The Impact of ICT on Intermediation in the Microfinance Industry

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Abstract

The microfinance industry provides financial services to the world’s poor in hopes of moving individuals and families out of poverty. This research examines how information and communication technologies (ICTs) are changing the microfinance industry given recent advancements in mobile banking, Internet usage, and connectivity. By examining the microfinance market structure, we determine that ICTs impact intermediation and market structure among various players in the microfinance industry. We use a recent industry risk report to inform predictions of changes to the intermediation structure of the industry.

1. Introduction

Global poverty and malnourishment rank among the largest humanitarian problems in the world today. An estimated 925 million, or 13.6% of the world’s population, were classified as malnourished in 2010 [14]. One in three children in developing countries is malnourished and suffers an average of 160 days of illness per year. Poverty ranks as the principal reason for malnourishment. In 2008, 1.35 billion people lived in poverty on $1.25 USD or less per day [27].

ICT has been shown to have some impact on poverty at the micro, intermediate and macro levels [20]. Despite this slight improvement, evidence suggests an “indisputable link” between poverty and ICT [15]. Countries that experience high poverty rates also have few telephone land lines and Internet service providers [23]. This is part of the digital divide that describes the discrepancy of technology available to, and used by, the poor versus the wealthy [11]. As we’ll see, low ICT capabilities lessen the ability to use financial services to reduce poverty in developing areas.

The emergence of microfinance in the past three decades is viewed as another critical component in the fight against global poverty [22, 25, 29]. Microfinance is defined as the provisioning of financial services to poor or low-income clients, including consumers and entrepreneurs, who would otherwise not be served by traditional financial institutions [24]. Microcredit is a subset of microfinance where microfinance institutions (MFIs) administer loans to individuals and small businesses that would otherwise be rejected at a traditional lending institution due perceived high risk or excessive loan administration costs.

Despite microfinance success stories, estimates reveal that 40% to 80% of the population in developing countries still does not receive basic financial services [9]. Some microfinance programs have found little success in reaching the poorest individuals, especially when MFIs favor financial performance goals (sustainability) over social performance goals (outreach). In an effort to increase social performance MFIs are turning to new tools, methodologies, and assessment frameworks to reduce costs and extend their outreach [3, 8].

Like other industries, ICT is having an increasing impact on microfinance. Many of the tasks that intermediaries perform are enabled or enhanced by various technologies. ICT has been shown to alter the roles of intermediaries and marketplaces in industries such as travel [19], music [4], and retail [28]. Kauffman and Riggins [21] describe the current state of ICT in the microfinance industry and propose a number of research directions for this emerging area of IS research. As developing countries adopt ICTs and begin to bridge the digital divide, the impact of ICTs on the microfinance industry will likely increase.

We pose the following research questions to examine how ICT impacts intermediation in the microfinance industry:

1. How has ICT created opportunities for intermediaries in the microfinance industry?
2. How does ICT fuel changes among intermediaries?
3. Based on risks and ICTs impact, what will microfinance intermediation look like in the future?
4. What are the implications for microfinance market participants given these predictions?

2. Theoretical background

We draw on elements of intermediation, electronic marketplace theory, and transparency theory in our analysis of ICT in the microfinance industry.

Spulber [31] defines an intermediary as “an economic agent that purchases from suppliers for resale to buyers or that helps buyers and sellers meet and transact.” He outlines four key roles for intermediaries as:

1. price setting and market clearing,
2. providing liquidity and immediacy,
3. matching and searching,
and (4) guaranteeing and monitoring. Some intermediaries also function as electronic marketplaces. Bakos [2] defines an electronic marketplace as an “interorganizational information system that allows the participating buyers and sellers to exchange information about prices and product offerings.” He claims electronic marketplaces share the following five characteristics.

1. **Reduces information costs** associated with obtaining information about prices and products,
2. **Benefits from network externalities** where the value of the marketplace to participants will increase as the number of participants increases,
3. **Imposes switching costs** since migration from traditional to electronic marketplaces requires investments in hardware, software, and staff,
4. **Participants benefit from economies of scale** where the incremental costs for each additional transaction are low, and
5. **Uncertainty of actual benefits** may exist among participants until long after switching.

