

Learnings from Action Research

Anushree Nekkanti & Indradeep Ghosh
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Dvara Research is an independent, non-partisan, not-for-profit policy research institution based in India. Its mission is to ensure that every low-income household and every small enterprise has complete access to suitable financial services and social security through a range of channels that enable them to use these services securely and confidently.

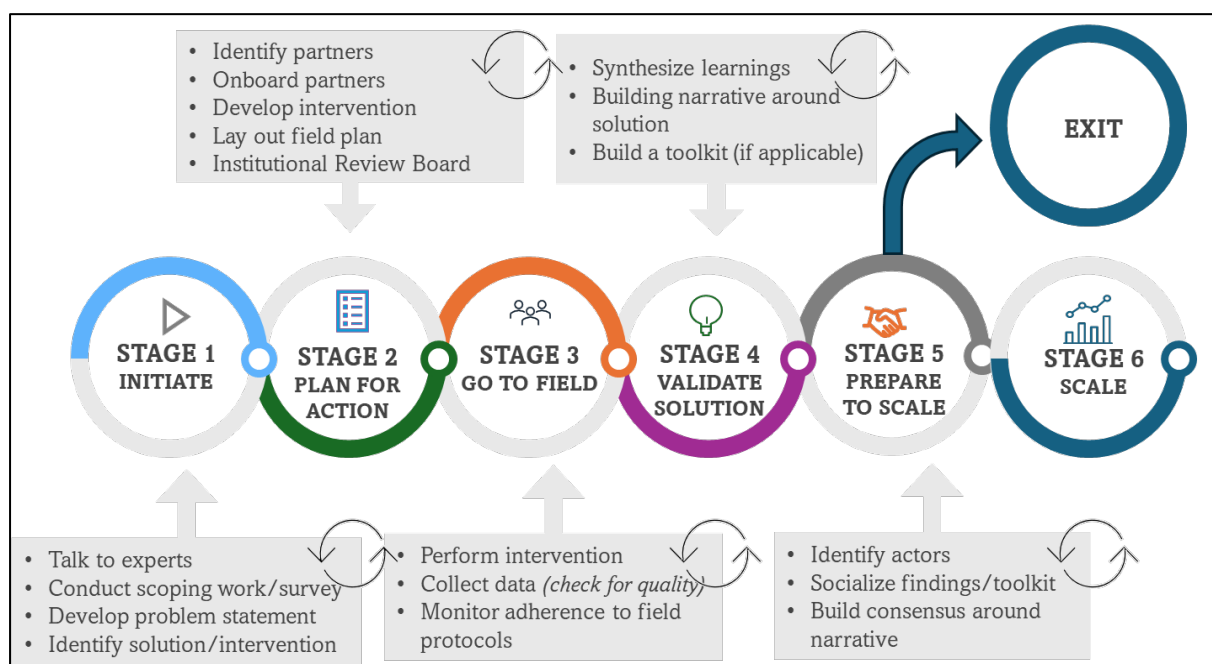
In November 2021, we were awarded a grant to study customer protection. Specifically, we are to conduct action research to develop a suite of solutions that would build trust in digital financial services among low-income households and women. The purview of this Customer Protection grant covers the following five themes – Information Asymmetry, Data Protection, Suitability, Frauds and Grievance Redressal Mechanisms in addition to developing and piloting tools for Market Monitoring. Over the last 30 months, our project portfolio has significantly grown, along with our on-ground experience of actioning projects.

The purpose of this note is to take a step back from all of our work under the Customer Protection grant and integrate the different projects into the framework of an “action research process” for the exercise of sense-making. Therefore, the first part of the note will present our understanding of the action research process and where our different projects are situated in that process.

Once an understanding of the process is at hand, it will also become possible to lay out the operational challenges we have faced while performing action research. This constitutes the second part of the note. Where possible, we will also point to possible workarounds or solutions for some of these challenges.

This note is intended for those who fund action research and for those who undertake it. We hope that our learnings can be useful for both of these categories of actors.

Figure 1: The Action Research Process and our Projects



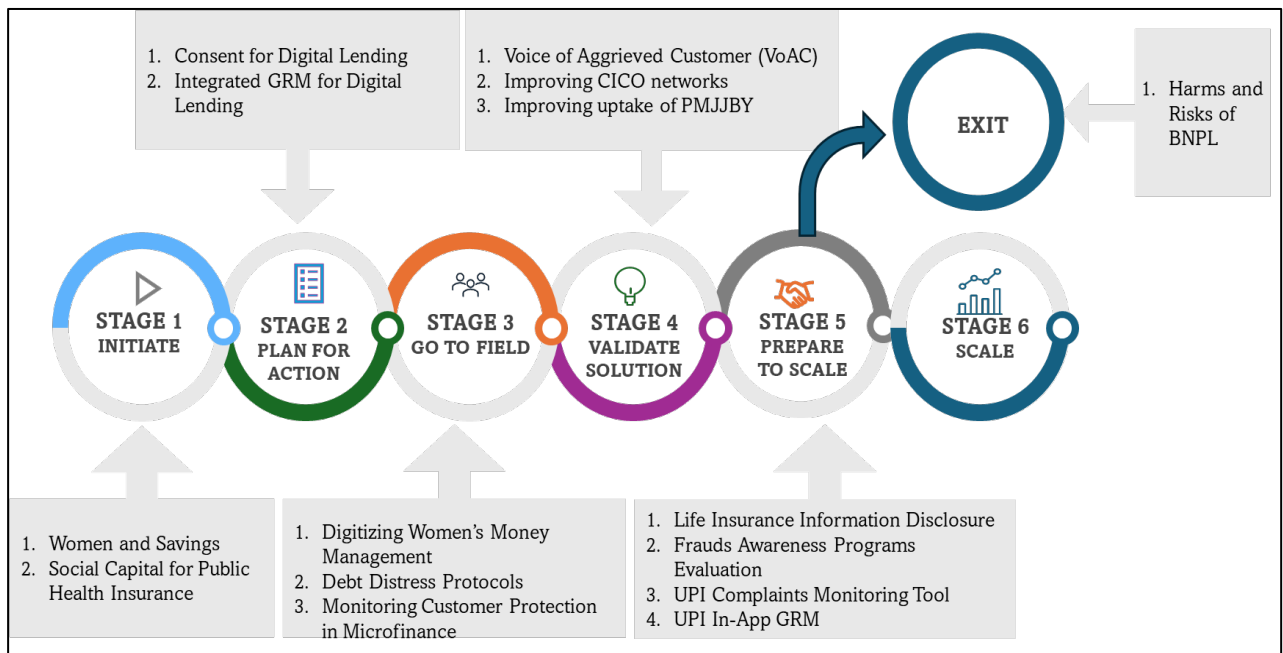
We start with a generalized illustration of the action research process (henceforth ARP), as we understand it from our experience. See the figure below. It depicts the ARP as a sequence of six stages, but four caveats should be kept in mind. First, the process does not unfold as a linear sequence as depicted in the figure, because research by its very nature often has to retrace its steps and the same stage may have to be performed many times over before it is permanently left behind. Second, each stage may itself involve a series of sub-actions or sub-stages (captured in the rectangular boxes) which are themselves iterative in nature (as depicted by the arrows at the edge of each box). Thirdly, the figure below does not elaborate on Stage 6, which is the stage of actual scaling (as it is commonly understood), because our work is yet to arrive at that juncture. And finally, not all stages of the ARP may be applicable for all projects, though this is quite rare among our projects. One such instance occurs when the ARP does not start at Stage 1 but rather at Stage 2, and this happens when the need for an intervention has been established and the problem statement is clear from previous research done by us. Another case of not all stages being always applicable occurs when a project exits the ARP at Stage 5 such as when a regulator acknowledges or accepts the project's outputs. In such cases we consider the project having reached fruition since scale is achieved by default by way of regulator action or involvement.

