Inclusion of Persons with Disabilities in Microfinance through Organizational Learning and the Strategic Use of Low-cost Technologies

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Introduction

This paper describes a strategy designed to assist a microcredit institution interested in including persons with disabilities (PWDs), among its clients. The objective is to take advantage of low-cost high-performance technologies and proven techniques for organizational learning to ensure the financial and operational viability, of providing financial services to PWDs. As the medium to long term sustainability of any initiative to include PWDs depends as much on organizational learning as on the use of appropriate technology, this paper will have concrete and pragmatic steps focused on institutional processes, partnerships with disabled people's organizations (DPOs) and other external entities, and criteria for selecting appropriate technologies.

Institutional processes are the most important tool to ensure that inclusion of PWDs does not depend on any single individual or program, and become part of the day-to-day modus operandi of the organization. External partners save time and money enabling the financial institution to remain focused on its core competencies while expanding into new market niches. Finally, a thoughtful set of criteria and a sound understanding of the strategic implications of technological choices, can equip a financial institution to choose new technologies even though information and communication technologies are constantly changing.

Making Inclusion Part of Institutional Learning

While the inclusion of a new market segment, such as persons with disabilities, usually starts with wise and proactive leadership, its medium to long term sustainability depends on the integration of this new market segment in the processes that guide institutional behavior, i.e. the habits of the organization.

Organizations usually have "strategic plans" defining their priorities and vision for the next 5 years, which are translated into very practical goals and objectives. In turn these objectives are documented in "operational plans", which might include 12 months of activities that get revised and evaluated on a monthly basis. Regardless of the names and frequencies assigned to each organizational plan, it is absolutely crucial that the inclusion of the market segment of persons with disabilities must eventually be translated into specific goals and objectives in both strategic and operational documents and related monitoring and evaluation processes. The exact order by which inclusion becomes an official objective in short or long-term planning tools will vary according to each organization, what remains essential is that over time, inclusion of PWDs must gain the
institutional respect and prioritization that comes from being among the objectives specified in such plans.

An organization-wide approach is needed because the inclusion of PWDs as clients requires not just the adoption of new technologies, but above all, the adoption of new attitudes and processes. The process of inclusion of PWDs, just like any other complex endeavor from the improvement of quality to the inclusion of ethnic minorities, cannot be seen as a state that can be achieved once a certain revenue level is reached in that market segment, but as a process that is continuous and for all practical purposes, never ending. For this reason, inclusion must be seen as an organization-wide process that involves every department, from human resources to auditing, information technology, and finance.

The practical recommendations do not differ significantly from any other organization-wide process of change and/or continuous improvement, and as is the case with such objectives, they cannot be lead from the outside. The following are some ideas to get the process started in each department. It is crucial that each department assume responsibility for the disability-related aspects of their work. Even though the organization must have a person leading the initial implementation of the inclusion initiative, this person may eventually move on to new initiatives and every department must proceed with the execution of disability-related policies as routinely as any other responsibility.

Each department can define its own objectives and the needed practical steps, but here are some suggestions that can assist in getting the process started. Department names will vary according to the institution, so the following sections will focus on functions rather than departments.

**Human Resources (HR)**

Any microfinance organization interested in including a niche that can be as much as 10% or more of its potential client base, cannot rely exclusively on external experts and partners in its understanding of this population. Additionally, it cannot claim a clear understanding of the ethical imperative of offering opportunities to PWDs without hiring some of its own talent from this community. The HR department must define hiring goals for the organization and assist every department in defining and reaching its own PWD hiring objectives.

It is crucial that HR understand that it must be as demanding of PWDs, as potential employees, as it is with all hires. Extra efforts must be made when designing a job description that best fits the abilities of the potential new hires, making adaptations to the physical layout or accessibility for the new employees, and when selecting the technologies that the organization will use in a way that PWDs are not excluded through technical barriers. In practical terms this might mean providing a computer with a screen reader so that someone blind can complete a job application form, or it might involve revising a literacy requirement for a cleaning position, assuming that is not really an absolute necessity, so that someone with an intellectual disability might apply.