Much research in the IS discipline aims to determine if ICT diminishes the need for the ‘middle man’ [13]. Evidence of this can be found in certain industries such as music and print media. Prior to the Internet, portable e-book readers, and audio compression formats, many intermediaries existed between the artist and the end-consumer. Beginning in the late 1990s, artists could sell their music and media directly to consumers. Those who benefit from this change are the artists who receive a greater percentage of the final sale and consumers who pay a lower cost and can deal with the artist directly. This comes at the expense of intermediaries who were being disintermediated by these advancements [4]. Since ICT can diminish the distance between lenders and borrowers [6], less need arises for intermediaries in the microfinance industry.

Electronic-enabled intermediaries have also impacted businesses and industry via reintermediation as new intermediaries emerge to fill critical roles in the changing industry. This poses a threat to traditional businesses that rely on brands and distribution relationships [16]. While it is true that many traditional intermediaries risk extinction due to advances in ICT, some intermediaries maintain relevancy by proactively “reinventing their value logic” [13]. Their traditional roles of distributing goods to other market players shift to roles of service support, transaction processing, and contract enforcement.

Transparent markets are characterized by complete and unbiased information which promotes increased competition [26]. Consumers benefit from competition through lower product pricing, but sellers may resist increases in transparency. The same is true in the microfinance industry where large profits can be made by profit-maximizing MFIs that lend in markets where competitors and borrowers have limited access to market information. To combat this, organizations such as MixMarket and MFTransparency work to promote transparency in this industry. As evidenced in Wilson et al. [34] the financial benefits of adopting a non-transparent strategy among profit-maximizing MFIs decline as other MFIs become more transparent. Consumers are not the only players that experience benefits from transparency. Sellers may also benefit with enhanced electronic representation of products [17, 18].

Transparency can mitigate corruption [5], which is a concern in the microfinance industry. Another benefit of transparency is improved liquidity of a product for sale as in the airline industry [19]. Technologies like the Internet allow consumers to determine sellers’ costs or allow them to acquire several bids. Consumers pay lower prices thereby increasing their consumer surplus. In the context of microfinance, a borrower could review interest rates and loan products of several MFIs before making their borrowing decision. This may lead to increased willingness-to-pay, which may lower the elasticity of demand in transparent markets [19].

Another important point is that not all market players prefer transparency. Some sellers prefer not to join an electronic marketplace with high price transparency since high transparency increases competition, lowers prices, and decreases profit margins. This has further ramifications with consumers, who are less likely to participate in an electronic marketplace where fewer sellers are involved [30]. For example, airlines may be reluctant to join a service like Expedia if the increased transparency leads to lower margins. Consumers, in turn, will not want to visit a website that only compares airfares for a limited amount of airlines. Microfinance institutions may elect not to participate in a transparency-promoting website or database if they fear that their financial and loan portfolio data are unfavorable or if they make themselves a target for competition.

### 3. Research method

We employ exploratory research methods, including business mini-cases, to determine the structures in traditional, current ICT-enabled, and future predicted ICT-enabled microfinance market intermediation. This analysis views the changing industry from the perspectives of several players in the microfinance industry. Bockstedt et al. [4] used a similar approach by analyzing the impacts of ICT on the music industry and market structure. They compared the traditional market structure with an ICT-enabled market structure.

For the traditional and ICT-enabled structures, we utilize observations of the market in its past and current forms. For the future predictive model, we rely on a recent industry risk perceptions report [7]. We make an
assumption that players in the MFI industry will adapt to address these risks and that those adaptations will cause changes in intermediation structure.

4. Analysis of market structure and ICT

4.1. Traditional microfinance market structure

The traditional pre-ICT microfinance market structure in Figure 1 depicts a subset of the microfinance industry microstructure proposed in Kauffman and Riggins [21]. Relationships between market players are represented by arrows, which denote both the type of good transmitted (funds or information) and the direction of the relationship.