By action, we mean doing rather than thinking. As such, every stage in the ARP entails some kind of action. For example, even in Stage 1 ("Initiate"), it is sometimes necessary to go to the field in order to arrive at a well-formed problem statement, and we include this possibility under the "Conduct scoping work/survey" bullet point of Stage 1 in Figure 1. And similarly, in Stage 2 ("Plan for Action"), there is a lot of back and forth with potential partners, and these iterative negotiations are also in the nature of action. However, for the purpose of clear demarcation, we are calling Stage 2 "Plan for Action", implying that the action component of an ARP unfolds only after the second stage.

As described in the first caveat above, the different stages of the ARP do not unfold in a strictly linear fashion. For example, Stage 3, i.e., "Go to Field" which involves extensive field work, can throw up new learnings that would cause us to go back to Stage 2 and amend the contract. The most obvious example of such a contingency arises when data that is collected turns out to be of poor quality for some reason, and therefore a fresh round of data collection has to be embarked upon, subject to revised contractual terms with the on-field partner. Less obviously, and much more rarely, sometimes Stage 1 may need to be revisited after we have advanced to Stage 2 but prolonged negotiations with a set of potential partners have failed to produce a contract. This possibility also signals that Stages 1 and 2 are quite intimately connected, and problem definition often requires us to think ahead to the categories of potential partners, if not the specific partners, we wish to work with,

The various features of the ARP will become clearer when we situate our work within its ambit. Currently, we have 15 projects in the ARP pipeline, with at least 2 projects at each stage of the pipeline, but with none having yet reached the final "Scale" stage or Stage 6. The following figure illustrates by reprising the earlier figure, but now, with projects listed under each of the stages. A brief description of each project is provided in the Appendix.

Figure 2: Our Projects*



*Projects have been marked against relevant stages as of June 1, 2024.

Combining Figures 1 and 2, it is possible to make sense of our work (its content and how it is progressing) and also to better understand the ARP stages.

At the “Initiate” stage, we have 2 projects. The first one listed in the figure (Social Capital for Public Health Insurance) asks whether social capital can be leveraged to improve the effectiveness of public health insurance programs. This project is at the “Initiate” stage because we are yet to drill down from the top-level research question to a concrete problem statement. The reason that there is a gap between these two things is that the abstract and general research question does not already point to a specific site for action, whereas action research by its very nature studies something very concrete and highly particular. In this case, we have chosen Rajasthan’s Chiranjeevi health insurance scheme as the object of study. At present we are talking to beneficiaries as well as civil society organizations that are assisting beneficiaries take advantage of the scheme, to understand the different parts of the scheme’s delivery chain and to identify where and why deficiencies continue to persist despite the efforts of those assisting organizations. This field work will produce a very specific problem statement for us to design a solution to. Our hypothesis (from talking to experts and reading the literature on community-based health insurance programs) is that the social capital that already exists within localized communities in Rajasthan will be part of the solution design, and hence the title of the project.

We have already stated the caveat earlier that the sub-stages within every stage of the ARP are iterative in nature. Our Rajasthan work is a good example of this. The sub-stages of talking to experts, reading the literature, and going to the field, have already been completed once – but a specific problem statement has remained elusive. Therefore, we have now completed a second round of expert conversations and literature review, and are preparing to go back to the field. Between these two rounds, Rajasthan conducted state-level elections, and a new political party assumed power in the state government. As a consequence, certain aspects of the scheme (including its name) have also changed, and this has necessitated a separate round of conversations just to understand those changes. Currently, national level elections are ongoing, and therefore our field work awaits the end of those elections. We see here, therefore, that Stage 1 itself can take some time especially if the

problem statement requires a lot of field work while significant changes unfold in the context within which the problem is situated.

At the “Plan for Action” stage, which is Stage 2, we have 2 projects. Of these, the Consent for Digital Lending project underwent a long gestation period in the “Initiate” stage before advancing to Stage 2. The “Initiate” stage required us to partner with a behavioural science consulting firm and engage with poor digitally-constrained human subjects to understand how the consent process could be made more meaningful and comprehensible to such subjects. This exercise, which required a considerable amount of field work, produced a consent artefact that we were then ready to present to actual digital lending customers of a fintech lender. After prolonged negotiations in Stage 2 with an account aggregator and a fintech lender, we were unable to agree on contractual terms, and are presently looking for a new partner or set of partners with whose customers we can test our consent artefact. We will talk more in the next section about why our negotiations with the potential partners failed and there we will see how Stage 2 can often throw up a set of difficult challenges having to do with intellectual property. The Consent for Digital Lending project is another example of action research where a significant amount of action (onboarding a “knowledge partner”, going to the field) unfolded even at the “Initiate” stage of the ARP. Likewise, in the “Plan for Action” stage, we undertook several meetings with the other two potential partners, and went back and forth many times between our legal team and their legal teams in an effort to accommodate their needs. This too is action. But for the purposes of clearer exposition, we are choosing to label only Stage 3 onwards as the action stages of the ARP.

At this point, it is worth noting that both Stages 1 and 2 require the identification and onboarding of partners. While the onboarding of partners at Stage 2 is in anticipation of Stage 3, the onboarding of partners in Stage 1 is subsumed in the “Talk to experts” and “Conduct scoping work/survey” bullet points of Figure 1. We depict things in this manner because, as we will see in Section 2, when we discuss challenges, the onboarding in Stage 1 does not present so much of a challenge for us, whereas that in Stage 2 does. So, we call it out explicitly in Stage 2 but not in Stage 1.