In other words, the process must be firm concerning requirements but ensure that only what is truly needed is being selected for. Make sure that candidates can show what they are capable of, by offering them an opportunity to demonstrate their skills, through accessible application forms or tests based on actual performance of the needed tasks. Finally, sometimes tasks from two or more positions can be reassigned in a way so as to allow someone with a disability to focus on the work that he or she can perform with the greatest efficiency, while someone in a related position can focus on the tasks that were not feasible for the PWD.
Human resources often has additional responsibilities such as internal newsletters or publications, organization-wide training and awareness-raising, and much more. For each of these tasks, the department must identify barriers and/or opportunities for PWDs and make sure it plays a positive and constructive role. For example, HR can identify job positions that are in offices which are physically accessible for wheelchair users without worrying about the specific computer application that will be used. On the other hand, HR can identify tasks that can be done with accessible software applications for blind employees without worrying about the presence of stairs in their office space. While full digital and physical accessibility must remain a medium to long-term goal for the organization, it is clear that initially an effort must be made to match employee abilities to local conditions and a newsletter can help spread knowledge about the potential of those with disabilities.

HR can also educate its readers with simple facts about various types of disabilities, it can ensure that corporate events do not take place in inaccessible venues, it can require that real estate purchases or changes take physical accessibility into account, and it can be a safe and credible source of information on disability matters for the entire organization.

**Audit Department**

The Audit Department, or whatever department is in charge of making sure that the accounts are being kept in order, that the right information and data is being tracked, and that all procedures are being followed, has a crucial role to play in the process of inclusion. While lending standards cannot be relaxed in order to achieve inclusion of PWDs, the finance institution must have the same data-driven approach it has with all its other clients when analyzing default rates or any other parameters of clients with disabilities. In other words, it must collect data and search for patterns with the same systematicity used with its overall client base.

As there is an enormous variety of types of disabilities the first great challenge will be to define which variables are worth tracking and which are irrelevant. In this regard we can suggest potentially worthwhile variables, yet only the microfinance institution, based on its own experience, can validate if these are the most relevant in its own context.

Persons with different types of disabilities have extremely varied levels of obstacles, since the practical consequences of any given disability depend not just on the individual but on the environment society provides for that person. As examples, we can consider a blind musician in a town where such talent is valued as opposed to a blind person with no musical talents, a person with intellectual disability that herds sheep as opposed to the same person in an urban environment where education is a greater and more immediate necessity, and a wheelchair user in a neighborhood with ramps and generally accessible transportation as opposed to the same person in an area without proper sidewalks. As it would be impractical to try to assess levels of accessibility in a neighborhood or, for that matter, job preparedness, a microcredit institution is better off tracking what is in fact taking place: employment status for example is more powerful an indicator of ability to repay a loan than anyone's assessment of how overwhelming society's obstacles might be for a particular person.

Having said that the type of disability does not determine employment or any other outcome, as there are too many other variables such as an individual's determination involved, in aggregate it might be valuable to know if in a given neighborhood or town, the wheelchair users are on average better clients than blind borrowers, or for that matter, if persons with disabilities are better clients
than everyone else. For this reason it might be helpful to track disabilities based not on medical definitions, but large simplified categories such as: intellectual disability (any psychological or cognitive disability that is obvious), wheelchair user (requires a wheelchair to be mobile), blind (completely blind person), visually impaired (has a serious visual impairment but is not 100% blind), physical impairment (has missing limbs or poor coordination), deaf (has no perception of sound), or is hard of hearing (is able to hear with difficulty). The key is to gather information that is simple enough for a loan officer to assess while being meaningful enough to enrich future loan portfolio analysis.

As government regulations vary significantly from country to country, it would be important to obtain legal advice locally, to make sure that gathering such information from potential customers is allowed. Even if in some locations there might be restrictions, gathering data in the aggregate, i.e. anonymizing personally identifiable information while keeping enough data to discern patterns in the portfolio would remain an option.

Another variable that may have significance in the microcredit context, is if the PWD has worked in the past or achieved a certain level of education. This is important because someone who worked before becoming disabled will be more competitive and experienced than someone who did not. Equally relevant is someone who despite having a disability, was able to find employment in the past. Such an achievement demonstrates uncommon determination or intelligence and should not be ignored in the process of risk assessment.

Regardless of the variables initially selected for tracking, it should be understood that adjustments are likely. The process of inclusion of PWDs must be seen as a process of learning about a new market segment, and changes in the way the microfinance institution serves and assesses its social impact in this community will naturally evolve.