![Figure 1. Traditional microfinance market structure](image)

Not every market player is an intermediary. In the traditional structure, only two players function as intermediaries, MFIs and relief organizations. Table 1 notes which of Spulber’s [31] four intermediary roles are satisfied by each of the two traditional microfinance industry intermediaries. MFIs administer financial services to clients and relief organizations provide support, training, and funds to MFIs with donations received from donors. MFIs and relief organizations are intermediaries by definition since they fulfill one or more roles of intermediaries. Visually, these are the market players that have arrows going both into and out of them and reside between two market players. Donors, for example, do not qualify as an intermediary, since they do not reside between two market players with respect to funds or information.

4.1.1. Microfinance institutions. MFIs perform all four intermediary roles. For example, they set interest rates for loan products by gathering supply and demand information as well as comparing competitors’ rates. They adjust rates based on economic conditions to clear markets. They provide liquidity and immediacy by holding cash on hand to lend to borrowers. MFIs that receive donations from donors fulfill the matching and searching role by lending to individuals that align with the goals of the MFI. These goals motivate donors in their choice of MFI. Also, MFIs monitor the repayment of loans to their borrowers and investments made by investors. Finally, they guarantee repayment to the best of their ability given market risks.

4.1.2. Relief organizations. Many donations and investments to the microfinance industry prior to ICT occurred through relief organizations. Relief organizations were seen as intermediaries since many donors did not have knowledge of global MFIs or a means of transmitting funds directly to MFIs, whereas experienced relief organizations possess knowledge of and relationships with global MFIs. Relief organizations do not conduct microfinance transactions directly with borrowers, but instead support networks of MFIs worldwide by providing funding, training, and other resources. Relief organizations fulfill the matching and searching intermediary role by helping donors find MFIs that meet their criteria for donations and by helping MFIs locate donors to increase their capital stock. This practice results in a mutually beneficial relationship for both donors and MFIs, which are the market players that reside on either side of relief organizations.

4.1.3. Donors and investors. Donors donate funds to MFIs so that MFIs will be able to alleviate poverty through their financial services or cover their operational expenses. Investors invest funds in MFIs with the expectation of earning a profit from a share of the MFI’s interest revenue. Prior to ICTs, donors and investors relied on the MFIs themselves or relief organizations to determine the extent of an MFI’s financial performance (of interest to investors and donors) and social performance (of interest to donors).

4.1.4. Borrowers. The final market participants in the traditional market structure are borrowers. Although we use the term “borrowers,” this group could also be the end-users of other financial products such as savings accounts or insurance. In the traditional market structure, borrowers have limited knowledge about the market and competition since they only interface with MFIs. They accept loan disbursements and make loan payments to MFIs and in some instances receive training or other services provided to them by MFIs.
4.2. ICT-enabled microfinance market structure

The microfinance industry has experienced steady adoption of ICT for several years. These ICTs have created new opportunities for some market players while diminishing the need for others. Figure 2 reveals the microfinance market structure in the presence of ICT. We use individual rectangles within the MFI box to depict the individual MFIs that make up this intermediary in order to compare it with the future predicted structure. Since banking correspondents and mobile service providers share similar roles as intermediaries, we depict those as a single split intermediary. This market structure shows several new intermediaries. Table 2 notes which of Spulber’s [31] four intermediary roles are satisfied by each new entrant.

![Figure 2. ICT-enabled microfinance market structure](image)

**Table 2. ICT-enabled microfinance intermediaries**

<table>
<thead>
<tr>
<th>Intermediary</th>
<th>Price setting &amp; clearing</th>
<th>Liquidity &amp; immediacy</th>
<th>Matching &amp; searching</th>
<th>Guaranteeing &amp; monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2P Social Microlender (new)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Transparency Promoter (new)</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking Correspondent (new)</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Service Provider (new)</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microfinance Institution</td>
<td>✔</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

4.2.1. Peer-to-Peer (P2P) social microlenders. In 2005, Matt Flannery and Jessica Jackley suggested a new approach to social microlending. Their idea evolved into Kiva, an organization that operates a peer-to-peer (P2P) social lending site that connects individual Western lenders with entrepreneurial borrowers in developing countries. Kiva posts loan-funding requests from MFIs on their website for lenders to browse. Lenders can invest any amount in $25 increments up to the remaining amount of the loan. Once the loan is fully funded, Kiva transfers the funds to the MFI who in turn loans the funds to borrowers. The MFI administers the loan and enforces loan repayment. As the loan is repaid, principal funds are transferred back to Kiva and eventually back to the lender. In the case of Kiva, the MFI retains interest earned on the loan.

