁹⁰ However, this makes most of the innovation additive, while still leaving the bottom of the market unserved, and thus exposed.¹⁹¹ Therefore, there is an opportunity for mobile money to gain a low-end foothold in the markets of developed countries using a joint venture model to leverage the innovation of technology companies and the regulatory and administrative foundation of financial services companies.¹⁹²

X. CONCLUSION

Mobile money has been transformative in promoting financial inclusion in the developing world. With half the world's population without a bank account, there is tremendous opportunity for global growth, and there eventually could be a day where more money is transacted through mobile money than through traditional financial networks. In terms of opportunities in developed countries, there is an opportunity to establish a low-end foothold because traditional financial services are moving upstream through their additive innovations, leaving the low-end of the market completely unserved. The question becomes, can mobile money gain the attention of the mainstream consumer base and move upstream to disrupt the financial services industry? The ultimate answer is most likely not. While, incumbent players are turning away from the low-end of the

¹⁸⁵ *Id.* (Singapore and Hong Kong have also adopted the fintech sandbox approach).

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ See GSMA, *supra* note 151.

¹⁸⁹ BANKING TECHNOLOGY, *supra* note 160.

¹⁹⁰ See Christensen, *supra* note 1.

¹⁹¹ *Id.*

¹⁹² *Id.*

market, they are doing so in a way that adds the same value to their current customer base that mobile money would, that being an easy, efficient way to transfer money. With the growth of venmo, zelle pay, and now the ability to transfer money using Apple Pay over Apple's iMessage network, it does not appear that mobile money has the ability to add value to the mainstream consumer. If, through a joint venture between banks, telecommunication companies, and the government, mobile money is able to create a micro-finance loan product (which is happening in the developing world), there is more of an opportunity to attract some middle-class consumers in the developed world, especially if the loan terms are more favorable than traditional banks, and the consumer can use the mobile money platform to pay off the loan, providing convenience. The most likely scenario for mobile money is that more countries follow in Peru's path, and establish joint ventures. A joint venture would allow for inclusion in the financial services industry for the low-end of the market, thus increasing overall economic activity globally.