It is also worth discussing, for the reader’s understanding of the ARP, the Women and Savings project which is presently listed under the “Initiate” stage or Stage 1. Here, after considerable desk research and also some field interviews, we thought we had a well-defined problem statement and some hints of a solution concept that would encourage formal savings by poor women. But when we proceeded to the “Plan for Action” stage or Stage 2, we found that potential partners were resistant to thinking beyond the accepted or conventional wisdom which states that formal savings do not work for the low-income segment. In conversations with partners, we discovered that various factors such as the paucity of touchpoints, unfavourable unit economics, high transaction costs, low savings appetite, etc. formed the bedrock of this conventional wisdom. Our initial solution concept addressed some but not all of these aspects. Therefore, we now find ourselves back at the “Initiate” stage to see if we can reformulate the problem statement and come up with a more attractive and persuasive solution concept for our potential partners to buy into, before we proceed to Stage 2. Two lessons about how the ARP works become evident from this experience – first, that the different stages in the ARP shade into each other (here, not all of the problem statement and its solution concept could be conclusively settled in Stage 1 before proceeding to Stage 2), and second, that it is sometimes necessary to go back a stage before proceeding forward.

We are happy to report, however, that most of our projects have passed beyond Stage 2 into what we regard as the heart of the ARP, which are Stages 3 and beyond. Stage 3 entails going to the field, which can mean a variety of things. In some projects it has meant doing a survey or facilitating a group discussion, in others, running an experiment, and in still others, trying out a new product concept or process concept. In each case, we are interacting with actual, live customers or potential customers in

the poor and women segments. 3 projects (Debt Distress Protocols, Digitizing Women's Money Management or DWMM, and Monitoring Customer Protection in Microfinance) are presently at Stage 3. In these projects, we are interacting with customers both directly and indirectly (via field agents or human assistants), learning from these interactions, collecting data, and refining our solution concept as we learn, etc. Typically, this stage can take up to a year or more, as several contingencies may arise that present themselves to us as challenges or obstacles and that require working through. We will describe some of them in the next section.

Once field work is complete, we proceed to Stage 4 ("Validate the Solution") which consists in synthesizing our learnings and building a narrative around the solution concept (why it did or did not work). If we are able to validate the solution concept, we proceed to transform it into something that can be implemented at scale. This is the "toolkit" version of our validated solution concept. If we are unable to validate the solution concept, we must retrace our stages and go back to an earlier stage in the ARP. Fortunately, so far, we have not had to take this backstep with any project that has advanced to Stage 4. Sometimes, though, Stages 3 ("Go to Field") and 4 ("Validate the Solution") cannot be so distinctly separated, and during the course of Stage 4, we may occasionally have to revisit the field to gather some more data or do some more testing to resolve our learnings into a narrative that possesses greater precision and clarity.

Most of our projects (5 of them) are presently at Stage 4. Some of them are still in the process of synthesizing learnings while others are building the toolkit. The Voice of Aggrieved Customers (VoAC) project is an example of the former type, in which extensive field work in collaboration with seven different partners has yielded more than 80 detailed cases of customer grievances. Our team is now sifting through all of the cases and attempting to sort them into categories as well as arrange them into a broader narrative about financial customer service standards in India. One project in which the solution narrative and toolkit are currently being put together is the UPI In-App GRM project. Here, we have field-tested an in-app grievance redress mock-up that is particularly well suited for poor customers and also should be efficient (and therefore financially attractive) for UPI-providers. We are presently creating a microsite from which providers can learn about how to incorporate our mock up into their apps, and their UI/UX teams can also learn about the design philosophy underlying the mock up. Even as we work on the microsite, it has been necessary to go back to the field and do some more testing, as sometimes happens when Stages 3 and 4 overlap with each other.

Stage 5 is the "Prepare to Scale" stage, wherein a solution narrative and toolkit are ready for launching, and we enter into conversations with stakeholders for buy-in and scaling. This can be a long and drawn out process as well, as even if a solution is ready, several impediments may prevent us from finding willing stakeholders to scale it. We will touch on some of those impediments in the next section. Presently, 3 of our projects have arrived at this stage. One such is the Life Insurance Information Disclosure project where we have developed a new disclosure format that has the potential to tilt poor customers' preferences away from endowment products that are unsuitable for them and towards term life insurance products that are. This disclosure format comes with a bundled product idea, and we are looking for partners to take both of these two components to market. We should note that taking such a solution bundle to market will, in a sense, take us back to the field, and the effects of such a scaled intervention will have to be studied carefully. From a research perspective, therefore, the Stage 6 of "Scale" signals a kind of return to Stage 3 of the ARP.

To close the discussion in this first section, we alert the reader once again to the non-linear nature of the ARP, as the examples provided above testify to. Also, not every single project we are working on fits, as it stands currently, neatly into one of the six stages, and yet we have categorized them into one of them for the sake of completeness. This should not surprise the reader as no categorical framework will be able to encompass the full range of research projects that attempt to study a subject matter as

complex and varied as financial customer protection for poor and women customers. Finally, some projects may well not have reached Stage 5 and yet have generated solutions that have been validated and are ready to be scaled. The Debt Distress Protocols project is a good example, wherein we have a machine learning tool that will predict debt distress, and this tool is ready for scaling even if field work is still ongoing (the machine learning tool is only one of several components of a final toolkit, and field work is continuing, to build the other components).

Section 2: The Challenges of Action Research

The challenges of action research stem from two characteristics of the ARP: the necessity of having to work with partners, and the necessity of having to go to the field. These two characteristics are of course inter-related as we will see.

The ARP requires us to work with two kinds of partners. One kind is a “knowledge” or “technical” partner, who provides us with expertise that is needed for various stages of the project, that we are lacking in-house. We fold both organizations (such as behavioural consulting firms, design firms, etc.) as well as individuals (such as freelance behavioural consultants or UI/UX designers or data scientists or domain experts, etc.) into the definition of this first type, and we typically collaborate with them in Stages 1, 3, 4 and 5 of the ARP. The other type of partner we collaborate with is an “implementation” partner who can give us access to large numbers of human subjects or large quantities of data (often, administrative in nature). So far, in our work, we have worked with 4 sub-types of this second type of partner:

1. For-profit practitioners who can grant access to their customers
2. Non-profits/NGOs who can grant access to human subjects they work with (that may or may not be their “customers”)
3. Industry bodies and SROs that can give us access to their member firms for administrative data
4. Organizations that control publicly accessible data, e.g. Twitter (these are not implementation partners as such, as we don’t need to enter into any formal contract with them to be able to access or use their data, but as we will see, there are some challenges with this category as well)

The nature and complexity of the challenge varies according to the type of partner, i.e., whether the partner is a knowledge/technical partner or an implementation partner, and according to the sub-type of partner, when the partner is an implementation partner. In what follows, we proceed stage-wise and discuss the challenges that arise.