This P2P approach to microfinance poses a significant change to the market structure allowing entry of individual lenders into the market. Prior to the Internet and electronic funds transfer, the notion of a loan administered to an entrepreneur in a developing country funded by dozens of western borrowers would have been impossible due to high transaction costs. Similar to MFIs, P2P social microlenders fulfill all four of Spulber’s [31] intermediary roles. Primarily, they provide liquidity and immediacy to MFIs by providing capital stock for funding. They also provide matching and searching services to lenders interested in making a loan to individuals that meet their criteria for lending. Finally, P2P social microlenders monitor MFIs by ranking them according to financial and social performance.

4.2.2. Transparency promoters. ICTs also enable a new way for investors and donors to make investment decisions. Industry transparency promoters like MixMarket and MFTransparency offer a means of consolidating financial and loan portfolio information on MFIs, funders, service providers, and networks. Investors and donors can use this information to decide which organizations will receive their funds.

Donors and investors can make funding transactions independent of the transparency promoters and transact directly with MFIs. Thus, the need for relief organizations diminishes with ICT, and they are shown as disintermediated in our ICT-enabled market structure. We also witness this change in the industry by observing many relief organizations that have established their own MFIs instead of continuing to fund others. For example, relief organizations founded three of the largest MFIs in Cambodia: VisionFund was established by World Vision, Kredit Microfinance by World Relief, and Hattha Kaksekar Limited (HKL) by Save the Children. Today, relief organizations are being forced to shift to a new intermediary role or risk disintermediation as ICT-enabled donors establish direct communication channels with MFIs.

Transparency promoters fulfill matching and searching intermediary roles in the microfinance market while helping investors and donors locate MFIs that meet their criteria by allowing users to filter lists of MFIs. Similar to a P2P social microlender, they monitor MFIs by ranking MFIs transparency with a diamond rating and by making social performance reports publicly available for download.
4.2.3. Banking correspondents. Banking correspondents are existing commercial entities like post offices, general stores, or Internet cafes that partner with an MFI to administer loans to and collect payments from borrowers [21]. Banking correspondents allow MFIs to expand their geographic outreach to remote villages without having to open branches. As long as the banking correspondent is connected to a central MFI via phone or the Internet, MFIs require only occasional visits to banking correspondents to collect aggregated payments. The fees that MFIs pay to banking correspondents are lower than the costs of establishing a local branch with a facility, infrastructure, and staff. Safety is also improved since currency travels less distance with both borrowers and MFIs.

Banking correspondents fulfill the liquidity and immediacy intermediary role since they can administer loan funds to borrowers more quickly and receive loan payments from borrowers faster than if the borrower transacted with the MFI directly. They also fulfill the monitoring role by tracking loan payment history.

4.2.4. Mobile service provider. Another type of technology being used by MFIs is mobile payments. Mobile payments enable borrowers to receive loan disbursements and make loan payments using their mobile devices. M-pesa is the name given to the mobile payment capability of Safaricom, an African mobile service provider. Several African MFIs use M-pesa to disburse loan funds to borrowers and accept loan payments from borrowers.

This particular technology enables MFIs to lend to individuals that are too geographically distant to coordinate with profitably. It also saves borrowers the costs of travelling to an MFI branch to conduct a transaction or check a balance [12]. Since MFIs do not provide mobile services or lease phone traffic on cell towers, they rely on mobile service providers to fill this gap. Most mobile service providers already have capabilities for fund transfer, so the additional cost of coordination with MFIs is minimal.

Mobile service providers fulfill two intermediary roles. First, they provide liquidity and immediacy to borrowers and MFIs by allowing transactions to occur immediately without lags due to travel and transaction processing times. Second, they monitor loan payments by providing a transaction history that is automatically linked to a database without the need for manual entry required in traditional loans.