**Operations, Sales, Education, and Other Functions**

A principle that must be followed is that of using existing processes and structures whenever possible, simply augmenting them to include PWD-related matters. The team or committee that decides on office space, must include disability-related criteria to make sure it selects accessible sites, but ideally there should not be duplication of function, i.e. a second real estate committee focused exclusively on accessibility. The teams deciding compensation criteria or promotions, need not be duplicated as long as disability or diversity-related criteria are integrated into their work. In other words, there can be a professional in charge of disability issues throughout the organization and even a committee focused on a specific disability-related initiative (be it focused on employees or clients), but the existence of these human resources support, rather than replace, the consideration of disability matters by all existing teams and committees.

Functions such as sales or education are not likely to require changes in the content they use, but will need to consider the medium. For example, among the blind printed material will not be accessible, while those who are hard of hearing or deaf will not benefit from audio media. At the same time, printed material might not suffice for the deaf, who are often not fluent in the local language and require either sign language interpreters or a simplified form of the printed text. Finding the most effective and efficient means of reaching such communities is often best done in cooperation with local organizations that specialize in that disability.

**Partnerships with Disabled People's Organizations**
Depending on the type of disability, people face a wide variety of challenges ranging from access to information to mobility or simple social interactions, and understanding the implications this has for working with PWDs as employees or clients is not trivial. While finance institutions can gain a vast amount of know-how by hiring persons with disabilities, this is a relatively slow process and some of the initial hires may not be qualified to assist the organization with disability matters. Some persons with disabilities might be hired, and ideally, many should be hired for functions that have no relation to disability matters. For these reasons, it can be very helpful to establish working partnerships with disability people’s organizations (DPOs), so that the finance organization can benefit from their know-how and connections, while the DPOs can increase access to financial services for members of their community.

As is the case with organizations designed to represent any other community, DPOs vary greatly in their effectiveness and some care must be taken in selecting a partner organization. Ideally, DPO staff must have experience advising companies or government agencies in practical solutions to day-to-day challenges, not just experience with activism. In addition, the DPO staff must be sensitive to issues related to poverty, as the experience of someone with a disability that has access to education and assistive technologies can be dramatically different from those who must face their obstacles without adequate resources.

Another important consideration is to remember that inclusion of PWDs must be seen as a process and not as a state which is achieved after a set number of disabilities are represented or minimum percentage of staff and clients are confirmed to have a disability. This is important because any given level of market penetration or hiring might be an extraordinary success or a failure depending on the local context. For example, hiring a large number of cleaning staff with intellectual disabilities in a country where the microfinance institution has the benefit of a very effective DPO offering training to members of that community, is not a major achievement and should not suffice in terms of that institution’s inclusion effort. The same can be said of a microfinance institution with a diverse and large number of very well qualified PWDs that are exclusively hired for entry-level positions and remain at such levels indefinitely. On the other hand, a microfinance institution that has only two major disabilities represented in its efforts can still consider its inclusion initiative a great success if it does not have access to capable DPOs to assist in working with other PWD communities.

In fact, a finance institution should start its inclusion efforts with two of the best organized and well qualified groups of persons with disabilities, so that it can show clear victories early on in the process. Inclusion is not an obvious or easy process to implement and having unrealistic expectations can be as damaging as doing nothing to open opportunities to PWDs. It might seem stereotypical to begin with blind musicians or call center attendants, or receptionists who use wheelchairs, or deaf and hard of hearing assembly workers, but it is essential to succeed and have concrete results to show for the organization’s efforts.

While specific percentages of hires or clients cannot be the only criteria by which the success of inclusion strategies are assessed, they are certainly a valid way to measure progress. Ideally, both quantitative and qualitative criteria should be taken into account and progress in both respects must be acknowledged and celebrated. Taking into account that roughly 10% of the world’s population has a disability, any organization that has between 5% and 15% of its staff and clients composed of PWDs, should regard its work, at least in its quantitative aspects, as inclusive.

**Expanding Access Through Information Technology**
Thanks to the digital revolution, accessing information can be affordable and convenient even for persons with disabilities. However, as is the case with physical access to buildings, access to information can also be extremely expensive and inconvenient depending on key choices made early-on in the process of design and development of information technology infrastructure and tools.

Assistive technology is often considered to be items such as screen reading software for the blind or TTY devices for the deaf, however, these and many other assistive technologies can only work as part of a larger ecosystem where communication protocols, file standards, and interfaces accommodate the needs of persons with disabilities by either offering direct access to information or through compatibility with specialized software. In other words, the best TTY devices will not work effectively if communication protocols are not standardized and implemented the same way across telecommunication providers. In turn, the same open standard strategy is required to ensure equivalent usability of office productivity software and other applications.