During Stage 1, the “Initiate” stage, we work with knowledge/technical partners to develop the problem statement. This may require us to do a round or two of field work, in which we engage with human subjects. The engagement with human subjects is usually light-touch and does not involve prolonged or intensive interaction. We may conduct a survey or some interviews or a Focus Group Discussion (FGD), or simply listen in on conversations as observants. Getting access to human subjects for this sort of engagement does not present a challenge. Nor do we experience difficulties in securing knowledge/technical partners for this stage of the ARP, except when the expert is from a domain about which we have little prior knowledge. Thus, for example, we are quite familiar with behavioural consultants and have no difficulties identifying one that is suitable for collaboration, but not so much with UI/UX experts or video editors or content editors. In these latter cases, determining the selection criteria and quality parameters has been a one-time learning curve for us, i.e., a matter of developing the internal capability for vetting proposals, understanding how the organizations (or individuals) work, and determining quality standards for the work that they commit to doing. We also face similar challenges in Stages 3, 4 and 5 when working with a type of knowledge/technical partner that we are unfamiliar with (i.e., one we haven’t already encountered in Stage 1 – which can sometimes happen).

While access to human subjects is not a problem, sample recruitment does arise as a challenge in the field. This typically occurs when the knowledge/technical partners are onboarded with the understanding that they will provide us with a sample that fits the emerging problem statement's criteria. However, sometimes we have discovered that the partner is unable to come through on their commitments and then it falls to us to fill this gap. For example, for the DWMM field work in Stage 1, the field partner had initially committed to sample recruitment and related logistics, but they were unable to deliver on these promises and we had to rely on other (our pre-existing) partners to help us find a sample. Another challenge is that support in finding a sample sometimes brings with it an inherent bias risk. For example, when a for-profit fintech helped us find a sample of Business Correspondent (BC) respondents to do the Stage 1 field work for the Improving CICO Networks project, we needed to account for any bias those agents may have while answering our questions as they were all agents employed by the fintech.

Next, the novelty and nuance of the proposed field work in Stage 1 also has a bearing on the amount of handholding the knowledge/technical partners will need. We have had to spend a significant amount of time setting the context and familiarizing our knowledge/technical partners to the many nuances of financial inclusion and customer protection. Often the same partner can perform quite differently when engaged in different projects. For instance, the same behavioural consulting firm was onboarded for the Frauds Awareness Programs Evaluation project and the DWMM project but the latter project's field work necessitated an understanding of a very complex and contextual subject matter. Thus, we had to spend a lot more time "educating" the consulting firm during the DWMM project than we had to for the Frauds Awareness Programs Evaluation project.

Our internal standards for research integrity and data quality have sometimes been higher than those of our knowledge/technical partners, and this has meant work for us in sensitizing the partners to these aspects. We have discovered, for example, that the field experience and quality of output of a technical partner can vary based on geography and type of project. For example, the quality of the same survey agency's enumerators can be quite different in different locations. Where data quality is concerned, we have found the need to do extensive checks for surveys conducted by partners as there have been instances where the data has been falsified. Sometimes persistent data quality issues can cause us to terminate a partner relationship. For example, in the Improving CICO Networks project, the translating agency we had hired was turning in sub-standard deliverables and we found little improvement even after much handholding. Therefore, we had to end our contract with the agency and choose another partner. It is also mention worthy that terminating contracts, while painstaking and time consuming, is also necessary when it is clear that the quality of the partner's deliverables can compromise our work and the project's output.

Data collection and data handling in Stage 1 (and also in Stage 3) present a few other challenges. The law as well as certain grant-specific requirements have limited our ability to check for compliance and quality. For example, we need to rely on our field partners entirely to ensure that the inclusion criteria for the sample is met and informed consent is taken as we are not allowed to be privy to any personally identifiable information (PII) and sensitive information of the respondents or participants. Ensuring that data is shared between parties in a secure and accessible manner has also proven to be a challenge due to each organization's norms and restrictions around data handling. We are required by the law and our internal data policy to transfer and store data in a secure manner as well as grant access to just the core project team. However, we have found in multiple projects that a lot of time is taken up in going back and forth on where the data can be shared so as to be accessible to the core team using their official email ID.

Moving on to Stage 2, or “Plan for Action”, most of the challenges here have to do with partner selection and onboarding, laying out a field plan, and the IRB process. The reader may recall that “partner” here could refer to both types of partners, knowledge/technical or implementation. The challenges of selection and onboarding, however, mostly concern the second type, and within the second type, the challenges are different for the different sub-types defined earlier. Therefore, in what follows, we proceed in order from one sub-type to the next.

The first sub-type is for-profit actors that can grant us access to human subjects who are their customers. This is the most difficult sub-type to “crack”, as it were, unless we have worked with them before. Thus, for example, our Debt Distress Protocols project was relatively easy to launch because we have partnered with a for-profit NBFC that we have an extensive past history of working with. For this company, grant-specific requirements such as Global Access are not alien concepts, and it is easy to secure agreement on critical matters such as non-commercialization of project outputs. Such partners understand the public nature of the good that they are collaborating with us to produce and they are willing to participate, knowing that they cannot lay exclusive claim to the project’s outputs, even when those outputs have relied upon their customers’ participation for production.

Such for-profit implementation partners, though, are rare to find. Most of the ones we have talked to may agree in principle about the value of what we are attempting to do, but be unwilling to fully sign on. Their main point of contention is that the Global Access requirement takes away their first mover advantage and with it their ability to monetize the solution or tool that the implementation promises to validate/produce. The typical example for us in this regard has been the Consent for Digital Lending project, whose contracting process was long drawn (exceeding 12 months of negotiations) but failed to produce a contract, as the partner wanted to retain exclusive ownership of the consent artefact that was the intended output of the project. Several other intended partners had already turned us down quickly upon seeing the Global Access requirement before we approached this one and we are quite disappointed with the final outcome but not giving up on finding a suitable partner.