4.2.5. Lenders. The entry of P2P social microlenders creates a new group of individual lenders. It also shifts the role of some market players from being donors to being lenders. The difference is that donors give to a cause or an organization that will in turn make loans to a poor population. Loan decision rights remain with the MFI. P2P social microlenders allow individuals to play a direct role as lender to individual loans. Lenders make capital funding decisions and accept the risks (and in some cases the benefits) of default and interest earnings. Investors, on the other hand, invest money and expect interest or a financial return in the future.

4.3. Future predicted ICT-enabled microfinance market structure

While the benefits from microfinance have resulted in considerable industry growth, this growth brings a number of risks to the industry. The Consultative Group to Assist the Poor (CGAP) in partnership with the Centre for the Study of Financial Innovation (CSFI) has studied these risks by administering the Microfinance Banana Skins survey annually since 2008. Survey respondents include practitioners, investors, regulators, and deposit-takers in the microfinance industry. Survey questions aim to rank the severity of the greatest perceived risks (banana peels/skins) threatening the microfinance industry in the next 2-3 years. The 2011 survey had over 500 respondents from 86 countries [7]. This report states that the high growth rate in the industry is the cause of difficulties with respect to their clientele, management, back office, resource management, and mission. The report lists the top 24 risks and top 24 fastest rising risks as compared with two years prior.

In this section, we use the results of the 2011 CSFI report to frame our discussion and inform our predictions for ICT-enabled intermediation in the near future. We assume the players in the microfinance industry have a vested interest in addressing these risks and that change to the intermediation structure is likely to be a part of risk mitigation. Many risks mentioned in the report can be mitigated with intermediation that is not enabled or enhanced by ICT. While these changes are of interest to the industry, the focus of this section is on ICT-enabled intermediation.

In our reading of the current CSFI report, we applied the previously discussed theories related to ICT-enabled intermediation to derive potential new industry intermediaries that could help mitigate the identified risk. For example, the report states, “Poor management information systems lead to ill-informed decisions and contribute to another set of risks; poor accountability and transparency” [7, p.34]. New MFI management practices, ICT tools, and transparency promoting intermediaries will likely result from such trends discussed in the report. We discuss seven predictions in the subsections below and show how they lead to our predicted future market intermediation structure. We narrowed down the list of 24 risks to 13 based on the
relevance and applicability they exhibited with our predicted intermediary changes. Table 3 summarizes our seven predictions and which of the 13 risks (including their survey ranking) inform our predictions. We will discuss each of these predictions shortly.

Table 3. MFI risks and intermediation prediction

<table>
<thead>
<tr>
<th>Risk (survey rank)</th>
<th>Credit Rating Organizations</th>
<th>Transparency Promoters</th>
<th>Operations Outsourcers</th>
<th>Remote MFIs Mgmt</th>
<th>Mobile Provider MFIs</th>
<th>Commercial Bank Entrants</th>
<th>MFIs Conglomerates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Risk (1)</td>
<td>✅</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Reputation (2)</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Competition (3)</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Inappropriate Regu-</td>
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<td>✓</td>
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<td>lation (6)</td>
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<td>Mgmt Quality (7)</td>
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<td>✓</td>
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<td>Staffing (8)</td>
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<tr>
<td>Mission Drift (9)</td>
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<tr>
<td>Pricing (10)</td>
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<tr>
<td>Profitability (11)</td>
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<td>✓</td>
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<td>Back Office (13)</td>
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<td>Transparency (14)</td>
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<tr>
<td>Strategy (15)</td>
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<tr>
<td>Fraud (18)</td>
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<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

A market structure diagram with our future predicted microfinance market structure is shown in Figure 3. In this model, several market players act as MFIs or provide services to MFIs that are not intermediaries to other players, so they are shown in the MFI box. We depict the shift from many, smaller MFIs to fewer, larger MFIs by the quantity and size of the MFI boxes. Finally, the breakdown of banking correspondents to mobile service providers is depicted by the size of the box dedicated to each intermediary. They both play similar roles, serving as intermediaries with funds and information between MFIs and borrowers. Our predictions include a greater role for mobile service providers than banking correspondents; hence, less space is dedicated to the latter.

The future predicted market structure describes three new intermediaries with each playing different intermediation roles. Table 4 notes which of Spulber’s [31] roles are satisfied by each new entrant.