A classic case study of the importance of open standards for persons with disabilities is the contrast between electronic-mail and instant messaging as these were used in the 1990s. Because e-mail is based on open standards, there were many fully inter-operable e-mail clients developed by both companies and individuals. The fact that some of those clients were not compatible with screen readers used by the blind, resulted in no significant damage to the rights of persons who are blind to participate fully in activities with their sighted colleagues that required e-mail. Companies or individuals developing inaccessible e-mail software simply lost market share to competitors that delivered better e-mail clients.

The initial experience with instant messaging technology was dramatically different. Because there was no concern with interoperability--some companies actually attempted to block interoperability on purpose--blind and other users were always vulnerable to decisions made by the company controlling the instant messaging network they might be interested in. That is, each company was able to create artificial forms of incompatibility between, for example, MSN, Yahoo Messenger, and AOL networks and there was nothing users could do since each network was designed to be accessed only through the software of its own company and allow communication exclusively within its own network. This corporate strategy, still often used today, is the equivalent of a telephone company that does not allow calls between its own clients and those using the services of other telecommunication firms.

In addition, in this unfortunate practice among messaging services, companies also force clients to use their own often inaccessible software, which is the equivalent of a telecommunications company forcing PWDs to only use their inaccessible telephones. As a result, companies that disregarded (and often still do), the needs of persons with disabilities in their design of instant messaging client software and kept their communication protocols closed, kept anyone with a disability that required better interface design blocked from the network and any educational, social, or professional benefit that they might have derived from it.

The contrast between the instant messaging and e-mail end-user experiences made it clear that the needs of persons with disabilities and their rights are not well served by systems that have both the tools or applications, e.g. e-mail and instant messaging software, and the medium, i.e. messaging protocols or networks, closed to individual and corporate competitors. For this reason it is essential to give as much importance to communication protocols, file standards, and software interfaces as to what are more conventionally considered assistive technologies since the utility of screen reading software, virtual keyboards, and other assistive technologies, depend as
much on the overall digital infrastructure around them as on their own capabilities.

Digital infrastructure choices available to financial institutions include the following levels in terms of software: (a), Operating system or platform for both servers, personal computers or workstations, and mobile devices including cell phones and tablets; (b), Programming language and development environment; (c), File formats, communication protocols, and applications; (d), Assistive technology software; and (e), Interface design and related plugins. Everyone of these levels of technology offers both proprietary or closed technologies that are controlled by a single entity, or open standards-based alternatives that allow consumers to choose based on reputation, quality of service, as well as other considerations such as accessibility.

In practice, this means that financial institutions can enhance the accessibility of information to staff with disabilities as well as clients, by always giving preference to technologies that rely on open standards even before accessibility is actually needed. For example, a financial institution that adopts the instant messaging standard (XMPP) used in GoogleTalk will be able to use that company’s infrastructure through Gmail and other services, but if at any point Google fails to design its services (i.e. its web pages and other interfaces), in a way that enables their use by the blind, the financial institution can continue to use that same communication protocol through other software and infrastructure without forcing changes in its own tools, i.e. without the loss of investments already made into digital infrastructure. Instead of Gmail, the financial institution can use Trillian, Miranda, Pidgin, Adium, or any number of other software packages that work with the XMPP protocol. However, if the same institution decides to use Skype in its work, the organization will be completely vulnerable to decisions made by Microsoft, which like Google, may or not be interested in maximizing the accessibility of its products to the blind. Since the Skype protocol is closed and only Microsoft software is allowed to interact using this protocol, an organization selecting that network will have no alternative other than to accept whatever design decisions are made regarding Skype, even if its users with disabilities are blocked from accessing the network.

In addition to vulnerability to design decisions with regard to interfaces, organizations using proprietary software and protocols, are also subject to restrictions of what devices may or may not be used by its staff at the office or clients. For example, any institution that decides to use FaceTime, an instant messaging and video chat software used by Apple, will have no choice in the hardware it may decide to use, as that particular messaging software is designed to work exclusively in higher priced Apple products. The same can happen with any other network using closed communication protocols, including Skype, Yahoo Messenger, and many more. If the company controlling the protocol decides that it is not in its interest to have a version of its software for Windows, Linux, or Android-based computers, phones, or tablets, the institution using that network to serve its clients will be restricted in its ability to popularize access to information and services through low-cost hardware solutions.