As a brief aside from our discussion of sub-types of implementation partners, we may mention that sometimes IP ownership of the output can become a concern for a technical partner also, and therefore produce inordinate delays in writing a contract at Stage 2. This became an issue for us in the Debt Distress project where, even though the implementation partner was easy to onboard, the technical partner was not, as the latter initially insisted on at least co-owning the predictive machine learning tool that it was going to help us design on the basis of the implementation partner’s customer data. This was a 3-way contract, in other words, in which both our partners had to agree to the Global Access requirements and its IP implications, and the partner with direct business exposure was easier to onboard. Eventually, however, we were able to persuade the technical partner to sign on in accordance with the grant’s requirements. Usually, though, knowledge/technical partners are much easier to onboard (whether in Stage 3 or in any other stage, for example Stage 1), because Dvara Research (DR) pays them for their services. This is not the case for implementation partners who are expected to partner with us for no commercial benefit.

Returning to for-profit implementation partners, sometimes the branding of outputs becomes a contentious issue. Whereas the terms of the grant insist that final outputs must always be branded as DR outputs, the language leaves open some room for judgment and interpretation. If the language is taken to preclude even the possibility of co-branding, then for-profit entities may find it problematic especially when they are doing a lot of field work to collect data that forms an integral basis for the final output (such as a report or a case study, say). We encountered this problem with the VoAC project where two of the partners wanted to co-brand some of the case material. This triggered a delay of several weeks as DR had to confer with the grantor’s legal team to understand how the grant requirement was to be interpreted. At the end, no clear consensus emerged, but it was evident that

who has branding rights matters for who gets to decide the timing of and venue for an output's release. If we granted the VoAC partners co-branding rights, it would mean that they could release some of the material that they had collected on their own outlets (online as well as offline) and ahead of our release. But because of the limited geographical ambit of their operations, such an untimely and limited release would compromise the identities of the case subjects even if all markers of personal identity were nominally absent from the released material. This consideration allowed us to retain exclusive branding rights to the outputs in the contracts that we wrote with the two concerned partners.

Thus, navigating the hurdle of co-branding can often be quite time-consuming. And it is also the primary issue that comes up in contracting with the second sub-type of implementation partners, namely NGOs or non-profits who are able to grant access to human subjects they are working with. Here, no direct commercial interest is at stake. Rather, the matter is one of apportioning credit (for the results of our joint work) appropriately, and the intangible benefits (such as reputation and recall) that flow therefrom. In the case of the DWMM project, we have partnered with a well-known foundation that is giving us access, through its own field partners, to women agents and women subjects. This project is one-of-a-kind, and is likely to produce data and learnings that has the potential to significantly alter our understanding of what it would mean to financially include poor women. Understandably, the foundation appreciates the value of the work, and would have liked to co-brand the final report that is being planned for Stage 4. But much of the field work is premised on conceptual work performed in Stage 1 by DR alone. Therefore, we were unwilling to co-brand the final report but instead have chosen to co-author it, there being a legal difference between these two possibilities, as a way to give due credit to the foundation. This may look like a simple fix, but it took several months of back and forth between our two organizations to arrive at this resolution. Fortunately, however, we were able to start field work in the interim, and that fact secured for us the certainty of reaching alignment on the final contractual terms, in that agreement became an inevitability rather than a mere possibility.

In the case of the third sub-type of implementation partner, the challenges of commercialization and IP ownership are almost entirely absent. This is because industry associations do not function like individual for-profit entities, and when the industry association is also an SRO, then it has explicit ethical obligations as well. Sometimes, however, a particular domain may have multiple industry associations, each one vying to attract more members or, better yet, to attain the status of an SRO. In situations like this, we have had to worry about whether working with one of these associations will hurt our chances of working with another. As producers of public goods, we would ideally like to work with all such industry associations, but the practical matter of competition-like behaviour between these associations sometimes introduces complications and therefore delays in getting partners on board. Also, sometimes these organizations appear to speak prematurely for their member firms. That is, they will promise in Stage 2 to give us access to their member firms' administrative data, but we may enter Stage 3 and discover that they are unable to persuade their member firms to comply with what they have promised. Nevertheless, it is the case that contracting with and onboarding this sub-type of implementation partner is quite a bit easier than the first sub-type.

Finally, the case of the fourth sub-type, there is no explicit contract to be written between us and the data fiduciary, as it were. This is because the data is already publicly available. However, the manner in which we may be able to access it for our own purposes may sometimes be subject to the fiduciary's policies. Thus, with the UPI Complaints Monitoring Tool project, we discovered that Twitter (or X)'s policy change in disallowing free and unrestricted access to its API fundamentally increased the complexity of the problem we needed to solve in collecting and categorizing UPI complaints. Having completed Stage 3 and moved on to Stage 4, we had to backtrack again to Stage 3 when the policy change occurred, and we found ourselves stuck here for several months, trying to figure out a

workaround for X's policy change. We do not know that we have a permanent solution yet, but we have been able to move this project to Stage 4 again. While this particular example points to a challenge that we encountered in Stage 3, we mention it here, during a discussion of challenges during Stage 2, as this experience has alerted us to factor in such contingencies while identifying partners as we plan for action.

So far, we have discussed the onboarding challenges associated with implementation (and in some cases, technical) partners. The primary challenge, to recall, is that Global Access and IP requirements become significant barriers for onboarding for-profit partners who are, especially in the domain of digital finance, subject to various regulatory requirements that already restrict their degrees of freedom in ways that cause them to struggle harder to be profitable. Therefore, they are particularly unwilling to sign off on grant requirements that would introduce further restrictions on how they might operate, especially if they perceive working with us as a kind of sunk cost. It must also be said here that without the support of all such partners, the success of action research would be limited at best and so we appreciate all the partners who have chosen to meet us halfway (and in some cases all the way) to enable the action component of this very important body of work.

For all partners, whether of the knowledge/technical type or the implementation type, Stage 2 also presents an additional challenge in the form of the Institutional Review Board (IRB) process. This is an international minimum standard for all projects that involve human subjects as study respondents or participants. However, it is not a widely known compliance requirement among most of our non-research-oriented partners as it promises no tangible payoff unless the research outputs are intended for a formal outlet (such as a paper for a peer-reviewed journal). Needless to say, the IRB process requires significant time and effort and might even result in a rejection. But we at DR regard it as critical, as it ensures that all human subjects are treated with dignity and respect during the research study and also after, by way of ensuring that they continue to have rights over any data that they provide during the study.

In most cases, we have had to sensitize the partners we onboarded or planned to onboard to this requirement and also the associated time and cost implications. This sensitization process as well as the application and approval processes themselves, take up a significant amount of our time depending on the nature of the project. In the case of VoAC, for instance, we had to spearhead the application process to ensure that all seven organizations received IRB approval together and this took us five months to complete. It involved getting methodologies, questionnaires, and other field details from each of the seven organizations. It also required us to bind them with a set of confidentiality and risk mitigation protocols. In some cases, the partners insisted on a clause to be added to the contract which would allow them to seek compensation if the proposed project did not receive IRB approval. Since the IRB application requires both DR and the partner to put in some work, this compensation amount had to include any actual expenditure incurred by the partner during this process.