4.3.1. Prediction 1: Emergence of credit rating organizations. A number of identified risks lead us to believe that countries will introduce new credit rating systems or extend current credit rating systems to microfinance end-users and providers.

Credit risk was mentioned by 75% of the survey respondents and represents the highest rated risk [7]. Credit risk was evident as a major concern in all global regions. In the early years of microfinance, portfolio risk was largely due to macro level economic impacts as developing economies are more prone to economic spikes and shocks than their developed counterparts. However, due to increased competition in the industry, a greater concern now is the risk of loan default of the borrowers. For example, borrowers now have more opportunity to borrow from multiple lenders and may use one MFI loan to pay off another. A managing director of a Columbian MFI reported that the number of MFIs servicing the average customer increased from 1.5 to 4 in recent years and that 75% of their MFIs borrowers were also borrowing from other institutions. Another risk informing this prediction is the second highest rated risk in the survey which is the declining reputation of the microfinance model due to problems already mentioned. This threatens to limit outside funds entering the microfinance industry. If outside parties know that lending decisions are vetted with a credit rating system, MFIs will experience greater confidence by outsiders and an improved reputation.
The third highest rated risk is increased competition which also informs this prediction. In the early stages of microfinance, investors saw competition having a positive impact on the industry, viewing it as improving innovation and efficiency. Increased competition has several negative ramifications including (1) loan sharkering, (2) poaching of clients and staff, (3) deceptive advertising, (4) loan officers incentivized to acquire new clients regardless of borrower need, (5) loans made for personal consumption instead of business growth, and (6) lending to customers that are urban and less poor. Loan officers often neglect to perform time-consuming background checks on clients for fear of losing a commission.

Other risks leading to credit rating system adoption include inappropriate regulation, since regulators will know which MFIs to regulate more heavily depending on the credit scores of their loan portfolios. Transparency promoters can make the average credit ratings for MFIs publicly available and reveal which MFIs are most guilty of multiple lending. The risk of fraud will encourage adoption of a credit rating system since it will be more difficult for credit officers to manufacture clients if the MFI runs credit checks on each borrower. Finally, strategy risks are mitigated since additional adequate knowledge about customers will assist MFIs in developing their strategy, especially if credit scores can be aggregated by village or region.

Credit rating organizations fulfill two of Spulber’s [31] intermediary roles. First, they provide matching and searching services to MFIs and help them analyze the creditworthiness of potential borrowers without the need for personal visits and interviews. Second, monitoring of borrowers improves with credit rating organizations, since MFIs report on the repayment of loans at the end of the loan term.

4.3.2 Prediction 2: Emergence of mobile service providers as MFIs. Mobile service providers will enter the microfinance industry as MFIs, providing loans directly to borrowers.

The first risk that informs this prediction is the risk of managing technology. Small MFIs cannot manage technology as well as mobile service providers. Mobile service providers work primarily in technology and the technological cost of offering loans is minimal compared to the costs of an MFI entering the mobile services market. Mobile service providers already maintain established information systems from their current operations. A microfinance consultant disclosed that MFIs “won’t position themselves aggressively enough to take advantage of branchless banking services and will be overtaken by mobile network operators and large banks who figure out how to get into rural areas and go down-scale” [7, p. 33].

Staff members employed at mobile service providers possess more experience with technology. With the declining reputation of MFIs, mobile service providers can lead customers away from MFIs for financial purposes. Additionally, mobile phone providers possess greater brand awareness than MFIs. The marketing of the phone services will leak over to increase awareness of their mobile payment and microfinance services.

Based on these risk factors, mobile service providers may realize they can provide loans directly to subscribers in their pre-established and extensive networks, bypassing MFIs altogether to earn higher revenues. MFIs rely heavily upon mobile phone service providers to process loan payments and disbursements. Ashita [1] considers mobile phones the single most important delivery channel for the poor. The services of mobile providers prove invaluable to MFIs since they reduce the time, communication, and transportation costs associated with servicing borrowers that are geographically distant or hard to reach. The mobile service providers benefit from this arrangement by earning revenue from a percentage of the funds transferred or by charging a fixed amount per transaction. The MFI, however, still retains all of the profits for themselves. We expect mobile service providers will seek these profits for themselves.