The equivalent dynamic presents itself with file format standards. An organization adopting the Open Document Format (ODF), will be able to access its documents and spreadsheets with any number of applications, ranging from IBM’s Lotus Symphony to OpenOffice and LibreOffice. With closed formats such as DOCX, users are generally much more vulnerable to decisions taken, in this case, by Microsoft. The same dynamic between open and proprietary standards can be observed between Google and Facebook as between IBM and Microsoft. It should be noted that this does not mean that the level of accessibility of products that use proprietary or closed formats and networks, are always inferior to those using open standards and protocols. It does mean that open standards tend to be strategically more interesting, because they give the financial institution the option to switch to more accessible and/or more affordable client software or communication networks if
Moving Forward with Inclusion in Fundación Paraguaya

Fundación Paraguaya needs to make changes to all its planning tools, be them project-specific, operational, or strategic plans. However, the order in which these plans will be updated can be best determined by its leadership given timing and other practical considerations. The key is to make sure that the process start immediately and ensure that the new objectives include both initiatives to hire persons with disabilities and to identify and serve clients with disabilities.

At this early stage in the process, it is recommended that Fundación Paraguaya (FP), work with external experts such as local DPOs to identify the most promising options for both potential hires and market niches. Every department must be involved in these processes.

The ÁGORA Program being lead by Martha Vallejos is one potential partner in terms of identifying talent for hiring as well as potential clients. It is also worth investigating government agencies that may have programs to assist persons who became disabled due to work accidents. These programs or health insurance services might be of limited help to PWDs, but can be extremely valuable as a database of persons who have work experience and education but which are likely to be facing discrimination in their search for credit to start small businesses.

In addition to DPOs, government agencies, and external experts, FP has its own loan officers. A survey should be prepared and circulated among these professionals to understand how much they know about disabilities, what are their concerns, and how FP can best assist them in identifying opportunities in this market niche.

The most promising loan officers should be interviewed and based on their feedback as well as the general survey, FP should prepare a pilot initiative to test how much demand and how promising the PWD segment of the market is. Based on analysis of the performance of the loans in this initial pilot, FP should make adjustments and try again with additional PWDs. Alternatively, a pilot can be designed based on geographic criteria rather than specific loan officers. The key point is to define a pilot with high probability of success so that lessons are learned before more challenging markets are targeted.

As the above data collection, analysis, and trials take place, FP must keep track of what information access issues are identified. With assistance from FP’s own IT department as well as external experts, FP can identify a strategy to increase the accessibility of its services both for staff with disabilities and its clients.

FP already has a very promising IT infrastructure from the point of view of versatility, low cost, and accessibility. Its use of LibreOffice internally, gives the organization the ability to hire people that might use Windows or Linux-based workstations. FP’s use of MySQL and other free and open source software (FOSS) in its servers makes its systems more versatile in terms of making that information available via SMS messages to the cell phones of clients. In fact, FOSS solutions such as Asterisk or FreeSwitch can assist FP in automating phone-based interactions that gather needed data from FP’s internal database and make it available via simple SMS messages, which can be helpful to a large number of persons including those who are deaf or hard of hearing, as well as synthesized or pre-recorded audio, also helpful to a wide variety of clients, including the blind.
Other communication improvements may require more careful use of very simple technologies. Brochures can have simpler text or include illustrations or sign-language drawings in one side while keeping a more conventional notice on another. DPOs can assist with ideas that can often be low cost and very effective. However, care must be taken to ensure that these ideas are not lost once the enthusiasm of the first few months is gone. Checklists and procedures followed whenever marketing or educational material is produced, must be adjusted to reflect the new ideas so that everything that is published and distributed is more accessible from now on.

Idealism cannot be allowed to prevent the organization from implementing good ideas. For example, Braille is often considered an ideal medium for the blind, yet a vast number of blind persons do not read it fluently and its production is fairly expensive. Other options such as helpful phone menus with relevant information can be a much more effective tool for this community.

**Conclusion**

Considering current FP practices, infrastructure, and human resources, it is clear that this institution is very well positioned to undergo the organizational improvements needed to serve clients with disabilities. In fact, it can be argued that understanding and serving the PWD market niche is nothing more than merely extending institutional strengths that FP has already demonstrated in other market segments. This also means, that other microfinance institutions (MFIs) can also serve PWDs through a similar process of self-improvement, one which will help not just an important segment of a population that has largely been ignored so far, but which is likely to enhance services to all clients.