For IRB requirements which stand in the foreground of the new Digital Personal Data Protection Act (DPDPA) and pre-existing Information Technology (IT) laws, we have also had to invest some time during the onboarding process to make sure that partners properly understand and agree to abide by data protection protocols, which regulate how data is to be collected, stored, shared and destroyed. For projects like DWMM and VoAC where the requirements are much higher owing to the nature of the intervention (i.e. personal lives are implicated, although identities remain anonymous), we have had to separately lay out rules for the partner to abide by. In the case of VoAC, a separate data policy was created which went over and above the requisite best practices imposed by the prevailing law and IRB commitments. Planning for action has also meant that sometimes, as in the case of DWMM, a set of distress protocols had to be created to train field agents on how to handle situations where the respondent or participant is distressed. Of course, all of these rules and protocols are without any

meaning if they are not adhered to, and so the fact that the ARP requires these aspects to be laid out in Stage 2, also means that we are required to monitor and ensure that they are being adhered to in Stage 3 – for which, a schedule of interim reports has to be written into the contract, and various kinds of contingencies provisioned for, in Stage 2.

Finally, some of the challenges that arose in the context of field work during Stage 1, having to do with socializing and training our partners on subjects such as financial inclusion, customer protection, regulatory norms, and practical tools such as survey instruments, compliance and quality protocols, field guides, sample selection criteria, etc. also arise in Stage 2 as we prepare for Stage 3.

In Stage 3, the challenges have mostly to do with ensuring that contractual agreements are honoured by partners, and that protocols of engagement with human subjects, as committed before the IRB, or as laid out by DR, are indeed adhered to. Thus, for example, if a partner has not trained its field agents properly, or if, despite such training, a field agent is misbehaving with a participant or not handling data in a proper manner or (as happened in one case) has forgotten to turn on their voice recorder and having realized this, not done the needful but continued anyway, hoping to transcribe the conversation from memory – then all such instances can only be discovered through frequent and active monitoring, which DR takes responsibility for. In some cases, field agents may inadvertently violate data protection protocols. For example, they may share personally identifiable information (PII) with us by mistake (say, in a field report) when the data protection protocols explicitly forbid this. In such cases, we have to return the output and have work redone. Most of the challenges having to do with data collection and handling have already been flagged earlier, as a challenge that arises in Stage 1, and so we do not repeat them here, but they are also present in Stage 3, and more extensively so, since Stage 3 requires much greater engagement in the field than Stage 1.

As mentioned in Section 1, data quality issues may sometimes cause us to revert to Stage 2 for re-contracting. Such re-contracting might, for example, restate the number of subjects or the geographies to be covered. Sometimes, it may also involve requiring that the field partner implement new methods of ensuring quality. In one case, we added the requirement of having to maintain audio clippings to the scope of work that was being contracted, and therefore we had to redo the consent forms, and also rerun the field plan by IRB. Data quality as well as confidentiality may be impaired also because of discontinuity in the field caused by attrition of field agents. Therefore, we have to always remain alert to any such change and insist on a fresh round of training and hand-holding before we can be sure that field work can continue. In some rare instances, we have had to dis-engage with field partners due to their unprofessional and unreliable attitude.

In Stage 4, the primary challenge is one of maintaining research integrity as we take stock of the difficult and painstaking field work that has just been completed. Given the hurdles and challenges that we have navigated thus far, it would be tempting to believe that the field work has been successful and that our solution has been validated. It is, therefore, important at this stage to go into analysis mode with as objective and open-minded an orientation as possible. While we can congratulate ourselves if we find positive results that validate our hypotheses, we also have to acknowledge the possible role played in any success that we can reasonably lay claim to, by the concrete and particular context in which we performed the intervention. This means that in synthesizing our learnings and building our narrative, we are careful to differentiate between which of our learnings can be generalized (and therefore moved to Stage 5) and which ones must await further testing and replicability. This sort of care is absolutely critical in social science research, and is not often enough emphasized, we feel, in its action variants.

For example, in our Frauds Awareness Programs Evaluation project, we understood that our various subject groups (at different locations) did not meet the kind of uniformity criteria that would have

guaranteed a high degree of generalizability across groups. We have explicitly flagged this as a shortcoming of our study in the report that we have written up.

Finally, we arrive at Stage 5, which is the furthest we have advanced with any of our projects. Here, we have a toolkit and a narrative, and the hard work is one of persuading enough players to agree with us about the efficacy of the solution as well as the urgency of implementing it. Often, the benefits of implementation do not give any one player a significant competitive advantage over others because the tool is in the nature of a public good, usable and accessible by all. Also, the “right” thing to do in terms of protecting customers may directly eat into current profits. Therefore, the business case for implementation is not as straightforward as it may seem, and there is an intrinsic inertia, if not active resistance, among financial services providers that we must work against in order to scale.

We have experienced this issue with the Life Insurance Information Disclosure project, wherein the solution that will enhance customer protection requires a customary and quite profitable business practice (namely, the selling of endowment insurance products) to be reversed in favour of a new and possibly less profitable kind of product. Furthermore, the regulator is unlikely to push providers in the direction that our work recommends, because it might require rethinking a whole network of regulatory norms governing how agent commissions work in the insurance distribution industry.

Could this kind of eventuality upon reaching Stage 5 require us to rethink which problem statements we take up for consideration at Stage 1? That is, when a problem’s solution is technically quite a simple fix that is easily validated through field work (as was the case with life insurance disclosures), but that solution is difficult to scale mainly because of commercial or regulatory hurdles, then should we anticipate this in Stage 1 itself and put the problem aside? We believe that the answer to this question is – No, we should not put such problems aside, for two reasons. Firstly, we think that the work of advocacy for customer protection (which is the work in Stage 5) should indeed take up the cause of solutions that are likely to create significant impact even if they seem unlikely to be achievable in the near term because of legacy systems. Secondly, a lot of time elapses between Stages 1 and 5, and therefore our judgment at Stage 1 about the potential scalability in Stage 5 of a hypothesized solution is likely to be quite error-prone. It is therefore advisable, in our view, to take on the most pressing problems as indicated by our expertise on financial customer protection rather than attempt to game the ARP by selecting only those problems that admit potentially scalable solutions. This does not mean that we do not sanity-check our hypothesized solution or intervention at Stage 1 for general industry receptivity. Indeed we do, as we have described, for instance, in the Women and Savings project in Section 1.