4.3.3. Prediction 3: Commercial bank will aggressively enter market space traditionally held by MFIs. Based on the risks facing the microfinance industry, MFIs will not only experience competition from mobile service providers, but also from traditional commercial banks as they increasingly realize the profit potential in microlending. The Banana Skins report referred to an “entry of well-heeled commercial banks armed with mass marketing skills and new banking technology” [7, p. 7].

MFIs are experiencing increased aggressive competitive pressure from commercial banks. A Russian respondent stated that commercial banks are “aggressively moving ‘down’ to increase margins, bringing with them retail experience, instruments, and financial resources which microfinance organizations cannot compete with” [7, p. 12]. Banks are able to borrow from the public to raise funds unlike non-profit or privately held MFIs.

With respect to management quality, staffing, back office, and technology, commercial banks are better equipped than MFIs [32, 33]. Since the microfinance industry is more transparent with transparency promoting infomediaries, commercial banks will learn about their competitors and position themselves to maximize profits. Finally, the regulatory requirements MFIs face can be particularly costly relative to those encountered by traditional banks [10].
4.3.4. Prediction 4: Transparency promoters will increase emphasis on social performance. Transparency promoters present ample financial and loan portfolio data of MFIs to interested parties. The industry relies on these organizations to increase the confidence of investors and customers. In their current state, they present little data on social performance. Several identified risks indicate that transparency promoters that currently rate sustainable economic performance will likely shift toward presenting more information about MFI social performance.

Reputation risk informs this prediction because when information is presented publicly on an Internet platform MFIs will be incentivized to protect their reputations. Similarly, dangers arise with increased competition because it can cause MFIs to take greater risks and abandon their social mission. While competition drives MFIs to explore untapped market segments, which is beneficial because it improves outreach, it can be detrimental since little is known about these new market segments.

Another risk informing this prediction is mission drift. MFIs may start out with intentions of social performance, but drift toward serving individuals not among the neediest if enticed by financial incentives. In the presence of transparency promoters that provide social performance data, disincentives arise for mission drift. Another form of mission drift is a shift in lending from small businesses to general lending for consumption purposes which can harm industry’s reputation. Daniel Schriber, director of investment analysis at Symbiotics, suggested that microfinance lending for consumption is “a huge reputational risk for the whole industry” [7, p. 23]. A respondent from the Netherlands declared that “the microfinance industry will increasingly have to prove the effect of its activities. More transparency will be needed towards MFI clients, investors, and the outside world (about the image of exploiting people)” [7, p. 35].

Another risk informing this prediction is fraud risk, which would decrease if transparency promoters indicate both financial and social performance. If transparency promoters employ a rigorous audit procedure for social performance, MFIs will be disincentivized for fraud and have more opportunities to showcase their social impact.

4.3.5. Prediction 5: Emergence of operations outsourcing organizations. Due to increased competition, maturation of the industry and the need to improve social performance while increasing economic sustainability, MFIs will outsource more IT and related information management tasks.

With increasing industry competition, interest rates decline and the economy becomes more demand-driven. Borrowers benefit since lower interest rates result in increased consumer surplus. For MFIs, competition challenges their ability to maintain sustainability with declining interest rates and forces them to seek lower costs. Respondents mentioned staff capability frequently in their responses, referring to a lack of talent and competent manpower. Internal operations technologies at MFIs that would increase efficiency are often lacking at smaller MFIs. Operations outsourcers can pool transaction processing tasks and allow small MFIs to benefit from their economies of scale.

Increased credit risk also informs this prediction. Since it is difficult to enforce repayment, MFIs could employ collection agents to locate delinquent borrowers with more efficiency than the MFI’s own loan officers. MFI back office employees often lack appropriate skills. Respondents to the risk survey cited stories of poorly managed MFIs losing track of their borrowers and the repayment status of their loans.

With respect to mission drift, most MFIs find their core competencies not in their operations but in their ability to meet borrowers’ needs. MFIs that outsource their operation activities can focus their efforts and energies on their mission and clients. Finally, respondents shared that MFIs can prevent fraud by tightening internal controls, centralizing staff records, and installing stronger systems.

Therefore, we expect to see the industry respond to these risks by outsourcing many of their operations tasks including background checks, transaction processing, payment collection, and fund disbursement. Outsourcing organizations could benefit from economies of scale, access to technologies that would be prohibitively expensive to a small MFI, and staffed with experts in their respective area.

4.3.6. Prediction 6: An increase in remote MFI management. Similar to operational difficulties, challenges arise with inadequate MFI management. A microfinance consultant stated, “MFIs will have to be impeccably run, laser-focused and strategically sound to thrive. There will be no room for sloth or sloppiness in operations, governance, risk management, and customer focus; being proactive in all of these will be key” [7, p.35]. Due to the need to cut costs and improve efficiencies, we expect MFIs to utilize ICT tools that will allow MFIs and their branches to be managed remotely.

The main risk informing this prediction is management quality. Several statements from the risk survey indicated a need to greatly improve MFI management. A microfinance analyst stated, “Finding the right people to promote the growth and sustainability of an MFI is very difficult. From consultants to managers, MFIs have a very small source to choose from” [7, p. 30].
Another respondent concurs, “badly managed MFIs will feel more challenged” [7, p. 35]. Risks of mission drift and strategy loss become mitigated with remote MFI management. A successful strategy “will depend on quality management, which is not abundantly available” according to an MFI director [7, p. 35].

4.3.7. Prediction 7: An increase in MFI conglomeration and mergers. “Badly managed MFIs will feel more challenged and mergers might be more and more common in the market” [7, p. 34]. We predict fewer, larger MFIs in the microfinance industry. This results from mergers and acquisitions among MFIs and conglomeration of several MFIs. “The [microfinance] industry is coming to the end of a period of rapid and easy growth, and will have to restructure to survive [by] consolidating smaller MFIs and specializing larger ones” [7, p. 36]. ICT drives consolidation since ICT reduces coordination costs.

MFIs face challenges of competition and shortcomings in staffing, management, technology, and back office capabilities. If several MFIs in a geographic region conglomerate they will have stronger infrastructure to deal with a large number of transactions. Larger MFIs benefit from more robust MIS, which is considered the most important technology for scaling [1].

5. Conclusions

The research presented in this paper applies theories related to intermediation and a recent industry risk analysis to make predictions about the impact ICT will have on the microfinance industry. These predictions include (1) new entrants of credit rating organizations, operations outsourcing organizations, and commercial banks, (2) role shifts of transparency promoters and mobile service providers, and (3) other predictions including MFI conglomeration and remote MFI management. These predictions offer a basis for making recommendations and implications for market players affected by the future market changes.

As the microfinance industry matures and adopts more sophisticated ICT tools, MFIs will need to adapt. With the entry of commercial banks and mobile phone service providers as competitors and credit rating organizations increasing market transparency, MFIs will need to become more efficient in their operations. They will need to carefully manage their dual responsibilities of social performance and financial sustainability. Using ICT tools for better management, outsourcing internal operations and IT capabilities to emerging service providers, and knowing when to collaborate and merge MFIs will need to understand how to navigate a more complex environment.

It is our hope that other IS researchers understand the value and interest of the microfinance industry as a unique research context. The future predicted market structure provides a basis for suggesting new studies and determining if our predictions hold. Indeed, other theories could be used to explain similar predictions in this industry. Additional research is needed to apply other theories to this market and to test our predictions. Researchers can engage in country-specific case studies where credit rating organizations are rolled out to MFIs and determine how they impact transparency, outreach, interest rates, and loan portfolios at participating MFIs. Additionally, researchers can evaluate the historical breakdown of banking correspondents and mobile service provider use among MFIs to conclude if there is a shift occurring and if so, what are the implications for MFIs and borrowers. Researchers can also determine how to best coordinate the information and data stored by transparency promoters and credit rating organizations to see if a mutually beneficial relationship can exist between the two. Also, researchers can examine whether ICT-enabled transparency promoters and credit rating organizations will take the place of government regulation. Another interesting study might explore the impact of social performance information on the investments and giving by investors and donors, respectively. Finally, researchers can determine if MFIs are utilizing efficiency and effectiveness gains from operations outsourcing organizations, remote management, and conglomeration to compete with commercial banks and mobile service providers.

6. References