We have seen that part of the issue with the Life Insurance Information Disclosure project is that the regulator seems unwilling to move quickly on the problem. Another case of a project in Stage 5 that we are awaiting regulatory interest in, is the results of our Frauds Awareness Programs Evaluation work. Here, we have determined, through experimental work in the field, the different ways in which video messaging from the regulator might need to change if poor customers especially are to become more keenly vigilant about UPI frauds and therefore less susceptible to them. We are yet to present this piece of work and its implications to the regulator. If and when we are able to gain an audience with the regulator, we are confident that the value of our work will be appealing enough for frauds awareness programs to permanently shift to a new level of reach and effectiveness. We will then have moved this project to Stage 6.

Conclusion

In this note, we have reflected on almost 30 months of action research projects aimed at substantially improving customer protection in digital financial services, especially for poor and women customers.

We have proposed a schema/framework for understanding the various stages in what we are calling the Action Research Process (ARP), and we have categorized all of our work (15 projects so far) into this schema. We have also called out the specific challenges that arise in each of the stages, barring the last one which we are yet to activate. These challenges are actual hurdles that we have encountered and not hypothetical or speculative ones. Some of them have workarounds as we have described, and therefore we are able to navigate them better when they appear again in the context of a new project that has been initiated. Some of them are more difficult to solve, and have the potential of throwing us back a stage or two in the ARP if we are unable to solve them. Mostly, however, we have advanced a great number of projects past the field work stage to a point where we can hope to engage with stakeholders for scaling. Overall, we have learned that action research requires a good deal of time and patience, but can be very rewarding in allowing us to validate our thinking in real, concrete, practical situations, and in giving us the opportunity to work with and learn from a variety of partners. We hope that the exercise of sense-making that this note presents is helpful for funders and for other research organizations like ours that are embarking on their own action research projects, whether in the domain of financial inclusion or elsewhere.

Appendix – Project Descriptions

1. Harms and Risks of Buy-Now-Pay-Later (BNPL):

Buy Now, Pay Later (BNPL) products have been positioned as challengers to credit cards that can make credit more accessible to customers at little to no cost. Yet, the actual costs customers may incur have not been documented in the Indian context. Dvara Research's report on BNPL attempts to fill this gap. In this project's report, we found that customers using BNPL incurred monetary costs comparable to costs of using credit cards, and are susceptible to adverse risks emerging from gaps in customer protection. We believe that our efforts in advocacy with this report was instrumental to the clean-up of the sector that RBI brought about with the release of its digital lending guidelines in September 2022.

2. Life Insurance Information Disclosure:

If poor customers buy life insurance at all, they usually buy endowment plans which are typically unsuitable for them. Despite these shortcomings, insurance agents are incentivised to sell endowment policies without accurately disclosing the returns or surrender terms. We proposed to solve this problem by focusing on the disclosure aspect (there are many other intervention points, but this is the one that truly tackles the information asymmetry problem).

Behavioural science concepts and experimental methods were employed to understand the drivers of life insurance purchases among low-income households and test the effectiveness of accurate and easy to understand disclosure formats that aid product comparison. The objective of the study was to identify the role of disclosures in steering low-income households towards suitable life insurance purchase decisions. Our findings were published and presented to various stakeholders. Currently we are in Stage 5 of the ARP with regards to this project. We are working on this stage via two approaches- First, we are socialising the results of the study among targeted FSPs such as Life Insurance Companies, Payment Banks, and Small Finance Banks who have the resources and required regulatory licenses to act on the solutions proposed in the study. These conversations are being held with the objective of understanding the operational feasibility and commercial viability of the proposed solution along with alignment of interests across different parties involved in adopting these solutions. Second, we are seeking to engage with the Insurance Regulatory and Development Authority of India (IRDAI) to advocate for a simplified Customer Information Sheet that improves comprehension, enables product comparison, and engenders transparency in the sale of life insurance products.

3. Frauds Awareness Programs Evaluation:

In this project, we designed an Outcome-Based Survey (OBS) to evaluate the effectiveness of UPI-fraud-awareness campaigns in reducing individuals' propensity to engage with fraudulent communication. The OBS simulates common frauds in a lab-in-the-field setting to recreate the hot state customers typically encounter in these situations. This was piloted with 80 low-income and new-to-UPI users from four Tier I and Tier II cities, to test the effectiveness of three TV Commercials.

We presented the findings from the (proof-of-concept) OBS to the Data Security Council of India (2023-24) and are currently developing a narrative around our findings to take to the RBI.

4. UPI In-App GRM:

Our project on UPI In-App GRMs uses Human-Centered Design (HCD) techniques to develop design inputs that make In-App GRMs more constrained-user friendly. The project proceeds in

three phases. First, we gauge the bottlenecks that constrained users face in the In-App UPI redress journey. Second, we use HCD techniques to rethink the design of In-App GRMs (in the form of prototypes) considering the above problems. The goal is to keep users' wants, pain points, and preferences at the forefront of such redesign. Third, we test these prototypes for their efficacy. These 3 stages have been completed.

The completed work will be published in 2024-25 in the form of a report and a microsite containing a toolkit for product managers and UX researchers looking to serve a low digital proficiency user-base. We will also have some suggestions for the NPCI to consider. We partnered with UX/ Interactive Design expert, a UX design expert and a UX focused field agency, for this work.

5. Voice of Aggrieved Customer:

The 'Voice of Aggrieved Customer' project aims to surface the lived experiences of aggrieved customers of digitised financial services, to reveal customer protection issues that may be going unnoticed and unreported. The key objectives of this project are to (i) raise awareness of the poor quality of, and gaps in, financial service delivery to low-income households and vulnerable segments, (ii) reveal the complexity of the issues and experiences from the customer's standpoint, and (iii) identify the aspects of regulated conduct on which institutions are falling short.

The seven partner organizations we have commissioned have surfaced over 100 cases from the ground of which we have finalized 80+ cases in a variety of formats. The outputs of this project have been collected in audio, video and written formats from the partner organisations. We are currently in the process of collating the outputs into a cohesive repository of cases while also writing a conceptual paper that provides a framing and vision for the future, that we plan to bring out before we publicize the outputs.

6. Improving CICO Networks:

Various frictions may prevent a constrained customer from availing CICO services, which are essential for accessing one's entitlements or wages, or for remitting money to family members. While the Business Correspondent (BC) model has emerged as the predominant network of diffused touchpoints through which banks reach the last-mile customer, problems with its implementation have meant that meaningful access to deposit and withdrawal services at the last mile is still lacking.

Through conversations with providers, and field interviews with BC agents, we have identified the key factors that can contribute to an agent's profitability and organized all these factors into an 'Agent Success Framework'. Data collected from our fieldwork has been used to finesse the Agent Success Framework. Our findings have also helped us identify three potentially high impact solutions that can support agents in providing uninterrupted services. These solutions, along with the framework and our findings have been published in a report titled 'Uninterrupted Cash in Cash Out: An Agent Success Model'. We are identifying suitable partners for the three solution ideas articulated in the report.

7. Improving uptake of Pradhan Mantri Jeevan Jyothi Bima Yojna (PMJJBY) and Pradhan Mantri Suraksha Bima Yojna (PMSBY):

The Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and the Pradhan Mantri Suraksha Bima Yojana (PMSBY) aim to protect low-income households against financial losses resulting from a household member's death and personal accidents, respectively. However, nearly eight years

after their launch, less than 1% of low-income households have PMJJBY and PMSBY accounts (AIDIS 2019).

In the first phase of this project, we studied the existing literature and public discourse on these schemes and engaged with several grassroots organisations to identify problems in the delivery of PMJJBY and PMSBY. We partnered with a grassroots level organization to collect evidence from the field by conducting both quantitative field surveys and qualitative in-depth interviews with selected respondents. We completed 604 quantitative interviews in two states and 7 focus group discussions, 16 in-depth interviews of respondents selected from the quantitative survey data, and 18 in-depth interviews of financial service providers in both the states. The data has been used to develop insights and propose solutions. We are currently in the solution assessment and validation stage of the ARP. Currently, we are also working on developing a diagnostic toolkit that will enable a periodic monitoring of the quality of delivery of the two schemes.

8. UPI Complaint Monitoring Tool:

Dvara Research is developing a tool that can uncover customer-facing issues in the UPI ecosystem by monitoring publicly available social media posts. The tool scrapes data from Twitter and Google Play Store for providers with a cumulative market share of over 90% of transaction volumes, and then uses Natural Language Processing methods to categorize issues that customers are facing, calculate their prevalence rates, and report other valuable indicators. A Minimum Viable Product (MVP) was designed and operationalized in 2023-24. Currently, the MVP is operational with a daily update frequency. The tool was submitted to NextGenAI Digital Showcase hosted by the Alliance for Innovative Regulation. This can be found at <https://regulationinnovation.org/nextgenai-digital-showcase/>. The team is seeking a meeting with the RBI to showcase this work.

9. Debt Distress Protocols:

In India, signs of borrower distress have appeared in many states over the past decades, often exacerbated by natural disasters and political events, making many borrowers unable or unwilling to repay. The customer protection concern is firstly one of improper credit decisioning. By way of this project – we plan to design a tool that will detect distress after a loan has been made. For this we have partnered with the a world renowned University's Data Science and Artificial Intelligence Center to develop a machine learning model that will use the borrower's past repayment behaviour, demographic characteristics, and economic activities to determine whether the borrower is in distress.

So far, we have completed the development of the machine learning model and deployed it across the borrower base of a non-bank lender with over 1.5 million customers. We are currently validating the model's result using field surveys.

10. Digitizing Women's Money Management:

This project aims to uncover prevailing money management practices among poor women and to assess the potential for digitising these practices. We take this approach because we believe that migrating women's existing money management practices to a digital platform is the essential first stage towards their adoption of digital financial services in a meaningful way. Our intervention (described in the project brief available at [DWMM Project Brief for publishing.docx \(dvararesearch.com\)](#)), with appropriate safeguards built-in, uses an assisted model of female peers, or Sakhis, to create a relatively hassle-free environment that would empower poor women to embrace a digital payments app. Our key contribution in this project

is a Money Management Practices questionnaire developed in-house, that is being used for data collection across 300 women respondents in Rajasthan.

The study intervention will approximately span over six months and is currently underway. We have enlisted the Corporate Social Responsibility (CSR) arm of a leading credit rating organization and a Civil Society Organization as implementation partners for this project's field work. A data collection agency was also selected to collect data and do the survey for this project.

11. Monitoring Customer Protection in Microfinance:

This project aims to develop a survey-based monitoring tool to enable self-regulatory organisations (SROs) to monitor the activities of microfinance institutions (MFIs), especially focusing on risks to customers. We have signed an MoU with an SRO in microfinance, for this project. The project is divided into three phases. The first phase is the preliminary design of the intervention the second phase is piloting the intervention through interviews with senior members of microfinance institutions, the field staff of the MFIs, and customers, and the third phase is the post-pilot modification to the survey tool. The first phase of the project stands completed, and the second phase is underway.

12. Consent for Digital Lending Project:

Evidence suggests that customers do not actively peruse or understand consent artefacts, falling short of the regulatory standard of free, informed, explicit, and revocable consent. The team is currently translating findings surfaced from the field study into specific design recommendations for a consent artefact, to be piloted with customers of a lender and account aggregator. During the financial year, Dvara Research Foundation stewarded several rounds of multi-party negotiations with an industry body (and intended SRO), a prospective digital lending organisation of their choice and the lender's partner account aggregator to develop and pilot a prototype of a consent artefact. The four partners could not reach a consensus on the contractual terms and negotiations had to be discontinued. The team is currently scoping out alternative partners for the pilot.

13. Integrated GRM for Digital Lending:

This project aims to design an integrated Grievance Redressal Mechanism (GRM) for a potential SRO in the digital lending space. We identified a prospective Self-Regulatory Organisation (SRO) for the digital lending sector and signed a Letter of Intent (LoI) with this entity for the same. Once the broader MoU is completed, the first phase of the project will start, in which we will map the architecture of the existing GRMs, and post that, in the second phase, we will create the blueprint of an integrated GRM.

14. Women and Savings:

Formal savings products currently available are not conducive to the complex money management practices of women. Informal mechanisms fill in this gap substantially. Against this background, this project aims to aid the design of suitable savings products for women from low-income households that they find relevant, compatible and meaningful for their lives.

This study is currently in Stage 1 of the ARP, where we are assessing the possibility of reformulating the problem statement, to come up with a more attractive and persuasive solution concept for our potential implementation partners. So far, we have summarised our learnings on this topic in the form of a research brief on savings for low-income households and have also conducted an in-person roundtable discussion on savings for women from low-

income households. We have also completed a scoping field visit to get feedback on novel savings product features. Therefore, we have worked on several aspects of Stage 1 of the ARP (literature review, talking to experts, field work, and refining the problem statement), which we now hope to rely on for transitioning to Stage 2 (Plan for Action) of the ARP.

15. Social Capital for Public Health Insurance:

This project aims to unpack how citizens experience state sponsored health insurance and investigate the broader socio-economic, political and technological factors shaping their experience. We have identified the scope, studied the current user experience, and are currently refining the user experience framework. We hope that the outcome of this project will include state-led adoption of tailored interventions accounting for the variations in lived realities of different users.